BIDDING DOCUMENTS

FOR THE

MT. SAN JACINTO COLLEGE DISTRICT FOR

REBID CONSTRUCTION OF SHADE STRUCTURES AT SAN JACINTO CAMPUS

1499 N. State Street
San Jacinto, CA 92583
Project No. 17-5132
DSA Application No. 04-117223
Bid No. 2021-008

Mt. San Jacinto Community College District 1499 N State St. San Jacinto, CA 92583

December 1, 2020

TABLE OF CONTENTS

NOTICE INV	TITING BIDS	6
INSTRUCTION	ONS TO BIDDERS	8
CHECKLIST	OF MANDATORY BID FORMS	17
DESIGNATION	ON OF SUBCONTRACTORS	19
DESIGNATION	ON OF SUBCONTRACTORS FORM	20
BID FORM		21
CONTRACT	OR'S CERTIFICATE REGARDING WORKERS' COMPENSATION FORM	26
NON-COLLU	JSION DECLARATION	27
BID GUARA	NTEE FORM	28
BID BOND F	ORM	29
REQUEST F	OR SUBSTITUTION AT TIME OF BID	32
ACKNOWLE	EDGMENT OF BIDDING PRACTICES REGARDING INDEMNITY FORM	34
DISABLED V	VETERAN BUSINESS ENTERPRISE (DVBE) PARTICIPATION STATEMENT	35
CONTRACT	OR'S CERTIFICATE REGARDING DRUG-FREE WORKPLACE	36
AGREEMEN	T FORM	38
PAYMENT E	BOND	43
PERFORMA	NCE BOND	46
GUARANTE	E	50
ESCROW AC	GREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION	51
INSURANCE	E DOCUMENTS & ENDORSEMENTS	54
	VETERAN BUSINESS ENTERPRISE (DVBE) CONTRACTOR CLOSE-OUT	56
SCOPE OF W	VORK	
ARTICLE 1	DEFINITIONS 55	
1.1	BASIC DEFINITIONSEXECUTION, CORRELATION AND INTENT	61
1.2	EAECUTION, CORRELATION AND INTENT	6/

1.3	OWNERSHIP AND USE OF ARCHITECT'S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS	71
ARTICLE 2	DISTRICT 72	
2.1	INFORMATION AND SERVICES REQUIRED OF THE DISTRICT	72
2.2	DISTRICT'S RIGHT TO CARRY OUT THE WORK DUE TO PARTIAL	/ 2
2.2	DEFAULT IN A SPECIFIC SEGREGATED AREA OF WORK (48 HOUR	
	NOTICE TO CURE AND CORRECT)	75
	10 TICE TO CORE TITLE CORRECT)	13
ARTICLE 3	THE CONTRACTOR 77	
3.1	SUPERVISION AND CONSTRUCTION PROCEDURES	77
3.2	SUPERVISION	78
3.3	LABOR AND MATERIALS	79
3.4	WARRANTY	81
3.5	TAXES	
3.6	PERMITS, FEES AND NOTICES	
3.7	SUBMITTALS REQUIRED AT THE COMMENCEMENT OF THE PROJECT	
3.8	DOCUMENTS, SAMPLES, AND COMPUTER AT THE SITE	
3.9	SUBMITTALS INCLUDING SHOP DRAWINGS, PRODUCT DATA, AND	٥٠
0.0	SAMPLES	85
3.10	SUBSTITUTIONS	
3.11	INTEGRATION OF WORK	
3.12	CLEANING UP	
3.13	ACCESS TO WORK	
3.14	ROYALTIES AND PATENTS	
3.15	INDEMNIFICATION	
3.16	SUBMISSION OF DAILY REPORTS	
3.17	AS-BUILT DRAWINGS AND ANNOTATED SPECIFICATIONS	
3.17	EQUIPMENT MANUALS	
3.19	DIR REGISTRATION	
5.19	DIK REGISTRATION	90
ARTICLE 4	ADMINISTRATION OF THE CONTRACT AND CLAIMS 99	
4.1	ARCHITECT	99
4.2	ARCHITECT'S ADMINISTRATION OF THE CONTRACT	99
4.3	PROJECT INSPECTOR	101
4.4	STOP WORK ORDER	103
4.5	RESPONSIBILITY FOR ADDITIONAL CHARGES INCURRED BY THE	
	DISTRICT FOR PROFESSIONAL SERVICES	103
4.6	DISPUTES AND CLAIMS	
ARTICLE 5	SUBCONTRACTORS 109	
5.1	DEFINITIONS	111
ARTICLE 6	CONSTRUCTION BY DISTRICT OR BY SEPARATE CONTRACTORS 113	
6.1	DISTRICT'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS	112
6.2	CONSTRUCTIVE OWNERSHIP OF PROJECT SITE AND MATERIAL	
~· -		

6.3	DISTRICT'S RIGHT TO CLEAN UP	115
ARTICLE 7	CHANGES IN THE WORK 115	
7.1	CHANGES	115
7.2	CHANGE ORDERS ("CO")	
7.3	CONSTRUCTION CHANGE DOCUMENT (CCD Category A, and CCD	
	Category B) and IMMEDIATE CHANGE DIRECTIVE (ICD)	116
7.4	REQUEST FOR INFORMATION ("RFI")	118
7.5	REQUEST FOR PROPOSAL ("RFP")	119
7.6	CHANGE ORDER REQUEST ("COR")	119
7.7	COST OF CHANGE ORDERS	120
ARTICLE 8	TIME AND SCHEDULE 124	
8.1	DEFINITIONS	124
8.2	HOURS OF WORK	126
8.3	PROGRESS AND COMPLETION	127
8.4	EXTENSIONS OF TIME - LIQUIDATED DAMAGES	131
ARTICLE 9	PAYMENTS AND COMPLETION 134	
9.1	CONTRACT SUM	134
9.2	COST BREAKDOWN	
9.3	PROGRESS PAYMENTS	135
9.4	APPLICATIONS FOR PROGRESS PAYMENTS	137
9.5	STOP NOTICE CLAIMS AND WARRANTY OF TITLE	139
9.6	DECISIONS TO WITHHOLD PAYMENT	139
9.7	NONCONFORMING WORK	141
9.8	SUBCONTRACTOR PAYMENTS	141
9.9	COMPLETION OF THE WORK	142
9.10	PARTIAL OCCUPANCY OR USE	
9.11	COMPLETION AND FINAL PAYMENT	
9.12	SUBSTITUTION OF SECURITIES	149
ARTICLE 10	PROTECTION OF PERSONS AND PROPERTY 149	
10.1	SAFETY PRECAUTIONS AND PROGRAMS	149
10.2	SAFETY OF PERSONS AND PROPERTY	152
10.3	EMERGENCIES	
10.4	HAZARDOUS MATERIALS	154
ARTICLE 11	INSURANCE AND BONDS 155	
11.1	CONTRACTOR'S LIABILITY INSURANCE	155
11.2	WORKERS' COMPENSATION INSURANCE	157
11.3	BUILDER'S RISK/ "ALL RISK" INSURANCE	157
11.4	FIRE INSURANCE	
11.5	AUTOMOBILE LIABILITY	
11.6	OTHER INSURANCE	
11.7	PROOF OF INSURANCE	159

11.8	COMPLIANCE	
11.9	WAIVER OF SUBROGATION	159
11.10	PERFORMANCE AND PAYMENT BONDS	160
ARTICLE 12	UNCOVERING AND CORRECTION OF WORK 160	
12.1	COMPLIANCE WITH TITLE 24 INSTALLATION REQUIREMENTS	
12.2	SPECIAL NOTICE OF AMERICAN'S WITH DISABILITIES ACT	
12.3	UNCOVERING OF WORK	
12.4	CORRECTION OF WORK	162
ARTICLE 13	MISCELLANEOUS PROVISIONS 163	
13.1	GOVERNING LAW	163
13.2	SUCCESSORS AND ASSIGNS	
13.3	WRITTEN NOTICE	
13.4	RIGHTS AND REMEDIES	
13.5	TESTS AND INSPECTIONS	
13.6	TRENCH EXCAVATION	
13.7	WAGE RATES, TRAVEL, AND SUBSISTENCE	165
13.8	RECORDS OF WAGES PAID	
13.9	APPRENTICES	
13.10	ASSIGNMENT OF ANTITRUST CLAIMS	
13.11	STATE AND DISTRICT CONDUCTED AUDITS	
13.12	STORM WATER POLLUTION PREVENTION	
ARTICLE 14	TERMINATION OR SUSPENSION OF THE CONTRACT 176	
14.1	TERMINATION BY THE CONTRACTOR FOR CAUSE	176
14.1	TERMINATION BY THE CONTRACTOR FOR CAUSE	
14.2	TERMINATION OF CONTRACT BY DISTRICT (CONTRACTOR NOT AT	1/0
14.3	FAULT)	170
144	REMEDIES OTHER THAN TERMINATION	

NOTICE INVITING BIDS

MT. SAN JACINTO COMMUNITY COLLEGE DISTRICT District:

Tuesday, January 5, 2020 @ 2:00 p.m. Bid Deadline:

Only mailed sealed bids will be accepted at this time due to the COVID-19 Pandemic.

Sealed bids may be may be delivered in-person to the following address during the specified dates and times

ONLY:

Mt. San Jacinto Community College District

Attention: BID NO. 2021-008- Rebid of Construction of Shade Structures at San Jacinto Campus Place of Bid Receipt:

Purchasing Department, Bldg. AA

1499 N. State Street San Jacinto, CA 92583

Bid drop off date/times: January 5, 2020 7:30 a.m. - 2:00 p.m.

No public in-person bid opening will occur. Bids will be read aloud in a Zoom conference call at link below

Join from PC, Mac, Linux, iOS or Android: https://cccconfer.zoom.us/j/96411427247

Or iPhone one-tap (US Toll): +16699006833,96411427247# or +13462487799,96411427247#

Or Telephone:

Dial: +1 669 900 6833 (US Toll) +1 346 248 7799 (US Toll) +1 253 215 8782 (US Toll)

+1 312 626 6799 (US Toll) +1 646 876 9923 (US Toll) +1 301 715 8592 (US Toll)

Meeting ID: 964 1142 7247

International numbers available: https://cccconfer.zoom.us/u/aezy6l5wCQ

Or Skype for Business (Lync):

SIP:96411427247@lync.zoom.us

Unofficial Bid results will be posted online after the bid due date in the same location as the bid documents.

2021-008 Rebid of Construction of Shade Structures at San Jacinto Campus Project: Bid No.

90 Calendar Days Contract Time:

B License - General Building Contracting Required License:

The work includes site demo, survey control for layout of shade columns, placement of new concrete, drainage Project Description:

installation, seat walls and replacement of existing irrigation and damaged landscaping.

Bid Due Date: January 5, 2021 @ 2:00 p.m. It is each bidder's sole responsibility to ensure its bid is timely delivered and received at the location designated below and the District shall not be responsible for any delays or issues with mail delivery. Any bid received after the scheduled closing time for receipt of bids shall be returned to the bidder unopened.

Submit Sealed Bids to: Only mailed sealed bids will be accepted at this time due to the Covid-19 Pandemic. No public bid opening will occur. Bid results will be posted online after the bid due date in the same location as the bid documents. Purchasing Office, Attention: BID NO. 2021-008 REBID OF CONSTRUCTION OF SHADE STRUCTURES AT SAN JACINTO CAMPUS, Building AA, 1499 N. State Street, San Jacinto, CA 92583. Bids shall only be submitted on forms prepared by the District. Failure to do so will render the bid nonresponsive. Each bid must strictly conform with and be responsive to the Contract Documents as defined in the General Conditions. A list of designated subcontractors for the Project, per subletting and Subcontracting Fair Practices Act, California Public Contract Code Sections 4100 et seq., is required to be submitted with the bid. Subcontractors shall be licensed pursuant to California law for trades necessary to perform the Work called for in the Contract Documents.

6

The District reserves the right to reject any or all bids to waive any irregularities or informalities in any bids or in the bidding.

Pre-Qualification of Bidders: As a condition of bidding for this project, and in accordance with California Public Contract Code Section 20651.5, prospective bidders are required to submit to the District a completed set of pre-qualification documents on forms provided by the District. Pre-Qualification documents are available at the Mt. San Jacinto Community College District, Office of Procurement and General Services (Purchasing Department) located at 1499 N. State Street, San Jacinto, CA 92583 or go to the Mt. San Jacinto Community College District Purchasing office website located at http://www.msjc.edu/Purchasing/upccaa.html to download the UPCCA Pre-Qualification Questionnaire. The pre-qualification documents must be submitted prior to 10:00 a.m. Dec. 29, 2020. Bids will not be accepted if a Contractor has not been pre-qualified where prequalification is required. Contractors will be notified by telephone or e-mail of their prequalification documents.

<u>Miscellaneous Information</u>: The bid documents may be obtained at Mt. San Jacinto Community College Purchasing website at https://www.msjc.edu/Purchasing/Current-bids.html. Each bid must strictly conform with and be responsive to the Contract Documents as defined in the General Conditions.

Non-Mandatory Pre-Bid Conference: December 15, 2020 at 2:00 p.m. at the San Jacinto Campus. Meet in front of Building 300, Library.

Required License: In accordance with the provisions of Business and Professions Code Section 7028.15 and Public Contract Code Section 3300, the DISTRICT requires that the bidder possess the following classification (s) of contractor's license (s) and certifications at the time the bid is submitted:

B-License – General Building Contractor

Any bidder not so licensed or in a possession of required certification at the time of the bid opening will be rejected as nonresponsive.

Bid Security: Time is of the essence. Each bid shall be accompanied by the bid security in the form of cash, a certified or cashier's check or bid bond in an amount not less than ten percent (10%) of the total bid price, payable to the DISTRICT.

The DISTRICT reserves the right to reject any or all bids or to waive any irregularities or informalities in any bids or in the bidding process.

The California Department of Industrial Relations has determined the general prevailing rates of per diem wages for the locality in which the work is to be performed for the Project. Copies of these wage rates determinations, entitled Prevailing Wage Scale, are maintained at the DISTRICT office and are available at the following website: www.dir.ca.gov. It shall be mandatory upon the successful bidder to whom the contract is awarded, and upon any subcontractor listed, to pay not less than the said specified rates to all workers employed by them for the Project.

No bidder may withdraw any bid for a period of sixty (60) calendar days after the date set for the opening of bids.

Pursuant to Public Contract Code Section 22300, the Agreement will contain provisions permitting the successful bidder to substitute securities for any monies withheld by the DISTRICT to ensure performance under the Agreement or permitting payment of retentions earned directly into escrow.

Tammy Cunningham - Director of Procurement and General Services Mt. San Jacinto Community College District Published: Press Enterprise – December 1, 2020 and December 8, 2020

INSTRUCTIONS TO BIDDERS

- 1. Preparation of Bid Form. Proposals under these specifications shall be submitted on the blank forms furnished herewith at the time and place stated in the Notice Inviting Bids. All blanks in the bid form must be appropriately filled in, and all proposed prices must be stated clearly and legibly in both words and numerals. All bids must be signed by the bidder in permanent blue ink and submitted in sealed envelopes, bearing on the outside, the bidder's name, address, telephone number, and California Contractor's License number, and the name of the Project for which the bid is submitted. The District reserves the right to reject any bid if all of the above information is not furnished. It is each bidder's sole responsibility to ensure its bid is timely delivered and received at the location designated as specified above. Any bid received at the designated location after the scheduled closing time for receipt of bids shall be returned to the bidder unopened.
- 2. <u>Bid Security</u>. Each bid must be accompanied by one of the following forms of bidder's security: (1) cash; (2) a cashier's check made payable to the District; (3) a certified check made payable to the District; or (4) a bidder's bond executed by a California admitted surety as defined in Code of Civil Procedure section 995.120, made payable to the District, in the form set forth in the Contract Documents. Such bidder's security must be in an amount not less than ten percent (10%) of the maximum amount of such bidder's bid as a guarantee that the bidder will enter into the Contract, if the same is awarded to such bidder, and will provide the required Performance and Payment Bonds, insurance certificates and any other required documents. In the event that a bidder is awarded the Contract and such bidder fails to enter into said Contract or provide the surety bond or bonds within five (5) calendar days after award of the Contract to bidder, said security will be forfeited.
- 3. <u>Signature</u>. The bid form, all bonds, all designations of subcontractors, the Contractor's Certificate, the Agreement, and all Guarantees must be signed in permanent blue ink in the name of the bidder and must bear the signature in longhand of the person or persons duly authorized to sign the bid.

If bidder is a corporation, the legal name of the corporation shall first be set forth, together with two signatures: one from the President and one from the Secretary or Assistant Secretary. Alternatively, the signature of other authorized officers or agents may be affixed, if a certified copy of the resolution of the corporate board of directors authorizing them to do so is provided to the District. Such documents shall include the title of such signatories below the signature and shall bear the corporate seal.

If bidder is a partnership, the true name of the firm shall first be set forth, together with the names of all persons comprising the partnership or co-partnership. The bid must be signed by all partners comprising the partnership unless proof in the form of a certified copy of a statement of partnership acknowledging the signer to be a general partner is presented to the District, in which case the general partner may sign.

Bids submitted as joint ventures must so state and be signed by each joint venture.

Bids submitted by individuals must be signed by the bidder unless an up to date power- of-attorney is on file in the District office, in which case, said person may sign for the individual.

The above rules also apply in the case of the use of a fictitious firm name. In addition, however, where a fictitious name is used, it must be so indicated in the signature.

- 4. <u>Modifications</u>. Changes in or additions to the bid form, recapitulations of the work bid upon, alternative proposals, or any other modification of the bid form which is not specifically called for in the Contract Documents may result in the District's rejection of the bid as not being responsive to the Notice Inviting Bids. **No oral or telephonic modification of any bid submitted will be considered**.
- 5. <u>Erasures, Inconsistent or Illegible Bids</u>. The bid submitted must not contain any erasures, interlineations, or other corrections unless each such correction creates no inconsistency and is suitably authenticated by affixing in the margin immediately opposite the correction the signature or signatures of the person or persons signing the bid. In the event of inconsistency between words and figures in the bid price, words shall control figures. In the event that the District determines that any bid is unintelligible, inconsistent, or ambiguous, the District may reject such bid as not being responsive to the Notice Inviting Bids.
- 6. <u>Examination of Site and Contract Documents</u>. Each bidder shall visit the site of the proposed work and become fully acquainted with the conditions relating to the construction and labor so that the facilities, difficulties, and restrictions attending the execution of the work under the Contract are fully understood. Bidders shall thoroughly examine and be familiar with the drawings and specifications and all others documents and requirements that are attached to and/or contained in the Project Manual or other documents issued to bidders. The failure or omission of any bidder to receive or examine any Contract Documents, form, instrument, addendum, or other document or to visit the site and become acquainted with conditions there existing shall not relieve any bidder from obligations with respect to the bid or to the contract. The submission of a bid shall be taken as prima facie evidence of compliance with this Section. Bidders shall not, at any time after submission of the bid, dispute, complain, or assert that there were any misunderstandings with regard to the nature or amount of work to be done.
- 7. <u>Withdrawal of Bids</u>. Any bid may be withdrawn, either personally or by written request, at any time prior to the scheduled closing time for receipt of bids. The bid security for bids withdrawn prior to the scheduled closing time for receipt of bids, in accordance with this paragraph, shall be returned upon demand therefor.

No bidder may withdraw any bid for a period of ninety (90) calendar days after the date set for the opening of bids.

- 8. <u>Agreements, Insurance and Bonds</u>. The Agreement form which the successful bidder, as Contractor, will be required to execute, and the forms and amounts of surety bonds and insurance endorsements which Contractor will be required to be furnished at the time of execution of the Agreement, are included in the bid documents and should be carefully examined by the bidder. The number of executed copies of the Agreement, the Performance Bond, and the Payment Bond required is three (3). Payment and Performance bonds must be executed by an admitted surety insurer as defined in Code of Civil Procedure 995.120.
- 9. <u>Interpretation of Plans and Documents/Pre-Bid Clarification</u>. If any prospective bidder is in doubt as to the true meaning of any part of the Contract Documents, or finds discrepancies in, or omissions, a written request for an interpretation or correction thereof may be submitted to the

District. The bidder submitting the request shall be responsible for its prompt delivery. Any interpretation or correction of the Contract Documents will only be made by Addendum duly issued, and a copy of such Addendum will be made available for each contractor receiving a set of the Contract Documents. No person is authorized to make any oral interpretation of any provision in the Contract Documents, nor shall any oral interpretation be binding on the District. If discrepancies on drawings, specifications or elsewhere in the Contract Documents are not covered by addenda, bidder shall include in their bid methods of construction and materials for the higher quality and complete assembly. Each request for clarification shall be submitted in writing, via email, to only the following persons:

TO: Bids@msjc.edu

Each transmitted request shall contain the name of the person and/or firm filing the request, address, telephone, and fax number, Specifications and/or Drawing number. Bidder is responsible for the legibility of handwritten requests. Pre-bid clarification request shall be filed a minimum of **six** (6) days prior to bid opening. Requests received less than **six** (6) days before bid opening shall not be considered or responded to. A written response to timely pre-bid clarifications requests which materially affects the bidder's price will be made by Addendum issued by the District not less than seventy-two (72) hours prior to bid opening.

- 10. <u>Bidders Interested in More Than One Bid.</u> No person, firm, or corporation shall be allowed to make, or file, or be interested in more than one prime bid for the same work unless alternate bids are specifically called for. A person, firm, or corporation that has submitted a proposal to a bidder, or that has quoted prices of materials to a bidder, is not thereby disqualified from submitting a proposal or quoting prices to other bidders or making a prime proposal.
- 11. <u>Award of Contract</u>. The Contract will be awarded to the lowest responsive responsible bidder by action of the governing Board. The District reserves the right to reject any or all bids, or to waive any irregularities or informalities in any bids or in the bidding. In the event an award is made to bidder, and such bidder fails or refuses to execute the Contract and provide the required documents within five (5) calendar days after award of the Contract to bidder, the District may award the Contract to the next lowest responsible and responsive bidder or release all bidders. Each bid must conform and be responsive to the Contract Documents as defined in the General Conditions.
- 12. <u>Bid Protest Procedure</u>. Any bidder may file a bid protest. The protest shall be filed in writing with the District's Dean of Facilities not more than five (5) business days after the date of the bid opening. An e-mail address shall be provided and by filing the protest, protesting bidder consents to receipt of e-mail notices for purposes of the protest and protest related questions and protest appeal, if applicable. The protest shall specify the reasons and facts upon which the protest is based.
- a. <u>Resolution of Bid Controversy:</u> Once the bid protest is received, the apparent lowest responsible bidder will be notified of the protest and the evidence presented. If appropriate, the apparent low bidder will be given an opportunity to rebut the evidence and present evidence that the apparent low bidder should be allowed to perform the Work. If deemed appropriate by the District, an informal hearing will be held. District will issue a written decision within fifteen (15) calendar days of receipt of the protest, unless factors beyond the District's reasonable control prevent such resolution. The decision on the bid protest will be copied to all parties involved in the protest.

b. <u>Appeal</u>: If the protesting bidder or the apparent low bidder is not satisfied with the decision, the matter may be appealed to the Vice President, or their designee, within three (3) business days after receipt of the District's written decision on the bid protest. The appeal must be in writing and sent to the following e-mail address from which questions and responses may be provided to:

Bids@msjc.edu

Appeal Review: The Vice President, or their designee shall review the decision on the bid protest from the Department of Facilities Planning, District Construction and Support Services and issue a written response to the appeal, or if appropriate, appoint a Hearing Office to conduct a hearing and issue a written decision. The written decision of the Vice President or the Hearing Officer shall be rendered within fifteen (15) calendar days and shall state the basis for the decision. The decision concerning the appeal will be final and not subject to any further appeals.

Reservation of Rights to Proceed with Project Pending Appeal. The District reserves the right to proceed to award the Project and commence construction pending an Appeal. If there is State Funding or a critical completion deadline, the District may choose to shorten the time limits set forth in this Section if written notice is provided to the protesting party. E-mailed notice with a written confirmation sent by First Class Mail shall be sufficient to constitute written notice. If there is no written response to a written notice shortening time, the District may proceed with the award.

<u>Finality</u>. Failure to comply with this Bid Protest Procedure shall constitute a waiver of the right to protest and shall constitute a failure to exhaust the protesting bidder's administrative remedies.

- 13. <u>Alternates</u>. If alternate bids are called for, the Contract may be awarded at the election of the Governing Board to the lowest responsible and responsive bidder using the method and procedures outlined in the Notice Inviting Bids and as specified in the section entitled Alternate/Deductive Bid Alternates.
- 14. <u>Subcontractor Listing for Alternates</u>. If alternate bids are called for and the bidder intends to use different or additional subcontractors, a separate list of subcontractors must be submitted for each such alternate.

<u>Listing Subcontractors</u>. Each bidder shall submit with his bid, on the form furnished with the Contract Documents, a list of the names, license numbers, scopes of work, locations of the places of business, contact information, and Department of Industrial Relations ("DIR") registration numbers of each subcontractor who will perform work or labor or render service to the bidder in or about the project, or a subcontractor who under subcontract to the bidder, specially fabricates and installs a portion of the work, in an amount in excess of one-half of 1 percent of the bidder's total bid as required by the Subletting and Subcontracting Fair Practices Act (Public Contract Code section 4100, et seq.) Pursuant to Labor Code section 1725.5, all subcontractors (of any tier) performing work on this Project must be properly registered with DIR.

15. <u>Workers' Compensation</u>. In accordance with the provisions of Labor Code section 3700, the successful bidder as the Contractor shall secure payment of compensation to all employees. The Contractor shall sign and file with the District the following certificate prior to performing the work under this contract: "I am aware of the provisions of Section 3700 of the Labor Code, which requires

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." The form of such certificate is included as a part of the Bid Documents.

- 16. <u>Contractor's License</u>. To perform the work required by this notice, the Contractor must possess the Contractor's License as specified in the Notice Inviting Bids, and the Contractor must maintain the license throughout the duration of the contract. If, at the time of bid, bidder is not licensed to perform the Project in accordance with Division 3, Chapter 9, of the Business and Professions Code for the State of California and the Notice to Contractors calling for bids, such bid will not be considered and the Contractor will forfeit its bid security to the District.
- 17. <u>Anti-Discrimination</u>. It is the policy of the District that in connection with all work performed under contracts, there be no discrimination against any prospective or active employee engaged in the work because of race, color, ancestry, national origin, religious creed, sex, age, or marital status. The Contractor agrees to comply with applicable federal and California laws, including, but not limited to, the California Fair Employment and Housing Act, beginning with Government Code section 12900 and Labor Code section 1735. In addition, the Contractor agrees to require like compliance by any subcontractors employed on the work by such Contractor.

18. Preference for Materials and Substitutions.

- a. <u>One Product Specified</u>. Unless the Plans and Specifications state that no Substitution is permitted, whenever the Contract Documents indicate any specific article, device, equipment, product, material, fixture, patented process, form, method, construction, or any specific name, make, trade name, or catalog number, with or without the words, "or equal," such specification shall be read as if the language "or equal" is incorporated.
- b. Request for Substitution. Bidder may, unless otherwise stated, offer any material, process, article, etc., which is materially equal or better in every respect to that so indicated or specified ("Specified Item") and will completely accomplish the purpose of the Contract Document. If bidder desires to offer a Substitution for a Specified Item, such bidder must make a request in writing on the District's Substitution Request Form ("Request Form") and submit the completed Request Form with the bidder's bid. The Request Form must be accompanied by evidence as to whether the proposed substitution:
 - Is equal in quality, service, and ability to the Specified Item as demonstrated by a side by side comparison of key characteristics and performance criteria (CSI comparison chart);
 - Will entail no changes in detail, construction and scheduling of related work;
 - Will be acceptable in consideration of the required design and artistic effect;
 - Will provide no cost disadvantage to the District;
 - Will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts; and

Will require no change in the Contract Time.

In completing the Request Form, bidder must state with respect to each requested substitution whether bidder will agree to provide the Specified Item in the event that the District denies bidder's request for substitution of a Specified Item. In the event that bidder does not agree in the Request Form to provide the Specified Item and the District denies the requested Substitution, the bidder's bid shall be considered non-responsive and the District may award the Contract to the next lowest bidder or in its sole discretion, release all bidders. In the event that bidder has agreed in the Request Form to provide the Specified Item and the District denies bidder's requested substitution for a Specified Item, bidder shall execute the Agreement and provide the Specified Item without any additional cost or charge to the District, and if bidder fails to execute the Agreement with the Specified Item(s), bidder's bid bond will be forfeited.

After the bids are opened, the apparent lowest bidder shall provide, within five (5) calendar days of opening such bids, any and all Drawings, Specifications, samples, performance data, calculations, and other information as may be required to assist the Architect and the District in determining whether the proposed substitution is acceptable. The burden of establishing these facts shall be upon the bidder.

After the District's receipt of such evidence by bidder, the District will make its final decision as to whether the bidder's request for Substitution for any Specified Items will be granted. The District shall have sole discretion in deciding as to whether a proposed request for Substitution is equal to or better than a Specified Item. Any request for Substitution which is granted by the District shall be documented and processed through a Change Order. The District may condition its approval of any Substitution upon delivery to the District of an extended warranty or other assurances of adequate performance of the Substitution. Any and all risks of delay due to DSA, or any other governmental agency having jurisdiction shall be on the bidder.

- 19. <u>Disqualification of Bidders and Proposals</u>. More than one proposal for the same work from any individual, firm, partnership, corporation, or association under the same or different names will not be accepted; and reasonable grounds for believing that any bidder is interested in more than one proposal for the work will be cause for rejecting all proposals in which such bidder is interested and the bidder will forfeit their bid security to the District.
- 20. <u>Unbalanced or Altered Bids</u>. Proposals in which the prices are obviously unbalanced, and those which are incomplete or show any alteration of form, or contain any additions or conditional or alternate bids that are not called for or otherwise permitted, may be rejected. A proposal on which the signature of the bidder has been omitted may be rejected. If, in the District's sole discretion, it determines any pricing, costs or other information submitted by a bidder may result in an unbalanced bid, the District may deem such bid non-responsive. A bid may be determined by the District to be unbalanced if the bid is based on prices significantly less than cost for some work and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the bid will result in the lowest overall cost to the District even though it may be the low evaluated bid, or if it is so unbalanced as to be tantamount to allowing an advanced payment.

<u>Employment of Apprentices</u>. The Contractor and all Subcontractors shall comply with the provisions of California Labor Code including, but not limited to sections 1777.5, 1777.6, and 1777.7 concerning the employment of apprentices. The Contractor and any Subcontractor under him shall

comply with the requirements of said sections, including applicable portions of all subsequent amendments in the employment of apprentices; however, the Contractor shall have full responsibility for compliance with said Labor Code sections, for all apprentice able occupations, regardless of any other contractual or employment relationships alleged to exist.

<u>Non-Collusion Declaration</u>. Public Contract Code section 7106 requires bidders to submit declaration of non-collusion with their bids. This form is included with the bid documents and must be signed and dated by the bidder under penalty of perjury.

Wage Rates, Travel and Subsistence.

- The Contractor and all subcontractors shall comply with the requirements set forth in Division 2, Part 7, Chapter 1 of the Labor Code. Pursuant to Labor Code section 1770 et seq., the District has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this work is to be performed for each craft, classification or type of worker needed to execute the contract. Copies are available from the District to any interested party on request and are also available from the Director of the Department of Industrial Relations. The Contractor shall obtain copies of the above-referenced prevailing wage sheets and post a copy of such wage rates at appropriate, conspicuous, weatherproof points at the Site.
- Any worker employed to perform work on the Project and such work is not covered by any classification listed in the published general prevailing wage rate determinations or per diem wages determined by the Director of the Department of Industrial Relations, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to the employment of such person in such classification.
- Holiday and overtime work, when permitted by law, shall be paid for at the rate set forth in the prevailing wage rate determinations issued by the Director of the Department of Industrial Relations or at least one and one-half (1½) times the specified basic rate of per diem wages, plus employer payments, unless otherwise specified in the Contract Documents or authorized by law.
- These per diem rates, including holiday and overtime work, and employer payments for health and welfare, pension, vacation, and similar purposes, are on file at the administrative office of the District, located as noted above and are also available from the Director of the Department of Industrial Relations. It is the Contractor's responsibility to ensure the appropriate prevailing rates of per diem wages are paid for each classification. It shall be mandatory upon the Contractor to whom the Contract is awarded, and upon any subcontractor under such Contractor, to pay not less than the said specified rates to all workers employed by them in the execution of the Contract.

<u>DIR Registration of Contractor and Subcontractors</u>. A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in the Labor Code, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

This Project is a public works project as defined in Labor Code section 1720. Each contractor bidding on this Project and 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 DIR and qualified to perform public works pursuant to Labor Code section 1725.5 throughout the duration of the Project. For more information and up to date requirements, contractors are recommended to periodically review the DI's website at www.dir.ca.gov. Contractor shall be solely responsible for ensuring compliance with Labor Code section 1725.5 as well as any requirements implemented by DIR applicable to its services or its subcontractors throughout the term of the Agreement and in no event shall contractor be granted increased payment from the District or any time extensions to complete the Project as a result of contractor's efforts to maintain compliance with the Labor Code or any requirements implemented by the DIR. Failure to comply with these requirements shall be deemed a material breach of this Agreement and grounds for termination for cause. The contractor and all subcontractors shall furnish certified payroll records as required pursuant Labor Code section 1776 directly to the Labor Commissioner in accordance with Labor Code section 1771.4 on at least on a monthly basis (or more frequently if required by the District or the Labor Commissioner) and in a format prescribed by the Labor Commissioner. The District reserves the right to withhold contract payments if the District is notified, or determines as the result of its own investigation, that contractor is in violation of any of the requirements set forth in Labor Code section 1720 et seq. at no penalty or cost to the District. Monitoring and enforcement of the prevailing wage laws and related requirements will be performed by the Labor Commissioner/ Department of Labor Standards Enforcement (DLSE).

<u>No Telephone or Facsimile Availability</u>. No telephone or facsimile machine will be available to bidders on the District premises at any time.

Obtaining Bidding Documents. Bidding Documents, may be obtained from:

Mt. San Jacinto College District
Website at https://www.msjc.edu/purchasing/current-bids.html

Bidder shall utilize a complete set of Bidding Documents in preparing a bid. The failure or omission of bidder to receive any Bidding Document, form, instrument, Addendum, or other document shall not relieve bidder from any obligations with respect to the bid and/or Contract.

Addenda. Clarification or any other notice of a change in the Bidding Documents will be issued only by the District and only in the form of a written Addendum, transmitted by fax, e-mail, or available for pick up to all who are known by the issuing office to have received a complete set of Bidding Documents. Any other purported Addenda are void and unenforceable.

Bidder is responsible for ascertaining the disposition of all Addenda issued regardless of District notification and to acknowledge all Addenda in the submitted sealed bid prior to the bid opening. Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for inspection. Each Addendum will be numbered, dated, and identified with the Project number. Oral statements or any instructions in any form, other than Addendum as described above, shall be void and unenforceable. Addenda issued by the District and not noted as being acknowledged by bidder as required in the Bid Form, may result in the bid being deemed non-responsive.

<u>Debarment</u>. Bidder may also be subject to debarment, in addition to seeking remedies for False Claims under Government Code section 12650 et seq. and Penal Code section 72, the District may debar

a Contractor pursuant to Article 15 of the General Conditions if the Board, or the Board may designate a hearing officer who, in his or her discretion, finds the Contractor has done any of the following:

- Intentionally or with reckless disregard, violated any term of a contract with the District
- Committed an act or omission which reflects on the Contractor's quality, fitness or capacity to perform work for the District;
- Committed an act or offense which indicates a lack of business integrity or business honesty; or,
- Made or submitted a false claim against the District or any other public entity (See Government Code section 12650, et seq., and Penal Code section 72)

CHECKLIST OF MANDATORY BID FORMS

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

- Designation of Subcontractors
- Bid Form
- Contractor's Certificate Regarding Workers Compensation
- Non-Collusion Declaration
- Bid Bond (or Bid Guarantee form if Security is other than Bid Bond)
- Substitution Request Form (If Substitution Request Form is not submitted then NO Substitutions will be allowed after the bids are opened)
- Acknowledgment of Bidding Practices Regarding Indemnity
- DVBE Participation Statement
- Contractor's Certificate Regarding Drug-Free Work Place

PROJECT NAME:	Rebid of Shade Structure at San Jacinto Campus					
PROJECT NUMBER:	Bid No. 2021-008					
	Carole Ward or Tammy					
TO:	Cunningham	EMAIL:	Bids@msjc.edu			
DATE:						
FROM:		EMAIL:				
DOCUMENT/DIVISION		DRAWING				
NUMBER:		NUMBER:				
REQUESTED CLARIFICA	REQUESTED CLARIFICATION:					
RESPONSE TO CLARIFIC	RESPONSE TO CLARIFICATION:					

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

DESIGNATION OF SUBCONTRACTORS

In compliance with the Subletting and Subcontracting Fair Practices Act (California Public Contract Code section 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.

DESIGNATION OF SUBCONTRACTORS FORM

Scope of Work	Name of Subcontractor	Location & Place of Business	License Type and Number	DIR Registration Number	E-Mail & Telephone*

Proper Name of Bidder:	
Date:	
Name:	
Signature of Bidder Representative:	
Address:	
Phone:	

^{*} 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

BID FORM

FOR

Rebid of San Jacinto Shade Structure

1499 N. State Street San Jacinto, CA 92583 Project No. 17-5132 Bid No. 2021-008

FOR

MT. SAN JACINTO COLLEGE DISTRICT

CONTRACTOR						
NAME:						
ADDRESS:						
TELEPHONE:	()				
FAX:	()	•			
EMAIL		•	•			

TO: Mt. San Jacinto College District, acting by and through its Governing Board, herein called "District".

• Pursuant to and in compliance with your Notice Inviting Bids and other documents relating thereto, the undersigned bidder, having familiarized himself with the terms of the Contract, the local conditions affecting the performance of the Contract, the cost of the work at the place where the work is to be done, with the Drawings and Specifications, and other Contract Documents, hereby proposes and agrees to perform within the time stipulated, the Contract, including all of its component parts, and everything required to be performed, including its acceptance by the District, and to provide and furnish any and all labor, materials, tools, expendable equipment, and utility and transportation services necessary to perform the Contract and complete all of the Work in a workmanlike manner required in connection with the construction of:

BID SCHEDULE NO. 2021-008

Rebid of San Jacinto Shade Structure

in the District described above, all in strict conformance with the drawings and other Contract Documents on file at the Purchasing Office of said District for amounts set forth herein.

BIDDER ACKNOWLEDGES THE FOLLOWING ADDENDUM:

Number Num
--

Acknowledge the inclusion of all addenda issued prior to bid in the blanks provided above. Your failure to do so may render your bid non-responsive.

DOLLARS		
(\$)	

TOTAL CASH PURCHASE PRICE IN WORDS & NUMBERS:

<u>TIME FOR COMPLETION</u>: The District may give a notice to proceed within ninety (90) days of the award of the bid by the District. Once the Contractor has received the notice to proceed, the Contractor shall complete the work in the time specified in the Agreement. By submitting this bid, Contractor has thoroughly studied this Project and agrees that the Contract Time for this Project is adequate for the timely and proper completion of the Project. Further, Contractor has included in the analysis of the time required for this Project, Rain Days, Governmental Delays, and the requisite time to complete Punch List.

In the event that the District desires to postpone giving the notice to proceed beyond this ninety (90) day period, it is expressly understood that with reasonable notice to the Contractor, giving the notice to proceed may be postponed by the District. It is further expressly understood by the Contractor, that the Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of giving the notice to proceed.

If the Contractor believes that a postponement will cause a hardship to it, the Contractor may terminate the contract with written notice to the District within ten (10) days after receipt by the Contractor of the District's notice of postponement. Should the Contractor terminate the Contract as a result of a notice of postponement, the District shall have the authority to award the Contract to the next lowest responsible bidder, if applicable.

It is understood that the District reserves the right to reject any or all bids and/or waive any irregularities or informalities in this bid or in the bid process. The Contractor understands that it may not withdraw this bid for a period of ninety (90) days after the date set for the opening of bids.

• Attached is bid security in the amount of not less than ten percent (10%) of the bid:

Bid bond (10% of the Bid), certified check, or cashier's check (circle one)

- The required List of Designated Subcontractors is attached hereto.
- The required Non-Collusion Declaration is attached hereto.
- The Substitution Request Form, if applicable, is attached hereto.

- It is understood and agreed that if written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned after the opening of the bid, and within the time this bid is required to remain open, or at any time thereafter before this bid is withdrawn, the undersigned will execute and deliver to the District a Contract in the form attached hereto in accordance with the bid as accepted, and that he or she will also furnish and deliver to the District the Performance Bond and Payment Bond, all within five (5) calendar days after award of Contract, and that the work under the Contract shall be commenced by the undersigned bidder, if awarded the Contract, by the start date provided in the District's Notice to Proceed, and shall be completed by the Contractor in the time specified in the Contract Documents.
- The names of all persons interested in the foregoing proposal as principals are as follows:

•	
•	
•	
•	
•	

(IMPORTANT NOTICE: If bidder or other interested person is a corporation, state the legal name of such corporation, as well as the names of the president, secretary, treasurer, and manager thereof; if a copartnership, state the true names of the firm, as well as the names of all individual co-partners comprising the firm; if bidder or other interested person is an individual, state the first and last names in full.)

- <u>PROTEST PROCEDURES</u>. If there is a bid protest, the grounds shall be submitted as set forth in the Instructions to Bidders.
- The undersigned bidder shall be licensed and shall provide the following California Contractor's license information:

inse information.	
License Number:	
License Expiration Date:	
Name on License:	
Class of License:	
DIR Registration Number:	

If the bidder is a joint venture, each member of the joint venture must include the above information.

- Time is of the essence regarding this Contract, therefore, in the event the bidder to whom the Contract is awarded fails or refuses to post the required bonds and return executed copies of the Agreement form within five (5) calendar days from the date of receiving the Notice of Award, the District may declare the bidder's bid deposit or bond forfeited as damages.
- The bidder declares that he/she has carefully examined the location of the proposed Project, that he/she has examined the Contract Documents, including the Plans, General Conditions,

Supplemental Conditions, Addenda, and Specifications, all others documents and requirements that are attached to and/or contained in the Project Manual, all other documents issued to bidders and read the accompanying instructions to bidders, and hereby proposes and agrees, if this proposal is accepted, to furnish all materials and do all work required to complete the said work in accordance with the Contract Documents, in the time and manner therein prescribed for the unit cost and lump sum amounts set forth in this Bid Form.

- <u>DEBARMENT</u>. In addition to seeking remedies for False Claims under Government Code section 12650 et seq. and Penal Code section 72, the District may debar a Contractor pursuant to Article 15 of the General Conditions if the Board, or the Board may designate a hearing officer who, in his or her discretion, finds the Contractor has done any of the following:
 - Intentionally or with reckless disregard, violated any term of a contract with the District;
- Committed an act or omission which reflects on the Contractor's quality, fitness or capacity to perform work for the District;
- Committed an act or offense which indicates a lack of business integrity or business honesty; or
- Made or submitted a false claim against the District or any other public entity. (See Government Code section 12650, et seq., and Penal Code section 72)
- <u>DESIGNATION OF SUBCONTRACTORS</u>. In compliance with the Subletting and Subcontracting Fair Practices Act (California Public Contract Code section 4100 et seq.) and any amendments thereof, each bidder shall list subcontractors on the District's form Subcontractor list. This subcontractor list shall be submitted with the bid and is a required form

I agree to receive service of notices at the e-mail address listed below.

I the below-indicated bidder, declare under penalty of perjury that the information provided and representations made in this bid are true and correct.

Proper Name of Company		
Name of Bidder Representative		
Street Address		
City, State, and Zip		
()		
Phone Number		

Fax Number	
E-Mail	
By: Signature of Bidder Representative	Date:

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of authorized officers or agents and the document shall bear the corporate seal; if bidder is a partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, his signature shall be placed above.

All signatures must be made in permanent blue ink.

CONTRACTOR'S CERTIFICATE REGARDING WORKERS' COMPENSATION FORM

Labor Code section 3700 in relevant part provides:

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

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

I am aware of the provisions of Labor Code section 3700 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 provision before commencing the performance of the work of this Contract.

(Signature)			
(Print)			
(Date)			

In accordance with Article 5 (commencing at section 1860), Chapter 1, Part 7, Division 2 of the Labor Code, the above certificate must be signed and submitted with the Contractor's bid.

NON-COLLUSION DECLARATION

The undersigned declares:	
I am the [Tit Company], the party making the foregoing bid.	le] of [Name of
company, association, organization, or corporation bidder has not directly or indirectly induced or some the bidder has not directly or indirectly collude anyone else to put in a sham bid, or to refrain fror indirectly, sought by agreement, communication bidder or any other bidder, or to fix any overhead any other bidder. All statements contained in the submitted his or her bid price or any break information or data relative thereto, to a	or on behalf of, any undisclosed person, partnership, on. The bid is genuine and not collusive or sham. The solicited any other bidder to put in a false or sham bid. ed, conspired, connived, or agreed with any bidder or om bidding. The bidder has not in any manner, directly on, or conference with anyone to fix the bid price of the ed, profit, or cost element of the bid price, or of that of the bid are true. The bidder has not, directly or indirectly, down thereof, or the contents thereof, or divulged my corporation, partnership, company, association, or agent thereof, to effectuate a collusive or sham bid, entity for such purpose.
joint venture, limited liability company, limite	n behalf of a bidder that is a corporation, partnership, ed liability partnership, or any other entity, hereby ute, and does execute, this declaration on behalf of the
, , , , , ,	the laws of the State of California that the foregoing is is executed on [Date], at [State].
Signed:	
Typed Name:	

BID GUARANTEE FORM

(Use only when not using a Bid Bond)

Accompanying this proposal is a cashier's check payable to the order of the Mt. San Jacinto College] District or a certified check payable to the order of the Mt. San Jacinto College 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 District, if, this proposal shall be accepted by the District through the District's Governing Board, and the undersigned fails to execute a Contract with and furnish the sureties required by the District 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

BID BOND FORM

KNC	JW ALL MEN	BY THESE PRE	SENI that	we, the unc	lersigned, (hereaft	er called
"Principal")), and				(hereafter called "	'Surety"),
					ge District (hereaft	
"District")	in the sum of	of			(\$)) for the
	f which, well a and assigns.	and truly to be r	nade, we he	ereby jointly a	nd severally bind o	ourselves,
SIGI	NED this	day of			_, 20	
		•			the Principal has s part hereof, to ent	
Contract	in	writing	for	the	construction	of

NOW, THEREFORE,

- If said Bid is rejected, or
- If said Bid is accepted and the Principal executes and delivers a Contract or the attached Agreement form within five (5) calendar days after acceptance (properly completed in accordance with said Bid), and furnishes bonds for his faithful performance of said Contract and for payment of all persons performing labor or furnishing materials in connection therewith,

Then this obligation shall be void; otherwise, the same shall remain in force and effect.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract, or the call for bids, or the work to be performed thereunder, or the specifications accompanying the same, shall in anyway affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of said Contract, or the call for bids, or the work, or to the specifications.

In the event suit is brought upon this bond by the District and judgment is recovered, the Surety shall pay all costs incurred by the District in such suit, including without limitation, attorneys' fees to be fixed by the court.

IN WITNESS WHEREOF, Principal and Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, on the day and year first set forth above.

	Ву	
(Corporate Seal)		Principal's Signature
		Typed or Printed Name
		Principal's Title
	Ву	
(Corporate Seal)		Surety's Signature
		Typed or Printed Name
		Title
(Attached Attorney in East Cortificate)		Surety's Name
(Attached Attorney in Fact Certificate)		Surety 5 Nume
		Surety's Address
		Surety's Phone Number

IMPORTANT:

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, it must also appear on the Treasury Department's most current list (Circular 570 as amended).

THIS IS A REQUIRED FORM.

Any claims under this bond may be addressed to:

(Name and Address of Surety)

(Name and Address of agent or representative service of process in California if different fro		
(Telephone Number of Surety and agent or representative for service of process in Califo	ornia).	

REQUEST FOR SUBSTITUTION AT TIME OF BID

Pursuant to Public Contract Code section 3400, bidder submits the following request to Substitute with the bid that is submitted. I understand that if the request to substitute is not "an/or equal" or is not accepted by District and I answer "no" I will not provide the specified item, then I will be held non-responsive and my bid will be rejected. With this understanding, I hereby request Substitution of the following articles, devices, equipment, products, materials, fixtures, patented processes, forms, methods, or types of construction:

meun	ous, or types of construction:						
				Cont	ractor		
				Agre	es to		
				Pro	vide		
				Specifi	ed Item		
				if req	uest to		
					itute is		
		Specified	Requested	De	nied	District	Decision
	Specification Section	ltem	Substituted Item	(circl	e one)	(circl	e one)
1.				Yes	No	Grant	Deny
2.				Yes	No	Grant	Deny
3.				Yes	No	Grant	Deny
4.				Yes	No	Grant	Deny
5.				Yes	No	Grant	Deny
6.				Yes	No	Grant	Deny
7.				Yes	No	Grant	Deny
8.				Yes	No	Grant	Deny
9.				Yes	No	Grant	Deny
10.				Yes	No	Grant	Deny
11.				Yes	No	Grant	Deny
12.				Yes	No	Grant	Deny

This Request Form must be accompanied by evidence as to whether the proposed Substitution (1) is equal in quality, service, and ability to the Specified Item; (2) will entail no change in detail, construction, and scheduling of related work; (3) will be acceptable in consideration of the required design and artistic effect; (4) will provide no cost disadvantage to the District; (5) will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts; (6) will require no change of the construction schedule or milestones for the Project; and, (7) Contractor agrees to pay for any DSA Fees or other Governmental Plan check costs associated with this Substitution Request. (See General Conditions Section 3.6)

The undersigned states that the following paragraphs are correct:

- The proposed Substitution does not affect the dimensions shown on the Drawings.
- The undersigned will pay for changes to the building design, including Architect, engineering, or other consultant design, detailing, DSA plan check or other governmental plan check costs, and construction costs caused by the requested substitution.

- The proposed substitution will have no adverse effect on other trades, the Contract Time, or specified warranty requirements.
- Maintenance and service parts will be available locally for the proposed substitution.
- In order for the Architect to properly review the substitution request, within five (5) days following the opening of bids, the Contractor shall provide samples, test criteria, manufacturer information, and any other documents requested by Architect or Architect's engineers or consultants, including the submissions that would ordinarily be required under Article 3.7 for Shop Drawings along with a document which provides a side by side comparison of key characteristics and performance criteria (often known as a CSI side by side comparison chart).
- If Substitution Request is accepted by the District, Contractor is still required to provide a Submittal for the substituted item pursuant to Article 3.7 and shall provide required Schedule information (including schedule fragments, if applicable) for the substituted item as required under Article 8.3.2.1. The approval of the Architect, Engineer, or District of the substitution request does not mean that the Contractor is relieved of Contractor's responsibilities for Submittals, Shop Drawings, and schedules under Article 3.7 and 8.3.2if the Contractor is awarded the Project.

Name of Bidder:	
Ву:	
District:	
Ву:	

ACKNOWLEDGMENT OF BIDDING PRACTICES REGARDING INDEMNITY FORM

TO:	Mt. San Jacinto College District
RE:	Project Number
Constr	uction Contract for
	Please be advised that with respect to the above-referenced Project the undersigned Contractor half of itself and all subcontractors hereby waives the benefits and protection of Labor Code 13864, which provides:
jointly have i	action as provided in this chapter is prosecuted by the employee, the employer, or both against the third person results in judgment against such third person, the employer shall no liability to reimburse or hold such third person harmless on such judgment or nent in the absence of a written agreement to do so executed prior to the injury."
the Di	This Agreement has been signed by an authorized representative of the contracting party and e binding upon its successors and assignees. The undersigned further agrees to promptly notify strict of any changes of ownership of the contracting party or any subcontractor while this ment is in force.
Contra	octing Party
Name	of Agent/Title

DISABLED VETERAN BUSINESS ENTERPRISE (DVBE) PARTICIPATION STATEMENT

Each bidder must complete this form in order to comply with the Mt. San Jacinto College District ("District") policy for participation of disabled veteran business enterprises.

Project	Name:
Bid No.	: <u>2021-008</u>
DSA No).:
referer	The undersigned, on behalf of the Contractor named below, certifies that the Contractor has easonable efforts to secure participation by DVBE in the Contract to be awarded for the aboveced Bid No., including participation by DVBE subcontractors and/or material suppliers. Check te of the following :
•	The Contractor was unable after reasonable efforts to secure DVBE participation in the Contract for the above-referenced Project/Bid No. However, the Contractor will use DVBE services if the opportunity arises at any time during construction of the Project. Upon completion of the Project, the Contractor will report to the District the total dollar amount of DVBE participation in any Contract awarded to Contractor, and in any change orders, for the above-referenced Project.
•	The Contractor has secured DVBE participation in the Contract for the above referenced Project/Bid No., and anticipates that such DVBE participation will equal approximatelydollars (\$
Compa	ny:
Name:	
Title: _	
Signatu	re:
Date: _	

CONTRACTOR'S CERTIFICATE REGARDING DRUG-FREE WORKPLACE

This Drug-Free Workplace Certification form is required from all successful bidders pursuant to the requirements mandated by Government Code section 8350 et seq., the Drug-Free Workplace Act of 1990. The Drug-Free Workplace Act of 1990 requires that every person or organization awarded a contract or grant for the procurement of any property or service from any State agency must certify that it will provide a drug-free workplace by performing certain specified acts. In addition, the Act provides that each contract or grant awarded by a State agency may be subject to suspension of payments or termination of the contract or grant, and the Contractor or grantee may be subject to debarment from future contracting, if the contracting agency determines that specified acts have occurred.

Pursuant to Government Code section 8355, every person or organization awarded a contract or grant from a State agency shall certify that it will provide a drug-free workplace by doing all of the following:

- Publishing a statement, notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's or organization's workplace, and specifying actions which will be taken against employees for violations of the prohibition.
- Establishing a drug-free awareness program to inform employees about all of the following:
 - The dangers of drug abuse in the workplace;
 - The person's or organization's policy of maintaining a drug-free workplace;
 - The availability of drug counseling, rehabilitation and employee-assistance programs;
 and
 - The penalties that may be imposed upon employees for drug abuse violations;
- Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required by subdivision (a) and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

I, the undersigned, agree to fulfill the terms and requirements of Government Code section 8355 listed above and will (a) publish a statement notifying employees concerning the prohibition of controlled substance at the workplace, (b) establish a drug-free awareness program, and (c) require each employee engaged in the performance of the contact be given a copy of the statement required by section 8355(a) and require such employee agree to abide by the terms of that statement.

I also understand that if the Mt. San Jacinto College District determines that I have either (a) made a false certification herein, or (b) violated this certification by failing to carry out the requirements of Section 8355, that the contract awarded herein is subject to termination, suspension of payments, or both. I further understand that, should I violate the terms of the Drug-Free Workplace Act of 1990, I may be subject to debarment in accordance with the requirements of Section 8350 et seq.

hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990. DATE: CONTRACTOR

I acknowledge that I am aware of the provisions of Government Code section 8350 et seq. and

By:__ Signature

[End of Bid Documents to be Submitted with Bid]

TRADE CONTACTOR AGREEMENT

day of

State of California, by and between the Mt. San Jacinto Community College District, hereinafter called the

, 20 in the County of Riverside of the

THIS AGREEMENT, entered into this

"District", and	, hereinafter called the "Trade Contractor".	
WITNESSETH that the follows:	e District and the Trade Contractor for the consideration stated he	erein agree as
tools, and utility and transportation Direction of Construction Manag	OF WORK: The Trade Contractor shall furnish all labor, material on services, and shall coordinate and sequence Trade Contractor's Water and District and in cooperation with other Trade Contractors on a required in connection with Trade Contract Number	ork under the the Project to
	ous Shade Structure Project in strict accordance with the Contract	
result of a failure to comply with to any failure to so comply by a Division of the State Architect actually prevents the Trade Co Contractor protests, in accordance preventing the Trade Contractor effective unless reduced to write occurrence of such act or omission	The Trade Contractor shall be liable to the District for any damage the that obligation, and the Trade Contractor shall not be excused an act or omission of the Construction Manager, Architect, Engine (DSA), or representative of any of them, unless such act contractor from fully complying with the Contract Documents a ce with the requirements of the Contract Documents, that the act of from fully complying with the Contract Documents. Such protes iting and filed with the District office within seven (7) days of sion preventing the Trade Contractor from fully complying with	with respect eer, Inspector, or omission and the Trade or omission is t shall not be of the date of
Documents.		

ARTICLE 2 - TIME OF COMPLETION: The District may give notice to proceed within ninety (90) days of the award of the bid by the District. Once the Trade Contractor has received a notice to proceed, the Trade Contractor shall develop a Trade Contractor Baseline Schedule consistent with Outline Schedule of Work for Trade Contractor's Scope of Work and Trade Contractor's Work shall reach Substantial Completion (See Article 1.1.55) of the Work within ninety (90) calendar days from receipt of the Notice to Proceed. This shall be called Contract Time. (See Article 8.1.1). It is expressly understood that time is of the essence.

Trade Contractor has thoroughly studied the Project and has satisfied itself that the duration set forth for the Contract Time and the duration provided for Trade Contractor's Scope of Work for this Project is adequate for the timely and proper completion of the Project within each milestone set forth in the Outline Schedule and within the Contract Time. Further, Trade Contractor has included in the analysis of the time required for this Project, items set forth in General Conditions Article 8.3.2.13, Submittal Schedules, Rain Day Float, and Governmental Delay Float.

ARTICLE 3 - LIQUIDATED DAMAGES AND BONUS: It being impracticable and infeasible to determine the amount of actual damage, it is agreed that the Trade Contractor will pay the District the sum of two thousand, five hundred dollars (\$2,500) per calendar day for each and every day of delay attributable to Trade Contractor's critical path delay to the Project Baseline Schedule that delays Key Milestones for delivery of Phases or cause delay to the Contract Time set forth in Article 2 of this Agreement as Liquidated Damages and not as a penalty or forfeiture. In the event Liquidated Damages are not paid, the Trade Contractor further agrees that the District may deduct such amount thereof from any money due or that may become due Trade Contractor under the Contract (See Article 9.6 and 2.2 of the General Conditions).

In addition to the Liquidated Damages, District shall also provide a Bonus (See Article 3.12) through the distribution of any unused Trade Damage or Trade Coordination Allowance if (1) Project is Completed in the Contract Time, (2) Trade Contractor participates in the Initial Trade Contractor Coordination Meetings, Clash Check resolution, BIM shop drawing preparation, Trade Contractor Baseline and Trade Contractor Update

Schedules, and (3) the Trade Contractor Trade Damage and Coordination Allowance is not exhausted to pay for trade damage caused by Trade Contractor Work on the Project.

Should any Change Order result in an increase in the Contract Price, the cost of such Change Order shall be agreed to in advance by the Trade Contractor and the District, subject to the monetary limitations set forth in Public Contract Code Section 20659. In the event that the Trade Contractor proceeds with a Change in work without an agreement between the District and Trade Contractor regarding the cost of a Change Order, the Trade Contractor waives any Claim of additional compensation for such additional work.

ARTICLE 5 - HOLD HARMLESS AGREEMENT: Trade Contractor shall defend, indemnify and hold harmless District, Architect, Construction Manager, Inspector, the State of California and their officers, employees, agents and independent contractors from all liabilities, claims, actions, liens, judgments, demands, damages, losses, costs or expenses of any kind arising from death, personal injury, property damage or other cause based or asserted upon any act, omission, or breach connected with or arising from the progress of Work or performance of service under this Agreement or the Contract Documents. As part of this indemnity, Trade Contractor shall protect and defend, at its own expense, District, Architect, Construction Manager, Inspector, the State of California and their officers, employees, agents and independent contractors from any legal action including attorney's fees or other proceeding based upon such act, omission, breach or as otherwise required by this Article.

Furthermore, Trade Contractor agrees to and does hereby defend, indemnify and hold harmless District, Architect, Construction Manager, Inspector, the State of California and their officers, employees, agents and independent contractors from every claim or demand made, and every liability, loss, damage, expense or attorney's fees of any nature whatsoever, which may be incurred by reason of:

- (a) Liability for (1) death or bodily injury to persons; (2) damage or injury to, loss (including theft), or loss of use of, any property; (3) any failure or alleged failure to comply with any provision of law or the Contract Documents; or (4) any other loss, damage or expense, sustained by any person, firm or corporation or in connection with the Work called for in this Agreement or the Contract Documents, except for liability resulting from the sole or active negligence, or the willful misconduct of the District.
- (b) Any bodily injury to or death of persons or damage to property caused by any act, omission or breach of Trade Contractor or any person, firm or corporation employed by Trade Contractor, either directly or by independent contract, including all damages or injury to or death of persons, loss (including theft) or loss of use of any property, sustained by any person, firm or corporation, including the District, arising out of or in any way connected with Work covered by this Agreement or the Contract Documents, whether said injury or damage occurs either on or off District property, but not for any loss, injury, death or damages caused by the sole or active negligence or willful misconduct of the District.
- (c) Any dispute between Trade Contractor and Trade Contractor's subcontractors/supplies/ Sureties, including, but not limited to, any failure or alleged failure of the Trade Contractor (or any person hired or employed directly or indirectly by Trade Contractor) to pay any Subcontractor or Materialman of any tier or any other person employed in connection with the Work and/or filing of any stop notice or mechanic's lien claims.
- (d) Any claims, allegations, penalties, assessments, or liabilities to the extent caused by the Trade Contractor's failure or the failure of any Subcontractor of any tier, to fully comply with the DIR registration

requirements under Labor Code section 1725.5 at all times during the performance of any Work on the Project and shall reimburse the District for any penalties assessed against the District arising from any failure by the Contractor or any Subcontractor of any tier from complying with Labor Code sections 1725.5 and 1771.1. Nothing in this paragraph, however, shall require the Trade Contractor or any Subcontractor to be liable to the District or indemnify the District for any penalties caused by the District in accordance with Labor Code section 1773.3 (g).

Trade Contractor, at its own expense, cost, and risk, shall defend any and all claims, actions, suits, or other proceedings that may be brought or instituted against the District, its officers, agents or employees, on account of or founded upon any cause, damage, or injury identified herein Article 5 and shall pay or satisfy any judgment that may be rendered against the District, its officers, agents or employees in any action, suit or other proceedings as a result thereof.

ARTICLE 6 - PROVISIONS REQUIRED BY LAW: Each and every provision of law and clause required to be inserted in this Contract shall be deemed to be inserted herein, and this Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted or is not inserted correctly, then upon application of either party the Contract shall forthwith be physically amended to make such insertion or correction.

ARTICLE 7 - COMPONENT PARTS OF THE CONTRACT: The Contract entered into by this Agreement consists of the following Contract Documents, all of which are component parts of the Contract as if herein set out in full or attached hereto:

Notice Inviting Bids

Instructions to Bidders

Designation of Subcontractors

Non-Collusion Declaration

Bid Bond

Bid Form (or General Works Trade Contractor Bid Form if General Works Trade Contractor is submitting a bid)

Trade Contractor's Certificate Regarding Worker's Compensation

Acknowledgment of Bidding Practices Regarding Indemnity

DVBE Participation Statement and Close-Out Forms

Agreement Form

Payment Bond

Performance Bond

Guarantee

Escrow Agreement for Security Deposit In Lieu of Retention

Workers' Compensation/Employers Liability Endorsement

General Liability Endorsement

Automobile Liability Endorsement

Trade Contractor's Certificate Regarding Drug-Free Workplace

General Conditions

Supplementary and Special Conditions

Outline Schedule

Trade Contractor Scope of Work

Specifications

All Addenda as Issued

Drawings/Plans

Substitution Request Form

Note: Documents above are included in the original bid documents

All of the above named Contract Documents are intended to be complementary. Work required by one of the above named Contract Documents and not by others shall be done as if required by all.

ARTICLE 8 - PREVAILING WAGES: Wage rates for this Project shall be in accordance with the general prevailing rate of holiday and overtime work in the locality in which the work is to be performed for each craft, classification, or type of work needed to execute the Contract as determined by the Director of the Department of Industrial Relations. Copies of schedules of rates so determined by the Director of the Department of Industrial Relations are on file at the administrative office of the District and are also available from the Director of the Department of Industrial Relations.

The following are hereby referenced and made a part of this Agreement and Trade Contractor stipulates to the provisions contained therein.

- 1. Chapter 1 of Part 7 of Division 2 of the Labor Code (Section 1720 et seq.)
- 2. California Code of Regulations, Title 8, Chapter 8, Subchapters 3 through 6 (Section 16000 et seq.)

ARTICLE 9 - RECORD AUDIT: In accordance with Government Code Section 8546.7(and Davis Bacon, if applicable) and Article 13.11 of the General Conditions, records of both the District and the Trade Contractor shall be subject to examination and audit for a period of five (5) years after a Final Retention Payment or the Recording of a Notice of Completion, whichever occurs first.

ARTICLE 10 - TRADE CONTRACTOR'S LICENSE: The Trade Contractor must possess throughout the appropriate Project a Class Contractor's License, issued by the State of California, which must be current and in good standing.

[SIGNATURES ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, this Agreement has been duly executed by the above named parties, on the day and year first above written.

Mt. San Jacinto Community College District	TRADE CONTRACTOR:
Ву:	Typed or Printed Name
By: Beth Gomez Vice President, Business Services	Title
Dated:	Signature Dated:
	Type or Printed Name
	Title (Authorized Officers or Agents)
	Signature
	Dated:
	(CORPORATE SEAL)

PAYMENT BOND

(CALIFORNIA PUBLIC WORK)

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, the MT. SAN JACINTO DISTRICT (sometimes referred to hereinafter as
Obligee") has awarded to (hereinafter designated as the
Principal" or "Contractor"), an agreement for the work described as follows: (hereinafter referred to as the "Public Work"); and
WHEREAS, said Contractor is required to furnish a bond in connection with said Contract, and oursuant to California Civil Code section 9550;
NOW, THEREFORE, We,, the undersigned Contractor, as Principal; and, a corporation organized and
Contractor, as Principal; and, a corporation organized and
xisting under the laws of the State of, and duly authorized to transact business under
he laws of the State of California, as Surety, are held and firmly bound unto the MT. SAN JACINTO
COLLEGE DISTRICT and to any and all persons, companies, or corporations entitled by law to file stop
otices under California Civil Code section 9100, or any person, company, or corporation entitled to
nake a claim on this bond, in the sum of Dollars
\$), such sum being not less than one hundred percent (100%) of the total amount
ayable by said Obligee under the terms of said Contract, for which payment will 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 said Principal, its heirs, executors, administrators, successors, or assigns, or subcontractor, shall fail to pay any person or persons named in Civil Code section 9100; or fail to pay for any materials, provisions, or other supplies, 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 Code, with respect to work or labor thereon of any kind; or shall fail to deduct, withhold, and pay over to the Employment Development Department, any amounts required to be deducted, withheld, and paid over by Unemployment Insurance Code section 13020 with respect to work and labor thereon of any kind, then said Surety will pay for the same, in an amount not exceeding the amount herein above set forth, and in the event suit is brought upon this bond, also will pay such reasonable attorneys' fees as shall be fixed by the court, awarded and taxed as provided in California Civil Code section 9550 et seq.

This bond shall inure to the benefit of any person named in Civil Code section 9100 giving such person or his/her assigns a right of action in any suit brought upon this bond.

It is further stipulated and agreed that the Surety of this bond shall not be exonerated or released from the obligation of the bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, or specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described; or pertaining or relating to the furnishing of labor, materials, or equipment therefor; nor by any change or modification of any terms of payment or extension of time for payment pertaining or relating to any scheme or work of improvement herein above

described; nor by any rescission or attempted rescission of the contract, agreement or bond; nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or under the bond; nor by any fraud practiced by any person other than the claimant seeking to recover on the bond; and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given; and under no circumstances shall the Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the Obligee and the Contractor or on the part of any obligee named in such bond; that the sole condition of recovery shall be that the claimant is a person described in California Civil Code section 9100, and who has not been paid the full amount of his or her claim; and that the Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned.

IN WITNESS WHE above named, on the	REOF this instru day of	ment has been duly executed by the Principal and Surety, 20
		PRINCIPAL/CONTRACTOR:
		By:
		SURETY:
		By:Attorney-in-Fact

IMPORTANT: 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 for service of process in California)
Telephone:	Telephone:
	cate verifies only the identity of the individual who signed the the truthfulness, accuracy, or validity of that document.
STATE OF CALIFORNIA) ss.	
COUNTY OF)	
to me that he/she/they executed the same in his/hoof (Suret	me,, who proved on the basis of satisfactory esubscribed to the within instrument and acknowledged er/their authorized capacity(ies) as the Attorney-in-Fact by and acknowledged to me that by his/her/their entity upon behalf of which the person(s) executed the
I certify under PENALTY OF PERJURY under paragraph is true and correct.	the laws of the State of California that the foregoing
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 representatives of the bonding company must be attached hereto.

PERFORMANCE BOND

(CALIFORNIA PUBLIC WORK)

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, the MT.SAN JACIN	NTO COLLEGE DISTRICT (sometimes referred to
hereinafter as "Obligee") has awarded to	
(hereinafter designated as the "Principal" or "Co	ontractor"), an agreement for the work described as
follows:	(hereinafter referred to as the "Public Work"); and
	y the Contractor is more particularly set forth in that
certain contract for said Public Work dated _	corporated herein by this reference; and, (hereinafter
referred to as the "Contract"), which Contract is inc	corporated herein by this reference; and
provide a bond both for the performance and guarantee. NOW, THEREFORE, we.	nty thereof, the undersigned
Contractor, as Principal, and	, a corporation organized and
existing under the laws of the State of	, and duly authorized to transact business under
	held and firmly bound unto the MT. SAN JACINTO
DISTRICT in the sum of	Dollars (\$),
	(100%) of the total amount payable by said Obligee
under the terms of said Contract, for which amou	ant well and truly to be made, we bind ourselves, our
heirs, executors, administrators, successors, and ass	signs, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the bounded Contractor, his or her heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in said Contract and any alteration thereof made as therein provided, on his or her part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill guarantees of all materials and workmanship; and indemnify, defend and save harmless the Obligee, its officers and agents, as stipulated in said Contract, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that it shall not be exonerated or released from the obligation of this bond (either by total exoneration or pro tanto) by any change, extension of time, alteration in or addition to the terms of the contract or to the work to be performed there under or the specifications accompanying the same, nor by any change or modification to any terms of payment or extension of time for any payment pertaining or relating to any scheme of work of improvement under the contract. Surety also stipulates and agrees that it shall not be exonerated or released from the obligation of this bond (either by total exoneration or pro tanto) by any overpayment or underpayment by the Obligee that is based upon estimates approved by the Architect. The Surety stipulates and agrees that none of the aforementioned changes, modifications, alterations, additions, extension of time or actions shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, modifications, alterations, additions or extension of time to the terms of the

contract, or to the work, or the specifications as well notice of any other actions that result in the foregoing.

Whenever Principal shall be, and is declared by the Obligee to be, in default under the Contract, the Surety shall promptly either remedy the default, or shall promptly take over and complete the Contract through its agents or independent contractors, subject to acceptance and approval of such agents or independent contractors by Obligee as hereinafter set forth, in accordance with its terms and conditions and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees and the payment of Liquidated Damages; or, at Obligee's sole discretion and election, Surety shall obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Obligee of the lowest responsible bidder, arrange for a contract between such bidder and the Obligee and make available as Work progresses (even though there should be a default or succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the "balance of the Contract Price" (as hereinafter defined), and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees and the payment of Liquidated Damages. The term "balance of the Contract Price," as used in this paragraph, shall mean the total amount payable to Principal by the Obligee under the Contract and any modifications thereto, less the amount previously paid by the Obligee to the Principal, less any withholdings by the Obligee allowed under the Contract. Obligee shall not be required or obligated to accept a tender of a completion contractor from the Surety.

Surety expressly agrees that the Obligee may reject any agent or contractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Principal. Unless otherwise agreed by Obligee, in its sole discretion, Surety shall not utilize Principal in completing the Contract nor shall Surety accept a bid from Principal for completion of the work in the event of default by the Principal.

No final settlement between the Obligee and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

The Surety shall remain responsible and liable for all patent and latent defects that arise out of or relate to the Contractor's failure and/or inability to properly complete the Public Work as required by the Contract and the Contract Documents. The obligation of the Surety hereunder shall continue so long as any obligation of the Contractor remains.

Contractor and Surety agree that if the Obligee is required to engage the services of an attorney in connection with enforcement of the bond, Contractor and Surety shall pay Obligee's reasonable attorneys' fees incurred, with or without suit, in addition to the above sum.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including reasonable attorneys' fees to be fixed by the Court.

IN	WITNESS	WHEREOF,	we have	hereunto	set our	hands	and	seals	this	 day of
	, 20	_•								
				PRINCI	PAL/CO	NTRAC	TOR	:		
				-						

	By:
	SURETY:
	By:Attorney-in-Fact
The rate of premium on this bond is _	per thousand.
The total amount of premium charged by a corporate surety).	: \$ (This must be filled in
Commissioner authorizing them to write suret 105, and if the work or project is financed, in v	ess a certificate of authority from the California Insurance ty insurance defined in California Insurance Code section whole or in part, with federal, grant or loan funds, Surety's ment's most current list (Circular 570 as amended).
Telephone:	Telephone:
	his certificate verifies only the identity of the individual

On	, before	me,		, personally
1		1 1	on the basis of sat	tisfactory evidence to be
appeared the person(s) whose name	(s) is/are subscribed to	the within	instrument and ac	cknowledged to me that
he/she/they executed the sa	me in his/her/their auth	norized capa	city(ies) as the Atto	orney-in-Fact of (Surety)
and acknowledged to me t	hat by his/her/their sig	nature(s) on	the instrument the	e person(s), or the entity
upon behalf of which the pe	erson(s) executed the in	strument.		
	COE DED WIDLE 1			
I certify under PENALTY		the laws of	the State of Calif	ornia that the foregoing
paragraph is true and correct	et.			
WITNESS my hand and of	ficial seal.			
				(
				(SEAL)
Notary Public in and for s	and State			
Cii				
Commission expires:				
NOTE: A copy of	the power-of-attorney t	o local repre	sentatives of the bo	onding company must be
attached hereto.	1	1		

GUARANTEE

Guarantee for	. We hereby guarantee that the
, which	
has been	done in accordance with the Contract Documents,
	cifications, and that the work as installed will fulfill the
	undersigned and its surety agrees to repair or replace
	cent work, which may be displaced in connection with
	ive in workmanship or material within a period of
	of the Notice of Completion of the above-mentioned
excepted.	ordinary wear and tear and unusual abuse or neglect
within a reasonable period of time, as determined being notified in writing by the District or within urgent matter, the undersigned and its surety au repaired and made good at the expense of the ur	fails to comply with the above-mentioned conditions by the District, but not later than ten (10) days after forty eight (48) hours in the case of an emergency or thorizes the District to proceed to have said defects adersigned and its surety, who will pay the costs and ad its surety shall be jointly and severally liable for any a Guarantee.
	Countersigned
(Proper Name)	(Proper Name)
By:	By:
(Signature of Subcontract or Contractor)	(Signature of General Contractor if for Subcontractor)
Representatives to be contacted for service:	
Name:	
Address:	
Phone Number:	
7.000	

ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between the Mt. San Jacinto College
District, 1499 N. State Street San Jacinto, CA 92583, hereinafter called "Owner", and
whose address is, hereinafter called
"Contractor", and whose address is, hereinafter
called "Escrow Agent".
For the consideration hereinafter set forth, the Owner, Contractor and Escrow Agent agree as
follows:
 Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has
the option to deposit securities with Escrow Agent as a substitute for Retention earnings required to be
withheld by Owner pursuant to the Construction Contract entered into between the Owner and
Contractor for in the amount of dated
(hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the
Owner shall make payments of the Retention earnings directly to the escrow agent. When Contractor
deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Owner
within ten (10) days of deposit. The market value of the securities at the time of the substitution shall
be at least equal to the cash amount then required to be withheld as Retention under the terms of the
Contract between the Owner and Contractor. Securities shall be held in the name of the Owner, and
shall designate the Contractor as beneficial owner.

- The Owner shall make progress payments to the Contractor for such funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.
- When the Owner makes payments of Retentions earned directly to the Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until such time as the escrow created under this Contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this Agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Owner pays the Escrow Agent directly.
- Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account and all expenses of the Owner. These expenses and payment terms shall be determined by the Owner, Contractor, and Escrow Agent.
- The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the Owner.
- Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the Owner to the Escrow Agent that Owner consents to the withdrawal of the amount sought to be withdrawn by Contractor.
- The Owner shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven (7) days' written notice to the Escrow Agent from the Owner of the notice of

default under Article 2.2, Article 9.6 or Article 14, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Owner.

- Upon receipt of written notification from the Owner certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payment of fees and charges.
- Escrow Agent shall rely on the written notifications from the Owner and the Contractor pursuant to Sections (5) to (8), inclusive, of this Agreement and the Owner and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.
- The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Owner and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of Owner:		
Title		
Name		
Signature		
Address		
On behalf of Contractor:		
Title		
Name		
Signature		
Address		

On behalf of Ag	gent:		
Title			
Name			
Signature			
Address			

At the time the Escrow Account is opened, the Owner and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date set forth above.

the date set forth doore.			
OWNER	CONTRACTOR		
Title	Title		
Name	Name		
Signature	Signature		

INSURANCE DOCUMENTS & ENDORSEMENTS

The following insurance endorsements and documents must be provided to the Mt. San Jacinto College District within five (5) calendar days after receipt of notification of award. If the apparent low bidder fails to provide the documents required below, the District may award the Contract to the next lowest responsible and responsive bidder or release all bidders, and the bidder's bid security will be forfeited. All insurance provided by the bidder shall fully comply with the requirements set forth in Article 11 of the General Conditions.

• <u>General Liability Insurance</u>: Certificate of Insurance with all specific insurance coverages set forth in Article 11 of the General Conditions, proper Project description, designation of the District as the Certificate Holder, a statement that the insurance provided is primary to any insurance obtained by the District and minimum of 30 days' cancellation notice. Bidder shall also provide required additional insured endorsement(s) designating all parties required in Article 11 of the General Conditions. The additional insured endorsement shall be an ISO CG 20 10 (04/13), or an ISO CG 20 38 (04/13), or their equivalent as determined by the District in its sole discretion.

Incidents and claims are to be reported to the insurer at:

Attn:					
	(Title)		(Department)		
	(Company)				
	(Street Address)				
	(City)	(State)	(Zip Code)		
	(Telephone Number)				

- <u>Workers' Compensation/ Employer's Liability Insurance</u>: Certificate of Workers' Compensation Insurance meeting the coverages and requirements set forth in Article 11 of the General Conditions, minimum of 30 days' cancellation notice, proper Project description, waiver of subrogation and any applicable endorsements.
- <u>Automobile Liability Insurance</u>: Certificate of Automobile Insurance meeting the coverages and requirements set forth in Article 11 of the General Conditions, minimum 30 days' cancellation notice, any applicable endorsements and a statement that the insurance provided is primary to any insurance obtained by the District.

Incidents and claims are to be reported to the insurer at:

Attn:			
	(Title)		(Department)
	(Company)		
	(Street Address)		
	(City)	(State)	(Zip Code)
	(Telephone Number)		
DATE:			
		CONTRACTOR	
		By:	_
		Signature	

$\frac{\textbf{DISABLED VETERAN BUSINESS ENTERPRISE (DVBE) CONTRACTOR CLOSE-}{\textbf{OUT STATEMENT}}$

The Contractor shall complete this form, as a condition to Final Payment, for purposes of reporting participation by Disabled Veteran Business Enterprises (DVBE) in the Contract for the Project/Bid No. specified below.

Project Name:				
Bid No.:				
DSA No.:				
Name	Address/Phone	Categor	y of Work*	\$ Amount of Contract
				nat DVBE will provide); (2) lies and equipment; and (4)
The undersigned, on bel No. eq percent (%) of	ualed do	llars (\$), whi	ntion on the Contract for Bid ch represents approximately the Project.
Company:				
Name:				
Title:				
Signature:				
Date:				

SCOPE OF WORK

CATEGORY #01: General Package

PART 1 – GENERAL

RELATED DOCUMENTS:

1. Relevant Technical Specification Sections

PART 2 – INCLUSIONS:

2.01 General Inclusion:

1. The Contractor shall follow the plans and specifications shown for demo activities and limits of new work that are reflected on the project drawings. During demo work, contractor will protect all existing improvements from damage or interruption of service of all District utilities underground or overhead.

The Work will include but not limited to layout/ survey control staking of proposed new improvements for PCC concrete walks & hardscapes, knee and retaining walls, new landscape/irrigations equipment, decorative features, along with surveying locations of proposed foundations of shade structure columns, poles or supporting features.

The work includes, but is not necessarily limited to furnishing all: labor, materials and the installation of same, appliances, tools, equipment, facilities, transportation, receiving and unloading, hoisting, task lighting, applicable taxes and services necessary for, and incidental to, performing all operations in connection with this scope of work.

- 2. The breakdown of the scope of work summary by specifications, noted, is for organizational purposes only. Unless specifically "excluded", this Contractor has the entire scope of work as noted herein, along with the relevant specification.
- 3. In the event a scope item is duplicated in another Contractor's scope of work this does not relieve this Contractor from the responsibility of the scope. It shall be the Construction Manager's discretion as to which Contractor will perform the scope of work and who shall provide a credit for the value of the scope not provided. Either way, the scope noted herein; regardless if duplicated in another's scope of work, shall be included in this Category Contractor's base bid.
- 4. Any reference in this scope letter to "Contractor", "Category Contractor", "Bid Category Contractor", "Bid Package", "Trade Contractor", "Contractor", "Subcontractor" or any version of these are all synonymous / one-in-the same.
- 5. Contractor shall provide at the job site a Superintendent fluent in written and spoken English at all times during the performance of this Category's scope of work. It is the Contractor's

responsibility to supervise their crew and/or their subcontractor and is required to have a Superintendent on site at all times to manage their crews and their subcontractors at any time either are on site performing work under Contractor's scope of work.

6. Contractor is responsible to know the latest SCAQMD requirements:

A. Includes implementing those means necessary to ensure any and/or all related work materials, fluids, equipment, etc. are covered in a manner acceptable to the requirements.

- B. Contractor shall provide and maintain adequate dust control throughout the duration of their operation, including, but not limited to: washing/sweeping of existing sidewalks, city streets and concrete and asphalt access roads on a daily basis. Mitigation of dust shall be to the satisfaction of the Owner, City/County, and/or SCAQMD.
- C. Any penalties the owner receives due to this Contractor's negligence will be forwarded to this Contractor for reimbursement.
- 7. Contractor shall take reasonable care to maintain Storm Water Pollution (SWPPP) related erosion control facilities and temporary storm water diversion means during all work at his expense.
- A. Inclement weather is foreseeable during operations of this trade; this Contractor shall use its best effort to leave the site in a condition that minimizes the effects of erosion caused by such weather.
- B. Contractor to protect all work from effects of inclement weather at its own cost. Protection of this Contractor's work area is the responsibility of same.
- C. Any corrections and or repairs required due to damage inflicted by the work of this Contractor shall be the responsibility of same.
- D. Any penalties the owner receives due to this Contractor's negligence will be forwarded to this Contractor for reimbursement.
- 8. Contractors requiring wash out shall have their washout container(s) clearly marked. NO direct dumping onsite and/or into sewer and/or draining systems.
- 9. Contractor shall comply with all CAL OSHA requirements.
- 10. Contractor shall completely furnish, properly install and maintain all barricades, traffic control, warning lights, flagmen, for deliveries, hauling and/or disposal, including permits & fees as required by local and/or governing Agencies / municipalities for Contractor's scope of work contained whether expressly mentioned or not.
- 11. Contractor shall provide fencing, barricades, and/or other protection, to protect open excavations or other hazards resulting from this Contractor's work. Contractor shall cover all

open trenches with Cal OSHA compliant covering, or soil each day. Temporary trench covering is to be installed in a manner so as to eliminate tripping hazard.

- 12. Contractor is responsible to turn in Inspection Requests (IRs) and/or / testing requests to TCC Superintendent no less than 48 hours prior to desired IOR inspection. Work must be complete & in compliance with the contract documents prior to IOR inspection. If work is not complete and within conformance to the contract documents at the time of IOR inspection and is rejected, any schedule delays, accelerated activities to make up time and all related cost associated with same will be at this Contractor's expense.
- 13. Any F.O.B. material and/or coordination required for the installation by this Contractor and/or other Contractors, shall be forwarded by the supplying Contractor with a letter of transmittal and detailed shop drawings showing dimensions, locations, and individual piece count to the installing Contractor via the District. ALL F.O.B. deliveries shall be coordinated with the District and the receiving Contractor at least 48 hours in advance. The receiving Contractor shall unload, inventory, and inspect materials. All shortages and damaged material must be noted on said transmittal. Receiving Contractor shall sign and date transmittal. Once the transmittal has been signed, it shall be the receiving Contractor's responsibility to protect and secure said material. Supplying Contractor shall forward a copy of signed transmittal to the Construction Manager's site office for their review and records. Supplying Contractor shall forward all F.O.B. material within the time limits as noted in the construction schedule so as to not delay said Contractor's work. If work is delayed due to the untimely forwarding of said required material and/or information, the applicable Contractor shall be responsible for any and all costs incurred due to delays and/or corrective work.
- 14. A representative from this Contractor is to be on site to receive all material deliveries, whether they are performing work on site at the time or not. The District will not receive or sign for any deliveries of this Contractor's material.
- 15. Contractor understands that housekeeping is critical to both safety and efficiency; therefore, understands that daily cleanup is expected and required per the contract. Contractor is responsible to legally remove, haul, and dispose of offsite on a daily basis or as necessary as not be an impact to safety and dependent trades / progress of the project schedule. At the Districts discretion, the following options will be enforced:
- A. Require a composite cleanup crew, as needed, until standard is restored. Contractor's manpower contribution size will be based on manpower size as follows:
- i. 1 to 5 workers = 1, 6 to 10 workers = 2, 11-15 workers = 3, 16 to 20 workers = 4, 20+ workers = 5.
- B. Hire a separate cleanup crew as needed until standard is restored. Hired crew will be funded via a back-charge to the offending Contractor(s).
- C. Require an "all hands" cleanup session as needed until standard is restored.

- 16. Contractor shall protect all existing on and/or offsite conditions. Any damage sustained by the work of this Contractor, shall be repaired or replaced within 48 hours or as directed by District and shall be at no expense to the District.
- 17. This Contractor has been allotted a number of days for construction activities that relates to this trade. Contractor must manage to complete all work in allotted time frame without excuse. Contractor agrees to assign the appropriate manpower to complete the activities. Therefore, all clarification and approvals must be obtained prior to start of work and in such time as to allow response, procurement, and preparation without compromising the schedule activity time and scheduled start date and finish date. Late coordination and RFI's requested during work progress will not be an excuse for delay.
- 18. Contractor shall provide their own storage and safety measure for the same.
- 19. Includes mobilizations / move-ins as necessary to achieve the progression of the project schedule.
- 20. Contractor is responsible for all layout for their respective work.
- 21. The beginning of installation means the Contractor accepts the condition of the existing substrate. If any repairs and/or replacement is required to the substrate, all costs associated with the removal and replacement of finished product shall be at the expense of this Contractor.
- 22. Scope of work is based on the contract documents for the San Jacinto Shade Structure Project
- 23. The District will supply and arrange for the shade structures to be placed. The District already has a contract with USA Shade to manufacture and install the shade structures. GC will prepare site and install/construct improvements identified on the approved plans and shade structure installation.
- 24. Existing material is assumed to be textured acrylic surfacing. For bidding purposes, provide Plexipave System as manufactured by California Products Corp. or approved equal for patching areas. Color to match existing surfaces.

PART 3 – EXCLUSIONS:

1.01 General Exclusions

1. The Work excludes the auguring of column foundations, rebar cages, PCC concrete foundations, manufacturing of shade structure components, shade sails and placement of columns/ structural supporting features. Although the Contractor will coordinate/ coincide their work and construction activities, with USA Shade Inc installation of shade columns, shade support structures and shade sails.

ARTICLE 1

DEFINITIONS

1.1 BASIC DEFINITIONS

- NOTE: The following shall not be construed as a comprehensive list of all definitions in the Contract Documents and there may be other definitions set forth in the Contract Documents. Additionally, any references to any DSA forms, documents or requirements shall be construed to incorporate any updates, supplements, or additions. The Contractor shall be required to meet the latest DSA requirements applicable to the Project.
 - 1.1.1 Action of the Governing Board is a vote of a majority of the District's Governing Board.
 - 1.1.2 Approval means written authorization through action of the Governing Board. The Governing board has delegated to the Vice President the authority to approve certain modifications. Change Orders or Immediate Change Directives (Subject to the limits of the Delegations of Authority provided by the Board). In no case shall the Vice Chancellor have authority to approve total Change Orders or Modifications to the Project exceeding 10% of the Contract Sum.
 - 1.1.3 Architect means the architect, engineer, or other design professional engaged by the District to design and perform general observation of the work of construction and interpret the Drawings and Specifications for the Project. (Also see Article 4)
 - 1.1.4 As-Builts are a set of Plans and Specifications maintained by the Contractor clearly showing all changes, revisions, substitutions, field changes, final locations, and other significant features of the Project. The As-Builts shall be maintained continuously throughout the Work for the Project and is both a prerequisite to the issuance of Payment Application and a requirement for Contract Close-Out. (See Article 3.17)
 - 1.1.5 Beneficial Occupancy is the point in time when a building or buildings are fit for occupancy is fit for occupancy and its intended use. Basic requirements are the building is safe, at or near Substantial Completion, and all fire/ life safety items are approved and operational. The fact that a building is occupied does not mean that the building is ready for Beneficial Occupancy if there are elements that are unsafe or if fire/ life safety items are not approved and operational. Taking occupancy on a structure that is under a fire watch is not considered beneficial occupancy. Further, taking of Beneficial Occupancy is not a point in time when retention is due unless the entire Project or portion thereof has obtained a Certificate of Substantial Completion that meets the definition of 1.1.46.
 - 1.1.6 Claims. A Claim is a request for payment, supported by back-up documentation which includes, invoices time sheets, or other documents substantiating legitimacy or entitlement that is submitted during the Project or immediately following the Project made prior to the Final Retention Payment Application and prior to Final Completion of the Project. A "Claim" means a separate demand by the Contractor for (1) time extension, (2) payment of money or damages arising from Work done by or on behalf of the Contractor pursuant to the CONTRACT and payment of which is not otherwise

- expressly provided for or the claimant is not otherwise entitled to, or (3) and amount the payment of which is disputed by the District. (See Article 4.6).
- 1.1.7 Change Order (CO). A CO is a written instrument prepared by the Architect and signed by the District (as authorized by the District's Governing Board), the Contractor, and the Architect, stating their agreement upon (1) A description of a change in the Work, (2) The amount of the adjustment in the Contract Sum, if any; and (3) The extent of the adjustment in the Contract Time, if any. (See Article 7.2)
- 1.1.8 Change Order Request (COR). A COR is a written request supported by backup documentation prepared by the Contractor requesting that the District and the Architect issue a CO based upon a proposed change, or a change that results in an adjustment in cost, time or both, or arising from an RFP, CCD or ICD. (See Article 7.6)
- 1.1.9 Close-Out means the process for Final Completion of the Project, but also includes the requirements for the DSA Certification that the Project is Complete (See DSA Certification Guide). (See Article 9.9)
- 1.1.10 Construction Change Document (CCD). A Construction Change Document is a DSA term that is utilized to address changes to the DSA approved Plans and Specifications. There are two types of Construction Change Documents. (1) DSA approved CCD Category A for work affecting structural, access or fire/ life safety of the Project which will require a DSA approval; and, (2) CCD Category B for work NOT affecting structural safety, access compliance or fire/ life safety that will not require a DSA approval (except to confirm that no approval is required). Both CCD Category A and Category B shall be set forth in DSA Form 140 and submitted to DSA as required. (See Article 7.3)
- 1.1.11 Complete/ Completion/ Final Completion means that all Work in the Contract Documents is finished, the requirements of the Contract Documents have been met, the Project has been Closed Out, and all Work has ceased on the Project. This may also be referred to as Final Completion. In most cases, the recording of a Notice of Completion shall represent Completion of the Project. Beneficial Occupancy does not mean the Work is Complete.
- 1.1.12 Completion Date is the date when all Work for the Project shall be Substantially Complete and is the date assigned at the end of the Contract Time for the Project. (See Article 1.1.46)
- 1.1.13 Construction Manager. The Construction Manager is a consultant to the District contracted to assist in Project planning, management and construction of the Project. If there is a Construction Manager, they may assist in various aspects of the Project including, but not limited to Monitoring the progress of the construction, reviewing and monitoring the schedule, progress of work, monitoring pay requests, facilitating communications, advising the District and its Board of Education on various aspects of the construction process, monitoring the RFI, COR, CCD, ICD, RFP, Claims, Disputes and other Project related processes.

- 1.1.14 Contract or Agreement when the terms are used in these General Conditions shall be references to the Contract Documents as defined herein.
- 1.1.15 Contract Documents (sometimes referred to as Construction 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 parties, a Change Order, a Construction Change Document, 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 Subsubcontractor, 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.
- 1.1.16 Contract Time is the time period specified in the Contract Documents in which the Project shall be completed. This is sometimes referred to a Contract Duration, or "time in which the Contractor has to complete the Project" (See Article 8.1.1).
- 1.1.17 Contractor, District, and Architect are those mentioned as such in the Agreement. They are treated throughout the Contract Documents as if they are of singular number and neuter gender. Any reference to "Owner" shall mean "District" or Mt. San Jacinto College District
- 1.1.18 Cure is the act of remedying a material failure to perform under the terms of the Contract Documents during the time provided to correct Contractor's Default. Specific time periods are provided to Cure and Correct a Contractor Default under Article 14 and for a Partial Default under Article 2.2 as well as elsewhere in the Contract Documents.
- 1.1.19 Days mean calendar days unless otherwise specifically stated.
- 1.1.20 Default is a material breach of Contract. A Termination for Cause under Article 14 is a declaration of Default of the Contract and shall act as a demand upon the Surety to perform under the terms of the Performance Bond. Partial Defaults may also be tendered to the Surety at District's discretion (See Article 2.2).
- 1.1.21 Dispute. A dispute is a disagreement on terms or conditions of the Project where the Contractor's opinion of the Project, Payment, Change Order or Request for Proposal differs from that of the District or Architect. A dispute only rises to the level of a claim once the dispute is assembled with back-up documentation and presented for evaluation (See Article 4.6).

- 1.1.22 District Representative is the person designated by the District to represent the District during the Construction for the Project. This District Representative shall have the delegated authority as further defined in Article 1.1.2. This District Representative may be an employee of the District who may have the delegated authority as set forth in Article 1.1.3, and may also include Construction Managers. In some cases, the District and its Board may be assisted by a Construction Manager. When a Construction Manager is assisting the District, the Contractor, Architect, and Inspector shall have a primary contact with the District's Construction Manager who will advise the District.
- 1.1.23 Drawings or Plans are graphic and pictorial portions of the Contract Documents prepared for the Project and approved changes thereto, wherever located and whenever issued, showing the design, location, and scope of the Work, generally including Plans, elevations, sections, details, schedules, and diagrams as drawn or approved by the Architect. Sometimes Drawings will also be included in Addenda, Change Orders, and Specifications.
- 1.1.24 DSA is the Division of State Architect. DSA is the agency that provides design and construction oversight for K-12 Schools, Community Colleges, and State Funded Charter School Projects. DSA is the responsible agency for this Project and Contractor has submitted a bid for the Project since Contractor is familiar with Contractor's responsibilities under the DSA requirements more thoroughly set forth at Title 24 of the California Code of Regulations. Contractor agrees to abide by the jurisdiction of DSA and shall construct the Project to conform with the approved Plans, Specifications, Addenda, and Change Orders (inclusive of approved CCD's and ICD's issued by the District pending CCD approval). See DSA website.
- 1.1.25 Emergency shall be defined as a sudden, unexpected occurrence, involving a clear and imminent threat to the continuation of classes, a critical path delay that will result in not being able to occupy the campus when students arrive to use the facility, danger from the facility or from outside the facility, Act of God, or other action which requires immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services.
- 1.1.26 Float the total number of days an activity may be extended or delayed without delaying the Completion Date shown in the schedule. Float will fall into three categories: (1) Rain Days; (2) Governmental Delays; and, (3) Project Float (See Article 8.1.4).
- 1.1.27 Immediate Change Directive. (ICD) A written order prepared by the Architect and signed by the District and the Architect, directing a change in the Work where the Work must proceed immediately and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both. See Article 7.3.
- 1.1.28 Inspector of Record (IOR)/ Project Inspector (PI) is the individual retained by the District in accordance with Title 24 of the California Code of Regulations and who will be assigned to the Project.
- 1.1.29 Notice of Non-Compliance (DSA Form 154) is a document issued by the Inspector if there is a deviation from the DSA approved Plans, Specifications, and Change Orders. (See Article 7.1.2)

- 1.1.30 Payment Application or Certificate of Payment is the Contractor's certified representation of the actual level of Work performed on the Project. Payment Applications are sometimes also called "Certificate of Payment", "Request for Payment", "Payment Application", or similar terms, and shall follow the Schedule of Values that are approved by the Architect, Inspector and District (See Article 9.3)
- 1.1.31 Project is the complete construction of the Work performed in accordance with the Contract Documents.
- 1.1.32 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.
- 1.1.33 Provide shall include "provide complete in place," that is "furnish and install complete."
- 1.1.34 Punch List/ Punch Item/ Incomplete Punch Item is a list of minor repair items, prepared after the issuance of a Certificate of Substantial Completion, by the Inspector and Architect of Work required in order to complete the Contract Documents and ensure compliance with the DSA Approved Plans so the Project may be Closed Out. Issuance of the Retention Payment is dependent of the proper completion of the Punch List (See Article 9.9)
 - 1.1.34.1 *Contractor's List of Punch Items* is a list of minor repair items the Contractor submits when the Contractor considers the Work Substantially Complete. Submission of this List of Incomplete Punch Items is the Contractor's representation that the Project is Substantially Complete (See Article 9.9.1)
- 1.1.35 Request for Information (RFI) is a written request prepared by the Contractor requesting the Architect to provide additional information necessary to clarify or amplify an item which the Contractor believes is not clearly shown or called for in the Drawings or Specifications, or to address problems which have arisen under field conditions (See Article 7.4)
- 1.1.36 Request for Proposal (RFP) is a written request prepared by the Architect (and/or CM) requesting the Contractor to submit to an estimate of the effect of a proposed change on the Contract Price and (if applicable) the Contract Time (See Article 7.5)
- 1.1.37 Safety Orders are those issued by any city, county, state or federal agency having jurisdiction over the Project.
- 1.1.38 Schedule is the Contractor's view of the practical way in which the Work will be accomplished. In this Agreement there is a requirement for a Baseline Schedule and regular Schedule Updates that show all Work to be completed during the Contract Time and shall include all items listed under Article 8.3.2.9. See Article 8 of the General Conditions.
- 1.1.39 Schedule of Values is a detailed breakdown of the Contract Price for each Project, building, Phase of Work or Site as determined by the District. This Schedule of Values shall adequately detail the price for the Work so Progress Payments Applications can be

- meaningfully reviewed by the Inspector, Architect of Record, Engineer of Record, and District (See Article 9.2).
- 1.1.40 Separate Contracts are Contracts that the District may have with other Contractors, vendors, suppliers, or entities to perform Work on the Project. This may include, but is not limited to Multi-Prime Trade Contractors, furniture installers, testing agencies, clean-up contractors, or network or low voltage contractors. Contractor shall plan for certain other contractors that may also be working on the Project site and address these other contractors in Contractor's Schedule (See Article 6).
- 1.1.41 Site refers to the grounds of the Project as defined in the Contract Documents and such adjacent lands as may be directly affected by the performance of the Work.
- 1.1.42 Specifications are that portion of the Contract Documents consisting of the written requirements for material, equipment, construction systems, instructions, quality assurance standards, workmanship, and performance of related services.
- 1.1.43 Standards, Rules, and Regulations referred to are recognized printed standards and shall be considered as one and a part of these Specifications within limits specified. Federal, state and local regulations are incorporated into the Contract Documents by reference.
- 1.1.44 Stop Work Order, or an Order to Comply, is issued when either (1) the Work proceeds without DSA approval; (2) the Work proceeds without a DSA Inspector of Record, or (3) where DSA determines that the Work is not being performed in accordance with applicable rules and regulations, and would compromise the structural integrity of the Project or would endanger lives. If a Stop Work Order is issued, the Work in the affected area shall cease until DSA withdraws the Stop Work Order. Pursuant to Education Code section 8133.5, the District shall not be held liable in any action filed against the District for any delays caused by compliance with the Stop Work Order.
- 1.1.45 Subcontractor, as used herein, includes those having direct or indirect contracts with Contractor and ones who furnished labor, material or services for a special design according to Plans, Drawings, and Specifications of this Work. (See Article 5)
- 1.1.46 Substantial Completion/ Substantially Complete(d) is not reached unless and until each of the following four (4) conditions have been met: (1) all contractually required items have been installed with the exception of only minor and Incomplete Punch List Items (See Article 9.9.1.1); (2) All Fire/Life Safety Systems have been installed, and are working and signed off on the DSA Form 152 Inspection Card, and all building systems including mechanical, electrical and plumbing are all functioning; (3) all other items DSA Form 152 Inspection Card for the Project have been approved and signed off; and (4) the Project is fit for occupancy and its intended use. For the purposes of this Contract, any references to Completion Date mean Substantial Completion Date.
- 1.1.47 Substitution is a change in product, material, equipment, or method of construction from those required by the Construction Documents proposed by the Contractor. For this Project, a Substitution is subject to the filing of a Construction Substitution Request Form at the time of bid and meeting the requirements of Article 3.10.

- 1.1.48 Supplementary Conditions/ Supplementary General Conditions/ Special Conditions are terms that are sometimes used interchangeably and refer to any additional requirements or changes to the General Conditions as noted.
- 1.1.49 Surety is the person, firm, or corporation that executes as a bid bond, Payment Bond or Performance Bond guarantor on the Contractor's Bid, Contractor's Performance on the Contract and Payment of the Contractor's Subcontractors, material suppliers, vendors and labor on the Project. The Surety is bound to the same extent as the Contractor is bound once a Default occurs. A default includes a Termination for Substantial Failure to Perform under Article 14, but also includes any breach of Contract and is subject to the requirements and responsibilities as set forth in the Performance Bond.
- 1.1.50 Work shall include all labor, materials, services and equipment necessary for the Contractor to fulfill all of its obligations pursuant to the Contract Documents. It shall include the initial obligation of any Contractor or Subcontractor who performs any portion of the Work, to visit the Site of the proposed Work (a continuing obligation after the commencement of the Work), to fully acquaint and familiarize itself with the conditions as they exist and the character of the operations to be carried out under the Contract Documents, and make such investigation as it may see fit so that it shall fully understand the facilities, physical conditions, and restrictions attending the Work under the Contract Documents. Each such Contractor and its Subcontractors shall also thoroughly examine and become familiar with the Drawings, Specifications, and associated Contract Documents and bid documents before preparing and submitting any bid
- 1.1.51 Workers include laborers, workers, and mechanics.

1.2 EXECUTION, CORRELATION AND INTENT

1.21Correlation and Intent

- 1.2.1.1 Documents Complementary and Inclusive. The Contract Documents are complementary and are intended to include all items required for the proper execution and completion of the Work. All Contract Documents form the Contractor's Contract with the District. Any item of Work mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be provided by Contractor as if shown or mentioned in both. The Contractor is bound to provide the Work complete and is under a legal duty to carefully study Plans and schedule operations well ahead of time and identify inconsistencies with the Plans and Specifications and call such inconsistencies to the attention of the Architect or Registered Engineer through the Inspector under Section 4-343(b) of Title 24.
- 1.2.1.2 Work to be Complete. Contractor has thoroughly studied the Contract Documents and understands that the District contracted with Contractor to provide a complete Project which means complete systems and buildings. The entire set of Contract Documents shows a complete Project and Contractor agrees that there are multiple disciplines putting together a set of Contract Documents. Thus, if portions of a system are shown on some Drawings and not others, this does

not mean the Contractor is to only provide part of a system. For example, if an air conditioning unit is shown on the mechanical Drawings, the plumbing for the air conditioning is shown on another Drawing, and the electrical shown on the electrical Drawings, the Contractor is to provide a complete and working air conditioning system. The only time when an item is supplied incomplete is if the system is shown specifically as incomplete since others will be completing the system. Work includes, but is not limited to materials, workmanship, and manufacture of fabrication of components for the Project.

- 1.2.1.3 Coverage of the Drawings and Specifications. The Drawings and Specifications generally describe the Work to be performed by Contractor. Generally, the Specifications describe Work which cannot be readily indicated on the Drawings and indicate types, qualities, and methods of installation of the various materials and equipment required for the Work. It is not intended to mention every item of Work in the Specifications, which can be adequately shown on the Drawings, or to show on the Drawings all items of Work described or required by the Specifications even if they are of such nature that they could have been shown. All materials or labor for Work, which is shown on either the Drawings or the Specifications (or is reasonably inferable therefrom as being necessary to complete the Work), shall be provided by the Contractor. The Contractor is responsible for the whole Project as contractually set forth as the Contract Documents. It is intended that the Work be of sound, quality construction, and the Contractor shall be responsible for the inclusion of adequate amounts to cover installation of all items indicated, described, or implied in the portion of the Work to be performed by them.
- 1.2.1.4 *Conflicts*. In the event there is a discrepancy between the various Contract Documents, it is intended that the more stringent, higher quality, and greater quantity of Work shall apply.
- 1.2.1.5 *Conformance with Laws*. Each and every provision of law required by law to be inserted in this Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein, even if through mistake or otherwise any such provision is not inserted, or is not correctly inserted.

Before commencing any portion of the Work, Contractor shall check and review the Drawings and Specifications for such portion for conformance and compliance with all laws, ordinances, codes, rules and regulations of all governmental authorities and public and municipal utilities affecting the construction and operation of the physical plant of the Project, all quasi-governmental and other regulations affecting the construction and operation of the physical plant of the Project, and other special requirements, if any, designated in the Contract Documents. Such checking shall include review of Title 24 of the California Code of Regulations, California Building Code, local utility, local water connection, local grading and all other applicable agencies. In the event Contractor observes any violation of any law, ordinance, code, rule or regulation, or inconsistency with the Contract Documents, Contractor shall, within five (5) days, notify the Inspector, Architect and District in writing of same and shall ensure that any such violation or inconsistency shall be corrected in the manner provided hereunder prior to the construction of that portion of the Project. (See Title 24 Section 4-343)

The Contractor shall bear all expenses of correcting Work done contrary to said laws, ordinances, rules, and regulations if the Contractor performed same (1) without first consulting the Architect for further instructions regarding said Work or (2) disregarded the Architect's instructions regarding said Work.

- 1.2.1.6 Ambiguity and Inconsistency. Before commencing any portion of the Work, Contractor shall carefully examine all Drawings and Specifications and other information given to Contractor as to materials and methods of construction and other Project requirements. Prior to commencing any portion of the Work, Contractor shall notify Architect and District in writing of any perceived or alleged error, inconsistency, conflict, ambiguity, or lack of detail or explanation in the Drawings and Specifications in the manner provided herein. If the Contractor or its Subcontractors, material or equipment suppliers, or any of their officers, agents, and employees performs, permits, or causes the performance of any Work under the Contract Documents, which it knows or should have known to be in error, inconsistent, or ambiguous, or not sufficiently detailed or explained, Contractor shall bear any and all costs arising therefrom including, without limitation, the cost of correction thereof without increase or adjustment to the Contract Price or the time for performance. Contractor shall maintain an adequate inspection system and perform personal observations and review work and pre-plan the project to ensure the Work performed under the Contract conforms to Contract requirements. Contractor shall maintain records of such review and observation to ensure strict compliance with the terms of the Contract.
- 1.2.1.7 *Typical Parts and Sections*. Whenever typical parts or sections of the Work are completely detailed on the Drawings, and other parts or sections which are of the same construction are shown in outline only, the complete or more detailed shall apply to the Work which is shown in outline.
- 1.2.1.8 *Dimensions*. Dimensions of Work shall not be determined by scale or rule. Figured dimensions shall be followed at all times. If figured dimensions are lacking on Drawings, Architect shall supply them on request. The Architect's decisions on matters relating to aesthetic effect will be final.
- 1.2.2 Addenda and Deferred Approvals
- 1.2.2.1 *Addenda* are the changes in Specifications, Drawings, Contract Documents, and Plans which have been authorized in writing by the 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.
- 1.2.2.2 Deferred Approvals. Deferred Approvals are Submittals that are reviewed by the Architect (or Engineer of Record) and submitted to DSA for approval based on thorough detailing of manufacturer and Project specific design. See Article 3.9.1 and 3.9.3. The Deferred Approval item cannot be fully detailed on the originally approved Drawings or Specifications because of variations in product design and manufacture. Contract Documents which require Deferred Approval items are meant to be for illustration purposes only. Approval of Plans for such a portion of the Work may be deferred until the material suppliers and Subcontractors are selected. All Deferred Approvals are noted in the Plans and Specifications. Contractor is responsible for all Deferred Approval requirements set forth in the Contract Documents. Contractor is responsible to comply with all laws, building codes, Title 24 and regulations necessary to obtain all necessary approvals, including those required from the Division of the State Architect ("DSA") and the State Fire Marshall. Contractor shall not be granted an extension of time for failure to plan, schedule for and obtain necessary approvals. Contractor shall Schedule all Deferred Approval items in the Baseline Schedule and Schedule Updates under Article 3.9.6

1.2.3 <u>Specification Interpretation</u>

- 1.2.3.1 *Titles*. The Specifications are separated into titled sections for convenience only and not to dictate or determine the trade or craft involved.
- 1.2.3.2 As Shown, Etc. Where "as shown," "as indicated," "as detailed," or words of similar import are used, reference is made to the Drawings accompanying the Specifications unless otherwise stated. Where "as directed," "as required," "as permitted," "as authorized," "as accepted," "as selected," or words of similar import are used, the direction, requirement, permission, authorization, approval, acceptance, or selection by Architect is intended unless otherwise stated.
- 1.2.3.3 *General Conditions*. The General Conditions and Supplementary General Conditions are a part of the Contract Documents which further defines and refines the Contract entered between the Contractor and District.
- 1.2.3.4 Abbreviations. In the interest of brevity, the Specifications are written in an abbreviated form and may not include complete sentences. Omission of words or phrases such as "Contractor shall," "shall be," etc., are intentional. Nevertheless, the requirements of the Specifications are mandatory. Omitted words or phrases shall be supplied by inference in the same manner as they are when a "note" occurs on the Drawings. In the interest of brevity, the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.
- 1.2.3.5 *Plural*. Words in the singular shall include the plural whenever applicable or the context so indicates.
- 1.2.3.6 *Metric*. The Specifications may indicate metric units of measurement as a supplement to U.S. customary units. When indicated thus: 1" (25 mm), the U. S. customary unit is specific, and the metric unit is nonspecific. When not shown with parentheses, the unit is specific. The metric units correspond to the "International System of Units" (SI) and generally follow ASTM E 380, "Standard for Metric Practice."
- 1.2.3.7 Standard Specifications. Any reference to standard specifications of any society, institute, association, or governmental authority is a reference to the organization's standard specifications, which are in effect at the date of the Contractor's proposal unless directed otherwise. If applicable specifications are revised prior to completion of any part of the Work, the Contractor may, if acceptable to Architect, perform such Work in accordance with the revised specifications. The standard specifications, except as modified in the Specifications for the Project, shall have full force and effect as though printed in the Specifications. Architect will furnish, upon request, information as to how copies of the standard specifications referred to may be obtained.

1.2.4 Rules of Document Interpretation

- 1.2.4.1 In the event of conflict within the Drawings, the following rules shall apply:
 - a. General Notes, when identified as such, shall be incorporated into other portions of Drawings.

- b. Schedules, when identified as such, are complementary with other notes and other portions of Drawings including those identified as General Notes.
- c. Larger scale Drawings shall take precedence over smaller scale Drawings.
- d. At no time shall the Contractor base construction on scaled Drawings.
- 1.2.4.2 Specifications shall govern as to materials, workmanship, and installation procedures.
- 1.2.4.3 If Contractor observes that Drawings and Specifications are in conflict, Contractor shall, prior to commencing work, notify the Architect in writing for the purposes of obtaining an interpretation of the Contact Documents.
- 1.2.4.4 In the case of conflict or inconsistencies, the order of precedence shall be as follows:
 - a. General Conditions take precedence over Drawings and Specifications.
 - b. Supplemental Conditions take precedence over General Conditions.
 - c. The Agreement Form shall take precedence over the Supplemental Conditions.
 - d. In the case of disagreement or conflict between or within Specifications, and Drawings, the more stringent, higher quality, and greater quantity of Work shall apply.
 - e. Addenda shall take precedence over Drawings and Specifications.
 - f. General Conditions shall take precedence over Addenda.
 - g. Drawings and Specifications take precedence over the Soils Report.

1.3 OWNERSHIP AND USE OF ARCHITECT'S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

The Drawings, Specifications, and other Contract Documents for the Project are the property of the District and/or Architect pursuant Contract requirements between the District and Architect. The Contractor may retain one Contract record set. Neither the Contractor nor any Subcontractor, or material or equipment supplier shall own or claim a Copyright in the Drawings, Specifications, and other documents prepared by the Architect. All copies except the Contractor's record set, shall be returned or properly accounted for upon completion of the Work. The Drawings, Specifications, and other documents prepared by the Architect, and copies thereof furnished to the Contractor are not to be used by the Contractor or any Subcontractor, Sub-subcontractor, or material or equipment supplier on other projects or for additions to this Project outside the scope of the Work. The District and/or Architect hereby grants the Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers a limited license to use applicable portions of the Drawings, Specifications, and other documents prepared for the Project in the execution of their Work under the Contract Documents. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the District's property interest or other reserved right.

ARTICLE 2

THE DISTRICT

2.1 INFORMATION AND SERVICES REQUIRED OF THE DISTRICT

2.1.1 <u>Site Survey</u>

The District will furnish, at its expense, a legal description of the Site and a land survey showing the boundaries of the Site. Contractor shall be responsible for all surveys regarding location of construction, grading and site work.

2.1.2 Soils

When required by the scope of the Project, the District will furnish, at its expense, the services of geotechnical engineers or consultants when reasonably required and deemed necessary by the Architect or as required by local or state codes. Such services, with written reports and appropriate written professional recommendations, may include test boring, test pits, soil bearing values, percolation tests, air and water pollution tests, and ground corrosion and resistivity tests, including necessary operations for determining subsoil, air, and water conditions.

2.1.3 Soils Report Part of the Contract Documents: Contractor Reliance

A soils investigation report has been obtained from test holes at the Site, and such report is incorporated into this Contract and made available for the Contractor's use in preparing its bid and Work under this Contract. Where the Plans and Specifications are more specific and provide more significant structure, systems, reinforcing, thicknesses, or construction methods, the Drawings shall control over the soils report. The soils report is available at the Architect's office for review and it is Contractor's responsibility to ensure that Contractor has reviewed the soils investigation report. Any information obtained from such report or any other information given on Drawings as to subsurface soil condition or to elevations of existing grades or elevations of underlying rock is approximate only. If, during the course of Work under this Contract, Contractor encounters subsurface conditions which differ materially from those indicated in the soils report, then Contractor shall notify the District within five (5) calendar days of discovery of the condition, and changes to the Contract Price may be made in accordance with Article 7 entitled "Changes in the Work." Contractor agrees that no claim against District will be made by Contractor for damages and hereby waives any rights to damages in the event the Contractor fails to notify District within the five-day period mentioned above.

WARNING: DISTRICT DOES NOT WARRANT THE SOILS AT THE PROJECT SITE. CONTRACTOR HAS REVIEWED AND IS FAMILIAR WITH THE REQUIREMENTS OF THE SOILS INVESTIGATION REPORT. CONTRACTOR UNDERSTANDS THAT PLANS, DRAWINGS AND SPECIFICATIONS SUPERSEDE THE SOILS REPORT IF THERE ARE CONFLICTS. FURTHER, IN ADDITION TO THE INFORMATION IN THE SOILS REPORT, CONTRACTOR HAS CONDUCTED AN INDEPENDENT INVESTIGATION OF THE PROJECT SITE AND THE SOILS CONDITIONS OF THE SITE. DISTRICT DOES NOT WARRANT THE SOILS CONDITIONS OF THE SITE AND CONTRACTOR IS FULLY RESPONSIBLE TO ASCERTAIN

SITE CONDITIONS FOR THE PURPOSES OF DETERMINING CONSTRUCTION MEANS AND METHODS PRIOR TO COMMENCING CONSTRUCTION.

2.1.4 <u>Utilities</u>

- 2.1.4.1 *Location of Point of Connection*. The locations shown for the point of connection are approximate. It shall be the responsibility of the Contractor to determine the exact location of all service connections.
- 2.1.4.2 Regional Notification Center. Contractor, except in an emergency, shall contact the appropriate regional notification center at least two (2) business days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the District, and obtain an inquiry identification number from that notification center. See Government Code section 4216.3. No excavation shall be commenced and carried out by the Contractor unless such an inquiry identification number has been assigned to the Contractor or any Subcontractor of the Contractor and the District has been given the identification number by the Contractor. Any damages arising from failure to make appropriate regional notification shall be at the sole risk of Contractor. Contractor shall solely be responsible for any fines, penalties or damages for violation of this Article and Government Code section 4216.6 or 4216.7. Any delays caused by failure to make appropriate regional notification shall be at the sole risk of Contractor and shall not be considered for extension of time pursuant to Article 8.4.
- 2.1.4.3 *Utilities Removal and Restoration*. The District has endeavored to determine the existence of utilities at the Site of the Work from the records of the District of known utilities in the vicinity of the Work. The positions of these utilities as derived from such records are shown in the Contract Documents. Thus, the locations of the main or trunklines located on the Drawings are approximate locations and not exact.

No excavations were made to verify the locations shown for underground utilities. Other than the main or trunkline, which the District has endeavored to locate on the Plans, service connections or laterals to these utilities may not be shown on the Plans. It shall be the responsibility of the Contractor to determine the exact location of all service connections. The Contractor shall make its own investigations, including exploratory excavations, to determine the locations and type of service connections, prior to commencing work which could result in damage to such utilities. The Contractor shall immediately notify the District's representative as to any utility main or trunkline discovered by Contractor in a different position than provided by the Regional Notification Center. With respect to main or trunklines, Contractor is to immediately notify District if the location is substantially different than as shown in the Contract Documents.

Contractor shall coordinate its Work with all utilities, including, but not limited to electricity, water, gas and telephone and meet with said utilities prior to the start of

any work. Contractor shall show timing of all utility coordination activities under the Scheduling requirements of Article 8.

2.1.4.4 *Other Utilities*. In case it should be necessary to remove, relocate, or temporarily maintain a utility because of interference with the Work, the work on the utility shall be performed and paid for as follows:

When it is necessary to remove, relocate or temporarily maintain a service connection, the cost of which is not required to be borne by the owner of the service connection, the Contractor shall bear all expenses incidental to the work on the service connection. The work on the service connection shall be done in a manner satisfactory to the owner thereof; it being understood that the owner of the service connection has the option of doing such work with his own forces or permitting the work to be done by the Contractor.

When it is necessary to remove, relocate, or temporarily maintain a utility which is in the position shown on the Plans, the cost of which is not required to be borne by the owner thereof, the Contractor shall bear all expenses incidental to the work on the utility. The work on the utility shall be done in a manner satisfactory to the owner thereof; it being understood that the owner of the utility has the option of doing such work with his own forces or permitting the work to be done by the Contractor.

When it is necessary to remove, relocate, or temporarily maintain a utility which is not shown on the Plans or is in a position different from that shown on the Plans and were it in the position shown on the Plans would not need to be removed, relocated, or temporarily maintained, and the cost of which is not required to be borne by the owner thereof, the District will make arrangements with the owner of the utility for such work to be done at no cost to the Contractor, or will require the Contractor to do such work in accordance with Article 7 or will make changes in the alignment and grade of the Work to obviate the necessity to remove, relocate, or temporarily maintain the utility. Changes in alignment and grade will be ordered in accordance with Article 7 herein.

No representations are made that the obligations to move or temporarily maintain any utility and to pay the cost thereof is or is not required to be borne by the owner of such utility, and it shall be the responsibility of the Contractor to investigate to find out whether said cost is required to be borne by the owner of the utility.

The right is reserved to governmental agencies and to owners of utilities to enter at any time upon any street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the Work and for the purpose of maintaining and making repairs to their property.

2.1.5 Existing Utility Lines; Removal, Relocation

2.1.5.1 *Main or Trunkline Facilities*. If the Contractor while performing the Contract discovers utility facilities not identified in the Contract Documents, Contractor shall notify the District and utility in writing prior to commencing work.

The owner of the public utility shall have the sole discretion to perform repairs or relocation work or permit the Contractor to do such repairs or relocation work at a reasonable price.

The Contractor shall exercise reasonable care and shall be compensated by the District for the actual verified field costs of locating, and removing, relocating, protecting or temporarily maintaining such main or trunkline utility facilities located in a substantially different location than in the Plans and Specifications, and for equipment in use on the project necessarily idled during such work. This Work shall be performed in accordance with Article 7 of these General Conditions.

- 2.1.5.2 Assessment. Nothing in these subparagraphs shall be deemed to require the District to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the Site can be inferred from the presence of other visible facilities, such as buildings, or meter junction boxes on or adjacent to the Site and could be inferred from the Main or Trunkline shown on the Drawings.
- 2.1.5.3 *Notification*. If the Contractor, while performing Work under this Contract, discovers utility facilities not identified by the District in the Contract Documents. Contractor shall, within five (5) days, notify the District and the utility in writing. If Contractor fails to notify the District within forty-eight (48) hours after discovery of any utility facilities not identified by District in the Contract Documents, Contractor waives all rights to be compensated for any extra Work or damages resulting from such discovered utilities.

2.1.5.4 Easements

District shall secure and pay for easements for permanent structures or permanent changes in existing facilities, if any, unless otherwise specified in the Contract Documents.

2.2 <u>DISTRICT'S RIGHT TO CARRY OUT THE WORK DUE TO PARTIAL DEFAULT IN A SPECIFIC SEGREGATED AREA OF WORK (48 HOUR NOTICE TO CURE AND CORRECT)</u>

If the Contractor Defaults or neglects to carry out the Work in accordance with the Contract Documents, the District may provide forty-eight (48) hour written notice to cure (a shorter period of time in the case of Emergency or a critical path delay as defined in Article 2.2.1) Contractor's Partial Default in a specific segregated area of work. The District's right to issue a Partial Default of the Contractor's Work and take over that segregated area of Work includes, but is not limited to:

- 1. Failure to supply adequate workers on the entire Project or any part thereof;
- 2. Failure to supply a sufficient quantity of materials;
- 3. Failure to perform any provision of this Contract;
- 4. Failure to comply with safety requirements, or due to Contractor is creation of an unsafe condition;
- 5. Cases of bona fide emergency;
- 6. Failure to order materials in a timely manner;
- 7. Failure to prepare Deferred Approval items or Shop Drawings in a timely manner;

- 8. Failure to comply with Contractor's Baseline or Update Schedule, meet critical Milestones which would result in a delay to the critical path, or delay the Contract Time;
- 9. Failure to comply with the Subletting and Subcontracting Fair Practices, Public Contract Code section 4100, et seq.
- 10. Failure to meet the requirements of the Americans with Disabilities Act;
- 11. Failure to complete Punch List work;
- 12. Failure to proceed on an Immediate Change Directive
- 13. Failure to correct a Notice of Deviation

If during the forty eight (48) hour period, the Contractor fails to Cure and correct the deficiency noted in the 48 hour notice of Partial Default with diligence and promptness, the District may correct such deficiencies without prejudice to other remedies the District may have, including a Termination for Cause as set forth in Article 14. If there are inadequate funds remaining the Project balance or in the Retention Escrow to address at least 150% of the costs set forth in the Article 2.2 notice, the District may copy the Surety on the written notice of Partial Default. If a notice to the Surety is provided, except in the cases of emergency or critical path delay, the Surety has the option to take over and complete the Work described in the written notice if Surety personally delivers notice to District that it intends to perform such work. In the case where written notice has been provided, the District shall allow Surety seven (7) days to perform the Work.

2.2.1 Service of Notice of Partial Default with Right to Cure

A written notice of Partial Default and right to cure under Article 2.2 ("Article 2.2 Notice" or "Notice of Partial Default") shall be served by e-mail (with a copy provided by regular mail) to the e-mail address provided on the Bid submitted and copied to the Project Superintendent.

2.2.2 Shortened Time for Partial Default in the Case of Emergencies

In an Emergency situation, the District may correct any of the deficiencies described in Article 2.2 without prejudice to other remedies by providing service of written notice of Emergency requiring a shortened time for Partial Default specifying the time given to cure, if any.

2.2.3 Shortened Time for Partial Default in the Case of Critical Path Delay

In the case of critical path delay, the District may correct any of the deficiencies described in Article 2.2 without prejudice to other remedies providing service of written notice of critical path delay to the Contractor with a specific description of the critical path delay items noting the line item or area of Work that is on the critical path and prescribe the length of shortened time to cure, if any.

2.2.4 Written Notice of Partial Default to be Deducted by Deductive Change Order

The District shall have the right to determine the reasonable value of the Article 2.2 Partial Default Work, or if there is an actual value for the Work, shall use that value and issue a Deductive Change Orders under Article 7.7.4.

ARTICLE 3

THE CONTRACTOR

3.1 SUPERVISION AND CONSTRUCTION PROCEDURES

3.1.1 Contractor

The Contractor shall continually supervise and direct the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, procedures; and shall coordinate all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. The Contractor shall not perform the Work without utilizing the Contract Documents or, where required, approved Submittals, Shop Drawings, or samples for any such portion of the Work. If any of the Work is performed by contractors retained directly by the District, Contractor shall be responsible for the coordination and sequencing of the work of those other contractors so as to avoid any impact on the Project Schedule pursuant to the requirements of Article 6 and Article 8. Specific duties of the Contractor shall include those set out in Section 43 of Title 21 of the California Code of Regulations and Section 4-343 of Title 24 of the California Code of Regulations. These duties include, but are not limited to the following:

- 3.1.1.1 Responsibilities. It is the duty of the Contractor to complete the Work covered by his or her Contract in accordance with the approved Plans and Specifications. The Contractor in no way is relieved of any responsibility by the activities of the Architect, Engineer, Inspector or DSA in the performance of their duties.
 - 3.1.1.2 Performance of the Work. The Contractor shall carefully study the approved Plans and Specifications and shall plan its schedule of operations well ahead of time. If at any time it is discovered that work is being done which is not in accordance with the approved Plans and Specifications, the Contractor shall correct the Work immediately.

3.1.2 Contractor Responsibility to Study the Plans and Specifications

All inconsistencies or timing or sequences which appear to be in error in the Plans and Specifications shall promptly be called to the attention of the Architect or, Engineer, for interpretation or correction. Local conditions which may affect the structure shall be brought to the Architect's attention at once. In no case, shall the instruction of the Architect be construed to cause work to be done which is not in conformity with the approved Plans, Specifications, change orders, construction change documents, and as required by law. (See Title 24, Section 4-343)

3.1.3 All Work Under the Direction of Inspector

Pursuant to Title 24 requirements, the Contractor shall not carry on Work except with the knowledge of the Inspector (See Title 24 generally).

3.1.4 Contractor to Establish Timing and Protocol with Inspector

Contractor shall establish a protocol for requesting inspection with Inspector so as to not delay the Work and provide adequate time for the Inspector to perform inspection. If such a protocol is not established ahead of time, Inspector may utilize the time criteria set by Title 24 of 48 hours in advance

of submitting form DSA 156 for each new area. DSA requirements under PR 13-01 specifically gives the Special Inspector fourteen (14) days to post to the DSA website. Contractor is responsible for delays and for failure to plan.

For some Projects, there may be a need to incrementally install certain assemblies. It is up to Contractor to identify areas and assemblies that may be constructed incrementally. Contractor must identify and establish incremental areas of construction and establish protocols with Inspector for DSA 152 approvals so they may be presented to DSA. See PR-13 item 1.17 for further discussion.

3.1.5 <u>Verified Reports</u>

The Contractor shall make and submit to the office from time to time, verified reports as required in Title 24 Section 4-366. As part of the Close-Out of the Project (see Article 9.9), Contractor shall be required to execute a Form 6-C as required under Title 24 Sections 4-343.

Contractor shall fully comply with any and all reporting requirements of Education Code sections 81147 et seq., in the manner prescribed by Title 24, as applicable.

3.1.6 Contractor Responsibility

The Contractor shall be responsible to the District for acts and omissions of the Contractor's employees, Subcontractors, material and equipment suppliers, and their agents, employees, invitees, and other persons performing portions of the Work under direct or indirect contract with the Contractor or any of its Subcontractors.

3.1.7 Obligations not Changed by Architect's Actions

The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract or by tests, inspections, or approvals required or performed by persons other than the Contractor.

3.1.8 Acceptance/Approval of Work

The Contractor shall be responsible to determine when any completed portions of the Work already performed under this Contract or provided pursuant to Article 6 are suitable to receive subsequent Work thereon.

3.2 SUPERVISION

3.2.1 <u>Full Time Supervision</u>

Unless personally present on the Project site where the Work is being performed, the Contractor shall keep on the Work at all times during its progress a competent, English speaking construction Superintendent satisfactory to the District. The Superintendent shall be present on a full-time basis, shall be dedicated exclusively to the Project and shall not share superintendency duties with another project or job. The Superintendent shall not be replaced except with written consent of the District. The Superintendent shall represent the Contractor in its absence and shall be fully authorized to receive and fulfill any instruction from the Architect, the Inspector, the District or any other District Representative (including CM in the cases where the District has a CM representative). All Requests for Information shall be originated by the Superintendent and responses thereto shall be given to the

Superintendent. No Work shall begin on any day by any Subcontractor or other person on the Project site until the Superintendent has arrived, or shall any Work continue during the day after the Superintendent has departed from the Project site. The Superintendent shall have authority to bind Contractor through the Superintendent's acts. The Superintendent shall represent the Contractor, and communications given to the Superintendent shall be binding on the Contractor. Before commencing the Work, Contractor shall give written notice to District (and CM representative) and Architect of the name and a Statement of Qualifications of such superintendent. Superintendent shall not be changed except with written consent of District, unless a superintendent proves to be unsatisfactory to Contractor and ceases to be in its employ, in which case, Contractor shall notify District and Architect in writing. Contractor shall provide a replacement superintendent approved by the District prior to performing additional work.

3.2.2 Staff

Notwithstanding other requirements of the Contract Documents, the Contractor and each Subcontractor shall: (1) furnish a competent and adequate staff as necessary for the proper administration, coordination, supervision, and superintendence of its portion of the Work; (2) organize the procurement of all materials and equipment so that the materials and equipment will be available at the time they are needed for the Work; and (3) keep an adequate force of skilled and fit workers on the job to complete the Work in accordance with all requirements of the Contract Documents.

3.2.3 Right to Remove

District shall have the right, but not the obligation, to require the removal from the Project of any superintendent, staff member, agent, or employee of any Contractor, Subcontractor, material or equipment supplier.

3.3 <u>LABOR AND MATERIALS</u>

3.3.1 <u>Contractor to Provide</u>

Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, material, equipment, tools, construction equipment and machinery, water, heat, air conditioning, utilities, transportation, and other facilities, services and permits necessary for proper execution and completion of the Work whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

3.3.2 Quality

Unless otherwise specified, all materials and equipment to be permanently installed in the Project shall be new and shall be of the highest quality or as specifically stated in the Contract Documents. The Contractor shall, if requested, furnish satisfactory evidence as to kind and quality of all materials and equipment within ten (10) days of a written request by the District, including furnishing the District with bona fide copies of invoices for materials or services provided on the Project. All labor shall be performed by workers skilled in their respective trades, and shall be of the same or higher quality as with the standards of other school construction.

3.3.3 Replacement

Any work, materials, or equipment, which do not conform to these requirements or the standards set forth in the Contract Documents, may be disapproved by the District, in which case, they shall be removed and replaced by the Contractor at no additional cost or extension of time to the District.

3.3.4 <u>Discipline</u>

The Contractor shall enforce strict discipline and good order among the Contractor's and Subcontractor's employees, and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them. As used in this subsection, "unfit" includes any person who the District concludes is improperly skilled for the task assigned to that person, who fails to comply with the requirements of this article, or who creates safety hazards which jeopardize other persons and/or property.

3.3.5 Noise, Drugs, Tobacco, and Alcohol

Contractor shall take all steps necessary to insure that employees of Contractor or any of its Subcontractors' employees do not use, consume, or work under the influence of any alcohol, tobacco or illegal drugs while on the Project. Contractor shall further prevent any of its employees or its Subcontractor employees from playing any recorded music devices or radios or wearing any radio headphone devices for entertainment while working on the Project. Likewise, Contractor shall prevent its employees or Subcontractor's employees from bringing any animal onto the Project. Contractors shall not violate any written school policies.

3.3.6 Delivery of Material

Contractor shall place orders for materials or equipment so that the Work may be completed in accordance with the Construction schedule for the Work as set forth in Article 8 of this Agreement. Contractor shall, upon demand from the Architect, furnish to the Architect documentary evidence including, but not limited to purchase orders, invoices, bills of materials, work orders and bills of lading, showing that orders have been placed. Contractor shall have a system to receive materials and to ensure that the proper materials are being delivered, including in the case of critical materials to the Project, checking the delivery against Shop Drawings and ensuring that the materials meet the requirements of not only the Plans and Specifications, but also the approved Shop Drawings and Submittals and in conformance with Contractor's plan for delivery of materials (including but not limited to Contractor's representations in the Schedules for the Project and Contractor's equipment and materials schedule under Article 3.7.2.2). Contractor shall be responsible for all costs of accepting non-conforming materials delivered to the Project given Contractor's responsibilities and system for acceptance of deliveries. Contractor shall notify Inspector and District Representative (including CM) as early as possible, in writing, of the delivery of materials for the Project. The deliveries shall include documentation identifying the shipment sufficiently so that the Inspector, Architect or District Representative (including CM) may review the materials that are received. Under no circumstances shall materials be delivered to the Project site that are meant for another Project.

3.3.7 <u>Liens and Other Security Interests of Subcontractors and Material Suppliers</u>

No material, supplies, or equipment for the Work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by seller or supplier. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon completion of all Work to deliver premises, together with all improvements and appurtenances constructed or placed thereon by it, to District free from any claims, security interests, liens, or charges. Contractor further agrees that neither it nor any person, firm, or corporation furnishing any materials or labor for any Work covered by this Contract shall have any right to place a lien upon the premises or any improvement or appurtenance thereof, except that Contractor may install metering devices or other equipment of a utility company or political subdivision, title to which is commonly retained by the utility company or political subdivision. In event of

installation of any such metering device or equipment, Contractor shall advise District as to its owner within five (5) days of such installation in writing, prior to making the installation.

Contractor agrees to indemnify, defend and hold the District harmless from any liens, stop notices, or assertion of security interests, including judgments and levies. If after written notice Contractor fails to address the lien, stop notice, or other security interest, the District may proceed to address the lien, stop notice or claim and seek reimbursement from Contractor.

3.3.8 Title to Materials

The title to new materials or equipment for the Work of this Contract shall remain with Contractor until incorporated in the Work of this Contract until final acceptance of the Project; no part of said materials shall be removed from its place of storage, and Contractor shall keep an accurate inventory of all said materials and equipment in a manner satisfactory to the District or its authorized representative. Responsibility for materials remains with Contractor and Contractor shall replace materials in case of loss. District similarly may pay for materials stored off site, but Contractor shall remain responsible for the materials that are stored off site.

3.3.9 Assemblies

For all material and equipment specified or indicated in the Drawings, the Contractor shall provide all labor, materials, equipment, and services necessary, (including engineering as specifically required with Shop Drawings or Deferred Approvals) for complete assemblies and complete working systems. Incidental items not indicated on the Drawings, nor mentioned in the Specifications, that can legitimately and reasonably be inferred to belong to the Work described, or be necessary in good practice to provide a complete assembly or system, shall be furnished as though itemized in the Contract Documents in every detail. In all instances, material and equipment shall be installed in strict accordance with each manufacturer's most recent published recommendations and Specifications.

3.3.10 Noise Control

The 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 having jurisdiction with regard to noise ordinances governing construction sites and activities. Construction equipment noise is subject to the control of the Environmental Protection Agency's Noise Control Program (Part 204 of Title 40, Code of Federal Regulations). If classes are in session at any point during the progress of the Project, and, in the District's reasonable discretion, the noise from such Work disrupts or disturbs the students or faculty or the normal operation of the campus, at the District's request, the Contractor shall schedule the performance of all such Work around normal campus hours or make other arrangements so that the Work does not cause such disruption or disturbance. There are specific periods of testing at operational campuses and it is critical that Contractor control noise during periods of testing. In no event shall Contractor have a right to receive additional compensation or an extension to the Contract time as a result of any such rescheduling or the making of such arrangements. These controls shall be implemented during site preparation and construction. All noise related issues, including campus operations, and noise during testing should be detailed in the Schedule provided pursuant to Article 8

3.4 WARRANTY

The Contractor warrants to the District and Architect that material and equipment furnished under the Contract will be of the highest quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Contractor's warranty to District includes, but is not limited to, the following representations:

- 3.4.1 In addition to any other warranties provided elsewhere, Contractor shall, and hereby does, warrant all Work after the date of Notice of Completion of Work by District and shall repair or replace any or all such Work, together with any other Work, which may be displaced in so doing that may prove defective in workmanship or materials within a one (1) year period from date of Final Completion which shall be no later than the final date of Punch List as noted at Article 9.11) without expense whatsoever to District, ordinary wear and tear, unusual abuse or neglect excepted. District will give notice of observed defects with reasonable promptness. Contractor shall notify District upon completion of repairs.
- 3.4.2 <u>In the event of failure of Contractor to comply with above mentioned conditions within one week after being notified in writing, District is hereby authorized to proceed to have defects repaired and made good at expense of Contractor who hereby agrees to pay costs and charges therefore immediately on demand.</u>
- 3.4.3 If, in the opinion of the District, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the District, the District will attempt to give the notice required by this Article. If the Contractor cannot be contacted or does not comply with the District's requirements for correction within a reasonable time as determined by the District, the District may, notwithstanding the provisions of this article, proceed to make such correction or attention which shall be charged against Contractor. Such action by the District will not relieve the Contractor of the guarantee provided in this Article or elsewhere in this Contract.
- 3.4.4 This Article does not in any way limit the guarantee on any items for which a longer warranty is specified or on any items for which a manufacturer gives a guarantee for a longer period.

 Contractor shall furnish District all appropriate guarantee or warranty certificates upon completion of the project.

3.5 TAXES

Contractor will pay all applicable Federal, State, and local taxes on all materials, labor, or services furnished by it, and all taxes arising out of its operations under the Contract Documents. District is exempt from Federal Excise Tax, and a Certificate of Exemption shall be provided upon request.

3.6 PERMITS, FEES AND NOTICES

3.6.1 Payment

The Contractor shall secure and pay for all permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work which are necessary after execution of the Contract and are legally required by any authority having jurisdiction over the Project, except those required by the Division of the State Architect (DSA). District shall be responsible for all testing and inspection as required by the DSA on-site or within the distance limitations set forth in Article 13.5.2, unless a different mileage range is specified in the Supplemental Conditions.

3.6.1.1 *DSA Fees.* DSA policy is to charge CCD review fees for processing and approval of changes in the Plans and Specifications through the Construction Change Document process. Contractor is specifically directed to the current DSA IR A-30 which provides fee structure and charges that will be incurred for proceeding with respect to the CCD process, a process that must be followed for each change in the Plans and Specifications.

3.6.2 Compliance

The Contractor shall comply with and give notices required by any law, ordinance, rule, regulation, and lawful order of public authorities bearing on performance of the Work. Specifically, the Division of State Architect provides State oversight of the Project and enforcement of Title 24 rules and regulations. Contractor is directed to the DSA website. There will be local governmental oversight from City, County or both. Finally, Regional Water Quality Control Board, State Fire Marshall, local fire marshal, Department of Industrial Relations, Department of Labor Standards Enforcement, and Air Quality Management District (Local and State) are some of the agencies that provide oversight and may require specific permits, fees, or provide oversight over the Project. Contractor represents understanding and specialized knowledge of the rules governing community college districts and Contractor shall maintain compliance over the applicable rules and will file all documents required in order to ensure compliance with State, local, and other rules that apply to the Project.

3.6.3 Responsibility

The Contractor shall perform all Work in conformance with every law, statute, ordinance, building code, rule or regulation. The Contractor shall assume full responsibility for such Work and shall bear the attributable cost of correction or project delay.

Pursuant to Title 24 Section 4-343(b):

"Contractor shall carefully study the approved Plans and Specifications and shall plan a schedule of operations well ahead of time.... All inconsistencies or items which appear to be in error in the Plans and Specifications shall be promptly called to the attention of the architect or registered engineer, through the inspector, for interpretation or correction."

To help Contractor plan its operations, Contractor is directed to study the current version of the DSA 152 Inspection Card Manual identifying the exact steps the Inspector is to follow in the review and sign off process for the DSA 152. The DSA 152 Inspection Card Manual provides specific detail as to the order of operations, review items and compliance items beyond the Specifications and Plans which are reviewed for DSA compliance. The most current version of this manual is located on DSA's website.

Contractor is also specifically directed to the time periods for posting of Special Inspection Reports and Inspector Notifications under DSA PR 13-01 since the timing of Inspection is not a Governmental Entity related delay.

3.7 SUBMITTALS REQUIRED AT THE COMMENCEMENT OF THE PROJECT

3.7.1 Requirements Within Ten (10) Calendar Days

Within ten (10) calendar days after Notice to Proceed, Contract shall submit the following:

- 3.7.1.1 Detailed Schedule of Values (See Article 9.2)
- 3.7.1.2 Submittal Listing and Schedule for Submittals
- 3.7.1.3 Critical Path Baseline Schedule (See Article 8)

3.7.2 Requirements Within Thirty-Five (35) Calendar Days

Within thirty-five (35) calendar days after Notice to Proceed, Contractor shall submit the following:

- 3.7.2.1 All Submittals for the Project except those specifically agreed upon by District and Architect, in writing, and shall be specifically incorporated into the Submittal section of the Schedule so as to not delay the Work. The agreement to allow a later Submittal does not mean that Article 3.3.7 is waived. Contractor shall order materials and ensure prices are honored and secured for the Project.
- a. Structural Steel may be included as a later Submittal than 35 days if Structural Steel is a significant portion of the Work, at least one or some of the Project is a structural steel structural system, or as specifically agreed upon by the Architect or District.
- b. It is specifically agreed that submissions of structural steel Submittals shall not be piecemeal (unless some portion is requested separately by the District or Architect), shall provide complete designs, shall be stamped by the structural steel Subcontractor, Contractor, and structural steel Subcontractor's structural engineer at time of submission and as further addressed in Article 3.9.
- c. In no case shall the submission of structural steel Drawings delay the critical path for the schedule. If a Milestone is provided for submission of complete structural steel Shop Drawings then the date shall be no later than as set forth in the Milestone
- 3.7.2.2. Exceptions to Submittal Within Thirty-Five (35) Days by Written Agreement. A written request detailing the specific reasons for a submission later than 35 days due to complexity of design or non-critical path status of the Submittal shall be submitted at the time the Baseline Schedule is submitted. The Baseline Schedule shall not include a delayed Submittal until written agreement is provided. In addition to the request for providing a Submittal after the thirty-five (35) day period, a copy of the Contract with the Subcontractor who shall be performing the Submittal, a written statement from the Subcontractor verifying that work has commenced on the Submittal and providing Subcontractor's own schedule of Milestones and completion dates, and a corresponding Submittal designation in the Schedule as required under Article 8. Approval of a delayed Submittal shall not result in any increase in the Contract Price or result in an extension of time for the completion of the Project.
 - 3.7.2.3. Piecemeal Submissions of Submittals. Piecemeal Submittals mean providing portions of Shop Drawings or Submittals as they are being completed. The submission of piecemeal Submittals results in the appearance of a submission when there is inadequate information for the Architect or Engineer to adequately review a submission. Piecemeal differs from submission of complete buildings or phases of buildings or complete assemblies. The Architect may agree to allow submission of single buildings or areas as long as the Submittals are complete.

3.8 DOCUMENTS, SAMPLES, AND COMPUTER AT THE SITE

The Contractor shall maintain at the Site for the District one current copy of the California Building Code, Titles 19 and 24 of the California Code of Regulations, any other document required by DSA, and one record copy of the Drawings, Specifications, Addenda, Change Orders, and other Modifications, in good order and marked currently to record changes and selections made during construction. In addition, the Contractor shall maintain at the Site approved Shop Drawings, Product Data, Samples, and similar required Submittals. These documents shall be available to the Architect and shall be delivered to the Architect for delivery to the District upon completion of the Work.

Contractor shall have an operational computer with internet access so Contractor can review and post documents as required for the Project, including but not limited to the filing and posting of DSA required documents for the Project.

Contractor shall be prepared to review documents posted to the DSA Project website.

3.9 SUBMITTALS INCLUDING SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

3.9.1 Definitions

- 3.9.1.1. Deferred Approvals. Approval of certain aspects of the construction may be deferred until the construction Contract has been awarded. To facilitate the design process, DSA grants Deferred Approval to the design and detailing of certain elements of the Project at the request of the Architect or Engineer of Record. Design elements that may be deferred may include, but are not limited to access floors, bleachers, elevator guide rails and related elevator systems, exterior wall systems precast concrete, glass fiber reinforced concrete, etc., skylights, window wall systems, storefronts, stage rigging, and other systems as noted in the Contract Documents. (Also see Article 1.2.2 and 3.9.3)
- 3.9.1.2 Shop Drawings. The term "Shop Drawings" as used herein means Drawings, diagrams, equipment or product schedules, and other data, which are prepared by Contractor, Subcontractors, manufacturers, suppliers, or distributors illustrating some portion of the Work, and includes: illustrations; fabrication, erection, layout and setting Drawings; manufacturer's standard Drawings; schedules; descriptive literature, instructions, catalogs, and brochures; performance and test data including charts; wiring and control diagrams; and all other Drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit systems, and methods of construction as may be required to show that the materials, equipment, or systems and their position conform to the requirements of the Contract Documents.
- 3.9.1.3 Manufactured applies to standard units usually mass-produced, and "Fabricated" means items specifically assembled or made out of selected materials to meet individual design requirements. Shop Drawings shall: establish the actual detail of all manufactured or Fabricated items, indicate proper relation to adjoining work, amplify design details of mechanical and electrical systems and equipment in proper relation to physical spaces in the structure, and incorporate minor changes of design or construction to suit actual conditions.
- 3.9.1.4 Submittals is a term used interchangeably and sometimes refers to Shop Drawings, Product Data, and samples since all Subcontractor submissions are tracked in a Submittal Log and may include any of the noted items. However, generally, a Submittal is a manufacturer's product information and Product Data including description, characteristics, size, physical

characteristics, and requirements to prepare the jobsite for receiving of the particular manufactured item.

3.9.1.5 Samples. The term "samples" as used herein are physical examples furnished by Contractor to illustrate materials, equipment, or quality and includes natural materials, Fabricated items, equipment, devices, appliances, or parts thereof as called for in the Specifications, and any other samples as may be required by the Architect to determine whether the kind, quality, construction, finish, color, and other characteristics of the materials, etc., proposed by the Contractor conform to the required characteristics of the various parts of the Work. All Work shall be in accordance with the approved samples.

3.9.2 Shop Drawings.

- 3.9.2.1 When Shop Drawings Are Required. Shop Drawings are required for prefabricated components and for installation and coordination of these prefabricated components into the Project. In addition, Shop Drawings, are prepared to address the actual size and installation of components from various Subcontractors and provides an opportunity for the Contractor to coordinate and address conflicts between the subcontracting trades. In some cases, each Subcontractor or trade will provide Shop Drawings in a BIM format or other format as agreed by District.
- 3.9.2.2 Purpose for Shop Drawings. Shop Drawings are the Contractor's manufacturer, Subcontractor, supplier, vendor or the Contractor's detailed drawings showing particularized method for assembly, specifics to a manufacturer, manufacturer component installation requirements, specifics as to a manufactured item, alterations to a manufactured, a custom created item, or drawn version of more detailed information expanding on the Architect's design shown in the The Shop Drawings address the appearance, performance, size, weight, Contact Documents. characteristics and prescriptive descriptions associated with the Contractor or Contractor's Subcontractor's plan for installation or assembly based on the design in the Specifications and Contract Documents. The Shop Drawing often is more detailed than the information shown in the Contract Documents to give the Architect and Engineer the opportunity to review the fabricator's version of the product (along with particulars specific to that particular product), prior to fabrication. References to the Contract Documents, Construction Documents, Drawings, Plans, and Specifications assist the Architect and Engineer in their review of the Shop Drawings. Attachment of manufacturer's material Specifications, "catalog cut sheets," and other manufacturer's information may be provided to accompany Shop Drawings. Because Shop Drawings facilitate the Architect's and Engineer's approval of the system, they should be as clear and complete as possible so they may be reviewed by Architect or Engineer for the Project.
- 3.9.2.3 Shop Drawing Requirements. The Contractor shall obtain and submit with Shop Drawings all seismic and other calculations and all Product Data from equipment manufacturers. "Product Data" as used herein are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the Work.
- 3.9.2.4 Not a Reproduction of Architectural or Engineering Drawings. The Shop Drawings are not a reproduction of the architectural or engineering Drawings. Instead, they must show more detail than the Construction Documents and details the fabrication and/or installation of the items to the manufacturer's production crew or Contractor's installation crews.

- 3.9.2.5. Shop Drawings Engineering Requirements: Some Shop Drawings require an engineer stamp to be affixed on the Drawings and calculations. In such cases, a current and valid engineering stamp shall be affixed by a California registered engineer. No out of State engineers shall stamp Shop Drawings. (See DSA IR A-18). In most cases, an engineer means California registered mechanical, structural, electrical or plumbing engineer. California Registered Civil Engineers will not be accepted for structural details unless specifically approved by DSA.
- 3.9.2.6 DSA Approvals Required Prior to Work. No work on a Shop Drawing that requires DSA approval may proceed until DSA approval is received. Contractor has provided DSA approval time and allowed adequate time for corrections in Contractor's Schedule as required pursuant to Article 8.
- 3.9.2.7 Shop Drawing Identification. All Shop Drawings must be properly identified with the name of the Project and dated, and accompanied by a letter of transmittal referring to the name of the Project and to the Specification section number for identification of each item clearly stating in narrative form, as well as "clouding" all qualifications, departures, or deviations from the Contract Documents. Shop Drawings, for each section of the Work shall be numbered consecutively and the numbering system shall be retained throughout all revisions. All Subcontractor submissions shall be made through the Contractor. Each drawing shall have a clear space for the stamps of Architect and Contractor.

3.9.3 <u>Deferred Approvals</u>

Deferred approvals shall be submitted and processed to ensure all DSA and other governmental approvals are secured so as to not delay the Project. There may be additional requirements for Deferred Approvals at Division 1 of the Specifications. All Deferred Approvals shall be prepared by Contractor or Contractor's agent early enough so as to not delay the Project. Contractor is aware that Title 24 California Code of Regulations Section 4-317 have specific requirements for Deferred Approval as to governing agencies and as to the Architect and Engineer for the Project. As a result, any delay associated with the time for approval by applicable agencies or by the Architect or Architect's consultants shall be Contractor's. Contractor is required to comply with inclusion of Deferred Approvals in the Schedule as required under Article 3.9.6

3.9.3.1 DSA Approvals Required Prior to Work. No work on a Deferred Approval item may proceed on the components until DSA approval is received. Contractor has provided DSA approval time and allowed adequate time for any DSA revisions in Contractor's Schedule as required pursuant to Article 8.

3.9.4 Submittals and Samples

- 3.9.4.1 *Information Required with Submittals*: Manufacturer, trade name, model or type number and quantities: Information provided must be of sufficient detail to allow Architect and Engineer to compare the submitted item with the specified products and acceptable products listed, in the Specifications and addenda.
- 3.9.4.2 *Description of Use and Performance Characteristics*: Information should be furnished describing the normal use and expected performance of the product. The Architect and Contractor review this information to confirm that the product is appropriate for the intended use.
- 3.9.4.3 Size and Physical Characteristics: The size and physical characteristics, such as adjustment capabilities, which is reviewed by both the Contractor and Architect.

- The Contractor has the most available information for comparing adjoining materials and equipment. The Contractor also needs to know the size and weight of the equipment for lifting and handling considerations.
- 3.9.4.4 *Finish Characteristics:* The Architect reviews the available finishes and selects the appropriate finish, if the finish was not previously specified in the documents. The Contractor should confirm that finish requirements in the Specifications are being met by the product.
- 3.9.4.5 Contractor Responsible for Jobsite Dimensions: Some material is custom-Fabricated to job conditions, requiring dimensions from the jobsite. These jobsite dimensions are provided by the Contractor as part of the Contractor's responsibilities for the Project and shall be provided prior to release of the product for manufacture. Contractor shall not rely on Architect or Engineers to provide jobsite dimensions.
- 3.9.4.6 Full Range of Samples Required (When Specific Items Not Specified). Except in cases where the exact color and type of item is specified since the District is utilizing items Standardized or pre-selected by District, the full range of color, graining, texture, or other characteristics are anticipated for review in finished products, a sufficient number of samples of the specified materials shall be furnished by the Contractor to indicate the full range of characteristics which will be present in the finished products. Products delivered or erected without Submittal and approval without providing a full range of samples shall be subject to rejection. Except for range samples, and unless otherwise called for in the various sections of the Specifications or Specification Section 1, samples shall be submitted in duplicate.
- 3.9.4.7 *Labeling of Samples*. All samples shall be marked, tagged, or otherwise properly identified with the name of the submitting party, the name of the Project, the purpose for which the samples are submitted and the date.
- 3.9.4.8 *Transmittal letter*. All samples shall be accompanied by a letter of transmittal containing similar information, together with the Specification section number.
- 3.9.4.9 *Labels and Instructions*. All samples of materials shall be supplied with the manufacturer's descriptive labels and application instructions. Each tag or sticker shall have clear space for the review stamps of Contractor and Architect.
- 3.9.4.10 Architect's Review. The Architect will review and, if appropriate, approve submissions and will return them to the Contractor with the Architect's stamp and signature applied thereto, indicating the timing for review and appropriate action in compliance with the Architect's (or District's) standard procedures. In the cases where a CM is hired by the District, CM may be the party that receives and performance logging and initial processing of the Samples. CM may, in some cases, reject samples that are not in conformance with Contract requirements.

3.9.5 Submittal Submission Procedure

3.9.5.1 Transmittal Letter and Other Requirements. All Submittals must be properly identified with the name of the Project and dated, and each lot submitted must be accompanied by a letter of transmittal referring to the name of the Project and to the Specification section number for identification of each item clearly stating in narrative form, as well as "clouding" on the submissions, all qualifications, departures, or deviations from the Contract Documents. Shop Drawings, for each section of the Work shall be numbered consecutively and the numbering system shall be retained throughout all revisions. All Subcontractor submissions shall be made through the Contractor. Each drawing shall have a clear space for the stamps of Architect and Contractor. Refer to Division 1. In the

case where a CM is hired on the Project, the CM may be designated to receive the Submittals for the Project, log the Submittals, and in some cases reject Submittals that do not conform to Contract requirements. Submittal Procedures for further information.

- 3.9.5.2 *Copies Required*. Each Submittal shall include one (1) legible, reproducible (if electronic is available, electronic copies shall also be provided) and five (5) legible prints of each drawing or schedule, table, cut sheet, etc., including fabrication, erection, layout and setting drawings, and such other drawings as required under the various sections of the Specifications, until final acceptance thereof is obtained. Subcontractor shall submit copies, in an amount as requested by the Contractor, of: (1) manufacturers' descriptive data for materials, equipment, and fixtures, including catalog sheets showing dimensions, performance, characteristics, and capacities; (2) wiring diagrams and controls; (3) schedules; (4) all seismic calculations and other calculations; and (5) other pertinent information as required by the District or Architect. See also Division 1.
- 3.9.5.3 *Corrections*. The Contractor shall make all corrections required by Architect, District or CM and shall resubmit, as required by Architect or CM, corrected copies of Shop Drawings or new samples until approved. Contractor shall direct specific attention in writing or on resubmitted Shop Drawings to revisions other than the corrections required by the Architect on previous submissions. Professional services required for more than one (1) re-review of required Submittals of Shop Drawings, Product Data, or samples are subject to charge to the Contractor pursuant to Article 4.5.
- 3.9.5.4 Approval Prior to Commencement of Work. No portion of the Work requiring a Shop Drawing or sample submission or other Submittal shall be commenced until the submission has been reviewed by Contractor and Architect (and CM, if applicable) and approved by Architect (and CM where applicable) unless specifically directed in writing by the Architect. All such portions of the Work shall be in accordance with approved Shop Drawings and samples.
- 3.9.5.5 *District's Property*. All Submittals, Shop Drawings, computer disks, BIM modeling information, clash checks, schedules, annotated Specifications, samples and other Submittals shall become the District's property upon receipt by the District or Architect.

3.9.6 Schedule Requirements for Submittals

Contractor shall obtain and shall submit all required Submittals (i.e. Shop Drawings, Deferred Approvals, Samples, etc.), in accordance with Contractor's "Schedule for Submission of Shop Drawings and Samples" as required in the scheduling portion of the General Conditions at Articles 8 and the Specifications (as long as the Specifications do not conflict with General Conditions. In the case of conflict, the conflicting provision shall be controlled by the General Conditions and the remaining Specifications sections shall be interpreted as if the general conditions language is inserted) with such promptness as to cause no delay in its own Work or in that of any other contractor or subcontractor but in no event later than thirty five (35) days after the Notice to Proceed is issued except in the specific cases noted as an exception under Article 3.7.2.1. No extensions of time will be granted to Contractor or any Subcontractor because of its failure to have Shop Drawings and samples submitted in accordance with

Division 1 and the Schedule. Each Subcontractor shall submit all Shop Drawings, samples, and manufacturer's descriptive data for the review of the District, the Contractor, and the Architect through the Contractor.

> 3.9.6.1 Consideration of Schedule. Contractor has considered lead times, DSA or other agency governmental review times, Architect or Engineer review times, manufacturing seasons, and specific long lead procurement concerns for all submittals for the Project.

3.9.7General Submittal Requirements

- 3.9.7.1 Contractor Submittal Representations and Coordination. By submitting Shop Drawings, Product Data, samples, etc., the Contractor represents that it has determined and verified all materials, field measurements, catalog numbers, related field construction criteria, and other relevant data in connection with each such submission, and that it has checked, verified, and coordinated the information contained within such Submittals with the requirements of the Work and of the Contract Documents, including the construction schedule.
- 3.9.7.2 Contractor Coordination. Contractor shall stamp, sign, and date each Submittal indicating its representation that the Submittal meets all of the requirements of the Contract Documents and evidence Contractor's review through execution of the following stamp to be placed on each Shop Drawings:

"[Contractor] has reviewed and approved the field dimensions and the construction criteria, and has also made written notation regarding any information in the Shop Drawings and Submittals that does not conform to the Contract Documents. This Shop Drawing or Submittal has been coordinated with all other Shop Drawings and Submittals received to date by me as Contractor and this duty of coordination has not been delegated to Subcontractors, material suppliers, the Architect, or the Engineers on this Project.

Signature of Contractor and date

- 3.9.7.3 Deviation from Contract Documents. The submission of the Shop Drawings, Product Data, samples, etc., shall not deviate from the *requirements* of the Contract Documents including detailing and design intent which is specifically outlined in Contract Documents except as specifically authorized by the Architect or through an accepted substitution pursuant to Article 3.10.4. All deviations from the Contract Documents shall be narratively described in a transmittal accompanying the Shop Drawings. However, Shop Drawings shall not be used as a means of requesting a substitution, the procedure for which is defined in Article 3.10.4, "Substitutions."
- 3.9.7.4 Contractor Responsibility for Shop Drawings Conformance to Contract Documents. Review District and Architect shall not relieve the Contractor or any Subcontractor from its responsibility in preparing and submitting proper Shop Drawings in accordance with the Contract Documents.

- 3.9.7.5 Incomplete Submittals. Any submission, which in Architect's opinion is incomplete, contains errors, or has been checked superficially, will be returned not reviewed by the Architect for resubmission by the Contractor. Refer to Submittal Procedures of the Specifications for additional information. The Contractor shall be responsible for any related delays and shall not be the basis for any Claim.
- 3.9.7.6 Shop Drawings and Submittals Shall Not Be Used as a Method to Make a Substitution. Shop Drawings and Submittals shall not be used as a means of requesting a substitution or to make changes in the Contract Documents. If changes are made to the Contract Documents through the Shop Drawings, the Architect shall have the right to reject the Submittal. If the Architect does not note the deviation from the approved Plans and Specifications, the Contractor is still responsible for the change and the Architect or the District may require the Shop Drawings be revised to properly reflect the approved Contract Documents. The Architect or District may also require that the Contractor bear all costs under Article 4.5 and consequential damages associated with a CCD to revise Plans and Specifications to accommodate the deviation from approved Plans and Specifications.
- 3.9.7.7 Extent of Review. In reviewing Shop Drawings, the Architect will not verify dimensions and field conditions. The Architect will review and approve Shop Drawings, Product Data, samples, etc., for aesthetics and for conformance with the design concept of the Work and the information in the Contract Documents. The Architect's review shall neither be construed as a complete check which relieves the Contractor, Subcontractor, manufacturer, fabricator, or supplier from responsibility for any deficiency that may exist or from any departures or deviations from the requirements of the Contract Documents unless the Contractor has, in writing, called the Architect's attention to the deviations at the time of submission. The Architect's review shall not relieve the Contractor or Subcontractors from responsibility for errors of any sort in Shop Drawings or schedules, for proper fitting of the Work, coordination of the differing Subcontractor trades and Shop Drawings and Work which is not indicated on the Shop Drawings at the time of submission of Shop Drawings. Contractor and Subcontractors shall be solely responsible for any quantities which may be shown on the Submittals or Contract Documents.

3.10 SUBSTITUTIONS

3.10.1 Definition

A Substitution is a change in product, material, equipment, or method of construction from those required by the Construction Documents proposed by the Contractor. For this Project, a Substitution is subject to the filing of a Construction Substitution Request Form at the time of bid and meeting the requirements of this Article.

3.10.2 One Product Specified

Unless the Specifications state that no substitution is permitted, whenever the Contract Documents indicate any specific article, device, equipment, product, material, fixture, patented process, form, method, or type of construction or any specific name, make, trade name, or catalog number, with or without the words "or equal," such specification shall be deemed to be used for the purpose of facilitating description of the material, process, or article desired and shall be deemed to be followed by the words "or equal." Subject to the requirements of properly submitting a Substitution Request for as Addressed in Article 3.10.4, the Contractor may, unless otherwise stated, offer any material, process, article, etc., which

shall be materially equal or better in every respect to that so indicated or specified ("Specified Item") and will completely accomplish the purpose of the Contract Documents.

3.10.3 Products Specified Which Are Commercially Unavailable

If the Contractor fails to make a request for substitutions for products, prior to the submission of its bid, and such products subsequently become commercially unavailable, the Contractor may request a substitution for such commercially unavailable item. The decision to grant this request is solely at the District's discretion. The written approval of the District, consistent with the procedure for Change Orders, shall be required for the use of a proposed substitute material. The District may condition its approval of the substitution upon the delivery to District of an extended warranty or other assurances of adequate performance of the substitution as well as an equitable deduction in the Contract Price should the substituted item cost less than the Specified Item. All risks of delay due the approval of a requested substitution by the DSA, or any other governmental agency having jurisdiction, shall be on the requesting party. All additional costs, DSA review costs, all procurement and construction delays, and all costs for review by the Architect or its consultants shall be the responsibility of the Contractor and will be deducted from Contractor's pay request.

3.10.4 Substitution Request Form

Requests for substitutions of products, materials, or processes in place of a Specified Item must be in writing on the District's Substitution Request Form ("Request Form") at the time of submitting bids to the District, except as provided for in Article 3.10.3.

The Request Form must be accompanied by evidence as to whether the proposed substitution:

- a. Is equal in quality/service/ability to the Specified Item;
- b. Will entail no changes in detail, construction, and scheduling of related work;
- c. Will be acceptable in consideration of the required design and artistic effect;
- d. Will provide no cost disadvantage to the District;
- e. Will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts; and
- f. Will required no change of the construction schedule.

In completing the Request Form, the bidder must state, with respect to each requested substitution, whether the bidder will agree to provide the Specified Item in the event that the District denies the bidder's request for such requested substitution. In the event that the bidder has agreed in the Request Form to provide the Specified Item and the District denies the bidder's requested substitution for a Specified Item, the bidder shall provide the Specified Item without any additional cost or charge to the District.

After bids are opened, the apparent lowest bidder shall provide, within five (5) days of opening such bids, any and all Drawing, Specifications, samples, performance data, calculations, and

other information, as may be required to assist the Architect, CM and the District in determining whether the proposed substitution is acceptable. The burden of establishing these facts shall be upon the bidder.

After the District's receipt of such evidence by the bidder, the District will make its final decision as to whether the bidder's request for substitution for any Specified Items will be granted. The decision as to whether a proposed request for substitution is equal to a Specified Item shall be at the sole discretion of the District. Any request for substitution that is granted by the District shall be documented and processed through a Change Order. Contractor must submit a complete Submittal of the requested substitution and a Shop Drawing showing configuration, dimensions, and other critical information associated with the substitution that meets the requirements of Article 3.9. The District may condition its approval of any substitution upon delivery to the District of an extended warranty or other assurances of adequate performance of the substitution. Any and all risks of delay due to approval by the DSA or any other governmental agency having jurisdiction shall be on the bidder.

If the Architect and District accept a proposed substitution, the Contractor agrees to pay for all DSA review costs, engineering and design services, including, without limitation, compensation to the Architect and affected engineers for their required time to process such substitution through the Division of the State Architect, if required, and to make all changes and adjustments in materials or the work of all trades directly or indirectly affected by the substituted item or items at no cost to the District.

• <u>Substitution Requests After Bid</u>

The District, in its sole discretion, may accept a request for substitution by the Contractor or may request Contractor substitute a specified item. Any substitutions requested after bids are opened shall be subject to the same conditions and requirements set forth in Article 3.10.4 above. If any substitutions, that in the District or Architect's determination, results in a credit to the District, the credit amount shall be agreed upon in writing, otherwise, the request for substitution shall be deemed denied.

3.11 INTEGRATION OF WORK

3.11.1 <u>Scope</u>

The Contractor shall be responsible for cutting, fitting, or patching to complete the Work and to make all parts fit together properly. Contractor shall be responsible for ensuring that all trades are coordinated and scheduled so as to ensure the timely and proper execution of the work. When modifying existing work or installing new Work adjacent to existing work, Contractor shall match, as closely as conditions of Site and materials will allow, the finishes, textures, and colors of the original work, refinishing existing work at no additional cost to District. All cost caused by defective or ill-timed work shall be borne by Contractor. Contractor shall be solely responsible for protecting existing work on adjacent properties and shall obtain all required permits for shoring and excavations near property lines.

3.11.2 Structural Members

New or existing structural members and elements, including reinforcing bars and seismic bracing, shall not be cut, bored, or drilled except by written authority of the Architect. Work done contrary to such authority is at the Contractor's risk and subject to replacement at its own expense without reimbursement under the Contract. Schedule delays resulting from Agency approvals for unauthorized work shall be the Contractor's responsibility.

3.11.3 <u>Subsequent Removal</u>

Permission to patch any areas or items of the Work shall not constitute a waiver of the District's or the Architect's right to require complete removal and replacement of the areas of items of the Work if, in the opinion of the Architect or the District, the patching does not satisfactorily restore quality and appearance of the Work or does not otherwise conform to the Contract Documents.

3.12 CLEANING UP

3.12.1 <u>Contractor's Responsibility to Clean Up</u>

Contractor at all times shall keep premises free from debris such as waste, dust, excess water, storm water runoffs, rubbish, and excess materials and equipment. Contractor shall not leave debris under, in, or about the premises, but shall promptly remove same from the premises and dispose of it in a lawful manner. Disposal receipts or dump tickets shall be furnished to the Architect within five (5) days of request.

Contractor shall remove rubbish and debris resulting from the Work on a daily basis. Contractor shall maintain the structures and Site in a clean and orderly condition at all times until acceptance of the Project by the District. Contractor shall keep its access driveways and adjacent streets, sidewalks, gutters and drains free of rubbish, debris and excess water by cleaning and removal each day. All concrete, sidewalks, and paths of travel shall be broom cleaned daily.

3.12.2 General Final Clean-Up

Upon completion of Work, Contractor shall employ experience workers or professional cleaners for final cleaning. Contractor shall clean each surface to the condition expected in a normal, commercial, building cleaning and maintenance program including, but not limited to, the performance of the following:

- a. Clean interior and exterior of buildings, including fixtures, equipment, walls, floors, ceilings, roofs, window sills and ledges, horizontal projections, and any areas where debris has collected, so surfaces are free from foreign material or discoloration;
- b. Clean the Project site. The grounds should be cleared of any Contractor equipment, raked clean of debris and trash removed. Sweep paved areas broom clean;
- c. Repair or replace any damaged materials. Replace any chipped or broken glass;
- d. Remove any and all stains;
- e. Remove labels that aren't permanent labels;
- f. Clean and polish all glass, plumbing fixtures, equipment, finish hardware and similar finish surfaces. Remove any glazing compounds;
- g. Remove temporary utilities, fencing, barricades, planking, sanitary facilities and similar temporary facilities from Site;
- h. Remove temporary film that remains on any hardware, doors or other surfaces; and
- i. Seal the bottom and tops of all doors.

3.12.3 Special Clean-Up.

In addition to the general cleaning, the following special cleaning shall be done at the completion of the Work in accordance with the Specifications including, but not limited to:

a. Remove putty stains from glazing, then wash and polish glazing;

b. Remove marks, stains, fingerprints and other soil or dirt from painted, stained or decorated work;

Remove temporary protection and clean and polish floors and waxed

surfaces;

d. Clean and polish hardware and plumbing trim; remove stains, dust, dirt,

plaster and paint;

e. Wipe surfaces of mechanical and electrical equipment.;

f. Remove spots, soil, plaster and paint from tile work, and wash tile;

g. Clean all fixtures and equipment, remove excess lubrication, clean light

fixtures and lamps, polish metal surfaces;

h. Vacuum-clean carpeted surfaces; and

i. Remove debris from roofs, down spout and drainage system.

3.12.4 Failure to Cleanup

If the Contractor fails to clean up as provided in the Contract Documents, the District may do so, and the cost thereof shall be the responsibility of the Contractor pursuant to Article 2.2 and seek a Deductive Change Order.

3.13 ACCESS TO WORK

The Contractor shall provide the District, the Architect, Engineers and the Inspector of Record, access to the Work in preparation and progress wherever located. Contractor shall provide safe and proper facilities for such access so that District's representatives may perform their functions.

CONTRACTOR IS AWARE THAT THIS CONTRACT MAY BE SPLIT INTO SEVERAL PHASES AS ADDRESSED IN ARTICLE 6.

3.13.1 Special Inspection, Inspections or Tests Out of State, Out of Country or Remote from Project

If Contractor has a Subcontractor or supplier that requires in plant or special inspections or inspections or tests that are out of the country, out of the state, or a distance of more than 200 miles from the Project site, the Special Inspector or Inspector shall be provided access so the special inspection or inspection may occur in the remote location. In some cases, the DSA Inspector may also require access in addition to Special Inspectors and individuals performing tests. Inspections/tests shall occur during normal work hours. See also Article 4.3.6.

3.14 ROYALTIES AND PATENTS

3.14.1 Payment and Indemnity for Infringement

Contractor shall hold and save the District and its officers, agents, and employees, the Construction Manager, the Architect, and the Architect's consultants harmless from liability of any nature

or kind, including cost and expense, for or on account of any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the Contract, including its use by the District, unless otherwise specifically provided in the Contract Documents, and unless such liability arises from the sole negligence, or active negligence, or willful misconduct of the District, the Architect, or the Architect's consultants.

3.14.2 <u>Review</u>

The review by the Architect of any method of construction, invention, appliance, process, article, device, or material of any kind shall be for its adequacy for the Work and shall not be an approval for the use by the Contractor in violation of any patent or other rights of any person or entity.

3.15 <u>INDEMNIFICATION</u>

3.15.1 Contractor

See Agreement Form. Contractor shall ensure that its contract with each of its Subcontractors contains provisions requiring the Subcontractors to defend, indemnify and hold harmless the District, Architect, Inspector, the State of California to a minimum level as set forth in this Article and consistent with the indemnity and hold harmless language in the Agreement Form.

The Contractor's and Subcontractors' obligation to defend, indemnify and hold harmless the District, Architect, Inspector, the State of California and their officers, employees, agents and independent contractors hereunder shall include, without limitation, any and all claims, damages, and costs for the following: (1) any damages or injury to or death of any person, and damage or injury to, loss (including theft), or loss of use of, any property; (2) breach of any warranty, express or implied; (3) failure of the Contractor or Subcontractors to comply with any applicable governmental law, rule, regulation, or other requirement; (4) products installed in or used in connection with the Work; and (5) any claims of violation of the Americans with Disabilities Act ("ADA")

3.16 SUBMISSION OF DAILY REPORTS

3.16.1 General

By 10:00 a.m. on the following business day, the Contractor shall submit a Daily Report to the Inspector and copy the Architect for the previous day's Work. If there is a Construction Manager, the original Daily Report is to be provided to the Construction Manager and copies sent to the Architect and the Inspector. Daily Reports shall be prepared on forms approved by the District, together with applicable delivery tickets, listing all labor, materials, and equipment involved for that day. The District reserves the right to note inconsistencies or inaccuracies in the Daily Reports. In such cases, pertinent notes shall be entered by each party to explain points which cannot be resolved that day. Each party shall retain a signed copy of the report. Daily Reports by Subcontractors or others shall be submitted through the Contractor.

3.16.2 Labor

The Daily Report shall show names of workers, classifications, hours worked and hourly rate. The locations where work occurred shall also be identified in the Daily Report. Project superintendent expenses are not allowed.

3.16.3 Materials

The Daily Report required shall describe and list quantities of materials used and unit costs.

3.16.4 Equipment

The Daily Report required shall show type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable, and hourly/daily cost. Move-on and move-off fees shall be noted.

3.16.5 Other Services and Expenditures

Other services and expenditures shall be described in the Daily Report in detail as the District requires.

3.16.6 Failure to Submit Daily Report

If Contractor does not submit its Daily Report by 10 am the next business day, the Inspector of Record shall prepare a Daily Report addressing each of the above items. The cost for the Inspector's services to prepare the Daily Report shall be addressed through a Deductive Change Order under Article 7.7.4.

3.17 AS-BUILT DRAWINGS AND ANNOTATED SPECIFICATIONS

Throughout the duration of the Project, Contractor shall maintain on a current basis an accurate and complete set of As-Built Drawings (and Annotated Specifications) clearly showing all changes, revisions to Specifications and substitutions during construction, including, without limitation, field changes and the final location of all electrical and mechanical equipment, utility lines, ducts, outlets, structural members, walls, partitions, and other significant features. In case a Specification allows Contractor to elect one of several brands, makes, or types of material or equipment, the annotations shall show which of the allowable items the Contractor has furnished. The Contractor will update the As-Built Drawings and Annotated Specifications as often as necessary to keep them current, but no less often than weekly.

Contractor shall update As-Built Drawings with complete information on an area of Work at or near the time when the Work is being performed and prior to any DSA 152 sign off and prior to any Work being covered.

The As-Built Drawings and Annotated Specifications shall be kept at the Site and available for review and inspection by the District and the Architect. Failure to maintain and update the As-Built Drawings is a basis to withhold Progress Payments pursuant to Article 9.6.

3.17.1 <u>Upon Beneficial Occupancy</u>

Contractor shall obtain and pay for reproducible Plans upon Beneficial Occupancy. Contractor shall deliver Plans to District Representative (Construction Manager if one is hired for the Project).

3.17.2 As-Builts at Completion of Work

Upon completion of the Work and prior to and as a condition precedent to Application for Retention Payment, the Contractor will provide one neatly prepared and complete set of As-Built Drawings and Annotated Specifications to the District. Contractor shall certify the As-Builts as a complete and accurate reflection of the actual construction conditions of the Work by affixing a stamp indicating the Drawings are As-Builts and certifying accuracy on the final set of As-Builts. Failure to deliver a complete As-Built set of Drawings may result in significant withholdings to ensure Work is properly documented. See Article 9.9.1.

3.17.3 Log of Control and Survey Documentation

Contractor shall complete and maintain an accurate log or all control and survey documentation for the Project as the Work progresses. All reference and control points shall be recorded on the As-Built Drawings. The basis of elevations shall be one of the established benchmarks that must be maintained on the As-Builts.

3.17.4 Record Coordinates for Key Items

Contractor shall record, by coordinates, all utilities on-site with top of pipe elevations, major grade and alignment changes, rim, grate or top of curb and flow line elevations of all drainage structures and sewer manholes. Contractor shall update record information at or near the time when work is occurring in an area and prior to DSA 152 sign off on any category of Work and prior to covering the Work.

3.17.5 BIM As-Built Drawings

If BIM is utilized for the Project, then an electronic version of such As-Built Drawings and Annotated Specifications will be delivered to District (in an acceptable format to District).

3.18 EQUIPMENT MANUALS

Contractor shall obtain and furnish three (3) complete sets of manuals containing the manufacturers' instructions for maintenance and operation of each item of equipment and apparatus furnished under the Contract Documents and any additional data specifically requested under the various sections of the Specifications for each division of the Work. The manuals shall be arranged in logical, sequential order, labeled, indexed, and placed in three-ring binders. At the completion of its Work, the Contractor shall certify, by endorsement thereon, that each of the manuals is complete, accurate, and covers all of its Work. Prior to submittal of Contractor's Application for Retention Payment, and as a further condition to its approval by the Architect, each Subcontractor shall deliver the manuals, arranged in logical, sequential order, labeled, indexed, endorsed, and placed in three-ring binders, to the Contractor, who shall assemble these manuals for all divisions of the Work, review them for completeness, and submit them to the District through the Architect.

3.19 **DIR REGISTRATION**

Strict compliance with all DIR registration requirements in accordance with Labor Code sections 1725.5 and 1771.1 is a material obligation of the Contractor and all of its subcontractors (of any tier) under the Contract Documents. The foregoing includes, without limitation, compliance with DIR registration requirements at all times during performance of the Work by the Contractor and all of its subcontractors of any tier. The failure of the Contractor and all subcontractors of any tier to be properly

registered with DIR at all times during performance of the Work is a material breach of the Contract and subject to termination for cause.

An affirmative and ongoing obligation of the Contractor under the Contract Documents is the verification that all subcontractors of any tier are at all times during performance of the Work are in full and strict compliance with the DIR registration requirements. The Contractor shall not permit or allow any subcontractor of any tier to perform any Work without the Contractor's verification that all subcontractors are in full and strict compliance with the DIR registration requirements. Any subcontractors of any tier not properly registered with DIR shall be substituted in accordance with Labor Code section 1771.1. Contractor or its subcontractors of any tier shall not be entitled to any additional costs or time arising from or in any way related to compliance with the DIR registration requirements.

ARTICLE 4

ADMINISTRATION OF THE CONTRACT AND CLAIMS

4.1 **ARCHITECT**

4.1.1 Replacement of Architect

In the case of the termination of the Architect, the District may appoint an Architect or another construction professional or may perform such functions with its own licensed professional personnel. The status of the replacement Architect under the Contract Documents shall be the same as that of the former Architect.

4.2 ARCHITECT'S ADMINISTRATION OF THE CONTRACT

4.2.1 Status

Pursuant to Titles 2 of the California Code of Regulations and as required pursuant to the Field Act, Education Code 81130 et seq., the Architect will provide administration of the Contract Documents and the Work, and will be the District's representative during construction, as well as during the one (1) year period following the commencement of any warranties. The Architect will have authority to act on behalf of the District only to the extent provided in the Contract Documents.

4.2.2 Site Visits

The Architect will visit the Site at intervals necessary in the judgment of the Architect to become generally familiar with the progress and quality of the Work and to determine in general if the Work is being performed in accordance with the Contract Documents and as otherwise required by DSA.

4.2.3 Limitations of Construction Responsibility

The Architect, District and CM shall not have control over, charge of, or be responsible for construction means, methods, techniques, schedules, sequences or procedures, fabrication, procurement, shipment, delivery, receipt, installation, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility under the Contract Documents. The Architect, District and CM shall not be responsible for the Contractor's, Subcontractors', material or equipment suppliers', or any other person's schedules or failure to carry out the Work in accordance with the Contract Documents. The Architect, District and CM shall not have control over or charge of acts or omissions of the Contractor, Subcontractors, their agents or employees,

or any other persons or entities performing or supplying portions of the Work. The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect, District or CM in the Architect, District or CM's administration of the Contract Documents, or by tests, inspections, or approvals required or performed by persons other than the Contractor.

4.2.4 <u>Communications Facilitating Contract Administration</u>

Except where a CM is on the Project, or as otherwise provided in the Contract Documents or when direct communications are warranted by special circumstances, the District and the Contractor shall communicate through the Architect. In the cases where a CM is hired for the Project, all communication shall be through the CM (unless otherwise directed) with copies to the District, Architect and Inspector. Where direct communication is necessary between the District and the Contractor, the District's communication shall be through the District's authorized designated person. The Architect and CM shall be promptly informed, and shall receive copies of all written communications. Contractor shall not rely upon any communications from the District that is not from the District's Representative. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material or equipment suppliers shall be through the Contractor. In the case where a CM is hired for the Project, the CM shall be the main point of contact for communication of information. Copies should be sent to the Architect, District Representative and Inspector.

4.2.5 Payment Applications

The Architect will review and make recommendations to the District regarding the amounts due the Contractor on the Certificates for Payment pursuant to Article 9.3.4 and subject to the Inspector's review, (CM review, if applicable) and Architect's observation. This review of Payment Applications is sometimes called a "Pencil Draft." Return of a Pencil Draft shall constitute the District's dispute of the Payment Application that has been submitted. Contractor shall promptly respond to Pencil Drafts or Contractor's Payment Applications may be delayed. Contractor's failure to promptly respond to a Pencil Draft shall qualify as a delay in the Prompt Payment of a Request for Payment or Request for Retention.

4.2.6 Rejection of Work

In addition to the rights, duties, and obligations of the Inspector under this Article, the Architect may recommend to the District that the District reject Work which does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable to achieve the intent of the Contract Documents, the Architect (and/or CM) may recommend to the District that the District require additional inspection or testing of the Work in accordance with Article 13.5, whether or not such Work is Fabricated, installed, or completed. District may have Non-conforming Work removed and replaced pursuant to Article 9.7. However, neither this authority of the Architect (or CM) nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect (or CM) to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons performing portions of the Work.

Contractor shall, without charge, replace or correct Work found by the District to not be in conformance to Contract requirements. Contractor shall promptly segregate and remove rejected materials from the Project site.

This section is does not address a Notice of Non-Compliance and the remedies associated with a Notice of Non-Compliance which are addressed at Article 7.1.2.

4.2.7 Warranties upon Completion

The Architect (and where applicable CM), in conjunction with the Inspector will conduct field reviews of the Work to determine the date of Substantial Completion and of Final Completion, shall receive and forward to the District for the District's review written warranties and related documents required by the Contract and assembled by the Contractor, and will issue a final Certificate for Payment when the Architect believes the Work has been completed in compliance with the requirements of the Contract Documents (See Article 9.11 for Close-Out). The handling by the Architect (or where applicable CM) of such warranties, maintenance manuals, or similar documents shall not diminish or transfer to the Architect any responsibilities or liabilities required by the Contract Documents of the Contractor or other entities, parties, or persons performing or supplying the Work.

On some Projects, the District will take a phased occupancy of the Project. In those cases, the District may commence the running of warranties on the buildings, or phases that are accepted after Punch List is completed and the District has accepted Completion of the separate phase. A separate Notice of Completion may be filed for the separate building or phase of work and warranties shall commence for the separate phase only to the extent that warranties do not require coordination or connection to other buildings or other parts of the site and only if the warranted item is completed to its entirety in the segregated building or phased area.

If written warranties are not provided at the time the Punch List is nearing completion, Architect (with recommendations from the CM and Inspector) shall determine the dollar value of the warranties and shall make recommendation for withholdings necessary to effectuate the transfer of such warranties to the District for future use as part of the Punch List for the Project pursuant to Article 9.6.

Warranties are not commenced through utilizing of equipment for testing and operation as necessary to acclimate buildings or where necessary to test systems.

• <u>Interpretation</u>

The Architect will interpret and decide matters concerning performance and requirements of the Contract Documents. Architect shall make clarifications as necessary to interpret the Contract Documents.

4.3 PROJECT INSPECTOR

4.3.1 General

One or more Project Inspectors employed by the District and approved by the Division of the State Architect will be assigned to the Work in accordance with the requirements of Title 24 of the California Code of Regulations. The Inspector(s) duties are as specifically defined in Title 24 Section 4-333 and 4-342 and in DSA IR A-8.

4.3.2 <u>Inspector's Duties and DSA Noted Timelines for Inspection</u>

All Work shall be under the observation of the Inspector. Contractor shall establish a protocol for requesting inspection with Inspector so as to not delay the Work and provide adequate time for the Inspector to perform inspection. If such a protocol is not established ahead of time, Inspector may utilize the time criteria set by Title 24 of 48 hours in advance of submitting form DSA 156 for each new area. The Inspector shall have free access to any or all parts of the Work at any time. The Contractor shall furnish the Inspector such information as may be necessary to keep the Inspector fully informed

regarding progress and manner of Work and character of materials. Such observations shall not, in any way, relieve the Contractor from responsibility for full compliance with all terms and conditions of the Contract, or be construed to lessen to any degree the Contractor's responsibility for providing efficient and capable superintendence. The Inspector is not authorized to make changes in the Drawings or Specifications nor shall the Inspector's approval of the Work and methods relieve the Contractor of responsibility for the correction of subsequently discovered defects, or from its obligation to comply with the Contract Documents.

Inspector shall electronically post DSA required documents on the DSA electronic posting website. It is the Contractor's responsibility to determine the status of posting and determine if all the criteria for sign off of a category of Work on the Project Inspection Card (Form DSA 152) as defined more thoroughly in the most current version of the DSA 152 manual posted on the DSA website.

Inspector may collaborate with Contractor about approval of areas that may be constructed and approved incrementally under the DSA 152 card pursuant to the guidelines of PR-13 at Article 1.17. Inspector shall work with Contractor to present incremental approval proposals to DSA.

4.3.3 <u>Inspector's Authority to Reject or Stop Work</u>

The Inspector shall have the authority to reject Work whenever provisions of the Contract Documents are not being complied with, and Contractor shall instruct its Subcontractors and employees accordingly. In addition, the Inspector may stop any Work that poses a probable risk of harm to persons or property. The Contractor shall instruct its employees, Subcontractors, material and equipment suppliers, etc., accordingly. The absence of any Stop Work Order or rejection of any portion of the Work shall not relieve the Contractor from any of its obligations pursuant to the Contract Documents.

4.3.4 <u>Inspector's Facilities</u>

Within seven (7) days after the notice to proceed, the Contractor shall provide the Inspector with the temporary facilities as required. More specific requirements for the Inspector facilities may be further described under Division 1 of the Specifications.

4.3.5 <u>Testing Times</u>

The District will provide inspection and testing at its cost during the normal eight (8) hour day Monday through Friday (except holidays). Work by the Contractor outside of the normal eight (8) hour day shall constitute an authorization from the Contractor to the District to provide inspection and testing as required outside of the normal eight (8) hour day. Contractor shall provide adequate time for inspections so as to not delay the Work. An advanced timing protocol may be established pursuant to Article 4.3.2. If the Contractor is behind Schedule then it is incumbent on the Contractor to provide advance forecast through look ahead of the anticipated date for inspection so the Inspector may plan their activities so as to not delay the Project. Contractor shall reimburse District for any additional costs associated with inspection and testing (including re-inspection and re-testing) outside the normal eighthour day and for any retests caused by the Contractor.

It is the Contractor's responsibility to request special inspections with sufficient time so all testing may be timely completed and posted so work may proceed and the Inspector's signature is attached to the Project Inspection Card (Form 152). Specifically, timely request for special inspection under the DSA Verified Report Forms 291 (laboratory), DSA Verified Report Form 292 (Special Inspection), and DSA Verified Report 293 (geotechnical) since DSA requirements under PR 13-01 specifically gives the Special Inspections 14 days to post to the DSA website. Failure to plan and pay (if

applicable) for quicker delivery of Special Inspections may be counted as Float, but is not considered Governmental Delay Float under Article 8.1.4.

4.3.5 Special Inspections, Inspections or Tests Out of State, Out of Country or Remote from Project

If Contractor has a Subcontractor or supplier that requires in plant or special inspections, inspections or tests that are out of the country, out of the state or a distance of more than 200 miles from the Project Site, the District shall provide the Special Inspector or individual performing tests time for inspection and testing during normal work hours. Contractor, however, is responsible for the cost of travel, housing, food, out of area premiums that may be in the Inspector/Testing Agreement with District, or other expenses necessary to ensure proper inspection, special inspection or testing is provided by a DSA Certified Inspector, Special Inspector, or individual performing tests. In some cases all three (DSA Inspector, Special Inspector, and Tester) may be required. In addition, if the DSA Certified Inspector, Special Inspector, or individual performing test has contractual travel clauses or special rates for out of town inspection, Contractor is responsible for all costs associated with the contractual travel costs in addition to all other costs. Arrangements for inspection and/or testing shall be made far enough in advance so as to not delay the Work.

4.4 STOP WORK ORDER

DSA may issue a Stop Work Order, or an Order to Comply, when either (1) the Work proceeds without DSA approval; (2) the Work proceeds without a DSA Inspector of Record, or (3) where DSA determines that the Work is not being performed in accordance with applicable rules and regulations, and would compromise the structural integrity of the Project or would endanger lives. If a Stop Work Order is issued, the Work in the affected area shall cease until DSA withdraws the Stop Work Order. Pursuant to Education Code section 81133.5, the District shall not be held liable in any action filed against the District for any delays caused by compliance with the Stop Work Order, except to the extent that an error or omission by the District is the basis for the issuance of the Stop Work Order.

Examples of Stop Work Orders that may be issued by DSA include DSA Bulletin 07-04 and Policy 10-01, the installation of automatic fire sprinkler systems without approved Plans, covering Work that has not been approved by Inspector on DSA Project Inspection Card (Form 152).

4.5 RESPONSIBILITY FOR ADDITIONAL CHARGES INCURRED BY THE DISTRICT FOR PROFESSIONAL SERVICES

If at any time prior to the completion of the requirements under the Contract Documents, the District is required to provide or secure additional professional services (including CM, Inspection, Architect, Engineering and Special Consultant Services) for any reason by any act of the Contractor, the District may seek a Deductive Change Order for any costs incurred for any such additional services, which costs shall be deducted from the next progress payment. A Deductive Change Order shall be independent from any other District remedies and shall not be considered a waiver of any District rights or remedies. If payments then or thereafter due to the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the District. Additional services shall include, but shall not be limited to, the following:

- a. Services made necessary by the default of the Contractor (Article 14 or Article 2.2).
- b. Services made necessary due to the defects or deficiencies in the Work of the Contractor (Article 2.2 and Article 9.6).

- c. Spurious or frivolous RFI's issued that do not conform to the requirements of Article 7.4. Issuance of the same RFI after receiving an answer from the Architect or Engineer
- d. Review of Schedules that are provided by Contractor that do not Conform with the Requirements of Article 8.
- e. Preparation of a CCD or ICD to correct a Contractor Deficiency, or Contractor Caused Notice of Non-Compliance (Article 7.3).
- f. Review of Incomplete Shop Drawings or Submittals, including the submission of Piecemeal Shop Drawings or Submittals unless piecemeal Submittals are specifically agreed upon by District (Article 3.9)
- g. Services required by failure of the Contractor to perform according to any provision of the Contract Documents.
- h. Services in connection with evaluating substitutions of products, materials, equipment, Subcontractors' proposed by the Contractor, and making subsequent revisions to Drawings, Specifications, obtaining DSA approvals, DSA costs for review of CCD's, other governmental agency review costs, and providing other documentation required (except for the situation where the specified item is no longer manufactured or available). (Article 3.10)
- i. Services for evaluating and processing Claims or Disputes submitted by the Contractor in connection with the Work outside the established Change Order process.
- j. Services required by the failure of the Contractor to prosecute the Work in a timely manner in compliance within the specified time of completion.
- k. Services in conjunction with the testing, adjusting, balancing and start-up of equipment other than the normal amount customarily associated for the type of Work involved.
- 1. Services in conjunction with more than one (1) re-review of Submittals of Shop Drawings, Product Data, samples, RFI's etc.

4.6 DISPUTES AND CLAIMS

4.6.1 <u>Decision of Architect</u>

"Disputes" and "Claims" as defined in Article 4.6.9.1 between District and Contractor involving money or time, including those alleging an error or omission by the Architect shall be referred initially to the Architect for action as provided in Article 4.6.2 within ten (10) days after Contractor's Article 7 request for Change is denied. If there is a CM, the CM shall receive the Dispute and may review and also assemble opinions and documents to assist the Architect. A decision by the Architect, as provided in Article 4.6.5, shall be required as a condition precedent to proceeding with remedies set forth in Article 4.6.9 as to all such matters arising prior to the date Retention Payment Application is due, regardless of whether such matters relate to execution and progress of the Work, or the extent to which the Work has reached Final Completion.

The condition precedent of an Architect decision shall be waived if: (1) the position of Architect is vacant; (2) the Architect has failed to take action required under Article 4.6.5 within the time

periods required therein; or (3) the Dispute or Claim relates to a stop notice claim not arising from any extra Change Order or Immediate Change Directive for which approval has not been provided.

4.6.2 Architect's Review

The Architect (and CM) will review the Dispute and take one or more of the following preliminary actions upon receipt of a Dispute: (1) request additional supporting data from the claimant; (2) submit a schedule to the parties indicating when the Architect expects to take action; (3) reject the Dispute in whole or in part, stating reasons for rejection; (4) recommend approval of the Dispute; or (5) suggest a compromise. The Architect may also, but is not obligated to, notify the Surety, if any, of the nature and amount of the Dispute.

4.6.2.1 *Architectural Immunity*. Architect review of Disputes and Claims shall be impartial and meant to resolve Disputes and Claims. Pursuant to the case, <u>Huber, Hunt & Nichols, Inc. v. Moore</u> (1977) 67 Cal.App.3d 278, the Architect is provided a quasi-judicial immunity for interpreting and deciding Disputes and Claims between the District and Contractor.

4.6.3 Documentation if Resolved

If a Dispute has been resolved, the Architect (and/or CM) will prepare a Change Order or obtain appropriate documentation to document the terms for Board approval.

4.6.4 Actions if Not Resolved

If a Dispute has not been resolved and all documentation requested pursuant to Article 4.6.2 has been provided, the Contractor shall, within ten (10) days after the Architect's initial response, assemble all the documents involved in the Dispute including copies of all back-up documentation of costs and the basis for the Dispute and take one or more of the following actions: (1) modify the initial Dispute; (2) notify the Architect that the initial Dispute stands; or (3) supplement with additional supporting data and re-submit to the Architect under Article 4.6.2.

4.6.5 Architect's Written Decision

If a Dispute has not been resolved after consideration of the foregoing and of other evidence presented by the parties or requested by the Architect, the Architect (or Architect through CM) the Architect shall provide a written decision twenty (20) days after compliance with Article 4.6.4. Upon expiration of such time period, the Architect (or Architect through CM) will render to the parties its written decision relative to the Dispute, including any change in the Contract Sum or Contract Time or both.

The Architect may also request reasonable additional time to complete Architect's written decision.

If the resolution of the Dispute by the Architect is not satisfactory to the Contractor and copies of all back-up documentation of costs and the basis for the Dispute is fully articulated in a package of material that is complete, the Contractor may then submit a Claim to the District under Article 4.6.9

4.6.6 <u>Continuing Contract Performance</u>

Pending final resolution of a Dispute or Claim, including, negotiation, mediation, arbitration, or litigation, the Contractor shall proceed diligently with performance of the Contract, and the District shall continue to make any undisputed payments in accordance with the Contract (less any withholdings or offsets). If the Claim is not resolved, Contractor agrees it will neither rescind the Contract nor stop the progress of the work, but Contractor's sole remedy shall be to submit such controversy to determination by a court of competent jurisdiction in the county where the Project is located, after the Project has been completed, and not before.

- 4.6.6.1 District's Option to Submit Individual Disputes to Arbitration during Claims and Disputes Process. At the District's sole option, in order to more efficiently resolve Claims during the Project and prior to the completion of the Claims Process, pursuant to Government Code section 9201, the District may submit individual Disputes or Claims for binding arbitration and Contractor agrees to the resolution of for each individual Dispute or Claim by an Arbitrator, including resolution of time and delays. If binding arbitration is utilized for individual Disputes or Claims, such resolution is full and final as to that particular Dispute or Claim. THIS INDIVIDUAL DISPUTE ARBITRATION PROCESS IS NOT AN ARBITRATION CLAUSE AND SHALL NOT BE CONSTRUED AS AN AGREEMENT TO ARBITRATE. THIS INDIVIDUAL DISPUTES ARBITRATION PROCESS IS FOR THE SOLE PURPOSE OF STREAMLINING AND RESOLVING DISPUTES OR CLAIMS DURING CONSTRUCTION AND SHALL BE REQUESTED ON SPECIFIC INDIVIDUAL ITEMS BY THE DISTRICT PRIOR TO RETENTION PAYMENT (EVEN IF THERE ARE DEDUCTIONS MADE FROM RETENTION PAYMENT) WHICH REPRESENTS THE FINAL COMPLETION OF THE PROJECT.
 - a. If there is no Retention remaining on the Project, individual Disputes initiated prior to Project Final Completion shall continue until a final disposition of the Arbitration or resolution of the individual Claim or Dispute.
 - b. <u>No Tolling</u>. The Arbitration process shall not toll the Disputes or Claims process under Article 4.6 or the requirement to submit Claims to Court under Article 4.6.9.4.

4.6.7 Claims for Concealed Trenches or Excavations Greater Than Four Feet Below the Surface

When any excavation or trenching extends greater than four feet below the surface or if any condition involving hazardous substances are encountered:

- a. <u>Immediately upon discovery</u>, The Contractor shall promptly, and before the following conditions are disturbed, notify the District, by telephone and in writing, of the condition except:
 - 1. If such condition is a hazardous waste condition, Contractor's bid includes removal or disposal of hazardous substances. Material that the Contractor believes may be a material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law. In such case, the notice bulletin procedures of Article 7 apply.
 - 2. Subsurface or latent physical conditions at the Site differing from those indicated in the Drawings, Specifications, Soils Report, and from Contractor's own investigation under Article 2.1.
 - 3. Unknown physical conditions at the Site of any unusual nature, different materially from those ordinarily encountered and generally

recognized as inherent in Work of the character provided for in the Contract.

- b. The District shall investigate the conditions, and if District finds that the conditions do materially so differ, do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work shall issue a Change Order or Construction Change Document under the procedures described in the Contract.
- c. <u>In the event that a dispute</u> arises between the public entity or District and the Contractor whether the conditions materially differ, involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled Completion Date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. The Contractor shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties.

4.6.8 <u>Dispute Concerning Extension of Time.</u>

If Contractor and District cannot agree upon an extension of time, whether compensable or not, then Contractor must have first completed the procedures set forth in Article 8.4. Upon completion of the procedures set forth under Article 8.4, Contractor must then comply with the requirements in this Article including those set forth under Article 4.6.9.

4.6.9 Claims Procedures

Pursuant to the remedies under Public Contract Code section 9201 and Government Code section 930.2, Contractor, through execution of this Agreement, also agrees to comply with the Disputes and Claims requirements of Article 4.6 to quickly and efficiently resolve Disputes and Claims. Further, to provide a level of accuracy to the records submitted, the District shall have the right to audit books and records pursuant to Article 13.11 based on the actual costs incurred and to reduce the uncertainty in resolving Disputes and Claims with limited information.

4.6.9.1 Procedure Applicable to All Claims

- a. <u>Definition of Claim</u>: A "Claim" is where a Dispute between the parties rises to the level where backup documentation is assembled and provided to the District as a separate demand by the Contractor for: (1) a time extension including, without limitation, for relief from damages or penalties for delay assessed by the District under the Contract; (2) payment by the District of money or damages arising from Work done by or on behalf of the Contractor pursuant to the Contract and payment for which is not otherwise expressly provided for or to which the Contractor is not otherwise entitled to; or (3) an amount of payment disputed by the District. If the Claim is for damages associated with a DSA Stop Work Order, the Contractor shall not be entitled to a request for Compensation, but shall be entitled to utilize Governmental Delay Float (See Article 8.1.4.1.)
- b. <u>Filing Claim Is Not Basis to Discontinue Work</u>: The Contractor shall promptly comply with Work under the Contract or Work requested by the District even though a written Claim has been filed. The Contractor and the District shall make good faith efforts to resolve any and all Claims that may arise during the performance of the Work covered by this Contract.
- c. <u>Claim Notification</u>: The Contractor shall within seven (7) calendar days after the written decision of the Architect, or if the time period for Architect's decision has passed under Article 4.6.1, submit a notification in writing sent by registered mail or certified mail return receipt requested to the District (and the District's CM) stating clearly the basis for the Claim and including all relevant and required documents. If the notification is not submitted

within seven (7) days after the written decision of the Architect or the passage of time under Article 4.6.1, the Contractor shall be deemed to have waived all right to assert the Claim, and the Claim shall be denied. Claims submitted after the Retention Payment date shall also be considered null and void by the District. All Claims shall be reviewed pursuant to Articles 4.6.1 through 4.6.5.

The Formal Notification of Claim must be presented as follows:

- (1) The term "Claim" must be at the top of the page in no smaller than 20 point writing.
- (2) All documentation submitted pursuant to Article 4.6 to the Architect shall be submitted with the "Claim."
- (3) A stack of documents, copy of all Project documents, or the submission of random documents shall not constitute an adequate reference to supporting documentation.
- (4) Any additional or supporting documentation that Contractor believes is relevant should be submitted at this time.
- d. <u>Reasonable Documents to Support Claim</u>: The Contractor shall furnish reasonable documentation to support the Claim. The Contractor shall provide all written detailed documentation which supports the Claim, including but not limited to: arguments, justifications, cost, estimates, Schedule analysis and detailed documentation. The format of the required reasonable documentation to support the Claim shall include, without limitation:
 - 1. Cover letter.
 - 2. Summary of factual basis of Claim and amount of Claim.
 - 3. Summary of the basis of the Claim, including the specific clause and section under the Contract under which the Claim is made.
 - 4. Documents relating to the Claim, including:
 - a. Specifications sections in question.
 - b. Relevant portions of the Drawings
 - c. Applicable Clarifications (RFI's)
 - d. Other relevant information, including responses that were received.
 - e. Contractor Analysis of Claim merit.
 - a.Contractor's analysis of any Subcontractor vendor Claims that are being passed through.
 - b. Any analysis performed by outside consultants
 - c. Any legal analysis that Contractor deems relevant
 - f. Break down of all costs associated with the Claim.
 - g. For Claims relating to time extensions, an analysis and supporting documentation evidencing any effect upon the critical path in conformance with the requirements of Article 8.4 chronology of events and related correspondence.

- h. Applicable Daily Reports and logs.
- a.. If the Daily Reports or Logs are not available, lost or destroyed, there shall be a presumption that the lost documentation was unfavorable to the Contractor. See California Civil Jury Instruction 204.
- i. For Claims involving overhead, cost escalation, acceleration, disruption or increased costs, a full version of job costs reports organized by category of work or Schedule of Values with budget information tracked against actual costs. Any and all supporting back-up data, including the original bid (and associated original unaltered metadata).
- a. The metadata and bid information shall be provided confidentially and subject to a protective order to prevent dissemination to other contractors or to the public. However, the bid documentation should remain intact and available for review and inspection in case of this type of increased cost Claim.
- b. This data on the bid shall be made available to any District attorneys or experts and shall also be utilized as evidence for any legal proceedings.
- c. If the bid documentation is not available, lost or destroyed, there shall be a presumption that the lost bid documentation was unfavorable to the Contractor. See California Civil Jury Instruction 204.

e.Certification: The Contractor (and Subcontractors, if applicable) shall submit with the Claim a certification under penalty of perjury:

- 1. That the Contractor has reviewed the Claim and that such Claim is made in good faith;
- 2. Supporting data are accurate and complete to the best of the Contractor's knowledge and belief;
- 3. The amount requested accurately reflects the amount of compensation for which the Contractor believes the District is liable.
- 4. That the Contractor is familiar with Government Code sections 12650 et seq. and Penal Code section 72 and that false claims can lead to substantial fines and/or imprisonment.
- f..Upon receipt of a Claim and all supporting documents as required above, the District shall conduct a reasonable review of the Claim and, within a period not to exceed 45 days, shall provide the Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed. Upon receipt of a Claim, the District and Contractor may, by mutual agreement, extend the time period provided in this paragraph.

g.If the District needs approval from its governing Board to provide the Contractor a written statement identifying the disputed portion and the undisputed portion of the Claim, and the governing Board does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a Claim sent by registered mail or certified mail, return receipt requested, the District shall have up to three days following the next duly publicly noticed meeting of the governing Board after the 45-day period, or extension, expires to provide the Contractor a written statement identifying the disputed portion and the undisputed portion.

- h. Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the District issues its written statement. If the District fails to issue a written statement, paragraph o below shall apply.
- i. If the Contractor disputes the District's written response, or if the District fails to respond to a Claim issued pursuant to this Article 4.6.9 within the time prescribed, the Contractor may demand

in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the District shall schedule a meet and confer conference within 30 days for settlement of the Claim.

- j. Within 10 business days following the conclusion of the meet and confer conference, if the Claim or any portion of the Claim remains in dispute, the District shall provide the Contractor a written statement identifying he portion of the Claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the District issues its written statement. Any disputed portion of the Claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the District and the Contractor sharing the associated costs equally. The District and Contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the Claim remaining in dispute shall be subject to applicable procedures in Article 4.6.9.4
- k. For purposes of this Article 4.6.9, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.
- 1. Unless otherwise agreed to by the District and the Contractor in writing, the mediation conducted pursuant to this Article 4.6.9 shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.
- m. This Claims process does not preclude the District from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this Article 4.6.9 does not resolve the parties' Claim. This Claims process does not preclude the District from submitting individual Disputes or Claims to binding arbitration pursuant to Article 4.6.9.3 below.
- n. Failure by the District to respond to a Claim from the Contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this Article 4.6.9 shall result in the Claim being deemed rejected in its entirety. A Claim that is denied by reason of the District's failure to have responded to a Claim, or its failure to otherwise meet the time requirements of this Article 4.6.9, shall not constitute an adverse finding with regard to the merits of the Claim or the responsibility or qualifications of the Contractor.
- o. If a subcontractor or a lower tier subcontractor lacks legal standing to assert a Claim against a District because privity of contract does not exist, the Contractor may present to the District a Claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the Contractor present a Claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the Claim be presented to the District shall furnish reasonable documentation to support the Claim. Within 45 days of receipt of this written request, the Contractor shall notify the subcontractor in writing as

- to whether the Contractor presented the Claim to the District and, if the Contractor did not present the Claim, provide the subcontractor with a statement of the reasons for not having done so.
- p. Upon receipt of a Claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable.
- q. The Contractor's Claim shall be denied if it fails to follow the requirements of this Article.
- 4.6.9.2 <u>District (through CM or District's Agent or Attorney) May Request Additional Information</u>: Within thirty (30) days of receipt of the Claim and the information under this Article, the District may request in writing any additional documentation supporting the Claim or documentation relating to defenses to the Claim which the District may assert. If additional documents are required, the time in which the Claim is evaluated may be extended by a reasonable time so the Claim and additional documents may be reviewed. *Claims Procedures in Addition to Government Code Claim.* Nothing in the Claims procedures set forth in this Article 4 of the General Conditions shall act to waive or relieve the Contractor from meeting the requirements set forth in Government Code section 900 et seq.
- 4.6.9.3 Binding Arbitration of Individual Claim Issues. To expedite resolution of Claims pursuant to Public Contract Code section 9201, at the District's sole option, the District may submit individual Claims to Arbitration prior to Retention Payment consistent with the requirements of Article 4.6.6.1
- 4.6.9.4 *Resolution of Claims in Court of Competent Jurisdiction.* If Claims are not resolved under the procedure set forth and pursuant to Article 4.6.9, such Claim or controversy shall be submitted to a court in the County of the location of the Project after the Project has been completed, and not before.
- 4.6.9.5 Warranties, Guarantees and Obligations. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon Contractor by the General Conditions and amendments thereto; and all of the rights and remedies available to District and Architect thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by laws or regulations by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this Article will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply.

ARTICLE 5

SUBCONTRACTORS

5.1 DEFINITIONS

5.1.1 <u>Subcontractual Relations Bound to Same Contract Terms at General Contractor</u>

By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the same obligations and responsibilities, assumed by Contractor pursuant to the Contract Documents. Each

subcontract agreement shall preserve and protect the rights of the District and the Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound. Upon written request of the Subcontractor, the Contractor shall identify to the Subcontractor the terms and conditions of the proposed subcontract agreement, which may be at variance with the Contract Documents. Subcontractors shall similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

5.1.2 Subcontractor Licenses

All Subcontractors shall be properly licensed by the California State Licensing Board. 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. No portion of the Work is permitted to be performed by a Subcontractor of any tier unless the subcontractor is properly registered with DIR. Any Subcontractors of any tier not properly registered with DIR shall be substituted in accordance with Labor Code section 1771.1.

5.1.3 Substitution of Subcontractor

Substitution of Subcontractors shall be permitted only as authorized under Public Contract Code §§ 4107 et seq. Any substitutions of Subcontractors shall not result in any increase in the Contract Price or result in the granting of any extension of time for the completion of the Project.

5.1.3 Contingent Assignment of Subcontracts and Other Contracts

Each subcontract, purchase order, vendor contract or agreement for any portion of the Work is hereby assigned by the Contractor to the District provided that:

- a. Such assignment is effective only after Termination of this Contract with the Contractor by the District as provided under Article 14 and only for those subcontracts and other contracts and agreements that the District accepts by notifying the Subcontractor or Materialman (as may be applicable) in writing; and
- b. Such assignment is subject to the prior rights of the Surety(ies) obligated under the Payment Bond and Performance Bond.
- c. The Contractor shall include adequate provisions for this contingent assignment of subcontracts and other contracts and agreements in each such document.

ARTICLE 6

CONSTRUCTION BY DISTRICT OR BY SEPARATE CONTRACTORS

6.1 <u>DISTRICT'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS</u>

6.1.1 Separate Contracts.

- 6.1.1.1 District reserves the right to let other contracts in connection with this Work. Contractor shall afford other contractors reasonable opportunity for (1) introduction and storage of their materials; (2) access to the Work; and (3) execution of their work. Contractor shall properly connect and coordinate its work with that of other Contractors.
- 6.1.1.2. If any part of Contractor's Work depends on proper execution or results of any other contractor, the Contractor shall inspect and within seven (7) days or less, report to Architect, in writing, any defects in such work that render it unsuitable for proper execution of Contractor's Work. Contractor will be held accountable for damages to District for that Work which it failed to inspect or should have inspected. Contractor's failure to inspect and report shall constitute its acceptance of other contractors' Work as fit and proper for reception of its Work, except as to defects which may develop in other contractors' work after execution of Contractor's work.
- 6.1.1.3 To ensure proper execution of its subsequent Work, Contractor shall measure and inspect Work already in place and shall at once report to the Architect in writing any discrepancy between executed Work as built and the Contract Documents.
- 6.1.1.4 Contractor shall ascertain to its own satisfaction the scope of the Project and nature of any other contracts that have been or may be awarded by District in prosecution of the Project and the potential impact of such Work on the Baseline Schedule or Schedule updates.
- 6.1.1.5 Nothing herein contained shall be interpreted as granting to Contractor the exclusive occupancy at the site of Project. Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on the Project Site. If execution of any contract by the District is likely to cause interference with Contractor's performance of this Contract, once Contractor provides District timely written notice and identifies the Schedule Conflict, District shall decide which contractor shall cease work temporarily and which contractor shall continue, or whether Work can be coordinated so that contractors may proceed simultaneously.
- 6.1.1.6 District shall not be responsible for any damages suffered or extra costs incurred by Contractor resulting directly or indirectly from award or performance or attempted performance of any other contract or contracts at the Project necessary for the performance of the Project (examples include Electrical Utility Contractor, separate offsite contractor, a separate grading contractor, furniture installation etc.)

CONTRACTOR IS AWARE THAT THIS CONTRACT MAY BE SPLIT INTO SEVERAL PHASES BASED ON DOCUMENTATION PROVIDED WITH THIS BID OR DISCUSSED AT THE JOB WALK. CONTRACTOR HAS MADE ALLOWANCE FOR ANY DELAYS OR DAMAGES WHICH MAY ARISE FROM COORDINATION WITH CONTRACTORS REQUIRED FOR OTHER PHASES. IF ANY DELAYS SHOULD ARISE FROM ANOTHER CONTRACTOR WORKING ON A DIFFERENT PHASE, CONTRACTOR'S SOLE REMEDY FOR DAMAGES, INCLUDING DELAY DAMAGES, SHALL BE AGAINST THE CONTRACTOR WHO CAUSED SUCH DAMAGE AND NOT THE DISTRICT. CONTRACTOR SHALL PROVIDE ACCESS TO OTHER

CONTRACTORS FOR OTHER PHASES AS NECESSARY TO PREVENT DELAYS AND DAMAGES TO OTHER CONTRACTORS WORKING ON OTHER PHASES OF CONSTRUCTION.

6.1.2 District's Right to Carry Out the Work

See Article 2.2.

6.1.3 Designation as Contractor

When separate contracts are awarded to contractors on the Project Site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate District/Contractor Agreement.

6.1.4 District Notice to the Contractor of Other Contractors

The Contractor shall have overall responsibility to reasonably coordinate and schedule Contractor's activities with the activities of the District's forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the District in reviewing their construction schedules when:

Notice is provided in the Contract Documents of other scope of Work,

a. Contractors	In the case where there is known Work to be performed by other		
b.	For outside contractors hired by utilities		
c.	Where the Contract Document provides "Work by Others" or "By		
Others"	where the constant Boundary provides work by control of By		
d.	Where specifically noted during the Pre-Bid Conference		
e.	Where specifically noted in the Mandatory Job Walk		
f.	By CO or ICD,		
g.	With respect to the installation of:		
	1. Furniture,		
	2. Electronics and networking equipment,		
	3. Cabling,		
	4. Low voltage,		

- 5. Off-site work,
- 6. Grading (when by a separate contractor),
- 7. Environmental remediation when excluded by the Contract Documents (i.e. asbestos, lead or other hazardous waste removal)
- 8. Deep cleaning crews,
- 9. Commissioning and testing,
- 10. Keying and re-keying,
- 11. Programming
- 6.1.4.2 Exception where no Coordination is Required on the Part of the Contractor for Turn Key Operations. If the Contractor has specifically outlined a "Turn Key" or "Complete Delivery" of a final completed operational campus or building in writing as part of the Baseline Schedule...
- 6.1.4.3 The Contractor shall make any revisions to the Baseline Schedule (or Schedule Update) and Contract Sum deemed necessary after a joint review and mutual agreement. The Baseline Schedule (or Schedule Update) shall then constitute the Schedules to be used by the Contractor.

separate contractors, and the District until subsequently revised. Additionally, Contractor shall coordinate with Architect, District, and Inspector to ensure timely and proper progress of Work.

6.2 CONSTRUCTIVE OWNERSHIP OF PROJECT SITE AND MATERIAL

Upon commencement of Work, the Contractor becomes the constructive owner of the entire site, improvements, material and equipment on Project site. Contractor must ensure proper safety and storage of all materials and assumes responsibility as if Contractor was the owner of the Project site. All risk of loss or damage shall be borne by Contractor during the Work until the date of Completion. As constructive owner of the Project site, Contractor must carry adequate insurance in case of calamity and is not entitled to rely on the insurance requirements as set forth in this Agreement as being adequate coverage in case of calamity.

6.3 <u>DISTRICT'S RIGHT TO CLEAN UP</u>

If a dispute arises among the Contractor, separate contractors, and the District as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish as described in Article 3.12, the District may clean up and allocate the cost among those it deems responsible.

ARTICLE 7

CHANGES IN THE WORK

7.1 CHANGES

7.1.1 <u>No Changes Without Authorization</u>

There shall be no change whatsoever in the Drawings, Specifications, or in the Work without an executed Change Order, Change Order Request, Immediate Change Directive, or order by the Architect for a minor change in the Work as herein provided. District shall not be liable for the cost of any extra work or any substitutions, changes, additions, omissions, or deviations from the Drawings and Specifications unless the District's Governing Board or designated representative with delegated authority (subject to Board ratification) has authorized the same and the cost thereof approved in writing by Change Order or executed Construction Change Document. No extension of time for performance of the Work shall be allowed hereunder unless claim for such extension is made at the time changes in the Work are ordered, and such time duly adjusted in writing in the Change Order. The provisions of the Contract Documents shall apply to all such changes, additions, and omissions with the same effect as if originally embodied in the Drawings and Specifications. Notwithstanding anything to the contrary in this Article 7, all Change Orders shall be prepared and issued by the Architect and shall become effective when executed by the District's Governing Board, the Architect, and the Contractor.

Should any Change Order result in an increase in the Contract Price, the cost of such Change Order shall be agreed to, in writing, in advance by Contractor and District and be subject to the monetary limitations set forth in Public Contract Code section 20659 (Please check with the District since there are different interpretations of the limitations of Public Contract Code section 20659 depending on the County the Project is located). In the event that Contractor proceeds with any change in Work without first notifying District and obtaining the Architect's and District's consent to a Change Order, Contractor waives any Claim of additional compensation for such additional work and Contractor takes the risk that a Notice of Non-Compliance may issue, a critical path Project delay may occur, and the Contractor will also be responsible for the cost of preparation and DSA CCD review fees for a corrective DSA approved Construction Change Document.

CONTRACTOR UNDERSTANDS, ACKNOWLEDGES, AND AGREES THAT THE REASON FOR THIS NOTICE REQUIREMENT IS SO THAT DISTRICT MAY HAVE AN OPPORTUNITY TO ANALYZE THE WORK AND DECIDE WHETHER THE DISTRICT SHALL PROCEED WITH THE CHANGE ORDER OR ALTER THE PROJECT SO THAT SUCH CHANGE IN WORK BECOMES UNNECESSARY AND TO AVOID THE POSSIBLE DELAYS ASSOCIATED WITH THE ISSUANCE OF A NOTICE OF NON-COMPLIANCE.

7.1.2 <u>Notices of Non-Compliance</u>

Contractor deviation or changes from approved Plans and Specifications may result in the issuance of a Notice of Non-Compliance (See DSA Form 154). Contractor is specifically notified that deviations from the Plans and Specifications, whether major or minor, may result in the requirement to obtain a DSA Construction Change Document to correct the Notice of Non-Compliance. (See Article 7.3.1for Definition of CCD). In some cases, the lack of a DSA approved CCD AND verification from the Inspector that a Notice of Non-Compliance has been corrected may result in a critical path delay to the next stage of Work on the Project. Specifically, a deviation from approved Plans and Specifications may prevent approval of the category of Work listed in the DSA 152 Project Inspection Card. Any delays that are caused by the Contractor's deviation from approved Plans and Specifications shall be the Contractor's responsibility.

7.1.3 <u>Architect Authority</u>

The Architect will have authority to order minor changes in the Work that do not involve DSA Approval not involving any adjustment in the Contract Sum, or an extension of the Contract Time.

7.2 CHANGE ORDERS ("CO")

A CO is a written instrument prepared by the Architect and signed by the District (as authorized by the District's Governing Board), the Contractor, and the Architect stating their agreement upon all of the following:

- a. A description of a change in the Work;
- b. The amount of the adjustment in the Contract Sum, if any; and
- c. The extent of the adjustment in the Contract Time, if any.

A CO may be comprised of ICD's, Response to RFP's and COR's

7.3 CONSTRUCTION CHANGE DOCUMENT (CCD Category A, and CCD Category B) and IMMEDIATE CHANGE DIRECTIVE (ICD)

7.3.1 Definitions

7.3.1.1 Construction Change Document (CCD). A Construction Change Document is a DSA term that is utilized to address changes to the DSA approved Plans and Specifications. There are two types of Construction Change Documents. (1) DSA approved CCD Category A for Work affecting structural, access compliance or fire/ life safety of the Project which will require a DSA approval; and, (2) CCD Category B for Work NOT affecting structural safety, access compliance or fire/ life safety that will not require a DSA approval (except to confirm that no approval is required). Both CCD Category A and Category B shall be set forth in DSA Form 140 and submitted to DSA as required.

7.3.1.2 Immediate Change Directive (ICD). An Immediate Change Directive is a written order to the Contractor prepared by the Architect and signed by the District (and CM if there is a CM on the Project) and the Architect, directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both. The District may by ICD, without invalidating the Contract, direct immediate changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions within. If applicable, the Contract Sum and Contract Time will be adjusted accordingly.

In the case of an Immediate Change Directive being issued, Contractor must commence Work immediately or delays from failure to perform the ICD shall be the responsibility of Contractor and the failure to move forward with Work immediately shall also be grounds for Termination under Article 14.

An ICD does not automatically trigger an Article 7.6 Dispute or Claim. Contractor must timely follow the procedures outlined at Article 7.6 and 4.6 where applicable.

Refer to Division 1 and Supplementary General Conditions for a copy of the proposed Immediate Change Directive form.

7.3.2 Use to Direct Change

An ICD shall be used to move work forward immediately and to avoid delay. In some cases, an ICD shall be issued in the absence of agreement on the terms of a CO, COR, or RFP. A copy of an ICD form is provided in the Supplementary General Conditions and Division 1. The anticipated not to exceed price for the Work will be inserted into the ICD. In the case of an ICD issued to correct Contractor Deficiencies or to correct a Contractor caused Notice of Non-Compliance, the ICD may be issued with \$0 and no additional time. Contract may prepare a COR associated with the ICD pursuant to Article 7. However, Contractor shall proceed with all Work required under an Approved ICD immediately upon issuance. Failure to proceed with the Work under an ICD shall be grounds for Termination for Cause under Article 14 or take over the Work under Article 2.2.

If adequate time exists, an ICD may be subject of an RFP for pricing and determination if any time that may be required. However, if an RFP is not completed, Contractor shall immediately commence Work when an ICD is issued. If the RFP is incomplete, it may still be completed to be submitted for pricing purposes as long as the RFP is submitted within the timeline provided by the RFP, or within 10 days following issuance of the ICD.

7.3.3. <u>ICD Issued Over a Notice of Non-Compliance or to Cover Work Subject to a DSA 152</u> Sign Off

In some cases, an ICD shall be for the purpose of proceeding with Work to keep the Project on Schedule and as an acknowledgement by the District that Contractor is proceeding with Work contrary to a Notice of Non-Compliance, prior to issuance of a DSA approved CCD Category A, or to direct the covering of Work which has not yet received a DSA 152 Inspection Approval to move forward.

7.3.3.1 Contractor Compliance with all Aspects of an ICD. Contractor is to undertake the ICD and comply with all aspects of the Work outlined in the ICD. Inspector is to inspect the Work pursuant to the ICD. Failure to follow the ICD may result in deduction of the ICD Work under Article 2.2 or Termination of the Contractor pursuant to Article 14.

- 7.3.3.2 Exception in the Case of DSA Issued Stop Work Order. Contractor must proceed with an ICD even if a CCD has not been approved by DSA except in the case of a DSA issued Stop Work Order. If a DSA Stop Work Order is issued, Contractor must stop work and wait further direction from the District.
- 7.3.3.3 ICD Due to Contractor Deficiency or Contractor Caused Notice of Non-Compliance. If an ICD is issued to correct a Contractor Deficiency or a Contractor caused notice of Non-Compliance, Contractor specifically acknowledges responsibility for all consequential damages associated with the Contractor Deficiency or Contractor caused Notice of Non-Compliance and all consequential damages and costs incurred to correct the deficiency under Article 4.5

7.4 REQUEST FOR INFORMATION ("RFI")

A RFI is a written request prepared by the Contractor requesting the Architect to provide additional information necessary to clarify or amplify an item which the Contractor believes is not clearly shown or called for in the Drawings or Specifications, or to address problems which have arisen under field conditions.

- 7.4.1.1 A RFI shall not be used as a vehicle to generate time extensions.
- 7.4.1.2 Resubmission of the same or similar RFI is not acceptable. RFI's that are similar should be addressed in Project meetings where the requestor (Contractor, Subcontractor or vendor) is able to address the particular issue with the Architect or Engineer and a resolution addressed in the minutes.
- 7.4.1.3 A RFI response applicable to a specific area cannot be extended to other situations unless specifically addressed in writing within the RFI or in a separate RFI.
- 7.4.1.4 RFI's should provide a proposed solution and should adequately describe the problem that has arisen.

7.4.2 Scope

The RFI shall reference all the applicable Contract Documents including Specification section, detail, page numbers, Drawing numbers, and sheet numbers, etc. The Contractor shall make suggestions and interpretations of the issue raised by the RFI. An RFI cannot modify the Contract Cost, Contract Time, or the Contract Documents.

7.4.3 Response Time

The Architect must respond to a RFI within a reasonable time after receiving such request. If the Architect's response results in a change in the Work, then such change shall be effected by a written CO, COR RFP or ICD, if appropriate. If the Architect cannot respond to the RFI within a reasonable time, the Architect shall notify the Contractor, with a copy to the Inspector and the District, of the amount of time that will be required to respond.

7.4.4 Costs Incurred

The Contractor shall be responsible for any costs incurred for professional services as more fully set forth in Article 4.5, which shall be subject to a Deductive Change Order, if an RFI requests an interpretation or decision of a matter where the information sought is equally available to the party

making such request. District, at its sole discretion, shall issue a Deductive Change Order to Contractor for all such professional services arising from this Article.

7.5 REQUEST FOR PROPOSAL ("RFP")

7.5.1 Definition

A RFP is a written request prepared by the Architect (and/or CM) requesting the Contractor to submit to the District and the Architect an estimate of the effect of a proposed change on the Contract Price and (if applicable) the Contract Time. If Architect issues a Bulletin, the Changed items in the Bulletin shall be addressed as an RFP and all responses shall be prepared to a Bulletin as addressed in this Article 7.5. A form RFP is included in the Division 1 documents.

7.5.2 <u>Scope</u>

A RFP shall contain adequate information, including any necessary Drawings and Specifications, to enable Contractor to provide the cost breakdowns required by Article 7.7. The Contractor shall not be entitled to any Additional Compensation for preparing a response to an RFP, whether ultimately accepted or not.

7.5.3 <u>Response Time</u>

Contractor shall respond to an RFP within ten (10) days or the time period otherwise set forth in the RFP.

7.6 CHANGE ORDER REQUEST ("COR")

7.6.1 Definition

A COR is a written request prepared by the Contractor supported by backup documentation requesting that the District and the Architect issue a CO based upon a proposed change, cost, time, or cost and time that may be incurred on the Project or arising from an RFP, ICD, or CCD.

7.6.2 Changes in Price

A COR shall include breakdowns per Article 7.7 to validate any change in Contract Price due to proposed change or Claim.

7.6.3 Changes in Time

A COR shall also include any additional time required to complete the Project only if the delay is a critical path delay. Any additional time requested shall not be the number of days to make the proposed change, but must be based upon the impact to the Project Schedule as defined in Article 8. A schedule fragnet showing the time delay must be submitted with the COR. Any changes in time will be granted only if there is an impact to the critical path. If Contractor fails to request a time extension in a COR, then the Contractor is thereafter precluded from requesting or claiming a delay.

7.7 COST OF CHANGE ORDERS

7.7.1 <u>Scope</u>

Within ten (10) days after a request is made for a change that impacts the Contract Sum as defined in Article 9.1, the critical path, or the Contract Time as defined in Article 8.1.1, the Contractor shall provide the District and the Architect, with a written estimate of the effect of the proposed CO upon the Contract Sum and the actual cost of construction, which shall include a complete itemized cost breakdown of all labor and material showing actual quantities, hours, unit prices, and wage rates required for the change, and the effect upon the Contract Time of such CO. Changes may be made by District by an appropriate written CO, or, at the District's option, such changes shall be implemented immediately upon the Contractor's receipt of an appropriate written Construction Change Document.

District may, as provided by law and without affecting the validity of this Agreement, order changes, modification, deletions and extra work by issuance of written CO or CCD from time to time during the progress of the Project, Contract Sum being adjusted accordingly. All such Work shall be executed under conditions of the original Agreement except that any extension of time caused thereby shall be adjusted at time of ordering such change. District has discretion to order changes on a "time and material" basis with adjustments to time made after Contractor has justified through documentation the impact on the critical path of the Project.

7.7.1.1 *Time and Material Charges*. If the District orders Work on a "time and material" basis, timesheets shall be signed daily by the Inspector or District Representative at or near the time the Work is actually undertaken and shall show the hours worked, and the Work actually completed. No time sheets shall be signed the next day. A copy shall be provided to the Person signing the document at the time the document is signed, but not before 10 am the following day.

7.7.2 <u>Determination of Cost</u>

The amount of the increase or decrease in the Contract Price from a CO or COR, if any, shall be determined in one or more of the following ways as applicable to a specific situation:

- a. <u>Mutual acceptance</u> of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation. If an agreement cannot be reached within fifteen (15) days after submission and negotiation of Contractor's proposal, Contractor may submit pursuant to Article 7.7.3. Submission of sums which have no basis in fact are at the sole risk of Contractor and may be a violation of the False Claims Act set forth under Government Code section 12650 et seq.);
- 1. If the District objects to 7.7.2a) as a method for submission due to inaccuracies in the submitted amount, overstatement of manpower or time required to perform the CO, or unreliability of the data provided, the District may either have the Architect or a professional estimator determine the cost for the CO, and the applicable time extension, or the Contractor shall utilize Article 7.7.2(d) or 7.7.3.
- 2. Once the District provides a written objection to use of Article 7.7.2(a) due to unreliability of the estimated price, the Contractor shall no longer utilize mutual acceptance of a lump sum as a method for submission of CO's and shall provide a breakdown of estimated or actual costs pursuant to Article 7.7.2d) or 7.7.3.
- b. By unit prices contained in Contractor's original bid and incorporated in the Project documents or fixed by subsequent agreement between District and Contractor;

- c. Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee. However, in the case of disagreement, Contractor must utilize the procedure under Article 7.7.3; or
- d. By cost of material and labor and percentage of overhead and profit. If the value is determined by this method the following requirements shall apply:

1. Basis for Establishing Costs

- (1) <u>Labor will be the cost for wages</u> prevailing locally for each craft or type of workers at the time the extra Work is done, plus employer payments of payroll taxes and workers compensation insurance (exclude insurance costs as part of the overhead and profit mark-up), health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State, or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. In no case shall the total labor costs exceed the applicable prevailing wage rate for that particular classification. The use of a labor classification which would increase the extra Work cost will not be permitted unless the Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.
- (2) Materials shall be at invoice or lowest current price at which such materials are locally available and delivered to the Site in the quantities involved, plus sales tax, freight, and delivery. The District reserves the right to approve materials and sources of supply or to supply materials to the Contractor if necessary for the progress of the Work. No markup shall be applied to any material provided by the District.
- (3) <u>Tool and Equipment Rental</u>. No payment will be made for the use of tools which have a replacement value of \$250 or less.

Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed listed rates prevailing locally at equipment rental agencies or distributors at the time the Work is performed. Rates applied shall be appropriate based on actual equipment need and usage. Monthly, weekly or other extended use rates that results in the lowest cost shall be applied if equipment is used on site for extended periods.

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

Necessary loading and transportation costs for equipment used on the extra Work shall be included. If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the District than holding it at the Work Site, it shall be returned unless the Contractor elects to keep it at the Work Site at no expense to the District.

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

If tool and equipment charges are part of a Dispute, Claim, or Appeal, the District reserves the right to utilize actual costs for tools and equipment or a depreciation rate for equipment based on audit finding under Article 13.11 and deduct any rental charges that exceed actual or depreciated costs.

e. Other Items. The District may authorize other. items which may be required on the extra work. Such items include labor, services, material, and equipment which are different in their nature from those

required by the Work, and which are of a type not ordinarily available from the Contractor or any of the Subcontractors. Invoices covering all such items in detail shall be submitted with the request for payment.

<u>f.Invoices</u>. Vendors' invoices for material, equipment rental, and other expenditures shall be submitted with the COR. If the request for payment is not substantiated by invoices or other documentation, the District may establish the cost of the item involved at the lowest price which was current at the time of the Daily Report.

g. Overhead. Overhead, including direct and indirect costs, shall be submitted with the COR and include: field overhead, home office overhead, off-site supervision, CO preparation/negotiation/research, time delays, Project interference and disruption, additional guaranty and warranty durations, on-site supervision, additional temporary protection, additional temporary utilities, additional material handling costs, liability and property damage insurance, and additional safety equipment costs.

7.73 Format for COR or CO's

The following format shall be used as applicable by the District and the Contractor to communicate proposed additions to the Contract. All costs submitted shall be actual costs and labor shall be unburdened labor. Refer to Division 1 for a copy of the Construction Change Order form.

		<u>EXTRA</u>	CREDIT
(a)	Material (attach itemized quantity and unit cost plus sales tax)		
(b)	Labor Not to Exceed Applicable Prevailing Wage Rates (attach itemized hours and rates)		
(c)	Equipment (attach invoices)		
(d)	Subtotal		
(e)	If Subcontractor performed work, add Subcontractor's overhead and profit to portions performed by Subcontractor, not to exceed 10% of item (d).		
(f)	Subtotal		
(g)	Contractor's Overhead and Profit: Not to exceed 10% of Item (d) if Contractor performed the work. No more than 5% of Item (d) if Subcontractor performed the work. If work was performed by Contractor and Subcontractors, portions performed by Contractor shall not exceed 10% of Item (d), and portions performed by Subcontractor shall not exceed 10% of Item (d)		
(h)	Subtotal		
(i)	Bond not to exceed one percent (1%) of Item (h)		
(k)	TOTAL		
(1)	Time/ Days		

The undersigned Contractor approves the foregoing Change Order or Immediate Change Directive as to the changes, if any, and the Contract price specified for each item and as to the extension of time allowed, if any, for completion of the entire Work on account of said Change Order or Immediate Change Directive, and agrees to furnish all labor, materials and service and perform all Work necessary to complete any additional Work specified therein, for the consideration stated herein. It is understood that said Change Order or Immediate Change Directive shall be effective when approved by the Governing Board of the District.

It is expressly understood that the value of such extra Work or changes, as determined by any of the aforementioned methods, expressly includes any and all of the Contractor's costs and expenses, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs, expenses, damages or time extensions not included are deemed waived.

The Contractor expressly acknowledges and agrees that any change in the Work performed shall not be deemed to constitute a delay or other basis for claiming additional compensation based on theories including, but not limited to, acceleration, suspension or disruption to the Project.

7.7.3.1 Adjustment for Time and Compensable Delay. A CO shall also include any additional time required to complete the Project. Any additional time requested shall not be the number of days to make the proposed change, but must be based upon the impact to the Project Schedule as defined in Article 8 of the General Contract. A schedule fragnet showing the time delay must be submitted with the CO. Any changes in time will be granted only if there is an impact to the critical path. If Contractor fails to request a time extension in a CO, then the Contractor is thereafter precluded from requesting or claiming a delay.

7.7.4 Deductive Change Orders

All Deductive Change Order(s) must be prepared utilizing the form under Article 7.7.3 (a) - (d) only, setting forth the actual costs incurred. Except in the case of an Article 2.2 or 9.6 Deductive Change Order where no mark-up shall be allowed, Contractor will be allowed a maximum of 5% total profit and overhead.

For unilateral Deductive Change Orders, or where credits are due from Contractor for Allowances, Deductive Items, Inspection, Damage, DSA CCD review costs, Architect or Inspector costs for after hours or corrective services, Work removed from the Agreement under Article 2.2 or Article 9.6, there shall be no mark-up.

District may any time after a Deductive Change Order is presented to Contractor by District for items under Article 2.2 or Article 9.6 of if there is disagreement as to the Deductive Change Order, issue a unilateral Deductive Change Order on the Project and deduct the Deductive Change Order from a Progress Payment, Final Payment, or Retention.

7.7.5 Discounts, Rebates, and Refunds

For purposes of determining the cost, if any, of any change, addition, or omission to the Work hereunder, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials and equipment shall accrue and be credited to the Contractor, and the Contractor shall make provisions so that such discounts, rebates, refunds, and returns may be secured, and the amount thereof shall be allowed as a reduction of the Contractor's cost in determining the actual cost of construction for purposes of any change, addition, or omissions in the Work as provided herein. All CO's are subject to Audit under Article 13.11 for discounts, rebates and refunds.

7.7.6 <u>Accounting Records</u>

With respect to portions of the Work performed by CO's and CCD's on a time-and-materials, unit-cost, or similar basis, the Contractor shall keep and maintain cost-accounting records in a format consistent with accepted accounting standards and satisfactory to the District, which shall be available to the District on the same terms as any other books and records the Contractor is required to maintain under the Contract Documents.

Any time and material charges shall require Inspector's signature on time and material cards showing the hours worked and the Work actually completed. See Article 7.7.1.1.

7.7.7 Notice Required

If the Contractor desires to initiate a Dispute for an increase in the Contract Price, or any extension in the Contract Time for completion, Contractor shall notify the applicable party responsible for addressing the Dispute or Claim pursuant to Article 4.6. No Claim or Dispute shall be considered unless made in accordance with this subparagraph. Contractor shall proceed to execute the Work even though the adjustment may not have been agreed upon. Any change in the Contract Price or extension of the Contract Time resulting from such Claim shall be authorized by a CO.

7.7.8 Applicability to Subcontractors

Any requirements under this Article 7 shall be equally applicable to CO's, COR's or ICD's issued to Subcontractors by the Contractor to the same extent required by the Contractor.

7.7.9 Alteration to Change Order Language

Contractor shall not alter or reserve time in COR's, CO's or ICD's. Contractor shall execute finalized CO's and proceed under Article 7.7.7 and Article 4.6 with proper notice. If Contractor intends to reserve time without an approved CPM schedule prepared pursuant to Article 8 or without submitting a fragnet showing delay to critical path, then Contractor may be prosecuted pursuant to the False Claim Act.

ARTICLE 8

TIME AND SCHEDULE

8.1 <u>DEFINITIONS</u>

8.1.1 <u>Contract Time</u>

Contractor shall perform and reach Substantial Completion (See Article 1.1.46) within the time specified in the Agreement Form. Moreover, Contractor shall perform its Work in strict accordance with the Project Milestones in the Contract Documents and shall proceed on a properly developed and approved Baseline Schedule, which represents the Contractor's view of the practical way in which the Work will be accomplished. Note that Contract Time includes and incorporates all Float and other Baseline inclusions as noted in Article 8.3.2.1 and as otherwise specifically noted in Article 8.

8.1.2 Notice to Proceed

District may give a Notice to Proceed within ninety (90) days of the award of the bid by District. Once Contractor has received the notice to proceed, Contractor shall complete the Work in the period of time referenced in the Contract Documents.

In the event that District desires to postpone the giving of the Notice to Proceed beyond this three-month period, it is expressly understood that with reasonable notice to the Contractor, the giving of the date to proceed may be postponed by District. It is further expressly understood by Contractor, that Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the giving of the notice to proceed.

If the Contractor believes that a postponement will cause a hardship to Contractor, Contractor may terminate the Contract with written notice to District within 10 days after receipt by Contractor of District's notice of postponement. It is further understood by Contractor that in the event that Contractor terminates the Contract as a result of postponement by the District, the District shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement and the grounds for notification and hardship shall be subject to Audit pursuant to Article 13.11. Should Contractor terminate the Contract as a result of a notice of postponement, District may award the Contract to the next lowest responsible bidder.

8.1.3 <u>Computation of Time</u>

The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

8.1.4 Float

Float is time the total number of days an activity may be extended or delayed without delaying the Completion Date shown in the schedule. Float will fall into three categories: (1) Rain Days; (2) Governmental Delays; and, (3) Project Float. Project Float and Rain Days are owned by the Project and may be utilized as necessary for critical path delays once the days become available for consumption (i.e. the Rain Day arrives and is not utilized since rain did not occur or Work was performed on the interior of a building). However, Governmental Delay float shall not be utilized for purposes other than to address critical path delays that arise due to approvals, Inspector approvals or verifications on governmental forms.

8.1.4.1 Governmental Delay Float. It is anticipated that there will be governmental generated delays. Specific to DSA approvals, it is anticipated that no less than twelve (12) days per calendar year shall be set aside as Governmental Float to be utilized on critical path delays. A pro-rated number of days shall be calculated based on length of Contract Time. (For example, a two (2) year Contract Time shall require twenty-four (24) days of Governmental Float. If the Contract Time is 182 days, then the Contract Time shall require six (6) days of Governmental Float) This Governmental Delay float must be incorporated into the schedule and should be incorporated in each critical activity as Contractor deems fit. Specifically, major categories of Work under the DSA 152 (Project Inspection Card) should be allocated Governmental Delay Float at the Contractor's discretion. Governmental Delay Float on the Project may exceed 12 days per one (1) year period, but Contractor is required to include not be less than 12 days of Governmental Delay Float during each one (1) year period.

Contractor's failure to establish a protocol for requesting inspections is not grounds to utilize Governmental Delay Float. As noted in Article 3.1.4, 48 hours advance notice of commencing Work on a new area is required after submitting form DSA 156 and under PR 13-01 Special Inspection reports are not required to be posted until at least 14 days after the Work was inspected. Failure to plan, and pay (if applicable) for quicker delivery of Special Inspections is not Governmental Delay Float under Article 8.1.4.1. If Governmental Delay Float is not utilized, this float is carried through to other DSA 152 categories of inspection and consumed over the course of the Project

Governmental Delay Float may be utilized for a DSA Stop Work Order regardless of fault as defined under Education Code section 81133.5.

8.1.4.2 *Inclement Weather (Rain Days)*. The Contractor will only be allowed a time extension for unusually severe weather if it results in precipitation or other conditions which in the amount, frequency, or duration is in excess of the norm at the location and time of year in question as established by NOAA weather data. No less than 22 calendar days for each calendar year for Southern California will be allotted for in the Contractor's schedule for each winter weather period or carried at the end of the schedule as Rain Float. Float for weather days in other geographical regions shall be adjusted based on NOAA weather data for the geographical location. Contractor has anticipated all the days it takes to dry out and re-prepare areas that may be affected by weather delays which extend beyond the actual weather days. The weather days shall be shown on the schedule and if not used will become float for the Project's use. The Contractor will not be allowed a day-for-day weather delay for periods noted as float in the Schedule. The Contractor is expected to work seven (7) days per week (if necessary, irrespective of inclement weather), to maintain access, and to protect the Work under construction from the effects of inclement weather. Additional days beyond the NOAA shall be considered under the same criteria that weather days are granted below.

A Rain Day shall be granted by Architect or CM if the weather prevents the Contractor from beginning Work at the usual daily starting time, or prevents the Contractor from proceeding with seventy-five (75%) of the normal labor and equipment force towards completion of the day's current controlling item on the accepted schedule for a period of at least five hours, and the crew is dismissed as a result thereof, the Architect will designate such time as unavoidable delay and grant one (1) critical path activity calendar-day extension if there is no available float for the calendar year.

8.1.4.3 The Contractor may determine some activities require a lesser duration than allocated and may set aside float in the Project Schedule. There shall be no early completion. Instead, to the extent float is either addressed at the end of the Project or throughout each category of critical path work, Project float may be used as necessary during the course of the Project and allocated on a first, come first serve basis. However, the use of float does not extend to Governmental Delay Float, which shall only be used for Governmental Delays.

8.2 HOURS OF WORK

8.2.1 <u>Sufficient Forces</u>

Contractors and Subcontractors shall continuously furnish sufficient forces to ensure the prosecution of the Work in accordance with the Construction Schedule.

8.2.2 <u>Performance During Working Hours</u>

Work shall be performed during regular working hours as permitted by the appropriate governmental agency except that in the event of an emergency, or when required to complete the Work in accordance with job progress, Work may be performed outside of regular working hours with the advance written consent of the District and approval of any required governmental agencies.

8.2.3 Costs for After Hours Inspections

If the Work done after hours is required by the Contract Documents, a Recovery Schedule, or as a result of the Contractor's failure to plan, and inspection must be conducted outside the Inspector's regular working hours, the costs of any after hour inspections, shall be borne by the Contractor.

If the District allows the Contractor to do Work outside regular working hours for the Contractor's convenience, the costs of any inspections required outside regular working hours shall be invoiced to the Contractor by the District and a Deductive Change Order shall be issued from the next Progress Payment.

If the Contractor elects to perform Work outside the Inspector's regular working hours, costs of any inspections required outside regular working hours shall be invoiced to the Contractor by the District and a Deductive Change Order from the next Progress Payment as a Deductive Change Order.

8.3 PROGRESS AND COMPLETION

8.3.1 Time of the Essence

Time limits stated in the Contract Documents are of the essence to the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

8.3.2 Baseline Schedule Requirements

- 8.3.2.1 *Timing*: Within ten (10) calendar days after Notice to Proceed, Contractor shall submit a practical schedule showing the order in which the Contractor proposes to perform the Work, and the dates on which the Contractor contemplates starting and completing the salient categories of the Work. This first schedule which outlines the Contractor's view of the practical way in which the Work will be accomplished is the Baseline Schedule. If the Contractor Fails to submit the Baseline Schedule within the ten (10) days noted, then District may withhold processing and approval of progress payments pursuant to Article 9.4 and 9.6.
- 8.3.2.2 District Review and Approval: District, Architect and CM will review both a paper and electronic copy of Baseline Schedule and may provide comments as noted in this Article and either approve or disapprove the Baseline Schedule. All Schedules shall be prepared using an electronic scheduling program acceptable to District. All Schedules shall be delivered in an electronic format usable by the District. All logic ties and electronic information shall be included in the electronic copy of the Baseline Schedule that is delivered to the District.
- 8.3.2.3 Schedule Must Be Within the Given Contract Time. The Baseline Schedule shall not exceed time limits set forth in the Contract Documents and shall comply with all of the scheduling requirements as set forth in the Specifications and Contract Documents.

- 8.3.2.4 Submittals Must Be Incorporated (See Articles 3.7 and 3.9): Contractor shall include Submittals as line items in the Baseline Schedule as required under Article 3.7.2 and 3.9.6. Submittals shall not delay the Work, Milestones, or the Completion Date. Failure to include Submittals in the Baseline Schedule shall be deemed a material breach by the Contractor.
- 8.3.2.5 Float Must Be Incorporated. The Baseline Schedule must indicate the beginning and completion of all phases of construction and shall use the "critical path method" (commonly called CPM) for the value reporting, planning and scheduling, of all Work required under the Contract Documents. The Baseline Schedule must incorporate all Milestones in the Project and apply Governmental Float at each Milestone in the Contractor's discretion. The Baseline Schedule shall incorporate any Schedule provided by the District as part of the bid and shall note durations that will not be adequate or should be shortened based on Contractor's review. These changes shall be identified and incorporated into Contractor's Baseline Schedule as long as requested changes are made within 10 days after the District chooses to move forward with the Project. Scheduling is necessary for the District's adequate monitoring of the progress of the Work and shall be prepared in accordance with the time frame described in this Article 8. The Architect may disapprove of any Schedule or require modification to it if, in the opinion of the Architect or District, adherence to the any Schedule prepared by the Contractor will not cause the Work to be completed in accordance with the Agreement.
- 8.3.2.6 *No Early Completion.* Contractor shall not submit any Schedule showing early completion without indicating float time through the date set for Project completion by District. Contractor's Baseline Schedule shall account for all days past early completion as float which belongs to the Project. Usage of float shall not entitle Contractor to any delay Claim or damages due to delay.
- 8.3.2.7 *Use of Schedule Provided in Bid Documents*. In some cases, the bid will include a preliminary schedule indicating Milestones and construction sequences for the Project along with general timing for the Project. The preliminary schedule is not intended to serve as the Baseline Schedule utilized for construction. It is up to the Contractor to study and develop a Baseline Schedule to address the actual durations and sequences of Work that is anticipated while maintaining the Milestones provided by the District. Contract shall obtain information from Contractor's Subcontractors and vendors on the planning, progress, delivery of equipment, coordination, and timing of availability of Subcontractors so a practical plan of Work is fully developed and represented in the Baseline Schedule.
- 8.3.2.8 *Incorrect Logic, Durations, Sequences, or Critical Path.* The District may reject or indicate durations, sequences, critical path or logic are not acceptable and request changes. The electronic copy of the Baseline Schedule shall have adequate information so logic ties, duration, sequences and critical path may be reviewed electronically. Contractor is to diligently rebuild and resubmit the Baseline Schedule to represent the Contractor's plan to complete the Work and maintain Milestones at the next progress meeting, or before the next progress meeting. If Contractor is not able to build a Baseline Schedule that is acceptable to the District or Architect, the District reserves the right to utilize the unapproved originally submitted Baseline Schedule (See Article 8.3.2.12) and the comments submitted to hold Contractor accountable for timely delivery of Work and maintenance of Milestones. Furthermore, Contractor's representations in the Baseline Schedule, if unacceptable, may also be used as a basis for termination of the Contract under Article 14 if Contractor fails to adequately maintain the Schedule and falls significantly behind without undertaking the efforts to either submit and follow a Recovery Schedule or fail to submit a Recovery Schedule and make no effort toward recovery on the Project.

- 8.3.2.9 *Contractor Responsibility Even if Schedule Issues Are Not Discovered.* Failure on the Part of the District to discover errors or omissions in any Schedules submitted shall not be construed to be an approval of the error or omission and any flawed Schedule is not grounds for a time extension.
 - 8.3.2.9.1 <u>Inclusions in Baseline Schedule.</u> In addition to scheduling requirements set forth at Article 8.3.2, Contractor is specifically directed to include (broken out separately) in Contractor's Baseline Schedule and all Schedule updates, the following items required pursuant to these General Conditions, including but not limited to:
 - 1. Rain Day Float (excluding inclement weather) as required under Article 8.1.4.2. For example, if the NOAA provides 22 days of Rain Days, all 22 days must be incorporated and noted in the Baseline Schedule. Further, any days required to clean-up or dry out shall be included for operations that are likely to require a clean-up or dry out period. Days that are not utilized shall be considered float owned by the Project.
 - 2. Governmental Delay Float under Article 8.1.4.1. This Governmental Delay Float shall only be utilized for Governmental Delays and shall not be considered available float owned by the Project. This float shall only be distributed to the Project upon the completion of the Project and shall be used to offset Liquidated Damages and shall not generate compensable delays.
 - 3. Submittal and Shop Drawing schedule under Article 3.9.
 - 4. Deferred Approvals under Article 3.9.
 - 5. Time for separate contractors, including furniture installation and start up activities, under Article 6.1.
 - 6. Coordination and timing of any Drawings, approvals, notifications, permitting, connection, and testing for all utilities for the Project. Article 2.1.4
 - 7. Testing, special events, or school activities
- 8.3.2.10 Failure to include Mandatory Schedule Items. District may withhold payment pursuant to Articles 9.3, 9.4 and 9.6. In lieu of withholding payment for failure to include Mandatory Schedule Items, after the District or Architect has notified the Contractor of failure to meet the Baseline Schedule or Updated Schedule requirements and provided a written notification of this failure and provided a written notice of Schedule preparation errors, and the Contractor fails to correct the noted deficiencies or the Contractor does not provide an updated Baseline Schedule correcting the deficiencies, then Contractor shall not be granted an extension of time for failure to obtain necessary items and approvals under Article 8.3.2 and for the time required for failure to comply with laws, building codes, and other regulations (including Title 24 of the California Code of Regulations). Contractor shall maintain all required Article 8.3.2 Schedule items in the Baseline Schedule and indicate any days that have been used as allowed in Article 8. If Contractor fails to include all Article 8.3.2 items in its Baseline Schedule or Schedule Updates and the District either utilizes an Unapproved Schedule under Article 8.3.2.12 or does not object to the inclusion of required scheduling items, then all mandatory Schedule inclusions, including float, shall be utilized in the District's discretion. If the Contract Time is exceeded, then Contractor shall be subject to the assessment of Liquidated Damages pursuant to Article 8.4.

- 8.3.2.11 Failure to Meet Requirements. Failure of the Contractor to provide proper Schedules as required by this Article and Article 9 is a material breach of the Contract and grounds for Termination pursuant to Article 14. The District, at its sole discretion, may choose, instead, to withhold, in whole or in part, any Progress Payments or Retention amounts otherwise payable to the Contractor.
- 8.3.2.12*Use of an Unapproved Baseline Schedule*. If the Baseline Schedule submitted by the Contractor is unacceptable to the District (i.e. failing to meet the requirements of Article 8.3.2) and Contractor does not incorporate or address the written comments to the Baseline Schedule and a Baseline Schedule is not approved, but due to extreme necessity, the District moves forward without an approved Baseline Schedule, Contractor shall diligently revise and meet Schedule update requirements of Article 8 and incorporate all Article 8.3.2 comments in all updates). However, for purposes of Termination pursuant to Article 14, the unapproved Baseline Schedule initially submitted shall be treated as the Baseline Schedule with durations shortened or revised to accommodate all float, all mandatory Schedule requirements under Article 8.3.2, any requirements in the Contract Documents, and all revisions by the District or Architect.

8.3.3 <u>Update Schedules</u>

8.3.3.1 *Updates Shall Be Based on Approved Baseline Schedule.* Except in the case where there has not been agreement as to a Baseline Schedule, the approved Baseline Schedule shall be used to build future Schedule updates. Schedule updates shall be a CPM based Schedule consistent with the Baseline Schedule requirements of 8.3.2

In the case that no Baseline has been approved, Schedule updates shall be provided monthly and each update shall incorporate all comments and revisions noted as not complying with the requirements of Article 8.3.2. Contractor shall be held to the Article 8.3.2.12 unapproved Baseline Schedule, inclusive of all Milestones, float, comments and revisions by the District and Architect, all required Baseline Schedule Inclusions under Article 8.3.2, and any requirements in the Contract Documents.

- 8.3.3.2 Schedule Updates. Contractor shall update the approved Schedule each month to address actual start dates and durations, the percent complete on activities, actual completion dates, estimated remaining duration for the Work in progress, estimated start dates for Work scheduled to start at future times and changes in duration of Work items.
- 8.3.3.3 Listing of Items Causing Delays. Schedule updates shall provide a listing of activities which are causing delay in the progress of Work and a narrative shall be provided showing a description of problem areas, anticipated delays, and impacts on the Construction Schedule. Simply stating "District Delay" or "Architect Delay" shall be an inadequate listing. Delays shall only be listed if they meet the requirements of Article 8.4.
- 8.3.3.4 *Recovery Schedule*. In addition to providing a schedule update every thirty (30) days, the Contractor, if requested by the Architect or District, shall take the steps necessary to improve Contractor's progress and demonstrate to the District and Architect that the Contractor has seriously considered how the lost time, the Completion Date, or the Milestones that are required to be met within the terms of the Contract. Contractor shall immediately provide a Recovery Schedule showing how Milestones and the Completion Date will be met. In no case, shall a Recovery Schedule be provided later than ten (10) days following the request for a Recovery Schedule from the Architect or District.

- a. <u>Failure to Provide a Recovery Schedule</u>. Shall subject Contractor to the assessment of Liquidated Damages for failure to meet the Contract Time. Refusal or failure to provide a Recovery Schedule shall be considered a substantial failure of performance and a material breach of Contract and may result in Termination of the Contract pursuant to Article 14.
- b. <u>Recovery Schedule Acceleration without Additional Cost.</u> The District may require Contractor prepare a Recovery Schedule showing how the Project shall be accelerated, without any additional cost to the District. The District may order, without additional cost, the following:
- 1. Increase the number of shifts:
- 2. Utilize overtime to recover the approved Schedule; and/or
- 3. Increase the days when Work occurs, including weekends, at the Project and at any manufacturer's plant.
 - c. <u>Recovery Schedule Acceleration without Additional Cost.</u> If Contractor disputes that the Recovery Schedule acceleration shall be issued without additional costs, the Contractor shall submit concurrent with Recovery Schedule acceleration notice pursuant to Articles 8.4.3 and 8.4.4.

8.4 EXTENSIONS OF TIME - LIQUIDATED DAMAGES

8.4.1 <u>Liquidated Damages</u>

CONTRACTOR AND DISTRICT HEREBY AGREE THAT THE EXACT AMOUNT OF DAMAGES FOR FAILURE TO COMPLETE THE WORK WITHIN THE TIME SPECIFIED IS EXTREMELY DIFFICULT OR IMPOSSIBLE TO DETERMINE. IF THE WORK IS NOT SUBSTANTIALLY COMPLETED IN THE TIME SET FORTH IN THE AGREEMENT, IT IS UNDERSTOOD THAT THE DISTRICT WILL SUFFER DAMAGES. IT BEING IMPRACTICAL AND UNFEASIBLE TO DETERMINE THE AMOUNT OF ACTUAL DAMAGE, IT IS AGREED THE CONTRACTOR SHALL PAY TO THE DISTRICT THE AMOUNT LIQUIDATED DAMAGES SET FORTH IN THE AGREEMENT, FOR EACH CALENDAR DAY OF DELAY IN REACHING SUBSTANTIAL COMPLETION (SEE ART 1.1.46). CONTRACTOR AND ITS SURETY SHALL BE LIABLE FOR THE AMOUNT THEREOF PURSUANT TO GOVERNMENT CODE SECTION 53069.85.

8.4.2 Delay

Except and only to the extent provided under Article 7 and Article 8, by signing the Agreement, Contractor agrees to bear the risk of delays to Completion of the Work and that Contractor's bid for the Project was made with full knowledge of this risk.

In agreeing to bear the risk of delays to complete the Work, Contractor understands that, except and only to the extent provided otherwise in Article 7 and 8, the occurrence of events that delay the Work shall not excuse Contractor from its obligation to achieve Completion of the Project within the Contract Time, and shall not entitle the Contractor to an adjustment to the Contract time.

8.4.2 Excusable Delay

Contractor shall not be charged for Liquidated Damages because of any delays in completion of Work which are not the fault or negligence of Contractor or its Subcontractors, arising from Rain Float or Project Float, including acts of God, as defined in Public Contract Code section 7105,

acts of enemy, epidemics and quarantine restrictions. Contractor shall within five (5) calendar days of beginning of any such delay notify District in writing of causes of delay; thereupon District shall ascertain the facts and extent of delay and grant extension of time for completing Work when, in its judgment, the findings of fact justify such an extension. Extensions of time shall apply only to that portion of Work affected by delay, and shall not apply to other portions of Work not so affected. An extension of time may only be granted after proper compliance with Article 8.3 requiring preparation and submission of a properly prepared CPM schedule.

- 8.4.3.1 *Excusable Delay Is Not Compensable*. No extended overhead, general conditions costs, impact costs, out-of-sequence costs or any other type of compensation, by any name or characterization, shall be paid to the Contractor for any delay to any activity not designated as a critical path item on the latest approved Project schedule.
- 8.4.3.2 *Notification*. The Contractor shall notify the Architect in writing of any anticipated delay and its cause, in order that the Architect may take immediate steps to prevent, if possible, the occurrence or continuance of delay, and may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the Work might be delayed thereby.
- 8.4.3.3 Extension Request. In the event the Contractor requests an extension of Contract time for unavoidable delay, such request shall be submitted in accordance with the provisions in the Contract Documents governing changes in Work (See Article 7). When requesting time, i.e., extensions, for proposed Change Orders, they must be submitted with the proposed Change Order with full justification and documentation. If the Contractor fails to submit justification with the proposed Change Order it waives its right to a time extension at a later date. Such justification must be based on the official Contract schedule as updated at the time of occurrence of the delay or execution of Work related to any changes to the scope of Work. Blanket or general claims for extra days without specific detailed information as required herein or a blanket or general reservation of rights do not fufill the requirements of this Article and shall be denied. The justification must include, but is not limited to, the following information:
 - a. The duration of the activity relating to the changes in the Work and the resources (manpower, equipment, material, etc.) required to perform these activities within the stated duration.
 - b. Logical ties to the official Baseline Schedule or Approved Updated Schedule for the proposed changes and/or delay showing the activity/activities in the schedule whose start or completion dates are affected by the change and/or delay. (A fragment of any delay of over ten (10) days must be provided.)

The Contractor and District understand and expressly agree that insofar as Public Contract Code section 7102 may apply to changes in the Work or delays under this Contract, the actual delays and damages, if any, and time extensions are intended to, and shall provide, the exclusive and full method of compensation for changes in the Work and construction delays.

8.4.4 Notice by Contractor Required

The Contractor shall within five (5) calendar days of beginning of any such delay notify the District in writing of causes of delay with justification and supporting documentation. In the case of a Recovery Schedule pursuant to Article 8.3.3.4, Contractor shall submit written notice concurrent with the Recovery Schedule. District will then ascertain the facts and extent of the delay and grant an extension of time for completing the Work when, in its judgment, the findings of fact justify such an extension. Extensions of time shall apply only to that portion of the Work affected by the delay and shall not apply to other portions of the Work not so affected.

Claims relating to time extensions shall be made in accordance with applicable provisions of Article 7.

- 8.4.4.1*Adjustment for Compensable Delays*. The Schedule may be adjusted for a delay if, and only if, Contractor undertakes the following:
 - a. Contractor submits a timely COR or CO pursuant to the requirements of Article 7.
 - b. Contractor submits a fragnet showing the critical path delay caused by the COR, CO, Changed Condition, CCD, or ICD
 - c. Contractor has addressed all required float days in the Fragnet.
 - d. Contractor submits a complete breakdown of all costs incurred utilizing the format of Article 7.3.3

8.4.5 <u>No Additional Compensation for Coordinating Governmental Submittals and the Resulting Work</u>

CONTRACTOR HAS PLANNED ITS WORK AHEAD OF TIME AND IS AWARE THAT GOVERNMENTAL AGENCIES, SUCH AS THE GAS COMPANIES, ELECTRICAL UTILITY COMPANIES, WATER DISTRICTS AND OTHER AGENCIES MAY HAVE TO APPROVE CONTRACTOR PREPARED DRAWINGS OR APPROVE A PROPOSED INSTALLATION. CONTRACTOR HAS INCLUDED DELAYS AND DAMAGES WHICH MAY BE CAUSED BY SUCH AGENCIES IN CONTRACTOR'S BID AND HAS INCLUDED ADEQUATE TIME IN THE CONTRACTOR'S BASELINE SCHEDULE. FAILURE TO ADEQUATELY PLAN AND SCHEDULE IS NOT A BASIS TO USE GOVERNMENTAL DELAY FLOAT.

8.4.6 <u>District Right to Accelerate the Work</u>

The District may direct the Contractor to meet schedule requirements when the Work has been delayed. The District shall compensate the Contractor for the additional costs incurred by acceleration to the extent that such costs are directly attributable to the acceleration and are incurred through no fault or negligence of the Contractor.

- 8.4.6.1*Management of Acceleration*. Contractor acceleration shall not include Work that is part of the scope of Work detailed in the Plans and Specifications. Instead, the acceleration costs shall be premium or overtime and quantifiable additional work added to the Project meant to accelerate the Project. Contractor is directed to keep consistent crews on the Project so time can be tracked. If crews are circulated off the Project or crews brought in only for overtime, the District may be charged for Contract Work and not accelerated time. In such case, the District may object to the costs submitted.
- 8.4.6.2Costs for Acceleration. Cost for Acceleration shall be supported by backup documentation, and time sheets signed by the Inspector for each day work has been performed, at or near the time when the Work was performed. A listing on the time sheet shall document all labor, materials and services utilized that day and provide areas of work, and amount of work performed. Contractor shall comply with submission requirements of Article 7.7.

ARTICLE 9

PAYMENTS AND COMPLETION

9.1 **CONTRACT SUM**

The Contract Sum or Contract Price is stated in the Agreement and, including authorized adjustments, is the total amount payable by the District to the Contractor for performance of the Work under the Contract Documents.

9.2 COST BREAKDOWN

9.2.1Required Information

Contractor shall furnish the following:

- a. Within ten (10) days after Notice to Proceed, a detailed breakdown of the Contract Price (hereinafter "Schedule of Values") for each Project, Site, building, Milestone or other meaningful method to measure the level of Project Completion as determined by the District shall be submitted as a Submittal for the Project.;
- b. Within ten (10) days after the date of the Notice to Proceed, a schedule of estimated monthly payment requests due the Contractor showing the values and construction time of the various portions of the Work to be performed by it and by its Subcontractors or material and equipment suppliers containing such supporting evidence as to its correctness as the District may require;
- c. Within ten (10) days after the date of the Notice to Proceed, address, telephone number, telecopier number, California State Contractors License number, classification and monetary value of all subcontracts for parties furnishing labor, material, or equipment for completion of the Project.

9.2.2Information and Preparation of Schedule of Values

- 9.2.2.1 *Break Down of Schedule of Values*. Schedule of Values shall be broken down by Project, site, building, Milestone, or other meaningful method to measure the level of Project Completion as determined by the District.
- 9.2.2.2.Based on Contractor Bid Costs. The Schedule of Values shall be based on the costs from Contractor's bid to the District. However, the submission of the Schedule of Values shall not be front loaded so the Contractor is paid a greater value than the value of the Work actually performed and shall not shift funds from parts of the Project that are later to Work that is performed earlier.
- 9.2.2.3<u>Largest Dollar Value for Each Line Item</u>. Identify Subcontractors and materials suppliers proposed to provide portions of Work equal to or greater than ten thousand dollars (\$10,000) or one-half of one percent (0.5%) of their Contract Price, whichever is less.
- 9.2.2.4*Allowances*. Any Allowances provided for in the Contract shall be a line item in the Schedule of Values.

9.2.2.5Labor and Materials Shall Be Separate. Labor and Materials shall be broken into two separate line items unless specifically agreed in writing by the District.

9.2.3 <u>District Approval Required</u>

The District shall review all submissions received pursuant to Article 9.2 in a timely manner. All submissions must be approved by the District before becoming the basis of any payment.

9.3. PROGRESS PAYMENTS

9.3.1 Payments to Contractor

Unless there is a resolution indicating that the Work for the Project is substantially complex, within thirty-five (35) days after approval of the Request for Payment, Contractor shall be paid a sum equal to ninety-five percent (95%) of the value of the Work performed (as certified by Architect and Inspector and verified by Contractor) up to the last day of the previous month, less the aggregate of previous payments. In the case of a Project designated substantially complex, the sum paid to the Contractor shall be equal to ninety percent (90%) of the value of the Work performed (as certified by the Architect and Inspector and verified by Contractor). The value of the Work completed shall be the Contractor's best estimate. Work completed as estimated shall be an approximation or estimate only and no mistake, inaccuracy, error or falsification in said any approved estimate shall operate to release the Contractor, or any Surety upon any bond, from damages arising from such Work, or from the District's enforcement of each and every provision of this Contract including but not limited to the Performance Bond and Payment Bond. The District shall have the right to subsequently to correct any mistake, inaccuracy, error or falsification made or otherwise set forth in any approved Request for Payment and such correction may occur in any future Payment Application or in the Retention Payment to the Contractor. No Surety upon any bond shall be relieved, released or exonerated of its obligations under this Contract or any applicable bond when the District is unable to correct an overpayment to the Contractor due to any abandonment by the Contractor or termination by the District.

The Contractor shall not be entitled to have any payment requests processed, or be entitled to have any payment made for Work performed, so long as any lawful or proper direction given by the District concerning the Work, or any portion thereof, remains incomplete.

Notwithstanding anything to the contrary stated above, the Contractor may include in its Request for Payment the value of any structural steel, glue laminated beams, trusses, bleachers and other such custom-made materials prepared specifically for the Project and unique to the Project so long as all of the following requirements are satisfied:

- a. The aggregate cost of materials stored off-site shall not exceed Twenty-Five Thousand Dollars (\$25,000) at any time or as otherwise agreed to be District in writing;
- b. Title to such materials shall be vested in the District as evidenced by documentation satisfactory in form and substance to the District, including, without limitation, recorded financing statements, UCC filings and UCC searches;
- c. With each Contractor Request for Payment, the Contractor shall submit to the District a written list identifying each location where materials are stored off-site (which must be a bonded warehouse) and the value of the materials at each location. The Contractor shall procure insurance satisfactory to the District (in its reasonable discretion) for materials stored off-site in an amount not less than the total value thereof;

- d. The consent of any Surety shall be obtained to the extent required prior to payment for any materials stored off-site;
- e. Representatives of the District shall have the right to make inspections of the storage areas at any time; and
- f. Such materials shall be: (1) protected from diversion, destruction, theft and damage to the reasonable satisfaction of the District; (2) specifically marked for use on the Project; and (3) segregated from other materials at the storage facility.

9.3.2 Purchase of Materials and Equipment and Cost Fluctuations

The Contractor is required to order, obtain, and store materials and equipment sufficiently in advance of its Work at no additional cost or advance payment from District to assure that there will be no delays. Contractor understands that materials fluctuate in value and shall have adequately addressed market fluctuations through agreements with Contractor vendors or by other means. Contractor further understands and incorporates into Contractor's bid cost any wage rate increases during the Project for the Contractor's labor force as well as all other Subcontractor and vendor labor forces. District shall not be responsible for market fluctuations in costs or labor rate increases during the Project. Contractor further has incorporated any and all cost increases in areas of Work where there may be schedule variations so that cost increases are not passed through to the District.

9.3.3 No Waiver

No payment by District hereunder shall be interpreted so as to imply that District has inspected, approved, or accepted any part of the Work. Contractor specifically understands that Title 24 Section 4-343 which states:

"It is the duty of the contractor to complete the work covered by his or her contract in accordance with the approved Plans and Specifications therefore. The contractor in no way is relieved of any responsibility by the activities of the Architect, Engineer, Inspector or DSA in the performance of such duties... In no case, however, shall the instruction of the Architect or registered Engineer be construed to cause work to be done with is not in conformity with the approved Plans, Specifications, and change orders..."

Notwithstanding any payment, the District may enforce each and every provision of this Contract which includes, but is not limited to, the Performance Bond and Payment Bond. The District may correct any error subsequent to any payment. In no event shall the Contractor or the Surety be released or exonerated from performance under this Contract when the District overpays the Contractor based upon any mistake, inaccuracy, error or falsification in any estimate that is included in any Request for Payment.

9.3.4 Issuance of Certificate of Payment

The Architect shall, within seven (7) days after receipt of the Contractor's Application for Payment, either approve such payment or notify the Contractor in writing of the Architect's reasons for withholding approval in whole or in part as provided in Article 9.6. The review of the Contractor's Application for Payment by the Architect is based on the Architect's observations at the Project and the data comprising the Application for Payment that the Work has progressed to the point indicated and that, to the best of the Architect's knowledge, information, and belief, the quality of the Work is in accordance

with the Contract Documents. In some cases, the Architect may act upon or rely on the evaluation of the Work by the Inspector. This review of Payment Applications is sometimes called a "Pencil Draft." District's return of a Pencil Draft shall constitute the District's dispute of the Payment Application that has been submitted. Contractor shall promptly respond to Pencil Drafts or Contractor's Payment Applications may be delayed. Contractor's failure to promptly respond to a Pencil Draft shall qualify as a delay in the prompt payment of a Request for Payment or Request for Retention. The foregoing representations are subject to: (1) an evaluation of the Work for conformance with the Contract Documents, (2) results of subsequent tests and inspections, (3) minor deviations from the Contract Documents correctable prior to completion, and (4) specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute the Contractor's verified representation that the Contractor is entitled to payment in the amount certified.

9.3.5 Payment of Undisputed Contract Payments

In accordance with Public Contract Code section 7100, payments by the District to the Contractor for any and all undisputed amounts (including all Progress Payments, Final Payments or Retention Payment) is contingent upon submission of a proper and accurate Payment Application and the Contractor furnishing the District with a release of all Claims against the District related to such undisputed amounts. Disputed Contract Claims in stated amounts may be specifically excluded by the Contractor from the operation of the release. If, however, the Contractor specifically excludes any Claims, the Contractor shall provide details such as a specific number of disputed days or costs of any such exclusion in accordance with Articles 4.6 and 7.7.

9.4 <u>APPLICATIONS FOR PROGRESS PAYMENTS</u>

9.4.1 Procedure

9.4.1.1Application for Progress. On or before the fifth (5th) day of each calendar month during the progress of the Work, Contractor shall submit to the Architect an itemized Application for Progress Payment for operations completed. Such application shall be notarized, if required, and supported by the following or such portion thereof as Architect requires:

- 1. The amount paid to the date of the Payment Application to the Contractor, to all its Subcontractors, and all others furnishing labor, material, or equipment for its Contract;
- 2. The amount being requested under the Payment Application by the Contractor on its own behalf and separately stating the amount requested on behalf of each of the Subcontractors and all others furnishing labor, material, and equipment under the Contract;
- 3. The balance that will be due to each of such entities after said payment is made;
- 4. A certification that the As-Built Drawings and Annotated Specifications are current;
- 5. Itemized breakdown of Work done for the purpose of requesting partial payment;
- 6. An updated or approved Baseline Schedule or other Schedule updates in conformance with Article 8;
- 7. Failure to submit an updated Schedule for the month or any previous month;
- 8. The additions to and subtractions from the Contract Price and Contract Time;

- 9. A summary of the Retention held;
- 10. Material invoices, evidence of equipment purchases, rentals, and other support and details of cost as the District may require from time to time;
- 11. The percentage of completion of the Contractor's Work by line item;
- 12. An updated Schedule of Values from the preceding Application for Payment;
- 13. Prerequisites for Progress Payments; and
- 14. Any other information or documents reasonably requested by the District, Architect, Inspector or CM (if applicable).
- 9.4.1.2 First Payment Request. The following items, if applicable, must be completed before the first payment request will be accepted for processing:
 - 1. Installation of the Project sign;
 - 2. Receipt by Architect of Submittals;
 - 3. Installation of field office;
 - 4. Installation of temporary facilities and fencing;
 - 5. Submission of documents listed in the Article 9.2 relating to Contract Price breakdown;
 - 6. Preliminary schedule analysis, due within 10 days after Notice to Proceed;
 - 7. Contractor's Baseline Schedule (to be CPM based in conformance with Article 8);
 - 8. Schedule of unit prices, if applicable;
 - 9. Submittal Schedule;
 - 10. Copies of necessary permits;
 - 11. Copies of authorizations and licenses from governing authorities;
 - 12. Initial progress report;
 - 13. Surveyor qualifications;
 - 14. Written acceptance of District's survey of rough grading, if applicable;
 - 15. List of all Subcontractors, with names, license numbers, telephone numbers, and scope of work;
 - 16. All bonds and insurance endorsements; and
 - 17. Resumes of General Contractor's Project Manager, and if applicable, job site secretary, record documents recorder, and job site Superintendent.

- 9.4.1.3 Second Payment Request. The second payment request will not be processed until all Submittals and Shop Drawings have been accepted for review by the Architect.
- 9.4.1.4 *All Payment Requests*. No payment requests will be processed unless Contractor has submitted copies of the certified payroll records for the Work which correlates to the payment request and a proper CPM schedule pursuant to Article 8 is submitted.
- 9.4.1.5 Final Payment Application (90% or 95%). See Article 9.11.1
- 9.4.1.6 Final Payment Application (100%). See Article 9.11.3

9.5 STOP NOTICE CLAIMS AND WARRANTY OF TITLE

The Contractor warrants title to all Work. The Contractor further warrants that all Work is free and clear of liens, claims, security interests, stop notices, or encumbrances in favor of the Contractor, Subcontractors, material and equipment suppliers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work. Failure to keep work free of liens, stop notices, claims, security interests or encumbrances is grounds to make a claim against Contractor's Payment and Performance Bond to immediately remedy and defend.

If a lien or stop notice of any nature should at any time be filed against the Work or any District property, by any entity which has supplied material or services at the request of the Contractor, Contractor and Contractor's Surety shall promptly, on demand by District and at Contractor's and Surety's own expense, take any and all action necessary to cause any such lien or stop notice to be released or discharged immediately therefrom.

If the Contractor fails to furnish to the District within ten (10) calendar days after written demand by the District, satisfactory evidence that a lien or stop notice has been so released, discharged, or secured, then District may discharge such indebtedness and deduct the amount required therefor, together with any and all losses, costs, damages, and attorney's fees and expense incurred or suffered by District from any sum payable to Contractor under the Contract. In addition, any liens, stop notices, claims, security interests or encumbrances shall trigger the indemnification requirements under Article 3.15 and the Agreement Form, and shall act as a trigger under Civil Code section 2778 and 2779 requiring reimbursement for any and all costs following the District's written demand has been made. Any withholdings by the District for stop notices in accordance with Civil Code section 9358 shall not be a basis by the Contractor to make a Claim for interest penalties under Public Contract Code sections 7107 or 20104.50.

9.6 DECISIONS TO WITHHOLD PAYMENT

9.6.1 Reasons to Withhold Payment

The District may withhold payment in whole, or in part, to the extent reasonably necessary to protect the District if, in the District's opinion, the representations to the District required by Article 9.4 cannot be made. The District may withhold payment, in whole, or in part, to such extent as may be necessary to protect the District from loss because of, but not limited to:

- a. Defective Work not remedied;
- b. Stop notices served upon the District;
- c. Liquidated Damages assessed against the Contractor;

d. The cost of Completion of the Contract if there exists reasonable doubt that the Work can be Completed for the unpaid balance of any Contract Price or by the completion date; Damage to the District or other contractor; e. f. Unsatisfactory prosecution of the Work by the Contractor; Failure to store and properly secure materials; g. Failure of the Contractor to submit on a timely basis, proper and sufficient documentation required by the Contract Documents, including, without limitation, acceptable monthly progress schedules, Shop Drawings, Submittal schedules, Schedule of Values, Product Data and samples, proposed product lists, executed Change Order, Construction Change Documents, and verified reports; i. Failure of the Contractor to maintain As-Built Drawings; Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Payment Application; Unauthorized deviations from the Contract Documents (including but not limited to Unresolved Notices of Deviations (DSA Form 154)); 1. Failure of the Contractor to prosecute the Work in a timely manner in compliance with established progress schedules and completion dates.; Failure to properly pay prevailing wages as defined in Labor Code m. section 1720, et seq.; Failure to properly maintain or clean up the Site; n. Payments to indemnify, defend, or hold harmless the District; o. Any payments due to the District including but not limited to payments for failed tests, or utilities changes or permits; Failure to submit an acceptable Baseline Schedule or any Schedule or Schedule update in accordance with Article 8; Failure to pay Subcontractor or suppliers as required by Article 9.8.1; r. Failure to secure warranties, including the cost to pay for warranties; s. Failure to provide releases from material suppliers or Subcontractors

Items deducted pursuant to Article 2.2;

when requested to do so;

u.

- v. Incomplete Punch List items under Article 9.9.1.2which have gone through the Article 2.2 process; or
- w. Allowances that have not been used.

9.6.2 <u>Reallocation of Withheld Amounts</u>

District may, in its discretion, apply any withheld amount to payment of outstanding claims or obligations as defined in Article 9.6.1 and 9.5. In so doing, District shall make such payments on behalf of Contractor. If any payment is so made by District, then such amount shall be considered as a payment made under Contract by District to Contractor and District shall not be liable to Contractor for such payments made in good faith. Such payments may be made without prior judicial determination of claim or obligation. District will render Contractor an accounting of such funds disbursed on behalf of Contractor.

If Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents or fails to perform any provision thereof, District may, after ten (10) calendar days written notice to the Contractor and without prejudice to any other remedy make good such deficiencies. The District shall adjust the total Contract price by reducing the amount thereof by the cost of making good such deficiencies. If District deems it inexpedient to correct Work which is damaged, defective, or not done in accordance with Contract provisions, an equitable reduction in the Contract Price (of at least 150% of the estimated reasonable value of the nonconforming Work) shall be made therefor.

9.6.3 <u>Payment After Cure</u>

When the grounds for declining approval are removed, payment shall be made for amounts withheld because of them. No interest shall be paid on any retainage or amounts withheld due to the failure of the Contractor to perform in accordance with the terms and conditions of the Contract Documents.

9.7 NONCONFORMING WORK

Contractor shall promptly remove from premises all Work identified by District as failing to conform to the Contract whether incorporated or not. Contractor shall promptly replace and re-execute its own Work to comply with the Contract without additional expense to District and shall bear the expense of making good all Work of other contractors destroyed or damaged by such removal or replacement.

If Contractor does not remove such Work which has been identified by District as failing to conform to the Contract Documents within a reasonable time, fixed by written notice, District may remove it and may store the material at Contractor's expense. If Contractor does not pay expenses of such removal within ten (10) calendar days' time thereafter, District may, upon ten (10) calendar days' written notice, sell such materials at auction or at private sale and shall account for net proceeds thereof, after deducting all costs and expenses that should have been borne by Contractor.

9.8 SUBCONTRACTOR PAYMENTS

9.8.1 Payments to Subcontractors

No later than ten (10) days after receipt, or pursuant to Business and Professions Code section 7108.5, the Contractor shall pay to each Subcontractor, out of the amount paid to the Contractor

on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

9.8.2 No Obligation of District for Subcontractor Payment

The District shall have no obligation to pay, or to see to the payment of, money to a Subcontractor except as may otherwise be required by law.

9.8.3 Payment Not Constituting Approval or Acceptance

An approved Request for Payment, a progress payment, a Certificate of Substantial Completion, or partial or entire use or occupancy of the Project by the District shall not constitute acceptance of Work that is not in accordance with the Contract Documents.

9.8.4 Joint Checks

District shall have the right, if necessary for the protection of the District, to issue joint checks made payable to the Contractor and Subcontractors and material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of funds included as part of any such joint payment. In no event shall any joint check payment be construed to create any contract between the District and a Subcontractor of any tier, any obligation from the District to such Subcontractor, or rights in such Subcontractor against the District. The District may choose to issue joint checks at District's sole discretion and only after all the requirements of that particular school district and county are specifically met. Some school districts cannot issue joint checks, so the ability to issue joint checks depends on the school district and the specific circumstances.

9.9 COMPLETION OF THE WORK

9.9.1 <u>Close-Out Procedures</u>

9.9.1.1*Incomplete Punch Items*. When the Contractor considers the Work Substantially Complete (See Article 1.1.46 for definition of Substantially Complete), the Contractor shall prepare and submit to the District a comprehensive list of minor items to be completed or corrected (hereinafter "Incomplete Punch Items" or "Punch List"). The Contractor and/or its Subcontractors shall proceed promptly to complete and correct the Incomplete Punch Items listed. 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. Contractor is aware that Title 24 Section 4-343(a) provides:

"RESPONSIBILITIES. IT IS THE DUTY OF THE CONTRACTOR TO COMPLETE THE WORK COVERED BY HIS OR HER CONTRACT IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS THEREFOR. THE CONTRACTOR IN NO WAY IS RELIEVED OF ANY RESPONSIBILITY BY THE ACTIVITIES OF THE ARCHITECT, ENGINEER, INSPECTOR OR DSA IN THE PERFORMANCE OF SUCH DUTIES.

9.9.1.2Punch List Is Prepared Only After the Project Is Substantially Complete. If any of the conditions noted in Article 1.1.46 as defining Substantial Completion are not met, the Inspector, Architect or District may reject Contractor's Incomplete Punch Items as premature. If the Architect and Inspector commence review of Incomplete Punch Items, all rights are reserved until the Project actually meets the definition of

Substantially Complete. Liquidated Damages, warranties, and other contractual rights are not affected by Incomplete Punch Items unless otherwise addressed in these General Conditions.

Once the Inspector and the Architect determine the Project is Substantially Complete, a Certificate of Substantial Completion shall be issued. The Inspector and Architect shall prepare a Punch List of items which is an inspection report of the Work, if any, required in order to complete the Contract Documents and ensure compliance with the DSA Approved Plans so the Project may be Completed by the Contractor and a final DSA Close-Out is approved. When all Work for the Project is Complete, including Punch Lists and all Work complies with the approved Contract Documents and Change Orders, the Project has reached Final Completion.

9.9.1.3 Time for Completion of Punch List. Contractor shall only be given a period of no more than thirty (30) days to complete the Punch List for the Project. During the Punch List period, the Contractor's Superintendent and Project Manager shall remain engaged in the Project and shall not be removed or replaced. If the Punch List is not completed at the end of the Punch List time then Contractor shall issue a valued Punch List within 5 days after the date the Punch List time ends. If Contractor does not issue such a list, the District or Architect may issue a valued Punch List to the Contractor and withhold up to 150% of the value of the Punch List Work pursuant to Article 2.2 of this Agreement.

Failure to issue a timely written request for additional time to complete Punch List shall result in the deletion of the remaining Punch List Work pursuant to Article 2.2 and the issuance of a Deductive Change Order.

- a. Extension of Time to Complete Punch List. If Contractor cannot finish the Punch List Work during the time period allotted under Article 9.9.1.3, the Contractor may make a written request for a Non-Compensable Punch List time extension accompanied by an estimate of the number of additional days it will take to complete the Punch List Work for a written consent from the District to allow continued Punch List Work. Punch List time extensions are a maximum of thirty (30) days for each request and must be accompanied by an itemized valued Punch List.
- b. If there is no valued Punch List accompanying any request or if Contractor intends to undertake Punch List without the continued support and supervision of its Superintendent and Project Manager (as required under Article 3.2), the District, Construction Manager or Architect may issue a valued Punch List, reject the Punch List Time Extension and deduct 150% of the valued Punch List pursuant to Article 2.2 and proceed to Close-Out the Project. Contractor shall cease work on the Project and proceed to complete Contractor's Retention Payment Application and complete the Work for the Project required pursuant to Article 9.11.3
- 9.9.1.4District Rejection of Written Request for Punch List Time Extensions. Following sixty (60) Days of Punch List under Article 9.9.1.3, the District has the option of rejecting Punch List Time Extension requests. The District may proceed under Article 2.2 and deduct the value of remaining Punch List Work pursuant to Article 2.2. If the District rejects the Punch List Time Extension request then Contractor shall cease Work on the Project and proceed to Final Inspection pursuant to Article 9.11.2.
- 9.9.1.5 Punch List Liquidated Damages to Compensate for Added District Project Costs. If the total time utilized for Punch List exceeds sixty (60) days [the thirty (30) day period under Article 9.9.1.3 plus an additional thirty (30) day period that has been requested in writing], and the District grants an additional written Punch List Time Extension that exceeds sixty (60) days of Punch List, then Contactor shall be charged Liquidated Damages of at least \$750 per day for continued Punch List Work to partially compensate the Inspector, Architect, and Construction Manager's extended time on the Project. This

Punch List Liquidated Damage number is based on anticipated cost for an Inspector on site and additional costs for the Architect and Construction Manager to reinspect Punch List items and perform the administration of the Close-out.

Contractor received thirty (30) days without any charges for Punch List Liquidated Damages and is placed on notice pursuant to this Article 9.9.1.5 that \$750 is due for each day of Punch List that exceeds sixty (60) days at \$750, a cost much lower than typical (and actual) costs for Inspection, Architect and Construction Manager time required during Punch List. Starting at ninety (90) days of Punch List (an excessive number of days to complete Punch List), the District shall be entitled to adjust Punch List Liquidated Damages to an estimate of the actual costs incurred to oversee, monitor and inspect the Punch List. If costs exceed \$750 per day, the anticipated extended contract charges for Inspection, Architect, Construction Manager, and any other costs that will be incurred due to the extended Punch List shall be itemized and a daily rate of Punch List Liquidated Damages shall be presented in writing to the Contractor within five (5) days following the receipt of a written request for Punch List Time Extension by the Contractor that extends the Punch List time beyond ninety (90) days. This written notice of actual Punch List Liquidated Damages may be provided to the Contractor at any time following the first written request for Punch List Time extension requested under Article 9.9.1.3. The adjusted actual Punch List Liquidated Damage amount shall be applicable as Punch List Liquidated Damages commencing on the ninetieth (90th) day of Punch List.

9.9.2 <u>Close-Out Requirements for Final Completion of the Project</u>

- a. <u>Utility Connections</u>. Buildings shall be connected to water, gas, sewer, and electric services, complete and ready for use. Service connections shall be made and existing services reconnected
- b. <u>As-Builts Up to Date and Complete</u>. The intent of this procedure is to obtain an exact "As-Built" record of the Work upon completion of the project. The following information shall be carefully and correctly drawn on the prints and all items shall be accurately located and dimensioned from finished surfaces of building walls on all As-Built Drawings
- 1. The exact location and elevations of all covered utilities, including valves, cleanouts, etc. must be shown on As-Built Drawings
- 2. Contractor is liable and responsible for inaccuracies in As-Built Drawings, even though they become evident at some future date.
- 3. Upon completion of the Work and as a condition precedent to approval of Retention Payment, Contractor shall obtain the Inspector's approval of the "As-Built" information. When completed, Contractor shall deliver corrected sepias and/or a Diskette with an electronic file in a format acceptable to the District.
- 4. District may withhold the cost to hire a draftsman and potholing and testing service to complete Record As-Built Drawings at substantial cost if the Contractor does not deliver a complete set of Record As-Built Drawings. This shall result in withholding of between \$10,000 to \$20,000 per building that does not have a corresponding Record As Built Drawing.
 - c. Any Work not installed as originally indicated on Drawingsc.
 - d. <u>All DSA Close-Out requirements</u> (See DSA Certification Guide) Contractor is also specifically directed to Item 3.2 in the DSA Certification Guide and the applicable certificates for the DSA-311 form.
 - e. <u>Submission of Form 6-C.</u> Contractor shall be required to execute a Form 6-C as required under Title 24 Sections 4-343. The Contractor understands that the filing with DSA of a

Form 6-C is a requirement to obtain final DSA Approval of the construction by Contractor and utilized to verify under penalty of perjury that the Work performed by Contractor complies with the DSA approved Contract Documents. The failure to file a DSA Form 6C has two consequences. First, the Construction of the Project will not comply with the design immunity provisions of Government Code section 830.6 and exposes the District and the individual Board members to personal liability for injuries that occur on the Project.

Secondly, under DSA IR A-20, since the Project cannot be Certified by DSA, no future or further Projects will be authorized so Contractor will have essentially condemned the campus from any future modernization or addition of new classrooms through their failure to file the DSA Form 6C.

- 1. Execution of the DSA Form 6-C is Mandatory. Refusal to execute the Form 6-C, which is a Final DSA Verified Report that all Work performed complies with the DSA approved Contract Documents is a violation of Education Code section 81144 and shall be referred to the Attorney General for Prosecution.
- 2. Referral to the District Attorney for Extortion. If the Contractor's refusal to execute the DSA Form 6C is to leverage a Dispute, Claim or Litigation, then the matter shall also be referred to the District Attorney for prosecution for extortion.
- 3. Contractor shall be Responsible for All Costs to Certify the Project. The District may certify the Project complies with Approved Plans and Specifications by utilizing the procedures under the Project Certification Guide (located at the DSA website). All costs for professionals, inspection, and testing required for an alternate Project Certification shall be the Contractor's responsibility and the District reserves its right to institute legal action against the Contractor and Contractor's Surety for all costs to certify the Project and all costs to correct Non-Compliant Work that is discovered during the Alternate Certification Process.
 - f. ADA Work that must be corrected to receive DSA certification. See Article 12.2.
 - g. Maintenance Manuals. At least thirty (30) days prior to final inspection, three (3) copies of complete operations and maintenance manuals, repair parts lists, service instructions for all electrical and mechanical equipment, and equipment warranties shall be submitted. All installation, operating, and maintenance information and Drawings shall be bound in 8½" x 11" binders. Provide a table of contents in front and all items shall be indexed with tabs. Each manual shall also contain a list of Subcontractors, with their addresses and the names of persons to contact in cases of emergency. Identifying labels shall provide names of manufactures, their addresses, ratings, and capacities of equipment and machinery.
 - 1. Maintenance manuals shall also be delivered in electronic media for the Project. Any demonstration videos shall also be provided on electronic media.
 - h. <u>Inspection Requirements</u>. Before calling for final inspection, Contractor shall determine that the following Work has been performed:
- 1. The Work has been completed;
- 2. All fire/life safety items are completed and in working order;
- 3. Mechanical and electrical Work complete, fixtures in place, connected and tested;
- 4. Electrical circuits scheduled in panels and disconnect switches labeled;

- 5. Painting and special finishes complete;
- 6. Doors complete with hardware, cleaned of protective film relieved of sticking or binding and in working order;
- 7. Tops and bottoms of doors sealed;
- 8. Floors waxed and polished as specified;
- 9. Broken glass replaced and glass cleaned;
- 10. Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site;
- 11. Work cleaned, free of stains, scratches, and other foreign matter, replacement of damaged and broken material;
- 12. Finished and decorative work shall have marks, dirt and superfluous labels removed;
- 13. Final cleanup, as in Article 3.12;
- 14. All Work pursuant to Article 9.11; and
- 15. Furnish a letter to District stating that the District's Representative or other designated person or persons have been instructed in working characteristics of mechanical and electrical equipment.

9.9.3 <u>Costs of Multiple Inspections</u>

More than two (2) requests of the District to make inspections required under Article 9.9.1 shall be considered an additional service of Architect, Inspector, Engineer or other consultants shall be the Contractor's responsibility pursuant to Article 4.5 and all subsequent costs will be prepared as a Deductive Change Order.

9.10 PARTIAL OCCUPANCY OR USE

9.10.1 <u>District's Rights</u>

The District may occupy or use any completed or partially completed portion of the Work at any stage. The District and the Contractor shall agree in writing to the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents. If District and Contractor cannot agree as to responsibilities such disagreement shall be resolved pursuant to Article 4.6. When the Contractor considers a portion complete, the Contractor shall prepare and submit a Punch List to the District as provided under Article 9.9.1.

9.10.2 Inspection Prior to Occupancy or Use

Immediately prior to such partial occupancy or use, the District, the Contractor, and the Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

9.10.3 No Waiver

Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

9.11. COMPLETION AND FINAL PAYMENT

9.11.1 <u>Final Payment (90% Billing if Substantially Complex Finding and 95% Billing If No Finding Is Made)</u>

The following items must be completed before the Final Payment Application will be accepted for processing at Substantial Completion of the Project:

- a. Inspector sign-off of each item in the DSA 152 Project Inspection Card;
- b. The Project has reached the Punch List items under Article 9.9.1.2 and the Project has been determined to be Substantially Complete under Article 1.1.28;
- c. Removal of temporary facilities and services;
- d. Testing, adjusting and balance records are complete;
- e. Removal of surplus materials, rubbish, and similar elements;
- f. Changeover of door locks;
- g. Deductive items pursuant to Article 9.6 and Article 2.2; and
- h. Completion and submission of all final Change Orders for the Project.

9.11.2 <u>Final Inspection (Punch List Completion)</u>

Contractor shall comply with Punch List procedures under Article 9.9.1.1, and maintain the presence of Project Superintendent and Project Manager (not replacement project superintendent or project manager) until the Punch List is complete to ensure proper and timely completion of the Punch List. Under no circumstances shall Contractor demobilize its forces prior to completion of the Punch List.

Upon completion of the Work under Article 9.9.1, the Contractor shall notify the District and Architect, who shall again inspect such Work. If the Architect and the District finds the Work contained in the Punch List acceptable under the Contract Documents, the Work shall have reached Final Completion. Architect shall notify Contractor, who shall then submit to the Architect its Application for Retention Payment. This Application for Retention Payment shall contain any deductions under Article 9.6, including but not limited to incomplete Punch List items under Article 9.9.1.

Upon receipt and approval of Application for Retention Payment, the Architect shall issue a Form 6 stating that to the best of its knowledge, information, and belief, and on the basis of its observations, inspections, and all other data accumulated or received by the Architect in connection with the Work, such Work has been completed in accordance with the Contract Documents. The District shall thereupon inspect such Work and either accept the Work as complete or notify the Architect and the Contractor in writing of reasons why the Work is not complete. Upon acceptance of the Work of the Contractor as fully complete (which, absent unusual circumstances, will occur when the Punch List items have been satisfactorily completed), the District shall record a Notice of Completion with the County Recorder, and the Contractor shall, upon receipt of payment from the District, pay the amounts due Subcontractors.

If the Architect and the District find that the Work contained in the Punch List is unacceptable, then Contractor shall issue a valued Punch List within 5 days after the date the Punch List

time ends. If Contractor does not issue such a list, the District or Architect may issue a valued Punch List to the Contractor and withhold up to 150% of the value of the Punch List Work pursuant to Article 2.2 of this Agreement.

9.11.3 Retainage (100% Billing for the Entire Project)

The retainage, less any amounts disputed by the District or which the District has the right to withhold pursuant to the Contract Documents (including but not limited to incomplete Punch List items under Article 9.9.1), shall be paid after approval by the District of the Application for Retention Payment, after the satisfaction of the conditions set forth in Article 9, the Final Inspection under Article 9.11.2 is completed, and after thirty-five (35) days after the acceptance of the Work and recording of the Notice of Completion by District. No interest shall be paid on any retainage, or on any amounts withheld due to a failure of the Contractor to perform, in accordance with the terms and conditions of the Contract Documents, except as provided to the contrary in any escrow agreement between the District and the Contractor.

- a. <u>Procedures for Application for Retention Payment.</u> The following conditions must be fulfilled prior to release of Retention Payment:
- 1. A full and final waiver or release of all stop notices in connection with the Work shall be submitted by Contractor, including a release of stop notice in recordable form, together with (to the extent permitted by law) a copy of the full and final release of all Stop Notice rights.
- 2. The Contractor shall have made all corrections, including all Punch List Items, to the Work which are required to remedy any defects therein, to obtain compliance with the Contract Documents or any requirements of applicable codes and ordinances, or to fulfill any of the orders or directions of District required under the Contract Documents.
- 3. Each Subcontractor shall have delivered to the Contractor all written guarantees, warranties, applications, releases from the Surety and warranty bonds (if applicable) required by the Contract Documents for its portion of the Work.
- 4. Contractor must have completed all requirements set forth in Article 9.9
- 5. Contractor must have issued a Form 6C for the Project.
- 6. The Contractor shall have delivered to the District all manuals and materials required by the Contract Documents.
- 7. The Contractor shall have completed final clean up as required by Article 3.12
- 8. Contractor shall have all deductive items under Article 9.6 and Article 2.2 submitted as part of the Retention Payment.

9.11.4 Recording of a Notice of Completion After Punch List Period and Final Inspection.

When the Work, or designated portion thereof, is complete or the District has completed the Article 9.6 and/or the Article 2.2 process, whichever occurs first, the District will file either a Notice of Completion or a Notice of Completion noting valued Punch List items. Valued Punch List items will be deducted from the Retention Payment.

During the time when Work is being performed on the Punch List, the Project does not meet the definition of "Complete" under Public Contract Code section 7107(c)(1) even if there is "beneficial occupancy" of the Project since that has been no "cessation of labor" on the Project. Completion of Punch List under this Article is not "testing, startup, or commissioning by the public entity or its agent." In other words, the continuing Punch List Work is Contractor labor on the Project until each and every item of Punch List Work is complete or the time periods under Article 9.9.1 have expired.

9.11.5 Warranties

Warranties required by the Contract Documents shall commence on the date of Completion of the entire Work. Warranty periods DO NOT commence at Substantial Completion or when a particular Subcontractor work is complete. No additional charges, extras, Change Orders, or Claims may be sought for warranties commencing from the Notice of Completion.

District shall have the right to utilize equipment, test, and operate as necessary for acclimation, or testing without voiding or starting warranties. Taking beneficial occupancy shall not start warranties except in the case where the District agrees, in writing, that warranties shall commence running or where the District is taking phased occupancy of specific buildings or areas and completes separate Punch Lists as further addressed in Article 4.2.7.

9.11.6 <u>Time for Submission of Application for Final Payment and Retention Payment</u> (Unilateral Processing of Final and Retention Payment Application).

If Contractor submits a Final Payment Application which fails to include deductive items under Article 9.6, the District or Architect shall note this defective request for Final Payment Application. The Contractor shall be notified that specific deductive items shall be included in the Final Payment Application. If Contractor either continues to submit the Final Payment Application without deductive items under Article 9.6, or a period of 14 calendar days passes after Contractor is provided written notice of deductive items for inclusion in Final Payment Application, then District may either after the Final Payment Application and recalculate the math on the Final Payment Application to address the Article 9.6 deductive items or process a unilateral Final Payment Application.

9.11.7 Unilateral Release of Retention

After the recordation of the Notice of Completion, or within sixty (60) days following the completion of the Punch List or the expiration of the time for completion of Punch List under Article 9.9.1, if Contractor does not make an Application for Release of Retention, the District may unilaterally release retention less any deducts under Article 9.6 and/or Article 2.2, withholds due to stop notices, or withholdings due to other defective Work on the Project. District may also choose to unilaterally release Retention after deduction of 150% of any disputed items, which may also include items under Article 9.6 and 2.2. If a deduction pursuant to Article 9.6 is made from Retention, a letter deducting specific valued items shall be considered a notice of Default under the terms of the Escrow Agreement.

9.12SUBSTITUTION OF SECURITIES

The District will permit the substitution of securities in accordance with the provisions of Public Contract Code section 22300 as set forth in the form contained in the Bid Documents.

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

10.1.1Contractor Responsibility

The Contractor shall be responsible for all damages to persons or property that occur as a result of its fault or negligence in connection with the prosecution of this Contract and shall take all

necessary measures and be responsible for the proper care and protection of all materials delivered and Work performed until completion and final acceptance by the District. All Work shall be solely at the Contractor's risk, with the exception of damage to the Work caused by "acts of God" as defined in Public Contract Code section 7105(b)(2).

Contractor shall take, and require Subcontractor to take, all necessary precautions for safety of workers on the Work and shall comply with all applicable federal, state, local and other safety laws, standards, orders, rules, regulations, and building codes to prevent accidents or injury to persons on, about, or adjacent to premises where Work is being performed and to provide a safe and healthful place of employment. In addition to meeting all requirements of OSHA, Cal-OSHA, state, and local codes, Contractor shall furnish, erect and properly maintain at all times, as directed by District or Architect or required by conditions and progress of Work, all necessary safety devices, safeguards, construction canopies, signs, audible devices for protection of the blind, safety rails, belts and nets, barriers, lights, and watchmen for protection of workers and the public, and shall post danger signs warning against hazards created by such features in the course of construction. Contractor shall designate a responsible member of its organization on the Work, whose duty shall be to post information regarding protection and obligations of workers and other notices required under occupational safety and health laws, to comply with reporting and other occupational safety requirements, and to protect the life, safety and health of workers. The name and position of person so designated shall be reported to District by Contractor. Contractor shall correct any violations of safety laws, rules, orders, standards, or regulations. Upon the issuance of a citation or notice of violation by the Division of Occupational Safety and Health, such violation shall be corrected promptly.

10.1.2 <u>Subcontractor Responsibility</u>

Contractor shall require that Subcontractors participate in, and enforce, the safety and loss prevention programs established by the Contractor for the Project, which will cover all Work performed by the Contractor and its Subcontractors. Each Subcontractor shall designate a responsible member of its organization whose duties shall include loss and accident prevention, and who shall have the responsibility and full authority to enforce the program. This person shall attend meetings with the representatives of the various Subcontractors employed to ensure that all employees understand and comply with the programs.

10.1.3 <u>Cooperation</u>

All Subcontractors and material or equipment suppliers shall cooperate fully with Contractor, the District, and all insurance carriers and loss prevention engineers.

10.1.4 Accident Reports

Subcontractors shall immediately, within two (2) days, report in writing to the Contractor all accidents whatsoever arising out of, or in connection with, the performance of the Work, whether on or off the Site, which caused death, personal injury, or property damage, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damages are caused, the accident shall be reported within four (4) days by telephone or messenger. Contractor shall thereafter immediately, within two (2) days, report the facts in writing to the District and the Architect giving full details of the accident.

10.1.5 First-Aid Supplies at Site

The Contractor will provide and maintain at the Site first-aid supplies which complies with the current Occupational Safety and Health Regulations.

10.1.6 Material Safety Data Sheets and Compliance with Proposition 65

Contractor is required to have material safety data sheets available in a readily accessible place at the job site for any material requiring a material safety data sheet per the Federal "hazard communication" standard, or employees' "right-to-know law." The Contractor is also required to properly label any substance brought into the job site, and require that any person working with the material, or within the general area of the material, is informed of the hazards of the substance and follows proper handling and protection procedures.

Contractor is required to comply with the provisions of California Health and Safety Code section 25249, et seq., which requires the posting and giving of notice to persons who may be exposed to any chemical known to the State of California to cause cancer. The Contractor agrees to familiarize itself with the provisions of this Section, and to comply fully with its requirements.

10.1.7 Non-Utilization of Asbestos Material

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 containing, but not limited to, chrysotile, amosite, anthophyllite, tremolite, and antinolite.

Any or all material containing greater than one-tenth of one percent (>.1%) asbestos shall be defined as asbestos-containing material.

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 District.

Decontamination and removal of Work found to contain asbestos or Work installed with asbestos-containing equipment shall be done only under 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 sole discretion and final determination in this matter.

The asbestos consultant shall be chosen and approved by the District, 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.

Interface of Work under this Contract with Work containing asbestos shall be executed by the Contractor at his risk and at his discretion, with full knowledge of the currently accepted standards, hazards, risks, and liabilities associated with asbestos work and asbestos-containing products. By

execution of this Contract, the Contractor acknowledges the above and agrees to hold harmless District and its assigns for all asbestos liability which may be associated with this work and agrees to instruct his employees with respect to the above-mentioned standards, hazards, risks, and liabilities.

10.2SAFETY OF PERSONS AND PROPERTY

10.2.1 The Contractor

The Contractor shall take reasonable precautions for the safety of, and shall provide reasonable protection to prevent damage, injury, or loss to:

- a. Employees on the Work and other persons who may be affected thereby;
- b. The Work, material, and equipment to be incorporated therein, whether in storage on or off the Site, under the care, custody, or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- c. Other property at the Site or adjacent thereto such as trees, shrubs, lawns, walks, pavement, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

Contractor is constructive owner of Project site as more fully discussed in Article 6.2.

10.2.2 <u>Contractor Notices</u>

The Contractor shall give notices and comply with applicable laws, ordinances, rules, regulations, and lawful orders of public authorities bearing on the safety of persons or property or their protection from damage, injury, or loss.

10.2.3 Safety Barriers and Safeguards

The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent sites and utilities.

10.2.4 <u>Use or Storage of Hazardous Material</u>

When use or storage of explosives, other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel. The Contractor shall notify the District any time that explosives or hazardous materials are expected to be stored on Site. Location of storage shall be coordinated with the District and local fire authorities.

10.2.5 Protection of Work

The Contractor and Subcontractors shall continuously protect the Work, the District's property, and the property of others, from damage, injury, or loss arising in connection with operations under the Contract Documents. The Contractor and Subcontractors, at their own expense, shall make good any such damage, injury, or loss, except such as may be solely due to, or caused by, agents or employees of the District.

The Contractor, at Contractor's expense, will remove all mud, water, or other elements as may be required for the proper protection and prosecution of its Work.

Contractor shall take adequate precautions to protect existing roads, sidewalks, curbs, pavements, utilities, adjoining property and structures (including, without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by construction operations. All permits, licenses, or inspection fees required for such repair Work shall be obtained and paid for by Contractor.

10.2.6 Requirements for Existing Sites

Contractor shall (unless waived by the District in writing):

- a. When performing construction on existing sites, become informed and take into specific account the maturity of the students on the Site; and perform Work which may interfere with school routine before or after school hours, enclose working area with a substantial barricade, and arrange Work to cause a minimum amount of inconvenience and danger to students and faculty in their regular school activities. The Contractor shall comply with Specifications and directives of the District regarding the timing of certain construction activities in order to avoid unnecessary interference with school functioning.
- b. Avoid performing any Work that will disturb students during testing.c. Provide substantial barricades around any shrubs or trees indicated to be preserved.
- d. Deliver materials to building area over route designated by Architect.
 e. Take preventive measures to eliminate objectionable dust, noise, or other disturbances.
- f. Confine apparatus, the storage of materials, and the operations of workers to limits indicated by law, ordinances, permits or directions of Architect; and not interfere with the Work or unreasonably encumber premises or overload any structure with materials; and enforce all instructions of District and Architect regarding signs, advertising, fires, and smoking and require that all workers comply with all regulations while on the Project site.
- g. Take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed by accident, they shall be replaced by an approved land surveyor or civil engineer and all maps and records required therefrom shall be filed with county and local authorities, at no cost to the District. All filing and plan check fees shall be paid by Contractor.
- h. Provide District on request with Contractor's written safety program and safety plan for each site.

10.2.7 Shoring and Structural Loading

The Contractor shall not impose structural loading upon any part of the Work under construction or upon existing construction on or adjacent to the Site in excess of safe limits, or loading such as to result in damage to the structural, architectural, mechanical, electrical, or other components of the Work. The design of all temporary construction equipment and appliances used in construction of the Work and not a permanent part thereof, including, without limitation, hoisting equipment, cribbing, shoring, and temporary bracing of structural steel, is the sole responsibility of the Contractor. All such items shall conform with the requirements of governing codes and all laws, ordinances, rules, regulations, and orders of all authorities having jurisdiction. The Contractor shall take special precautions, such as shoring of masonry walls and temporary tie bracing of structural steel Work, to prevent possible wind

damage during construction of the Work. The installation of such bracing or shoring shall not damage the Work in place or the Work installed by others. Any damage which does occur shall be promptly repaired by the Contractor at no cost to the District.

10.2.8 Conformance within Established Limits

The Contractor and Subcontractors shall confine their construction equipment, the storage of materials, and the operations of workers to the limits indicated by laws, ordinances, permits, and the limits established by the District or the Contractor, and shall not unreasonably encumber the premises with construction equipment or materials.

10.2.9 Subcontractor Enforcement of Rules

Subcontractors shall enforce the District's and the Contractor's instructions, laws, and regulations regarding signs, advertisements, fires, smoking, the presence of liquor, and the presence of firearms by any person at the Site.

10.2.10 Site Access

The Contractor and the Subcontractors shall use only those ingress and egress routes designated by the District, observe the boundaries of the Site designated by the District, park only in those areas designated by the District, which areas may be on or off the Site, and comply with any parking control program established by the District, such as furnishing license plate information and placing identifying stickers on vehicles.

10.2.11 Security Services.

The Contractor shall be responsible for providing security services for the Site as needed for the protection of the Site and as determined in the District's sole discretion.

10.3 <u>EMERGENCIES</u>

10.3.1 Emergency Action

In an emergency affecting the safety of persons or property, the Contractor shall take any action necessary, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 7.

10.3.2 Accident Reports

The Contractor shall promptly report in writing to the District all accidents arising out of or in connection with the Work, which caused death, personal injury, or property damage, giving full details and statements of any witnesses in conformance with Article 10.1.4. In addition, if death, serious personal injuries, or serious property damages are caused, the accident shall be reported in accordance with Article 10.1.4, immediately by telephone or messenger to the District.

10.4 <u>HAZARDOUS MATERIALS</u>

10.4.1 Discovery of Hazardous Materials

In the event the Contractor encounters or suspects the presence on the job site of material reasonably believed to be asbestos, polychlorinated biphenyl (PCB), or any other material defined as being hazardous by § 25249.5 of the California Health and Safety Code, which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the District and the Architect in writing, whether or not such material was generated by the Contractor or the District. The Work in the affected area shall not thereafter be resumed, except by written agreement of the District and the Contractor, if in fact the material is asbestos, polychlorinated biphenyl (PCB), or other hazardous material, and has not been rendered harmless. The Work in the affected area shall be resumed only in the absence of asbestos, polychlorinated biphenyl (PCB), or other hazardous material, or when it has been rendered harmless by written agreement of the District and the Contractor.

10.4.2 Hazardous Material Work Limitations

In the event that the presence of hazardous materials is suspected or discovered on the Site (except in cases where asbestos and other hazardous material Work in the Contractor's responsibility), the District shall retain an independent testing laboratory to determine the nature of the material encountered and whether corrective measures or remedial action is required. The Contractor shall not be required pursuant to Article 7 to perform without consent any Work in the affected area of the Site relating to asbestos, polychlorinated biphenyl (PCB), or other hazardous material, until any known or suspected hazardous material has been removed, or rendered harmless, or determined to be harmless by District, as certified by an independent testing laboratory and approved by the appropriate government agency.

10.4.3 <u>Indemnification by Contractor for Hazardous Material Caused by Contractor</u>

In the event the hazardous materials on the Project Site is caused by the Contractor, the Contractor shall pay for all costs of testing and remediation, if any, and shall compensate the District for any additional costs incurred as a result of Contractor's generation of hazardous material on the Project Site. In addition, the Contractor shall defend, indemnify and hold harmless District and its agents, officers, and employees from and against any and all claims, damages, losses, costs and expenses incurred in connection with, arising out of, or relating to, the presence of hazardous material on the Project Site.

10.4.4 Terms of Hazardous Material Provision

The terms of this Hazardous Material provision shall survive the completion of the Work and/or any termination of this Contract.

ARTICLE 11

INSURANCE AND BONDS

11.1CONTRACTOR'S LIABILITY INSURANCE

11.1.1 Insurance Requirements

Before the commencement of the Work, the Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in California with a financial rating of at least an A-VIII status as rated in the most recent edition of Best's Insurance Reports or as amended by the Supplementary General Conditions, such insurance as will protect the District from claims set forth

below, which may arise out of or result from the Contractor's Work under the Contract and for which the Contractor may be legally liable, whether such Work are by the Contractor, by a Subcontractor, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. Any required insurance shall not contain any exclusion that applies to the type of work performed by the Contractor under the Contract Documents.

- a. Claims for damages because of bodily injury, sickness, disease, or death of any person District would require indemnification and coverage for employee claim;
- b. Claims for damages insured by usual personal injury liability coverage, which are sustained by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor or by another person;
- c. Claims for damages because of injury or destruction of tangible property, including loss of use resulting therefrom, arising from operations under the Contract Documents;
- d. Claims for damages because of bodily injury, death of a person, or property damage arising out of the ownership, maintenance, or use of a motor vehicle, all mobile equipment, and vehicles moving under their own power and engaged in the Work;
- e. Claims involving contractual liability applicable to the Contractor's obligations under the Contract Documents, including liability assumed by and the indemnity and defense obligations of the Contractor and the Subcontractors; and
- f. Claims involving Completed Operations, Independent Contractors' coverage, and Broad Form property damage, without any exclusions for collapse, explosion, demolition, underground coverage, and excavating. (XCU)
- g. Claims involving sudden or accidental discharge of contaminants or pollutants.

11.1.2 Specific Insurance Requirements

Contractor shall take out and maintain and shall require all Subcontractors, if any, whether primary or secondary, to take out and maintain:

• Comprehensive General Liability Insurance with a combined single limit per occurrence of not less than \$2,000,000.00 or Commercial General Liability Insurance which provides limits of not less than:

(a)	Per occurrence (combined single limit)	\$2,000,000.00
(b)	Project Specific Aggregate (for this Project only)	\$2,000,000.00
(c)	Products and Completed Operations (aggregate)	\$2,000,000.00
(d)	Personal and Advertising Injury Limit	\$1,000,000.00

Insurance Covering Special Hazards

The following Special hazards shall be covered by riders or riders to above mentioned public liability insurance or property damage insurance policy or policies of insurance, in amounts as follows:

(a)	Automotive and truck where operated in amounts	\$1,000,000.00
(b)	Material Hoist where used in amounts	\$1,000,000.00

(c)	Explosion, Collapse and Underground (XCU coverage)	\$1,000,000.00
(d)	Hazardous Materials	\$1,000,000.00

In addition, provide Excess Liability Insurance coverage in the amount of Four Million Dollars (\$4,000,000.00).

11.1.3 Subcontractor Insurance Requirements

The Contractor shall require its Subcontractors to take out and maintain public liability insurance and property damage insurance required under Article 11.1 in like amounts. A "claims made" or modified "occurrence" policy shall not satisfy the requirements of Article 11.1 without prior written approval of the District.

11.1.4 Additional Insured Endorsement Requirements

The Contractor shall name, on any policy of insurance required under Article 11.1, the District, CM, Architect, Inspector, the State of California, their officers, employees, agents, volunteers and independent contractors as additional insureds. Subcontractors shall name the Contractor, the District, Architect, Inspector, the State of California, their officers, employees, agents, volunteers and independent contractors as additional insureds. The Additional Insured Endorsement included on all such insurance policies shall be an ISO CG 20 10 (04/13), or an ISO CG 20 38 (04/13), or their equivalent as determined by the District in its sole discretion, and must state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. The insurance provided by the Contractor pursuant to 11.1 must be designated in the policy as primary to any insurance obtained by the District. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

11.2 WORKERS' COMPENSATION INSURANCE

During the term of this Contract, the Contractor shall provide workers' compensation and employer's liability insurance for all of the Contractor's employees engaged in Work under this Contract on or at the Site of the Project and, in case any of the Contractor's Work is subcontracted, the Contractor shall require the Subcontractor to provide workers' compensation insurance for all the Subcontractor's employees engaged in Work under the subcontract. Any class of employee or employees not covered by a Subcontractor's insurance shall be covered by the Contractor's insurance. In case any class of employees engaged in Work under this Contract on or at the Site of the Project is not protected under the Workers' Compensation laws, the Contractor shall provide or cause a Subcontractor to provide insurance coverage for the protection of those employees not otherwise protected. The Contractor shall file with the District certificates of insurance as required under Article 11.6 and in compliance with Labor Code § 3700.

Workers' compensation limits as required by the Labor Code, but not less than \$1,000,000 and employers' liability limits of \$1,000,000 per accident for bodily injury or disease.

11.3 BUILDER'S RISK/ "ALL RISK" INSURANCE

Course-of-Construction Insurance Requirements

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, Course of Construction or similar first party property coverage issued on a replacement cost value basis consistent with the total replacement cost of all insurable Work and the Project included within the Contract Documents. Coverage is to insure against all risks of accidental direct physical loss, and must include, by the basic grant of coverage or by endorsement, the perils of vandalism, malicious mischief (both without any limitation regarding vacancy or occupancy), fire, sprinkler leakage, civil authority, sonic boom, earthquake, flood, collapse, wind, lightning, smoke and riot. The coverage must include debris removal, demolition, increased costs due to enforcement of building ordinance and law in the repair and replacement of damage and undamaged portions of the property, and reasonable costs for the Architect's and engineering services and expenses required as a result of any insured loss upon the Work and Project 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 and the Architect as additional named insureds, and any other person with an insurable interest as designated by the District.

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.

11.4 FIRE INSURANCE

Before the commencement of the Work, the Contractor shall procure, maintain, and cause to be maintained at the Contractor's expense, fire insurance on all Work subject to loss or damage by fire. The amount of fire insurance shall be sufficient to protect the Project against loss or damage in full until the Work is accepted by the District. This requirement may be waived upon confirmation by the District that such coverage is provided under the Builder's Risk Insurance being provided.

11.5 AUTOMOBILE LIABILITY

The District, Architect and Construction Manager, Inspectors, their directors, officers, employees, agents and volunteers shall be covered as additional insureds with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the Contractor or for which the Contractor is responsible. Such insurance coverage shall be primary and non-contributory insurance as respects the District, Architect, Construction Manager, Project Inspector, their directors, officers, employees, agents and volunteers, or if excess, shall stand in an unbroken chain of coverage excess of the Contractor's scheduled underlying coverage. Any insurance or self-insurance maintained by the District, Architect, Construction Manager, Project Inspector, their directors, officers, employees, agents and volunteers shall be excess of the Contractor's insurance and shall not be called upon to contribute with it. The insurer shall agree to waive all rights of subrogation against the District, Architect, Construction Manager, Project Inspector, their directors, officers, employees, agents and volunteers for losses paid under the terms of the insurance policy that arise from Work performed by the Contractor.

Insurance Services Office Business Auto Coverage Form Number CA 0001, Code 1 (any auto) is required. Comprehensive Automobile Liability insurance to include all autos, owned, non-owned, and hired, with limits of \$1,000,000 per accident for bodily injury and property damage.

11.60THER INSURANCE

The Contractor shall provide all other insurance required to be maintained under applicable laws, ordinances, rules, and regulations.

11.7PROOF OF INSURANCE

The Contractor shall not commence Work nor shall it allow any Subcontractor to commence Work under this Contract until all required insurance and certificates have been obtained and delivered in duplicate to the District for approval subject to the following requirements:

a. Certificates and insurance policies shall include the following clause:

"This policy and any coverage shall not be suspended, voided, non-renewed, canceled, or reduced in required limits of liability or amounts of insurance or coverage until notice has been mailed via certified mail to the District. Date of cancellation or reduction may not be less than thirty (30) days after the date of mailing notice."

- b. Certificates of insurance shall state in particular those insured, the extent of insurance, location and operation to which the insurance applies, the expiration date, and cancellation and reduction notices.
- c. Certificates of insurance shall clearly state that the District and the Architect are named as additional insureds under the policy described and that such insurance policy shall be primary to any insurance or self-insurance maintained by District.
- d. The Contractor and its Subcontractors shall produce a certified copy of any insurance policy required under this Section upon written request of the District.

e.

11.8COMPLIANCE

In the event of the failure of Contractor to furnish and maintain any insurance required by this Article 11, the Contractor shall be in default under the Contract. Compliance by Contractor with the requirement to carry insurance and furnish certificates or policies evidencing the same shall not relieve the Contractor from liability assumed under any provision of the Contract Documents, including, without limitation, the obligation to defend and indemnify the District and the Architect.

11.9WAIVER OF SUBROGATION

Contractor waives (to the extent permitted by law) any right to recover against the District for damages to the Work, any part thereof, or any and all claims arising by reason of any of the foregoing, but only to the extent that such damages and/or claims are covered by property insurance and only to the extent of such coverage (which shall exclude deductible amounts) by insurance actually carried by the District.

The provisions of this Article are intended to restrict each party to recovery against insurance carriers only to the extent of such coverage and waive fully and for the benefit of each, any rights and/or claims which might give rise to a right of subrogation in any insurance carrier. The District and the Contractor shall each obtain in all policies of insurance carried by either of them, a waiver by the

insurance companies thereunder of all rights of recovery by way of subrogation for any damages or claims covered by the insurance.

11.10 PERFORMANCE AND PAYMENT BONDS

11.10.1 <u>Bond Requirements</u>

Unless otherwise specified in the Supplemental Conditions, prior to commencing any portion of the Work, the Contractor shall furnish separate Payment and Performance Bonds for its portion of the Work which shall cover 100% faithful performance of and payment of all obligations arising under the Contract Documents and/or guaranteeing the payment in full of all claims for labor performed and materials supplied for the Work. All bonds shall be provided by a corporate Surety authorized and admitted to transact business in California as sureties.

To the extent, if any, that the Contract Price is increased in accordance with the Contract Documents, the Contractor shall, upon request of the District, cause the amount of the bonds to be increased accordingly and shall promptly deliver satisfactory evidence of such increase to the District. To the extent available, the bonds shall further provide that no change or alteration of the Contract Documents (including, without limitation, an increase in the Contract Price, as referred to above), extensions of time, or modifications of the time, terms, or conditions of payment to the Contractor will release the Surety. If the Contractor fails to furnish the required bonds, the District may terminate the Contract for cause.

11.10.2 Surety Qualification

Only bonds executed by admitted Surety insurers as defined in Code of Civil Procedure § 995.120 shall be accepted. Surety must be a California-admitted Surety and listed by the U.S. Treasury with a bonding capacity in excess of the Project cost.

11.10.3 Alternate Surety Qualifications

If a California-admitted Surety insurer issuing bonds does not meet these requirements, the insurer will be considered qualified if it is in conformance with § 995.660 of the California Code of Civil Procedure and proof of such is provided to the District.

ARTICLE 12

UNCOVERING AND CORRECTION OF WORK

12.1 COMPLIANCE WITH TITLE 24 INSTALLATION REQUIREMENTS

Contractor is aware of the requirements governing Contractor's Work under title 24 Section 4-343 which provides, in pertinent part:

4-343. Duties of the Contractor.

(a) **Responsibilities**. It is the duty of the contractor to complete the Work covered by his or her contract in accordance with the approved Plans and Specifications therefore. The contractor in no way is relieved of any responsibility by the activities of the architect, engineer, Inspector or DSA in the performance of such duties.

(b) **Performance of the Work.** The contractor shall carefully study the approved Plans and Specifications and shall plan a schedule of operations well ahead of time. If at any time it is discovered that Work is being done which is not in accordance with the approved Plans and Specifications, the contractor shall correct the Work immediately. All inconsistencies or items which appear to be in error in the Plans and Specifications shall be promptly called to the attention of the architect or registered engineer, through the Inspector, for interpretation or correction. In no case, however, shall the instruction of the architect or registered engineer be construed to cause Work to be done which is not in conformity with the approved Plans, Specifications, and Change Orders. The contractor must notify the Project Inspector, in advance, of the commencement of construction of each and every aspect of the Work.

12.1.1 <u>Issuance of Notices of Non-Compliance</u>

The Inspector may issue a Notice of Non-Compliance on the Project indicating deviation from Plans and Specifications. It is Contractor's responsibility to correct all deviations from the approved Plans and Specifications unless the District has issued an Immediate Change Directive. In such case, the Contractor shall proceed with the Work with the understandings of the District as set forth in the ICD and as specifically noted in Article 7.3.

12.2 SPECIAL NOTICE OF AMERICAN'S WITH DISABILITIES ACT

Some of the requirements in the Plans and Specifications are meant to comply with the Americans with Disabilities Act ("ADA"). The requirements of the ADA are technical in nature and may appear to be minor in nature (i.e. whether a walkway or ramp has a 2% cross-slope). Contractor is warned that even the slightest deviation from the specific requirements from the ADA is considered a Civil Rights violation and subjects the District to fines of three times actual damages sustained by a handicap individual or up to \$4,000 per violation and attorney's fees required to enforce the ADA violation. As a result of the significant liability and exposure associated with ADA aspects of the Contract, Contractor shall take special care to meet all ADA requirements detailed in the Plans and Specifications. Failure to comply with ADA rules that results in a Notice of Non-Compliance shall be repaired to meet ADA requirements promptly. In addition, any ADA violations that are not identified by Inspector or Architect that are later identified shall be repaired and charged back to the Contractor through a Deductive Change Order.

12.2.1 Indemnification of ADA Claims

Contractor shall indemnify, hold harmless and defend the District from ADA claims arising from the failure to comply with the Plans and Specifications. Further, any withholdings for ADA violations under Article 9.6 shall include potential redesign costs and an accelerated repair costs due to the potential for ADA claims arising from DSA posting of ADA violations on the Project.

12.3 UNCOVERING OF WORK

12.3.1 <u>Uncovering Work for Required Inspections</u>

Work shall not be covered without the Inspector's review and the Architect's knowledge that the Work conforms with the requirements of the approved Plans and Specifications (except in the case of an ICD under Article 7.3). Inspector must be timely notified of inspections and of new areas so Work can be inspected at least 48 hours before opening a new area (For example, see DSA Form 156 for Commencement/Completion of Work Notification which requires "at least 48 hour" advance notification

of a new area). An Inspector must comply with DSA protocols for signing each category or phase of Work under DSA Form 152 (in compliance with the Form 152 Manual) or a Notice of Deviation (DSA Form 154) will be issued requiring the Work that was not inspected be uncovered for inspection. Thus, if a portion of the Work is covered without inspection or Architect approval, is subject to a Notice of Non-Compliance for being undertaken without inspection, or otherwise not in compliance with the Contract Documents, after issuance of a Written Notice of Non-Compliance (Form 154) or a written notice to uncover Work, Contractor shall promptly uncover all Work (which includes furnishing all necessary facilities, labor, and material) for the Inspector's or the Architect's observation and such Work shall be replaced at the Contractor's expense without change in the Contract Sum or Time.

12.3.2 Costs for Inspections Not Required

If a portion of the Work has been covered is believed to be Non-Conforming to the Plans and Specifications, even if the Form 152 for the category of Work has been signed by the Inspector, the Inspector or the Architect may request to see such Work, and it shall be promptly uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncover and replacement shall, by appropriate Change Order and shall, be charged to the District. If such Work is not in accordance with Contract Documents, the Contractor shall be responsible for all costs to uncover the Work, delays incurred to uncover the Work, and Contractor shall pay all costs to correct the Non-Conforming construction condition unless the condition was caused by the District or a separate contractor, in which event the District shall be responsible for payment of such costs to the Contractor.

12.4CORRECTION OF WORK

12.4.1 <u>Correction of Rejected Work</u>

The Contractor shall promptly correct the Work rejected by the Inspector or the District upon recommendation of the Architect as failing to conform to the requirements of the Contract Documents, whether observed before or after Completion and whether or not Fabricated, installed, or completed. The Contractor shall bear costs of correcting the rejected Work, including cost for delays that may be incurred by Contractor or Subcontractors, the cost for additional testing, inspections, and compensation for the Inspector's or the Architect's services and expenses made necessary thereby (including costs for preparing a CCD, DSA CCD review fees, and additional inspection and special inspection costs).

12.4.2 One-Year Warranty Corrections

If, within one (1) year after the date of Completion of the Work or a designated portion thereof, or after the date for commencement of warranties established under Article 9.9.1, or by the terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the District to do so unless the District has previously given the Contractor a written acceptance of such condition. This period of one (1) year shall be extended with respect to portions of the Work first performed after Completion by the period of time between Completion and the actual performance of the Work. This obligation under this Article 12.4.2 shall survive acceptance of the Work under the Contract and termination of the Contract. The District shall give such notice promptly after discovery of the condition.

12.4.3 District's Rights if Contractor Fails to Correct

If the Contractor fails to correct nonconforming Work within a reasonable time, the District may correct the Work and seek a Deductive Change Order, pursuant to Article 9.6 or Article 2.2.

ARTICLE 13

MISCELLANEOUS PROVISIONS

13.1**GOVERNING LAW**

The Contract shall be governed by the law of the place where the Project is located.

13.2SUCCESSORS AND ASSIGNS

The District and the Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to partners, successors, assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

13.3WRITTEN NOTICE

In the absence of specific notice requirements in the Contract Documents, written notice shall be deemed to have been duly served if delivered in person to the individual, member of the firm or entity, or to an officer of the corporation for which it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving notice.

13.4**RIGHTS AND REMEDIES**

13.4.1 <u>Duties and Obligations Cumulative</u>

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

13.4.2 <u>No Waiver</u>

No action or failure to act by the Inspector, the District, or the Architect shall constitute a waiver of a right or duty afforded them under the Contract Documents, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

13.5 TESTS AND INSPECTIONS

13.5.1 <u>Compliance</u>

Tests, inspections, and approvals of portions of the Work required by the Contract Documents will comply with Division 1, Title 24, and with all other laws, ordinances, rules, regulations, or orders of public authorities having jurisdiction.

13.5.2 <u>Independent Testing Laboratory</u>

The District will select and pay an independent testing laboratory to conduct all tests and inspections. Selection of the materials required to be tested shall be made by the laboratory or the District's representative and not by the Contractor. See Articles 3.13.1 and 4.3.6 regarding costs or expenses of inspection or testing outside of the Project Site.

13.5.3 Advance Notice to Inspector

The Contractor shall notify the Inspector a sufficient time in advance of its readiness for required observation or inspection so that the Inspector may arrange for same. The Contractor shall notify the Inspector a sufficient time in advance of the manufacture of material to be supplied under the Contract Documents which must, by terms of the Contract Documents, be tested in order that the Inspector may arrange for the testing of the material at the source of supply.

13.5.4 Testing Off-Site

Any material shipped by the Contractor from the source of supply, prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice from said Inspector that such testing and inspection will not be required, shall not be incorporated in the Work.

13.5.5 Additional Testing or Inspection

If the Inspector, the Architect, the District, or public authority having jurisdiction determines that portions of the Work require additional testing, inspection, or approval not included under Article 13.5.1, the Inspector will, upon written authorization from the District, make arrangements for such additional testing, inspection, or approval. The District shall bear such costs except as provided in Articles 13.5.6 and 13.5.7.

13.5.6 Costs for Retesting

If such procedures for testing, inspection, or approval under Articles 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, the Contractor shall bear all costs arising from such failure, including those of re-testing, reinspection, or re-approval, including, but not limited to, compensation for the Architect's services and expenses. Any such costs shall be paid by the District, invoiced to the Contractor, and deducted from the next Progress Payment.

13.5.7 Costs for Premature Test

In the event the Contractor requests any test or inspection for the Project and is not completely ready for the inspection, the Contractor shall be invoiced by the District for all costs and expenses resulting from that testing or inspection, including, but not limited to, the Inspector's and Architect's fees and expenses, and the amount of the invoice shall be deducted from the next Progress Payment.

13.6 TRENCH EXCAVATION

13.6.1 Trenches Greater Than Five Feet

Pursuant to Labor Code section 6705, if the Contract Price exceeds \$25,000 and involves the excavation of any trench or trenches five (5) feet or more in depth, the Contractor shall, in advance of excavation, submit to the District or a registered civil or structural engineer employed by the District or Architect, a detailed plan showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches.

13.6.2 Excavation Safety

If such plan varies from the Shoring System Standards established by the Construction Safety Orders, the plan 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 such trench or trenches shall be commenced until said plan has been accepted by the District or by the person to whom authority to accept has been delegated by the District.

13.6.3 No Tort Liability of District

Pursuant to Labor Code § 6705, nothing in this Article shall impose tort liability upon the District or any of its employees.

13.6.4 No Excavation without Permits

The Contractor shall not commence any excavation Work until it has secured all necessary permits including the required CAL OSHA excavation/shoring permit. Any permits shall be prominently displayed on the Site prior to the commencement of any excavation.

13.7WAGE RATES, TRAVEL, AND SUBSISTENCE

13.7.1 Wage Rates

Pursuant to the provisions of Article 2 (commencing at § 1720), Chapter 1, Part 7, Division 2, of the Labor Code, the District has obtained the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this public works project is to be performed for each craft, classification, or type of worker needed for this Project from the Director of the Department of Industrial Relations ("Director"). These rates are on file at the administrative office of the District and are also available from the Director of the Department of Industrial Relations. Copies will be made available to any interested party on request. The Contractor shall post a copy of such wage rates at appropriate, conspicuous, weatherproof points at the Site.

Any worker employed to perform Work on the Project, but such Work is not covered by any classification listed in the published general prevailing wage rate determinations or per diem wages determined by the Director of the Department of Industrial Relations, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to the employment of such person in such classification.

13.7.2 Holiday and Overtime Pay

Holiday and overtime work, when permitted by law, shall be paid for at the rate set forth in the prevailing wage rate determinations issued by the Director of the Department of Industrial Relations or at least one and one-half (1½) times the specified basic rate of per diem wages, plus employer payments, unless otherwise specified in the Contract Documents or authorized by law.

13.7.3 Wage Rates Not Affected by Subcontracts

The Contractor shall pay and shall cause to be paid each worker engaged in the execution of the Work on the Project not less than the general prevailing rate of per diem wages determined by the Director, regardless of any contractual relationship which may be alleged to exist between the Contractor or any Subcontractor and such workers.

13.7.4 Per Diem Wages

The Contractor shall pay and shall cause to be paid to each worker needed to execute the Work on the Project per diem wages including, but not limited to, employer payments for health and welfare, pensions, vacation, travel time and subsistence pay as provided for in Labor Code §1773.1.

13.7.5 Forfeiture and Payments

Pursuant to Labor Code §1775, the Contractor shall forfeit to the District, not more than Two Hundred Dollars (\$200.00) for each calendar day, or portion thereof, for each worker paid less than the prevailing wages rates as determined by the Director of the Department of Industrial Relations, for the work or craft in which the worker is employed for any Work done under the Agreement by the Contractor or by any Subcontractor under it. The amount of the penalty shall be determined by the Labor Commissioner and shall be based on consideration of: (1) whether the Contractor or Subcontractor's failure to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily correct upon being brought to the attention of the Contractor or Subcontractor; and (2) whether the Contractor or Subcontractor has a prior record of failing to meet its prevailing wage obligations.

13.7.6 Monitoring and Enforcement by Labor Commissioner

Monitoring and enforcement of the prevailing wage laws and related requirements will be performed by the Labor Commissioner/ Department of Labor Standards Enforcement (DLSE). The Contractor and all Subcontractors shall be required to furnish, at least monthly, certified payroll records directly to the Labor Commissioner in accordance with Labor Code section 1771.4. All payroll records shall be furnished in a format required by the Labor Commissioner. The Contractor and all Subcontractors must sign up for, and utilize, the Labor Commissioner's electronic certified payroll records submission system. The District will have direct and immediate access to all CPRs for the Project that are submitted through the Labor Commissioner's system. The District can use this information for any appropriate purpose, including monitoring compliance, identifying suspected violations, and responding to Public Records Act requests.

The Labor Commissioner/ DLSE may conduct various compliance monitoring and enforcement activities including, but not limited to, confirming the accuracy of payroll records, conducting worker interviews, conducting audits, requiring submission of itemized statements prepared in accordance with Labor Code section 226, and conducting random in-person inspections of the Project site ("On-Site Visits"). On-Site Visits may include inspections of records, inspections of the Work site and observation of work activities, interviews of workers and others involved with the Project, and any other activities deemed necessary by the Labor Commissioner/DLSE to ensure compliance with prevailing wage requirements. The Labor Commissioner/DLSE shall have free access to any construction site or other place of labor and may obtain any information or statistics pertaining to the lawful duties of the Labor Commissioner/DLSE.

Any lawful activities conducted or any requests made by the Labor Commissioner/DLSE shall not be the basis for any delays, claims, costs, damages or liability of any kind against the District by the Contractor. Contractor and all Subcontractors shall cooperate and comply with any lawful requests by the Labor Commissioner/ DLSE. The failure of the Labor Commissioner, DLSE, or any other entity related to the Department of Industrial Relations to comply with any requirement imposed by the California Code of Regulations, Title 8, Chapter 8 shall not of itself constitute a defense to the failure to pay prevailing wages or to comply with any other obligation imposed by Division 2, Part 7, Chapter 1 of the Labor Code.

Prior to commencing any Work on the Project, the Contractor shall post the required notice/poster required under the California Code of Regulations and Labor Code section 1771.4 in both English and Spanish at a conspicuous, weatherproof area at the Project site. The required notice/poster is available on the Labor Commissioner's website.

13.8RECORDS OF WAGES PAID

13.8.1 Payroll Records

- a. Pursuant to §1776 of the Labor Code, the Contractor and each Subcontractor shall keep an accurate payroll record showing the name, address, social security number, work classification and straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by him or her in connection with the Project.
- b. All payroll records as specified in Labor Code §1776 of the Contractor and all Subcontractors shall be certified and furnished directly to the Labor Commissioner in accordance with Labor Code §1771.4(a)(3) on a monthly basis (or more frequently if required by the District or the Labor Commissioner) and in a format prescribed by the Labor Commissioner. Payroll records as specified in Labor Code §1776 shall be certified and submitted to the District with each application for payment. All payroll records shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:
- 1. A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.
- 2. A certified copy of all payroll records shall be made available for inspection or furnished upon request to a representative of District, the Division of Labor Standards Enforcement or the Division of Apprenticeship Standards of the Department of Industrial Relations.
- 3. A certified copy of all payroll records shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through 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) above, the requesting party shall, prior to being provided the records, reimburse the costs, according to law for the preparation by the Contractor, Subcontractor(s), and the entity through which the request was made. The public shall not be given access to such records at the principal office of the Contractor.

- c. The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the Division of Labor Standards Enforcement.
- d. The Contractor or Subcontractor(s) shall file a certified copy of all payroll records with the entity that requested such records within 10 calendar days after receipt of a written request.
- e. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor awarded the Contract or the Subcontractor(s) performing the Contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (Section 175a of Title 29 of the United States Code) shall be marked or obliterated only to prevent disclosure of an individual's name and social security number. Notwithstanding any other provision of law, agencies that are included in the Joint Enforcement Strike Force on the Underground Economy established pursuant to Section 329 of the Unemployment Insurance Code and other law enforcement agencies investigating violations of law shall, upon request, be provided non-redacted copies of certified payroll records.
- f. The Contractor shall inform the District of the location of all payroll records, including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.
- g. The Contractor or Subcontractor(s) shall have 10 calendar days in which to comply subsequent to receipt of a written notice requesting payroll records. In the event that the Contractor or Subcontractor(s) fails to comply within the 10-day period, the Contractor or Subcontractor(s) shall, as a penalty to the District, forfeit One Hundred Dollars (\$100.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

Responsibility for compliance with this Article shall rest upon the Contractor.

13.8.2 Withholding of Contract Payments & Penalties

The District may withhold or delay contract payments to the Contractor and/or any Subcontractor if:

- a. The required prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations is not paid to all workers employed on the Project; or
- b. The Contractor or Subcontractor(s) fail to submit all required certified payroll records with each application for payment, but not less than once per month; or
- c. The Contractor or Subcontractor(s) submit incomplete or inadequate payroll records; or
- d. The Contractor or Subcontractor(s) fail to comply with the Labor Code requirements concerning apprentices; or

e. The Contractor or Subcontractor(s) fail to comply with any applicable state laws governing workers on public works projects.

13.9APPRENTICES

13.9.1 Apprentice Wages and Definitions

All apprentices employed by the Contractor to perform services under the Contract shall be paid the standard wage paid to apprentices under the regulations of the craft or trade for which he or she is employed, and as determined by the Director of the Department of Industrial Relations, and shall be employed only at the craft or trade to which he or she is registered. Only apprentices, as defined in §3077 of the Labor Code, who are in training under apprenticeship standards that have been approved by the Chief of the Division of Apprenticeship Standards and who are parties to written apprenticeship agreements under Chapter 4 (commencing with §3070) of Division 3, are eligible to be employed under this Contract. The employment and training of each apprentice shall be in accordance with the apprenticeship standards and apprentice agreements under which he or she is training, or in accordance with the rules and regulations of the California Apprenticeship Council.

13.9.2 Employment of Apprentices

Contractor agrees to comply with the requirements of Labor Code §1777.5. The Contractor awarded the Project, or any Subcontractor under him or her, when performing any of the Work under the Contract or subcontract, employs workers in any apprenticeable craft or trade, the Contractor and Subcontractor shall employ apprentices in the ratio set forth in Labor Code §1777.5. The Contractor or any Subcontractor must apply to any apprenticeship program in the craft or trade that can provide apprentices to the Project site for a certificate approving the contractor or subcontractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, the decision of the apprenticeship program to approve or deny a certificate shall be subject to review by the Administrator of Apprenticeship. The apprenticeship program or programs, upon approving the Contractor or Subcontractor, shall arrange for the dispatch of apprentices to the Contractor or Subcontractor upon the Contractor's or Subcontractor's request. "Apprenticeable craft or trade" as used in this Article means a craft or trade determined as an apprenticeable occupation in accordance with the rules and regulations prescribed by the California Apprenticeship Council. The ratio of work performed by apprentices to journeyman employed in a particular craft or trade on the Project shall be in accordance with Labor Code §1777.5.

13.9.3 Submission of Contract Information

Prior to commencing Work on the Project, the Contractor and Subcontractors shall submit contract award information to the applicable apprenticeship program(s) that can supply apprentices to the Project and make the request for the dispatch of apprentices in accordance with the Labor Code. The information submitted shall include an estimate of journeyman hours to be performed under the Contact, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to the District if requested. Within 60 days after concluding Work on the Project, the Contractor and Subcontractors shall submit to the District, if requested, and to the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the Project.

13.9.4 Apprentice Fund

The Contractor or any Subcontractor under him or her, who, in performing any of the Work under the Contract, employs journeymen or apprentices in any apprenticeable craft or trade shall contribute to the California Apprenticeship Council the same amount that the Director determines is the prevailing amount of apprenticeship training contributions in the area of the Project. The Contractor and Subcontractors may take as a credit for payments to the California Apprenticeship Council any amounts paid by the Contractor or Subcontractor to an approved apprenticeship program that can supply apprentices to the Project. The Contractor and Subcontractors may add the amount of the contributions in computing his or her bid for the Contract.

13.9.5 Prime Contractor Compliance

The responsibility of compliance with Article 13 and §1777.5 of the Labor Code for all apprenticeable occupations is with the Prime Contractor. Any Contractor or Subcontractor that knowingly violates the provisions of this Article or Labor Code §1777.5 shall be subject to the penalties set forth in Labor Code §1777.7.

13.10 ASSIGNMENT OF ANTITRUST CLAIMS

13.10.1 Application

Pursuant to Government Code § 4551, in entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or Subcontractor offers and agrees to assign to the District all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act, (15 U.S.C. § 15) or under the Cartwright Act (Chapter 2 [commencing with § 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from the purchase of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders Retention Payment to the Contractor, without further acknowledgment by the parties. If the District receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under Chapter 11 (commencing with § 4550) of Division 5 of Title 1 of the Government Code, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the District any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the District as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

13.10.2 Assignment of Claim

Upon demand in writing by the assignor, the District shall, within one (1) year from such demand, reassign the cause of action assigned pursuant to this Article if the assignor has been or may have been injured by the violation of law for which the cause of action arose and the District has not been injured thereby or the District declines to file a court action for the cause of action.

13.11STATE AND DISTRICT CONDUCTED AUDITS

Pursuant to and in accordance with the provisions of Government Code § 10532, or any amendments thereto, all books, records, and files of the District, the Contractor, or any Subcontractor connected with the performance of this Contract involving the expenditure of state funds in excess of Ten Thousand Dollars (\$10,000.00), including, but not limited to, the administration thereof, shall be subject to the examination and audit of the Office of the Auditor General of the State of California for a period of five (5) years after Retention Payment is made or a Notice of Completion is Recorded, whichever occurs

first. Contractor shall preserve and cause to be preserved such books, records, hard drives, electronic media, and files for the audit period.

Pursuant to the remedies under Public Contract Code section 9201 and Government Code section 930.2, Contractor, through execution of this Agreement, also agrees the District shall have the right to review and audit, upon reasonable notice, the books and records of the Contractor concerning any monies associated with the Project. The purpose of this "Audit" is to quickly and efficiently resolve Disputes based on the actual costs incurred and to reduce the uncertainty in resolving Disputes with limited information. The District shall perform any audits at its own cost and any such audit shall be performed by an independent auditor, having no direct or indirect relationship with the functions or activities being audited or with the business conducted by the Contractor or District. In the event the independent auditor determines that Change Orders, response to Request for Proposals, Claims, Appeal of Claims, or other requests for payment are in error, or have has any other concerns or questions, the Auditor shall report the results of the Audit findings to the District and provide a copy to the Contractor after giving the District Board the opportunity for at least 10 days review. If the Contractor disputes the findings of the independent auditor, such dispute shall be handled in the manner set forth under Article 4.6.2 entitled Disputes.

If Contractor having agreed to the terms of this Contract fails to produce books or records requested by Auditor, such failure to produce books or records that were required to be preserved for audit, it shall be presumed that the information contained in the withheld books or records were unfavorable to the Contractor and the Auditor shall note this refusal in the results of the Audit findings for further evaluation by the District and the District's Board. The refusal to release records that are concerning monies associated with the Project may be used as a grounds to debar the Contractor under Article 15 for failure to preserve records under Article 13.11 and the failure to produce required audit records may also be used as a grounds for a negative finding against the Contractor depending on the significance of the records that are withheld by Contractor. Failure to produce job cost data tied to job cost categories and budgets shall be presumed an intentional failure to produce key audit records. Similarly, failure to produce Daily Reports (prepared at or near the time of the Work actually took place (See Article 3.16) shall be presumed an intentional failure to produce key audited records.

If Contractor is seeking costs for inefficiency, home office overhead, or unanticipated increased costs due to delays or acceleration, Contractor shall also produce copies of the original bid tabulation utilized in submitting Contractor's bid for the Project. This document shall be considered confidential and shall not be subject to disclosure through a Public Records Act and shall not be distributed to anyone other than the District and the District's counsel. This bid tabulation shall only be used in litigation, arbitration, evaluation of Claims or Disputes, Audit, and trial. If the records for the bid tabulation are kept on a computer, the Contractor shall also produce all metadata (in native format) that accompanies the bid tabulation for inspection to prove the authenticity of the underlying bid tabulation. Failure to produce the bid tabulation for review of inefficiency, home office overhead, or unanticipated increased costs due to delays or accelerations shall be considered material evidence that the bid tabulation was not favorable to the Contractor. This evidence shall be entered as a jury instruction for trial that the bid tabulation was not produced and the bid tabulation information was unfavorable to the Contractor. The evidence may also be used in debarment proceedings, and noted as an exception to an Audit findings.

Upon notification of Contractor concerning the results of the audit and a reasonable time has passed for Contractor to respond to the Audit findings and if either there is no Dispute of the Audit findings under Article 4.6 or if the result after utilizing the Disputes Clause confirms the Audit findings, the District may seek reimbursement for overstated Claims, Change Orders, or Appeal of Claims and may also undertake debarment proceedings under Article 15 of these General Conditions.

13.12STORM WATER POLLUTION PREVENTION

13.12.1 Application

This Section addresses the preparation, implementation and monitoring of a Storm Water Pollution Prevention Plan (SWPPP) for the purpose of preventing the discharge of pollutants from the construction site. This includes the elimination of pollution discharges such as improper dumping, spills or leakage from storage tanks or transfer areas. The District will not issue a Notice to Proceed until Contractor has prepared by a qualified individual and obtained approval of the Permit Registration Documents ("PRDs") that include a Notice of Intent, Construction Risk Calculation, Site Map, SWPPP, Annual Fee and any additional required documents from all applicable Local Governing Agencies including the Regional Water Quality Control Board. The Contractor shall also secure a certification that the Project has met all of the conditions of the General Construction Activity Storm Water Permit (GCASP) and comply with all applicable local, state and federal regulations governing storm water pollution prevention.

13.12.2 References and Materials

- California Stormwater Quality Association New Development and Redevelopment Best Management Practice Handbook
- 2009 California Stormwater Quality Association Construction BMP Handbook .
- State Water Resources Control Board (2009). Order 2009-0009-DWQ, NPDES General Permit No. CAS000002: Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbing Activities. Available on-line at:
- http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml. Use materials of a class, grade and type needed to meet the performance described in the BMP Handbook.

13.12.3 Preparation and Approval

The Contractor shall prepare by a qualified individual the PRDs that include a Notice of Intent, Construction Risk Calculation, Site Map, SWPPP, Annual Fee and any additional required documents. The Contractor's Qualified SWPPP Developer ("QSD") shall prepare the Storm Water Pollution Prevention Plan (SWPPP) as required to comply with storm water pollution regulations for project sites with storm water discharges associated with construction activity such as clearing or demolition, grading, excavation and other land disturbances. The SWPPP shall apply to all areas that are directly related to construction activity, including but not limited to staging areas, storage yards, material borrow areas, and access roads.

13.12.3.1The Contractor shall prepare and submit to the Local Governing Agencies and the District the SWPPP for review and approval if the project sites, new or existing, with land disturbance of 1 or more acres (or less than 1 acres if part of a common plan of development); the construction activity that results in land surface disturbances of less than one acre is part of a larger common plan of development or sale of one or more acres of disturbed land surface; or the construction activity associated with Linear Underground/Overhead Projects ("LUPs") including, but not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities) and include, but are not limited to, underground utility mark-out, potholing, concrete

and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/tower pad and cable/wire pull station, substation construction, substructure installation, construction of tower footings and/or foundations, pole and tower installations, pipeline installations, welding, concrete and/or pavement repair or replacement, and stockpile/borrow locations.

- 13.12.3.2 The Contractor shall also pay annual renewal fee(s) until the contract is completed and make all such checks payable to the State Water Resources Control Board. The Notice of Intent must be submitted at least two weeks prior to the commencement of construction activities.
- 13.12.3.3The Contractor shall prepare the SWPPP by following the format in Sections 2, 3, 4 and Appendices A through F of the California Stormwater BMP Handbook Construction, January 2009 edition, published by the California Stormwater Quality Association. The publication is available from:

California Stormwater Quality Association P.O. Box 2105 Menlo Park, CA 94026-2105 Phone: (650) 366-1042 E-mail: info@casqa.org

or

 $\frac{https://www.casqa.org/store/products/tabid/154/p-167-construction-handbookportal-initial-subscription.aspx}{}$

- 13.12.3.4 Where land disturbance is less than 1 acre, any BMPs indicated in the BMP Handbook needed to prevent or minimize storm water pollution shall be implemented at no extra cost to the District.
- 13.12.3.5 Within two weeks after Award of Contract by the District, the Contractor shall submit to the District's Civil Engineer one copy of the PRDs including the SWPPP for review. After the District's approval, the Contractor shall provide approved copies of the SWPPP as follows: one copy each to the Project Inspector, Construction Manager, Architect, Commissioned Architect and District's Civil Engineer.

13.12.4 Implementation

The Contractor shall implement the Storm Water Pollution Prevention Plan by doing the following:

- a. Obtain a Waste Discharger Identification (WDID) number from the SWRCB before beginning construction. This number will be issued once your PRDs are administratively accepted and fee is received.
- b. Keep the SWPPP, REAPs, monitoring data on the construction site.
- c. Employ a Qualified SWPPP Practitioner (QSP) to implement the SWPPP during construction and develop Rain Event Action Plans ("REAPs").
- d. Install, inspect, maintain and monitor BMPs required by the General Permit.
- e. Install perimeter controls prior to starting other construction work at the site.
- f. Contain on-site storm water at the jobsite. Do not drain on-site water directly into the storm drain.

- g. Implement the SWPPP.
- h. Provide SWPPP and BMP implementation training for those responsible for implementing the SWPPP.
- i. Designate trained personnel for the proper implementation of the SWPPP.
- j. Conduct monitoring, as required, and assess compliance with the Numeric Action Levels (NALs) or Numeric Effluent Limitations (NELs) appropriate to your project.
- k. Report monitoring data:
- 1. Maintain a paper or electronic copy of all required records for three years from the date generated or date submitted, whichever is last. These records must be available at the construction site until construction is completed.
- 2. Have a QSD revise the SWPPP as needed to reflect the phases of construction and to suit changing site conditions and instances when properly installed systems are ineffective.
- 3. Assist the District with entering any necessary data or information into the Stormwater Multi-Application and Reporting System ("SMARTS") system.

At the end of Construction Contract:

- 1. Submit Notice of Termination (NOT) into the SMARTS when construction is complete and conditions of termination listed in the NOT have been satisfied. A copy of the NOT can be found at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml.
- 2. Leave in place storm water pollution prevention controls needed for post-construction storm water management and remove those that are not needed as determined by the District. Thereafter, left-in-place controls will be maintained by the District.
- 3. Provide Site Monitoring Reports, SWPPP revisions, Compliance Certifications and related documents to the District. Post-construction storm water operation and management plan as mentioned in the compliance certifications are considered to be in place at the end of the Construction Contract.

13.12.5 Monitoring

The Contractor shall conduct examination of storm water pollution prevention controls as required by the State Water Resources Control Board (2009). Order 2009-0009-DWQ, NPDES General Permit No. CAS000002: Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbing Activities. This includes properly qualified personnel performing all required monitoring, testing, inspections and monitoring. The Contractor shall also conduct examination of storm water pollution prevention controls, as well as before and after each storm event in compliance with the State Water Resources Control Board Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System General Permit No. CAS000002, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities (General Permit) (SWRCB, 2009).and at least once each 24-hour period during extended storm events to identify BMP effectiveness and implement repairs or BMP changes as soon as feasible. All maintenance related to a storm event should be completed within 48 hours of the storm event. The Contactor shall also prepare and maintain, at the jobsite, a log of each inspection using Site Monitoring Report forms.

13.12.5 Liabilities and Penalties

- a. Review of the SWPPP and inspection logs by the District shall not relieve the Contractor from liabilities arising from non-compliance with storm water pollution regulations.
- b. Payment of penalties for non-compliance by the Contractor shall be the sole responsibility of the Contractor and will not be reimbursed by the District.
- c. Compliance with the Clean Water Act pertaining to construction activity is the sole responsibility of the Contractor. For any fine(s) levied against the District due to non-compliance by the Contractor, the District will deduct from the final payment due the Contractor the total amount of the fine(s) levied on the District, plus legal and associated costs.
- d. The Contractor shall submit to the District a completed NOI for change of information (Construction Site Information and Material Handling/Management Practices).

ARTICLE 14 TERMINATION OR SUSPENSION OF THE

CONTRACT

14.1.1 TERMINATION BY THE CONTRACTOR FOR CAUSE

Grounds for Termination

The Contractor may terminate the Contract if the Work is stopped for a period of thirty (30) consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons performing portions of the Work for whom the Contractor is contractually responsible, for only the following reasons:

- a. Issuance of an order of a court or other public authority having jurisdiction; or
- b. An act of the United State or California government, such as a declaration of national emergency.

14.1.2 Notice of Termination

If one of the above reasons exists, the Contractor may, upon written notice of seven (7) additional days to the District, terminate the Contract and recover from the District payment for Work executed and for reasonable costs verified by the Architect with respect to materials, equipment, tools, construction equipment, and machinery, including reasonable overhead, profit, and damages.

14.2TERMINATION BY THE DISTRICT FOR CAUSE

• Grounds for Termination

The District may terminate the Contractor and/or this Contract for the following reasons:

- a. Persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- b. Persistently or repeatedly is absent, without excuse, from the job site;
- c. Fails to make payment to Subcontractors, suppliers, materialmen, etc.;
- d. Persistently disregards laws, ordinances, rules, regulations, or orders of a public authority having jurisdiction;
- e. Fails to provide a schedule or fails or refuses to update schedules required under the Contract;

- f. Falls behind on the Project and refuses or fails to undertake a Recovery Schedule:
- g. If the Contractor has been debarred from performing Work
- h. Becomes bankrupt or insolvent, including the filing of a general assignment for the benefit of creditors; or
- i. Otherwise is in substantial breach of a provision of the Contract Documents.

14.2.2 Notification of Termination

When any of the above reasons exist, the District may, without prejudice to any other rights or remedies of the District and after giving the Contractor and the Contractor's Surety written notice of seven (7) days, terminate the Contractor and/or this Contract and may, subject to any prior rights of the Surety:

- a. Take possession of the Project and of all material, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- b. Accept assignment of Subcontracts. Contractor acknowledges and agrees that if the District (in its sole and absolute discretion) decides to takeover completion of the Project, the Contractor agrees to immediately assign all subcontracts to the District which the District has chosen to accept;
- c. Complete the Work by any reasonable method the District may deem expedient, including contracting with a replacement contractor or contractors; and,
- d. Agree to accept a takeover and completion arrangement with Surety that is acceptable to the District Board.

14.2.3 <u>Takeover and Completion of Work after Termination for Cause</u>

A Termination for Cause is an urgent matter which requires immediate radiation since Project Work is open and incomplete, the site is subject to vandalism and theft, the Project site is considered a public nuisance, and there is a possibility of injury and deterioration of the Project Work and materials. Thus, the District shall be entitled to enter a takeover contract to either remediate the unfinished condition or complete the Work for this Project.

14.2.4 Payments Withheld

If the District terminates the Contract for one of the reasons stated in Article 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is complete. All costs associated with the termination and completion of the Project shall be the responsibility of the Contractor and/or its Surety.

14.2.5 Payments upon Completion

If the unpaid balance of the Contract Sum exceeds costs of completing the Work, including compensation for professional services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor and its Surety shall pay the difference to the District. The amount to be paid to the Contractor, or District, as the case may be, shall be certified by the Architect upon application. This payment obligation shall survive completion of the Contract.

14.3 TERMINATION OF CONTRACT BY DISTRICT (CONTRACTOR NOT AT FAULT)

14.3.1 Termination for Convenience

District may terminate the Contract upon fifteen (15) calendar days of written notice to the Contractor and use any reasonable method the District deems expedient to complete the Project, including contracting with replacement contractor or contractors, if it is found that reasons beyond the control of either the District or Contractor make it impossible or against the District's interest to complete the Project. In such a case, the Contractor shall have no Claims against the District except for: (1) the actual cost for approved labor, materials, and services performed in accordance with the Contract Documents which have not otherwise been previously paid for and which are supported and documented through timesheets, invoices, receipts, or otherwise; and (2) profit and overhead of ten percent (10%) of the approved costs in item (1); and (3) termination cost of five percent (5%) of the approved costs in item (1). Contractor acknowledges and agrees that if the District (in its sole and absolute discretion) decides to takeover completion of the Project, the Contractor agrees to immediately assign all subcontracts to the District which the District has chosen to accept.

14.3.2 Non-Appropriation of Funds/ Insufficient Funds

In the event that sufficient funds are not appropriated to complete the Project or the District determines that sufficient funds are not available to complete the Project, District may terminate or suspend the completion of the Project at any time by giving written notice to the Contractor. In the event that the District exercises this option, the District shall pay for any and all work and materials completed or delivered onto the site for which value is received, and the value of any and all work then in progress and orders actually placed which cannot be canceled up to the date of notice of termination. The value of work and materials not otherwise already paid for by the District up to the time of termination under this Paragraph shall include a factor of fifteen percent (15%) for the Contractor's overhead and profit and there shall be no other costs or expenses paid to Contractor. All work, materials and orders paid for pursuant to this provision shall become the property of the District. District may, without cause, order Contractor in writing to suspend, delay or interrupt the Project in whole or in part for such period of time as District may determine. Adjustment shall be made for increases in the cost of performance of the Agreement caused by suspense, delay or interruption.

14.4REMEDIES OTHER THAN TERMINATION

If a default occurs, the District may, without prejudice to any other right or remedy, including, without limitation, its right to terminate the Contract pursuant to Article 14.2, do any of the following:

- a. Permit the Contractor to continue under this Contract, but make good such deficiencies or complete the Contract by whatever method the District may deem expedient, and the cost and expense thereof shall be deducted from the Contract Price or paid by the Contractor to the District on demand:
- b. If the workmanship performed by the Contractor is faulty or defective materials are provided, erected or installed, then the District may order the Contractor to remove the faulty workmanship or defective materials and to replace the same with work or materials that conform to the Contract Documents, in which event the Contractor, at its sole costs and expense, shall proceed in accordance with the District's order and complete the same within the time period given by the District in its notice to the Contractor; or

c. Initiate procedures to declare the Contractor a non-responsible bidder for a period of two (2) to five (5) years thereafter.

All amounts expended by the District in connection with the exercise of its rights hereunder shall accrue interest from the date expended until paid to the District at the maximum legal rate. The District may retain or withhold any such amounts from the Contract Price. If the Contractor is ordered to replace any faulty workmanship or defective materials pursuant to Paragraph (b) above, the Contractor shall replace the same with new work or materials approved by the Architect and the District, and, at its own cost, shall repair or replace, in a manner and to the extent the Architect and the District shall direct, all Work or material that is damaged, injured or destroyed by the removal of said faulty workmanship or defective material, or by the replacement of the same with acceptable work or materials. In no event shall anything in this Article be deemed to constitute a waiver by the District of any other rights or remedies that it may have at law or in equity, it being acknowledged and agreed by the Contractor that the remedies set forth in this Article are in addition to, and not in lieu of, any other rights or remedies that the District may have at law or in equity.



PROJECT MANUAL

SAN JACINTO CAMPUS SHADE STRUCTURES

FOR MT. SAN JACINTO COMMUNITY COLLEGE

MENIFEE, CA

1.51.07

April 2019



SECTION 00 01 01 PROJECT MANUAL

Shade Structures for the San Jacinto Campus

Project No. 1-51-07

OWNER MT. SAN JACINTO COMMUNITY COLLEGE DISTRICT FACILITIES

1499 N. STATE STREET 92583 PHONE: (951) 416-6000

ARCHITECT RUHNAU CLARKE ARCHITECTS

3775 Tenth Street, Riverside, California 92501 PHONE: (951) 684-4664 www.ruhnauclarke.com

RUHNAU CLARKE ARCHITECTS

PROJECT NO. 1-51-07

NOTICE: This Project Manual, is an unpublished instrument of service of the authors. It is prepared for use only on this Project and in conjunction with the authors' interpretations, observations, decisions and administration, as described in the Conditions of the Contract. Desired results without these services cannot be assured. Use in whole or in part, without the authors' services and expressed written consent may violate Act 17 U.S.C. par. 301 (1991).

SECTION 00 01 05 PROJECT DIRECTORY

NAMES & ADDRESSES OF PROJECT TEAM

1.01 PROJECT SITE

A. Project Address:

Mt. San Jacinto Community College (San Jacinto Campus) 1499 N. State Street
San Jacinto, CA 92583

1.02 DISTRICT AND DISTRICT'S CONSULTANTS

District:

Mt. San Jacinto Community College District

Facilities, Planning, District Construction & Support Services

1499 N. State Street, San Jacinto, CA 92583 (951) 487-3395

www.msjc.edu

Contact: Lynn Purper lpurper@msjc.edu Interim Dean of Facilities Planning

1.03 DESIGN TEAM

Architect:

Ruhnau Clarke Architects

(951) 684-4664

3775 Tenth Street, Riverside, California 92501

www.ruhnauclarke.com FAX (951) 684-6276

Principal-In-Charge:

Roger Clarke rclarke@ruhnauclarke.com
Contact: Juan Cantoran jcantoran@ruhnauclarke.com

Project Manager

Civil Engineer:

Epic Engineers

(909) 792-5969

101 E. Redlands Blvd., Suite 146, Redlands, CA 92373

www.epicrce.com

Contact: Troy Molaug troy@epicrce.com

END OF PROJECT DIRECTORY

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP. 04-117233 INC:
REVIEWED FOR
SS FLS ACS
DATE: 04.10.2020

SECTION 00 01 07 SEALS PAGE

ARCHITECT

RUHNAU CLARKE ARCHITECTS

3775 Tenth Street

Riverside, California 92501-3669

Roger Clarke, Architect of Record

C-21340



END OF SEALS PAGE

SECTION 00 01 10 TABLE OF CONTENTS

PROCUREMENT AND CONTRACTING REQUIREMENTS

DIVISION 00 -- INTRODUCTORY DOCUMENTS

- 00 01 01 Project Title Page
- 00 01 05 Project Directory
- 00 01 07 Seals Page
- 00 01 10 Table of Contents

DIVISION 00 & 01 - PROCUREMENT AND CONTRACTING REQUIREMENTS

(Provided under separate cover by Owner)

SPECIFICATIONS

DIVISION 01 -- GENERAL REQUIREMENTS

- 01 20 00 Price and Payment Procedures
- 01 26 00 Contract Modification Procedures
- 01 29 00 Measurement and Payment
- 01 30 00 Administrative Requirements
- 01 33 23 Shop Drawings, Product Data and Samples
- 01 33 26 Quality Control Submittals
- 01 35 50 Requests for Electronic Files
- 01 40 00 Quality Requirements
- 01 41 00 Regulatory Requirements
- 01 45 33 Code Testing, Special Insp. & Procedures
- 01 60 00 Product Requirements
 - 01 60 00.01Request for Substitution
- 01 70 00 Execution and Closeout Requirements
- 01 73 29 Cutting and Patching
- 01 77 00 Contract Closeout
- 01 78 00 Closeout Submittals
- 01 78 23 Operation and Maintenance Data

DIVISION 02 -- EXISTING CONDITIONS

- 02 16 05 Patching and Repair
- 02 41 19 Selective Site Demolition

DIVISION 03 -- CONCRETE

03 30 01 - Cast In Place Concrete System

DIVISION 07 -- THERMAL AND MOISTURE PROTECTION

07 90 05 - Joint Sealers

DIVISION 13 -- SPECIAL CONSTRUCTION

13 31 33 - Pre-Engineered Fabric Shade Structures

DIVISION 32 -- EXTERIOR IMPROVEMENTS

- 32 11 23 Aggregate Base Courses
- 32 13 13 Concrete Paving
- 32 31 13 Chain Link Fences and Gates

DIVISION 33 -- UTILITIES

33 41 11 - Site Storm Drainage System

END OF TABLE OF CONTENTS

SECTION 01 10 00 SUMMARY

PART 1 GENERAL

1.01 PROJECT

- A. Project Name: Shade Structures for the San Jacinto Campus
- B. District's Name: Mt. San Jacinto Community College District
- C. Architect's Name: Ruhnau Clarke Architects.
- D. The Project consists of the installation of PC shade structures and related site improvements.

1.02 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on a Stipulated Price as described in Owner-Contractor Agreement.
- B. The Work:
 - 1. The Work includes new paving with drainage, seat wall and installation of new PC shade structures.
 - 2. See Drawings for additional general information.

1.03 CONTRACT DOCUMENTS

- A. Contract Requirements:
 - 1. Conditions of the Contract and other Contact documents have been included in the Project Manual, as indicated in the Table of Contents.
 - a. Such documents are not Specifications.
 - 2. Specifications are found in Divisions 1 through 33 of the Project Manual.
- B. Contract Drawings: The Drawings provided with and identified in the Project Manual are the Drawings referenced in the Agreement.
 - 1. The location, extent and configuration of the required construction and improvements are shown and noted on Drawings.
 - a. The Drawings are referenced in the Agreement.
 - b. An index of Drawings is included in the set of Drawings.
 - 2. Drawings are arranged into series according to design discipline. Such organization and all references to trades, subcontractor, specialty contractor or supplier shall not control the Contractor in dividing the Work among subcontractors or in establishing the extent of the Work to be performed by any trade.
 - 3. Where the terms "as shown", "as indicated", "as noted", "as detailed", "as scheduled", or terms of like meaning, are used in the Drawings or Specifications, it shall be understood that reference is being made to the Drawings referenced in the Agreement.
 - 4. Where reference to the word "plans" is made anywhere in Drawings, Specifications and related Contract Documents, it shall be understood to mean the Drawings referenced in the Agreement.
- C. Contract Specifications: The Specifications provided in the Project Manual are the Specifications referenced in the Agreement.

- 1. Specifications are organized by Divisions and Sections in accordance with the recommended practices of the Construction Specifications Institute.
 - a. Such organization shall not control the Contractor in dividing the Work among subcontractors or in establishing the extent of Work to be performed by any trade.
- 2. Specifications are included in the Project Manual, which may also include other Bidding and Contract Documents.
 - a. Contents of the Project Manual are listed in Document 00 01 10 Table of Contents, in the Project Manual.

1.04 DESCRIPTION OF ALTERATIONS WORK

- A. Scope of demolition and removal work is shown on drawings and specified in Section 02 41 19.
- B. Electrical Power and Lighting: Alter existing system and add new construction, keeping existing in operation.
- C. Fire Alarm: Alter existing system and add new construction, keeping existing in operation.
- D. Telephone: Alter existing system and add new construction, keeping existing in operation.
- E. Security System: Alter existing system and add new construction, keeping existing in operation.
- F. Communications: Alter existing system and add new construction, keeping existing in operation.

1.05 WORK BY OWNER

- A. Concurrent Work Under Separate Contracts:
 - 1. Work Under Separate Contracts: District will award separate contracts for products and installation for interior improvements and other work as may be indicated on Drawings as NIC (Not in Contract).
 - 2. Relationship to Work Under the Contract:
 - a. Work under the Contract shall include all provisions necessary to make such concurrent work under separate contracts complete in every respect and fully functional, including field finishing.
 - b. Provide necessary backing, supports, piping, conduit, conductors and other such provisions from point of service to point of connection, as shown on Drawings and specified herein.
 - 3. Related Contract Documents:
 - a. District will make available, in a timely manner, drawings and specifications of work under separate contracts for coordination and further description of that work.
 - b. Such drawings and other data required for the coordination of the work of separate contracts with the Work of this Contract may be included with the Contract Documents
 - c. If so, they are provided for convenience only and are not to be considered Contract Documents produced by Architect or Architect's consultants.
 - 4. Permits, Notices and Fees:
 - a. Permits, Notices and Fees: Notices required by and approvals required of authorities having jurisdiction for work under separate contracts and related fees will be solely the responsibility of District.

- B. Items noted NIC (Not in Contract) will be supplied and installed by District before Substantial Completion.
- C. District will supply the following for installation by Contractor:
 - Owner-Furnished Products: District may furnish, for installation by Contractor, products which are identified on the Drawings and in the Specifications as OFCI (Owner-Furnished/Contractor-Installed).
 - 2. Relationship to Work Under the Contract:
 - a. Work under the Contract shall include all provisions necessary to fully incorporate such products into the Work, including, as necessary:
 - 1) Fasteners.
 - 2) Backing,.
 - 3) Supports.
 - 4) Piping.
 - 5) Conduit.
 - 6) Conductors.
 - 7) Other such provisions from point of service to point of connection.
 - 8) Field finishing, as shown on Drawings and specified herein.
 - b. See Section 01 30 00 Administrative Requirements for additional requirements.

1.06 PERMITS, LICENSES AND FEES

A. Permits:

- 1. For Work included in the Contract, Contractor shall obtain all permits from authorities having jurisdiction and from serving utility companies and agencies.
- 2. District will reimburse Contractor for amount charged for such permits, without mark-up.
- 3. For Work performed under design/build basis, plan check and permit fees shall be included in the Contract Sum.

B. Licenses:

- 1. Contractor shall obtain and pay all licenses associated with construction activities, such as business licenses, contractors' licenses and vehicle and equipment licenses.
- 2. All costs for licenses shall be included in the Contract Sum.

C. Assessments:

1. District will pay all assessments and utility service connection fees. Costs of assessments shall not be included in the Contract Sum.

D. Test and Inspection Fees:

- 1. Contractor shall pay all fees charged by authorities having jurisdiction and from serving utility companies and agencies, for tests and inspections conducted by those authorities, companies and agencies.
- 2. District will reimburse Contractor for actual amount of such fees, without mark-up.
- 3. Refer to Section 01 40 00 Quality Requirements for additional information on tests and inspections and responsibility for payment of fees.

1.07 OWNER OCCUPANCY

A. District intends to continue to occupy adjacent portions of the existing building during the entire construction period.

- B. District intends to occupy the Project upon Substantial Completion.
- C. Cooperate with District to minimize conflict and to facilitate District's operations.
- D. Schedule the Work to accommodate District occupancy.

1.08 CONTRACTOR USE OF SITE AND PREMISES

- A. Arrange use of site and premises to allow:
 - 1. District occupancy.
 - 2. Work by Others.
 - 3. Work by District.
 - 4. Use of site and premises by the public.
- B. Provide access to and from site as required by law and by District:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Site Access:
 - a. Limit access to site to indicated routes and access points as indicated.
 - b. If routes and access points are not indicated, access shall be as approved by District.
 - c. Do not restrict access to adjacent properties and do not restrict access for those performing work under separate contracts for the District.
 - 3. Do not obstruct roadways, sidewalks, or other public ways without permit.
 - 4. Construction Limit:
 - a. Limit construction activities to areas indicated on Drawings as Project Area or, if not indicated, to areas within the parcel as described in the legal description on the Drawings.
 - b. Refer also to Section 01 50 00 Temporary Construction Facilities and Controls for additional requirements.
- C. Existing building spaces may not be used for storage.
- D. Time Restrictions:
 - 1. Limit conduct of especially noisy, malodorous, and dusty exterior work to be coordinated with district personnel so as not to disturb classes in session.
 - 2. Limit conduct of especially noisy interior work to be coordinated with district personnel so as not to disturb classes in session.
- E. Utility Outages and Shutdown:
 - 1. Limit disruption of utility services to hours the site is unoccupied.
 - 2. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days notice to District and authorities having jurisdiction.
 - 3. Prevent accidental disruption of utility services to other facilities.

1.09 CONSTRUCTION WASTE MANAGEMENT

- A. Construction and waste management, complying with General Conditions, is a requirement for this project.
- B. The Contractor, Prime Contractors, and subcontractors all have obligations in meeting the requirements of this specification.

1.10 WORK SEQUENCE

- A. Construct Work in stages during the construction period:
 - 1. Stage 1A: Re-route existing exits to temporary locations and provide pedestrian protection to allow for construction.
 - 2. Stage 1: Site demolition and clearing.
 - 3. Stage 2: Construct main primary structure and facility.
 - 4. Stage 3: Obtain operational status for life safety systems.
 - 5. Stage 4: Connect to existing building and re-route exits to their final configuration.
 - 6. Stage 5: Complete construction.
- B. Coordinate construction schedule and operations with District.
- C. Prior to commencement of the Work, prepare and submit to the District a Project Logistics Plan, including a Logistics Site Plan, showing in detail the Work Sequence/Phasing plan, in the same size and scale as the architectural site plan, including, but not limited to, the following, items:
 - 1. Truck access route to and from the Project site, in accordance with local ordinances.
 - 2. Location of any overhead wire restrictions for power, street lighting, signal, and/or cable.
 - 3. Local sidewalk access and street closure requirements.
 - 4. Protection of sidewalk pedestrians and vehicular traffic.
 - 5. Project site fencing and access gate locations.
 - 6. Construction parking.
 - 7. Material staging and/or delivery areas.
 - 8. Material storage areas.
 - 9. Temporary trailer locations.
 - 10. Temporary service location and proposed routing of all temporary utilities.
 - 11. Location of temporary and/or accessible fire protection
 - 12. Trash removal and location of dumpsters.
 - 13. Concrete pumping locations.
 - 14. Crane locations.
 - 15. Location of portable sanitary facilities.
 - 16. Mixer truck wash out locations.
 - 17. Traffic control signage.
 - 18. Perimeter and site lighting.
 - 19. Provisions for Storm Water Pollution Prevention Plan SWPPP
 - 20. Stockpile and/or lay down areas.
 - 21. Areas for separately identified phases of the work.
 - 22. Barriers to separate construction activities from on-going school operations and circulation.

END OF SECTION

SECTION 01 20 00 PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Documentation of changes in Contract Sum and Contract Time.
- C. Change procedures.
- D. Correlation of Contractor submittals based on changes.
- E. Procedures for preparation and submittal of application for final payment.

1.02 RELATED REQUIREMENTS

- A. Division 0 Contracting Forms and Supplements: Forms to be used.
- B. Section 01 70 00 Execution and Closeout Requirements: Project record documents.

1.03 SCHEDULE OF VALUES

- A. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.
- B. Forms filled out by hand will not be accepted.
- C. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
- D. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification Section. Identify site mobilization.
- E. Include in each line item, the amount of Allowances specified in this section. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by the unit cost to achieve the total for the item.
- F. Include separately from each line item, a direct proportional amount of Contractor's overhead and profit.
- G. Revise schedule to list approved Change Orders, with each Application For Payment.
- H. List each authorized Change Order as an extension on the continuation sheet, listing the Change Order number and dollar value as for an original portion of Work.

1.04 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
 - 1. Substantiating information will normally be required only for those portions of Work whose completion state cannot be readily determined by observation of the completed Work.
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.
- C. Forms filled out by hand will not be accepted.
- D. For each item, provide a column for listing each of the following:
 - 1. Item Number.
 - 2. Description of work.
 - 3. Scheduled Values.

- 4. Previous Applications.
- 5. Work in Place and Stored Materials under this Application.
- 6. Authorized Change Orders.
- 7. Total Completed and Stored to Date of Application.
- 8. Percentage of Completion.
- 9. Balance to Finish.
- 10. Retainage.
- E. Execute certification by signature of authorized officer.
- F. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- G. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of Work.
 - 1. No Change Orders shall be included with Application for Payment until approved in writing by Owner and Architect.
- H. Submit five copies of each Application for Payment.
- I. Include the following with the application:
 - 1. Transmittal letter as specified for Submittals in Section 01 30 00.
 - 2. Construction progress schedule, revised and current as specified in Section 01 30 00.
 - 3. Current construction photographs specified in Section 01 30 00.
 - 4. Partial release of liens from major Subcontractors and vendors.
 - a. Provide with each Application for Payment lien releases from all subcontractors, workers and materials suppliers employed for the Project covering their portion of Work to date for which payment application is made. Lien release forms will be provided by Owner and shall be completed in accordance with directions provided.
 - 5. Project record documents as specified in Section 01 78 00, for review by Owner which will be returned to the Contractor.
 - 6. Affidavits attesting to off-site stored products.
- J. When Architect requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

1.05 ADDENDA

A. Addenda are changes issued prior to the signing of the Contract for Construction. These Addenda shall be signed by the Architect.

1.06 MODIFICATION PROCEDURES

- A. Construction Bulletins, General: The following describe administrative procedures to be followed in compliance with provisions of the Conditions of the Contract for Architect's Supplemental Instructions, Construction Change Directives, Construction Change Documents, and Contract Change Orders. The Architect will prepare and issue a Bulletin on which the Architect's Supplemental Instructions, a Construction Change Directive or a Request for Proposal will be presented to the Contractor for action.
- B. Submit name of the individual authorized to receive change documents and who will be responsible for informing others in Contractor's employ or subcontractors of changes to the Contract Documents.
- C. Contract Change Order Forms: Form as directed by Owner.
- D. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Architect will issue instructions directly to Contractor.
 - 1. Architect's Supplemental Instructions:

- a. Minor changes in the Work, not involving an adjustment in either the Contract Sum or Contract Time, as authorized by the Conditions of the Contract, will be presented by the Architect using the Architect's Bulletin form.
- b. Should the Architect's Supplemental Instructions result in disputed costs and time adjustments, such dispute shall be resolved in accordance with the provisions of the Conditions of the Contract.
- E. For other required changes, not involving structural, accessibility, or fire-life-safety portions of approved Drawings and Specifications, Architect will issue a document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Contract Change Order.
 - 1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
 - 2. Promptly execute the change.
 - 3. Construction Change Directives: In accordance with provisions of the Conditions of the Contract, the Owner may direct the Contractor to proceed with a change in the Work prior to formal preparation, review and agreement of a Contract Change Order, in order to not delay construction.
 - a. The Architect will prepare and issue a Bulletin containing a Construction Change Directive which, when signed by the Owner and the Architect, shall instruct the Contractor to proceed with a change in the Work, for subsequent inclusion in a Contract Change Order.
 - b. Should the Construction Change Directive result in disputed costs and time adjustments, such dispute shall be resolved in accordance with the provisions of the Conditions of the Contract.
 - c. Construction Change Directives shall follow procedures specified below for Contract Change Orders except that Contractor shall immediately proceed with the change upon receipt of the signed Change Directive.
- F. For changes for which advance pricing (Request for Proposal) is desired, Architect will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 14 days.
 - 1. Such Request for Proposal may include an estimate of additions or deductions in Contract Time and Contract Sum for executing the change and may include stipulations regarding overtime work and the period of time the requested response from the Contractor shall be considered valid.
- G. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions in accordance with Section 01 60 00.
 - 1. After review of the request and with the Owner's approval, the Architect will prepare a Bulletin containing a Request for Proposal, as described above.
 - 2. Issuance of such a request by the Architect shall not indicated authorization of the Contractor to proceed with the proposed change.
 - 3. Changes will be approved only by an approved Construction Change Directive and Contract Change Order.
- H. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.

- 1. For change requested by Architect for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
- 2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.
- 3. For pre-determined unit prices and quantities, the amount will be based on the fixed unit prices.
- 4. For change ordered by Architect without a quotation from Contractor, the amount will be determined by Architect based on the Contractor's substantiation of costs as specified for Time and Material work.
- I. Substantiation of Costs: Provide full information required for evaluation.
 - 1. Provide the following data:
 - a. Quantities of products, labor, and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Overhead and profit.
 - d. Justification for any change in Contract Time.
 - e. Credit for deletions from Contract, similarly documented.
 - 2. Support each claim for additional costs with additional information:
 - a. Origin and date of claim.
 - b. Dates and times work was performed, and by whom.
 - c. Time records and wage rates paid.
 - d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
 - 3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
 - a. Cost and Time Resolution: If amounts for changes in Contract Sum and Contract Time cannot be agreed upon by Owner and Contractor, amounts shall be resolved in accordance with provisions of the Conditions of the Contract for resolution of disputes and the following:
 - 1) Contractor shall keep accurate records of time, both labor and calendar days, and cost of materials and equipment.
 - 2) Contractor shall prepare and submit an itemized account and supporting data after completion of changed Work, within the time limits indicated in the Conditions of the Contract.
 - Contractor shall provide full information as required and requested, for Owner and Architect to evaluate and substantiate proposed costs and time for the change in the Work.
 - 4) When Owner and Contractor determine mutually acceptable amounts for changes in Contract Sum and Contract Time, a Contract Change Order shall be executed for these amounts.
 - 5) Owner shall have the right to audit Contractor's invoices and bid quotations to substantiate costs for Contract Change Orders.
- J. Construction Changes Based on Stipulated Sum or Time: Based on the Contractor's response to a Request for Proposal or Construction Change Directive, the Owner and Architect will review the response.
 - 1. The Owner and Contractor shall negotiate a mutually acceptable adjustment in Contract Sum and Contract Time, as appropriate, prior to performance of the changed Work.
 - 2. A Contract Change Order for the stipulated amounts shall be prepared based on the stipulated sum and change in time.
- K. Execution of Contract Change Orders: Architect will issue Contract Change Orders for signatures of parties as provided in the Conditions of the Contract.

- 1. When agreement is reached on changes, if any, in the Contract Time and the Contract Sum, the Contractor shall prepare a Contract Change Order using a form as directed by the Owner, with supplementary documents as necessary to describe the change and the associated costs and schedule impacts.
- 2. Construction Change Document approval is required from DSA prior to installation.
- 3. Submit Contract Change Orders to Owner through the Architect.
- 4. Contractor shall prepare and submit five original sets of documents for each Change Order. Owner, Architect and Construction Administrator shall sign the Change Order indicating acceptance and approval of the change.
 - a. Structural Engineer shall also sign the Change Order, when applicable.
- 5. Upon approval of the Change Order, Contractor shall promptly execute the change in the Work.
- L. After execution of Contract Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Contract Change Order as a separate line item and adjust the Contract Sum.
- M. Promptly revise progress schedules to reflect any change in Contract Time, revise subschedules to adjust times for other items of work affected by the change, and resubmit.
 - 1. Contractor shall submit revised schedules at the next Application for Payment following approval and acceptance of the Contract Change Order.
- N. Promptly enter changes in Project Record Documents.

1.07 APPLICATION FOR FINAL PAYMENT

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- B. Application for Final Payment will not be considered until the following have been accomplished:
 - 1. All closeout procedures specified in Section 01 70 00.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 26 00 CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

SECTION INCLUDES

- A. Administrative requirements for changes in the Work.
- B. Documentation of changes in Contract Sum and Contract Time.
- C. Change procedures.
- D. Construction Change Document.
- E. Change Orders.
- F. Execution of Change Orders.
- G. Reconciliation of Change Orders.

1.01 RELATED DOCUMENTS AND SECTIONS

- A. Owner Contractor Agreement: Monetary values to be used in computing Change Orders.
- B. Document District issued General Conditions of the Contract and Document District issued Supplementary Conditions of the Contract: Governing requirements for changes in the Work, in Contract Sum and Contract Time.
- C. Section 01 60 00 Product Requirements: Product options, substitutions, omissions and misdescriptions.
- D. Section 01 77 00 Contract Closeout: Project record documents.

1.02 ADMINISTRATIVE REQUIREMENTS FOR CHANGES IN THE WORK

- A. Responsible Person for Contractor: Submit name of the individual authorized to receive construction change documents, and who is responsible for informing others in Contractor's employ or subcontractors of changes in the Work.
- B. Change Order Forms: Form as directed by District.

1.03 DOCUMENTATION OF CHANGES IN CONTRACT SUM AND CONTRACT TIME

- A. Documentation of Changes in Contract Sum and Contract Time: Provide full information required for evaluation of proposed changes and to substantiate costs of changes in the Work.
- B. Document each quotation for a change in Contract Sum and Contract Time, with sufficient data to allow evaluation of the quotation.
- C. Additional Data: Upon request, provide additional data to support computations:
 - 1. Quantities of products, labor and equipment.
 - 2. Taxes, insurance and bonds.
 - 3. Overhead and profit.
 - 4. Justification for change in Contract Time, if claimed.
 - 5. Credit for deletions from Contract similarly documented.

1.04 ADDENDA

- A. Addenda are changes issued prior to the signing of the Contract for Construction. These Addenda shall be signed by the Architect and approved by the Div of the State Architect.
- B. These documents may or may not have approved by the Div of the State Architect prior to the close of Bid. If not approved by D.S.A. prior to close of the bidding period, the contract price shall include the Addenda. No work shall proceed regarding any Addendum until approved by D.S.A. Revisions to Addenda, when approved by D.S.A., shall be incorporated by Bulletin and Change Order as indicated below and as provided for in the Contract for Construction and General Conditions.

1.05 CONSTRUCTION BULLETINS

A. Construction Bulletins, General: The following describe administrative procedures to be followed in compliance with provisions of the Conditions of the Contract for Architect's Supplemental Instructions, CONSTRUCTION CHANGE DOCUMENT and Change Orders. The Architect will prepare and issue a Bulletin on which the Architect's Supplemental Instructions, a Field Change Directive or a Request for Proposal will be presented to the Contractor for action.

1.06 REOUESTS FOR PROPOSAL

- A. Architect or District Initiated Requests for Proposal: The Architect will issue a Bulletin containing a Request for Proposal, which will include a detailed description of a proposed change, with supplementary or revised Drawings and Specifications as appropriate.
 - 1. Such Request for Proposal may include an estimate of additions or deductions in Contract Time and Contract Sum for executing the change and may include stipulations regarding overtime work and the period of time the requested response from the Contractor shall be considered valid.
 - 2. Contractor shall prepare and submit a response to the Request for Proposal within 14 days of the date of the Request for Proposal.
- B. Contractor Initiated Request for Proposal: The Contractor may propose a change by submitting a request for a change to the Architect, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and a full description of effects on the Contract Sum, Contract Time, related Work and work being performed under separate contracts.
 - 1. Requests for substitutions shall be included under this category, with procedures as specified in Section 01 60 00 Product Requirements.
 - 2. After review of the request and with the District's approval, the Architect will prepare a Bulletin containing a Request for Proposal, as described above.
 - 3. Issuance of such a request by the Architect shall not indicated authorization of the Contractor to proceed with the proposed change.
 - 4. Changes will be approved only by an approved Field Change Directive and Change Order.

1.07 ARCHITECT'S SUPPLEMENTAL INSTRUCTIONS

- A. Architect's Supplemental Instructions:
 - 1. Minor changes in the Work, not involving an adjustment in either the Contract Sum or Contract Time, as authorized by the Conditions of the Contract, will be presented by the Architect using the Architect's Bulletin form.
 - 2. Should the Architect's Supplemental Instructions result in disputed costs and time adjustments, such dispute shall be resolved in accordance with the provisions of the Conditions of the Contract.

1.08 CONSTRUCTION CHANGE DOCUMENT

- A. Construction Change Document: In accordance with provisions of the Conditions of the Contract, the District may direct the Contractor to proceed with a change in the Work prior to formal preparation, review and agreement of a Change Order, in order to not delay construction.
 - 1. The Architect will prepare and issue a Bulletin containing a Construction Change Document which, when signed by the District and the Architect, shall instruct the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 2. Should the Construction Change Document result in disputed costs and time adjustments, such dispute shall be resolved in accordance with the provisions of the Conditions of the Contract.
 - 3. Construction Change Document shall follow procedures specified below for Change Orders except that Contractor shall immediately proceed with the change upon receipt of the signed Change Directive.
- B. Construction Change Document approval required from D.S.A. prior to installation

1.09 CHANGE ORDERS

- A. Construction Changes Based on Stipulated Sum or Time: Based on the Contractor's response to a Request for Proposal or Field Change Directive, the District and Architect will review the response.
 - 1. The District and Contractor shall negotiate a mutually acceptable adjustment in Contract Sum and Contract Time, as appropriate, prior to performance of the changed Work.
 - 2. A Change Order for the stipulated amounts shall be prepared based on the stipulated sum And change in time.
- B. Construction Changes Based on Unit Costs or Quantities: When the scope of a change in the Work cannot be accurately determined in advance, a Field Change Directive shall be executed based on mutually-acceptable quantities and pre-determined unit prices. Actual costs shall be determined after completion of the Work and a Change Order for this amount shall be executed.

- C. Construction Changes Based on Time and Material Costs: When the scope of a change in the Work cannot be accurately determined in advance, a Field Change Directive shall be executed based upon an agreement that the District will adjust the Contract Sum and the Contract Time based on actual costs and time expended by the Contractor in performance of the change.
- D. Cost and Time Resolution: If amounts for changes in Contract Sum and Contract Time cannot be agreed upon by District and Contractor, amounts shall be resolved in accordance with provisions of the Conditions of the Contract for resolution of disputes and the following:
 - Contractor shall keep accurate records of time, both labor and calendar days, and cost of Materials and equipment.
 - 2. Contractor shall prepare and submit an itemized account and supporting data after completion of changed Work, within the time limits indicated in the Conditions of the Contract.
 - 3. Contractor shall provide full information as required and requested, for District and Architect to evaluate and substantiate proposed costs and time for the change in the Work.
 - 4. When District and Contractor determine mutually-acceptable amounts for changes in Contract Sum and Contract Time, a Change Order shall be executed for these amounts.
 - 5. District shall have the right to audit Contractor's invoices and bid quotations to substantiate Costs for Change Orders.
- E. Change Order Preparation, General:
 - 1. In response to each Request for Proposal or Field Change Directive, Contractor shall submit information for review by District and Architect, in order to confirm the scope of the proposed change and to determine the acceptable amounts, if any, for changes to be made in the Contract Sum and Contract Time.
 - 2. In accordance with provisions of the Conditions of the Contract, the Architect and the District will review the Contractor's response to the Request for Proposal or Field Change Directive, confirm the scope of the proposed change and determine with the Contractor the acceptable amounts, if any, for changes in the Contract Time and the Contract Sum.
- F. Execution of Change Orders:
 - 1. When agreement is reached on changes, if any, in the Contract Time and the Contract Sum, The Contractor shall prepare a Change Order using a form as directed by the District, with supplementary documents as necessary to describe the change and the associated costs and schedule impacts.
 - 2. Construction Change Documents approval required from D.S.A. prior to installation.
 - 3. Submit Change Orders to District through the Architect.
 - 4. Contractor shall prepare and submit five original sets of documents for each Change Order. District, Architect and Construction Manager shall sign the Change Order indicating acceptance and approval of the change.
 - a. Structural Engineer shall also sign the Change Order, when applicable.
 - 5. Upon approval of the Change Order, Contractor shall promptly execute the change in the Work.

1.10 RECONCILIATION OF CHANGE ORDERS

- A. Schedule of Values: Contractor shall promptly revise the Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjustment to the Contract Sum.
- B. Schedules: Contractor shall promptly revise progress schedules to reflect changes in Contract Time, revising sub-schedules to adjust time for other items of Work as may be affected by the change. Contractor shall submit revised schedules at the next Application for Payment following approval and acceptance of the Change Order.

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

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

END OF SECTION

SECTION 01 29 00 MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SECTION INCLUDES

Procedures for preparation and presentation of Applications for Payment. A.

1.2 RELATED DOCUMENTS AND SECTION

- Α. Owner/Contractor Agreement: Contract Sum, amounts of Progress Payments and Retainages, and time schedule for presenting Applications for Payment.
- General Conditions of the Contract: Progress Payments and Final Payment. В.
- C. Supplementary Conditions of the Contract: Application for Payment and Retainages.
- Section 01 26 00 Contract Modification Procedures. D.
- E. Section 01 77 00 - Contract Closeout: Final Payment.

1.3 **FORM**

Prepare Applications for Payment on AIA Document G702 - Application and A. Certification for Payment, latest effective edition. Include continuation sheets as necessary, using AIA Document G703 - Continuation Sheet, edition as for AIA Document G702.

1.4 PREPARATION OF APPLICATIONS

- The following requirements supplement the provisions of the General Conditions of the Contract, as may be modified by the Supplementary Conditions of the Contract. Refer to appropriate Article, Payment and Completion, in the General Conditions of the Contract.
- Present required information typewritten on the required forms. B.
- C. Execute certification by signature of authorized officer of the Contractor.
- Use data form approved Schedule of Values. Provide dollar value in each column of D. Application for each line item for portion of Work performed and for products stored, if permitted.
- E. List each authorized Change Order as an extension on the continuation sheet, listing the Change Order number and dollar value as for an original portion of Work.
- List each Field Change Directive as each provides for an adjustment in the Contract F. Sum. Include in the Application only amounts not in dispute. Refer to appropriate Paragraph of the General Conditions.
- G. Prepare Application for Final Payment as specified in Section 01 77 00 - Contract Closeout.
- H. No Change Orders shall be included with Application for Payment until approved in writing by District and Architect.

1.5 SUBMITTAL PROCEDURES

- The following requirements supplement the provisions of the General Conditions of the Contract, as may be modified by the Supplementary Conditions of the Contract. Refer to Paragraph referencing Applications for Payment, in the General Conditions of the Contract.
- Submit five (5) copies of each Application for Payment with original signature. Round B. off values to nearest dollar or as specified for the Schedule of Values.
- C. Submit an updated construction schedule with each Application for Payment.
- D. Provide with each Application for Payment lien releases from all subcontractors, workers and materials suppliers employed for the Project covering their portion of Work to date

- for which payment application is made. Lien release forms will be provided by District and shall be completed in accordance with directions provided.
- E. Payment Period: Submit Applications at intervals and covering periods stated in the Agreement. Application submission date may be adjusted by mutual consent of the District and Contractor to coincide with regularly scheduled progress meetings or to accommodate holiday periods.

1.6 SUBSTANTIATING DATA

- A. Submit substantiating information, as required by District and Architect, to substantiate dollar amounts on Application for Payment. Substantiating information will normally be required only for those portions of Work whose completion state cannot be readily determined by observation of the completed Work.
- B. Provide one copy of substantiating information with each copy of the Application.
- **PART 2 PRODUCTS** (Not Applicable to this Section.)
- **PART 3 EXECUTION (Not Applicable to this Section.)**

END OF SECTION

SECTION 01 30 00 ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Site mobilization meeting.
- B. Construction progress schedule.
- C. Progress photographs.
- D. Coordination drawings.
- E. Submittals for review, information, and project closeout.
- F. Number of copies of submittals.
- G. Submittal procedures.

1.02 RELATED REQUIREMENTS

- A. General Conditions: Dates for applications for payment.
- B. General Conditions: Duties of the Project Coordinator.
- C. Supplementary Conditions: Duties of the Project Coordinator.
- D. Section 01 10 00 Summary: Stages of the Work, Work covered by each contract, occupancy.
- E. Section 01 70 00 Execution and Closeout Requirements: Additional coordination requirements.
- F. Section 01 78 00 Closeout Submittals: Project record documents.

1.03 PROJECT COORDINATION

- A. Project Coordinator: Construction Manager, if applicable, or Architect.
- B. Cooperate with the Project Coordinator in allocation of mobilization areas of site; for field offices and sheds, for material delivery access, traffic, and parking facilities.
- C. During construction, coordinate use of site and facilities through the Project Coordinator.
- D. Comply with Project Coordinator's procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
- E. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities.
- F. Coordinate field engineering and layout work under instructions of the Project Coordinator.
- G. Make the following types of submittals to Architect:
 - 1. Requests for interpretation.
 - 2. Requests for substitution.
 - 3. Shop drawings, product data, and samples.
 - 4. Test and inspection reports.
 - 5. Manufacturer's instructions and field reports.
 - 6. Applications for payment and change order requests.
 - 7. Progress schedules.
 - 8. Coordination drawings.
 - 9. Closeout submittals.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 SITE MOBILIZATION MEETING

- A. Attendance Required:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect.
 - 4. Contractor's Superintendent.
 - 5. Major Subcontractors.

B. Agenda:

- 1. Use of premises by Owner and Contractor.
- 2. Owner's requirements and occupancy prior to completion.
- 3. Construction facilities and controls provided by Owner.
- 4. Temporary utilities provided by Owner.
- 5. Survey and building layout.
- 6. Security and housekeeping procedures.
- 7. Schedules.
- 8. Application for payment procedures.
- 9. Procedures for testing.
- 10. Procedures for maintaining record documents.
- 11. Requirements for start-up of equipment.
- 12. Inspection and acceptance of equipment put into service during construction period.
- C. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.02 CONSTRUCTION PROGRESS SCHEDULE

- A. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- B. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
 - 1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- C. Within 10 days after joint review, submit complete schedule.
- D. Submit updated schedule with each Application for Payment.

3.03 PROGRESS PHOTOGRAPHS

3.04 COORDINATION DRAWINGS

3.05 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 - 1. Product data.
 - 2. Shop drawings.
 - 3. Samples for selection.
 - 4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. Samples will be reviewed only for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 78 00 CLOSEOUT SUBMITTALS.

3.06 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 - 1. Design data.
 - 2. Certificates.
 - 3. Test reports.
 - 4. Inspection reports.
 - 5. Manufacturer's instructions.
 - 6. Manufacturer's field reports.
 - 7. Other types indicated.
- B. Submit for Architect's knowledge as contract administrator or for Owner. No action will be taken.

3.07 SUBMITTALS FOR PROJECT CLOSEOUT

- A. When the following are specified in individual sections, submit them at project closeout:
 - 1. Project record documents.
 - 2. Operation and maintenance data.
 - 3. Warranties.
 - 4. Bonds.
 - 5. Other types as indicated.
- B. Submit for Owner's benefit during and after project completion.

3.08 NUMBER OF COPIES OF SUBMITTALS

- A. Documents for Review:
 - 1. Small Size Sheets, Not Larger Than 8-1/2 x 11 inches: Submit the number of copies that Contractor requires, plus two copies that will be retained by Architect OR one electronic copy via email or file transfer site. Electronically submitted copies will be returned electronically.
- B. Documents for Information: Submit two copies OR one electronic copy via email or file transfer site.
- C. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
 - 1. After review, produce duplicates.
 - 2. Retained samples will not be returned to Contractor unless specifically so stated.

3.09 SUBMITTAL PROCEDURES

- A. Transmit each submittal with a submittal transmittal (reference Section 01 33 23).
- B. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- C. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- E. Schedule submittals to expedite the Project, and coordinate submission of related items.
- F. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
- G. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
- H. Provide space for Contractor and Architect review stamps.
- I. When revised for resubmission, identify all changes made since previous submission.
- J. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.

K. Submittals not requested will not be recognized or processed. **END OF SECTION**

SECTION 01 33 23 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Administrative requirements for shop drawings, product data and samples submittals.
- B. Submittals Schedule.
- C. Contractor's review of submittals.
- D. Architect's review of submittals.
- E. Product data submittals.
- F. Shop drawing submittals.
- G. Sample submittals.
- H. Maintenance and operation data submittals.

1.02 RELATED SECTIONS

- A. Section 01 40 00 Quality Requirements: Test and inspection reports.
- B. Section 01 77 00 Contract Closeout: Submittals for occupancy, Acceptance and Final Payment.
- C. Section 01 78 23 Operation and Maintenance Data: Requirements for preparation and submission of operation and maintenance data.

1.03 DEFINITIONS

- A. Shop Drawings, Product Data and Samples: Instruments prepared and submitted by Contractor, for Contractor's benefit, to communicate to Architect the Contractor's understanding of the design intent, for review and comment by Architect on the conformance of the submitted information to the general intent of the design. Shop drawings, product data and samples are not Contract Documents.
- B. Shop Drawings: Drawings, diagrams, schedules and illustrations, with related notes, specially prepared for the Work of the Contract, to illustrate a portion of the Work.
- C. Product Data: Standard published information ("catalog cuts") and specially prepared data for the Work of the Contract, including standard illustrations, schedules, brochures, diagrams, performance charts, instructions and other information to illustrate a portion of the Work.
- D. Samples: Physical examples that demonstrate the materials, finishes, features, workmanship and other characteristics of a portion of the Work. Accepted samples shall serve as quality basis for evaluating the Work.
- E. Other Submittals: Technical data, test reports, calculations, surveys, certifications, special warranties and guarantees, operation and maintenance data, extra stock and other submitted information and products shall not be considered as Contract Documents but shall be information from Contractor to Architect to illustrate a portion of the Work for confirmation of understanding of design intent.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Administrative Requirements for Submittals: Submittals shall be made in accordance with requirements specified herein and in product Sections of the Specifications.
- B. Transmission of Submittals: Transmit all submittals to the Architect through the Construction Manager, unless otherwise directed. Include all information specified below for identification of submittal and for monitoring of review process. Transmittal required for submittal is included at end of this Section.
- C. Timing of Submittals: Make submittals sufficiently in advance of construction activities to allow shipping, handling and review by the Architect and Architect's consultants.
- D. Submittals Identification:

- 1. Title each submittal with Project name, Architect's Project number and submission date.
- 2. Identify each element on submittal by reference to Drawing sheet number, detail, schedule, room number, assembly or equipment number, Specifications article and paragraph, and other pertinent information to clearly correlate submittal with Contract Drawings.
- 3. Identify each submittal by Specification Section number followed by a number indicating sequential submittal for that Section. For example:
 - a. 09 21 16-1First submittal for Section 09 21 16 Gypsum Board.
 - b. 09 21 16-2Second submittal for Section 09 21 16 Gypsum Board.
- 4. Resubmittals shall use same number as original submittal, followed by a letter indicating sequential resubmittal. For example:
 - a. 09 21 16-2AResubmission of second submittal for Section 09 21 16 Gypsum Board.
 - b. 09 21 16-2BSecond resubmission of second submittal for Section 09 21 16 Gypsum Board.
- E. Grouping of Submittals: Unless otherwise specifically permitted by the Architect, make all submittals in groups containing all associated items. The Architect may reject partial submittals as incomplete or hold them until related submittals are made.
- F. Unsolicited Submittals: Unsolicited submittals will be returned unreviewed.
- G. Record Submittals: When record submittals are specified, submit three copies or sets only. Record submittals will not be reviewed but will be retained for historical and maintenance purposes.

1.05 SUBMITTALS SCHEDULE

- A. Format: Prepare schedules in Gantt format using software at Contractor's option, providing clear indication of sequencing and scheduling of Work, for determination of "critical path" of construction progress. Submittals shall be connected to the related construction element by a graphically indicated critical path on the same page. Present schedules using opaque reproductions on substantial paper, with sheet size a multiple of 8-1/2 inches by 11-inches and large enough to clearly read characters.
- B. Content: List all items specified to be submitted, indicating submittal number (see instructions following), submittal type (i.e., product data, shop drawings, sample, quality control report, maintenance and operating data, etcetera), scheduled date submittal is to be made and date review should be complete in order to maintain construction on schedule. Allow time for Architect's request for revisions or corrections and resubmittal by Contractor and the ensuing review by the Architect. Allow time for shipping and distribution to involved parties.
- C. Administration:
 - 1. Submit initial Submittals Schedule within 10 days of date of Notice of Award of construction.
 - 2. After review and return by Architect, resubmit Submittals Schedule within 10 days and thereafter submit updated Submittals Schedules at each Construction Progress Meeting.
 - 3. Submit one copy each to District, District's Construction Manager and Architect.
- D. Posting: Post one copy of most recent Submittals Schedule in Contractor's field office, readily available to District, District's Construction Manager and Architect. Update bi-weekly with project schedule.
- E. Archive: Preserve a minimum of two copies of all superseded schedules, with one copy available at field office for review by District or Architect.

1.06 CONTRACTOR'S REVIEW OF SUBMITTALS

- A. Contractor's Review of Submittals: Prior to submission to Architect for review, Contractor shall review each submittal for completeness and conformance to specified requirements. Contractor shall stamp each submittal with a review action stamp and sign each copy certifying that:
 - 1. Field measurements have been determined and verified.
 - 2. Conformance with requirements of Contract Drawings and Specifications is confirmed.
 - 3. Catalog numbers and similar data are correct.
 - 4. Work being performed by various subcontractors and trades is coordinated.
 - 5. Field construction criteria have been verified, including confirmation that information submitted has been coordinated with the work being performed by others for District and actual site conditions.

- 6. All deviations from requirements of Drawings and Specifications have been identified and noted.
- B. Changes in Work: Changes in the Work shall not be authorized by submittals review actions. No review action, implicit or explicit, shall be interpreted to authorized changes in the Work. Changes shall only be authorized by separate written direction, in accordance with the Conditions of the Contract and Section 01 2600 Contract Modification Procedures.

1.07 ARCHITECT'S REVIEW OF SUBMITTALS

- A. Architect's Review of Submittals: Submittals shall be a communication aid between Contractor and Architect by which interpretation of Contract Documents requirements may be confirmed in advance of construction. Reviews by Architect and Architect's consultants shall be only for general conformance with the design concept of the Project and general compliance with the information given in the Drawings and Specifications.
- B. Contract Requirements:
 - 1. Review actions by Architect and Architect's consultants shall not relieve the Contractor from compliance with requirements of the Drawings and Specifications.
 - 2. No review action, implicit or explicit, shall be interpreted to authorize changes in the Work. Changes shall only be authorized by separate written Change Order or Construction Change Directive, in accordance with the Conditions of the Contract and Section 01 2600 Contract Modification Procedures.

1.08 PRODUCT DATA SUBMITTALS

- A. Copies: Electronic Documents: Submit one electronic copy in PDF format; a reviewed electronically-marked up file will be returned. Create PDFs at native size with renderable text and right-side up; illegible files will be rejected. Provide with applicable data highlighted and cross-referenced to Drawings and Specifications requirements.
- B. Modifications to Standard Product Data: Modify manufacturer's standard catalog data to indicate precise conditions of the Project. Comply with requirements as for shop drawings, following. Provide space for review action stamps and, if required by governing authorities having jurisdiction, license seal of Architect and Architect's design consultant, if applicable.

1.09 SHOP DRAWINGS SUBMITTALS

- A. Copies: Electronic Documents: Submit one electronic copy in PDF format; a reviewed electronically-marked up file will be returned. Create PDFs at native size with renderable text and right-side up; illegible files will be rejected. Prepare shop drawings on minimum sheet size of 17-inches by 22-inches. Submit in addition to the PDF, one (1) hard copy for Structural Steel submittal only.
- B. Preparation: Shop drawings shall be original drawings prepared for submittal review, fabrication and execution of Work. Direct copies and modified reproductions of Contract Drawings will not be accepted for review. Provide space for review action stamps and, if required by governing authorities having jurisdiction, license seal of Architect and Architect's design consultant, if applicable.
- C. Coordination: Show all field dimensions and relationships to adjacent or critical features of Work.

1.10 SAMPLES SUBMITTALS

- A. Quantity: Submit minimum of four (4) samples of each of color, texture and pattern. Submit one item only of actual assembly or product. Unless otherwise noted, full-size and complete samples will be returned and may be incorporated into field mock-ups and the Work.
- B. Color Samples: Architect will review and select colors for Project only after all colors are received, so that colors may be properly coordinated.
- C. Copies: Submit actual samples. Photographic or printed reproductions will not be accepted.
- D. Review of Field Samples: Review by Architect of field samples will be made for the following products, as applicable, if not otherwise required and if requested by Contractor.
 - 1. Concrete wall finishes and detailing (edges, corners and reveals).
 - 2. Concrete paving colors and textures.

- 3. Gypsum board textures and finishes.
- 4. Field-applied paint colors and finishes.

1.11 OPERATION AND MAINTENANCE DATA SUBMITTALS

A. Operation and Maintenance Data Submittals: Refer to requirements specified in Section 01 78 23 -Operation and Maintenance Data. Include operation and maintenance data submittals in Submittals Schedule specified above. Provide space for review action stamps and, if required by governing authorities having jurisdiction, license seal of Architect and Architect's design consultant, if applicable.

PART 2 - PRODUCTS

2.01 (NOT APPLICABLE TO THIS SECTION.)

PART 3 - EXECUTION

3.01 (NOT APPLICABLE TO THIS SECTION.)

END OF SECTION



Final Distribution Date:

SUBMITTAL / SHOP DRAWING TRANSMITTAL

То:		Ruhnau Clarke Architects	Contractor's Submittal No.		
Attn:		construction@ruhnauclarke.com			
Contractor:			Project Name:	Shade Structures @ San Jacinto Campus	
Street:			RCA's Project No.	1-51-07	
City, State:		Subcontractor:			
CONTRACTOR TO FILL OUT THE FOLLOWING COVERING ONE COMPLETE SECTION OF THE SPECIFICATIONS ONLY:					
Specification Section #:			Section Title:		
	Initial Submittal		Scheduled Date of Submittal		
	1st Resubmittal		Scheduled Date of Submittal Return		
		bmittal	Date Sent		
		was a previously approved substitution.	Number of Copies		
		d Substitution Request Transmittal Form is enclosed.	Number of Samples		
11					
CONTRACTOR COMPLETE EITHER (A) OR (B) FOLLOWING, CHECK ONE: CONSTRUCTION MANAGERS CERTIFICATION					
WE HAVE VERIFIED THAT THE MATERIAL OR EQUIPMENT CONTAINED IN THIS SUBMITTAL MEETS ALL THE REQUIREMENTS SPECIFIED OR SHOWN (NO EXCEPTIONS).			THIS IS TO CERTIFY THAT THE CONSTRUCTION MANAGER IS REASONABLY CERTAIN THAT THE MATERIAL SPECIFIED IN THIS SUBMITTAL MEETS THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, AND THE SUBMITTAL IS COMPLETE PER THE CONTRACT DOCUMENTS.		
			SIGNATURE:		
(B)	CONTAI SPECIFI (LIST DI	/E VERIFIED THAT THE MATERIAL OR EQUIPMENT INED IN THIS SUBMITTAL MEETS ALL THE REQUIREMENTS ED OR SHOWN, EXCEPT FOR THE FOLLOWING DEVIATIONS EVIATIONS ON AN ATTACHED SHEET OR INDICATE IONS CLEARLY ON SHOP DRAWINGS OR SUBMITTALS).	CONTRACTORS CERTIFICATION THIS IS TO CERTIFY THAT THE CONTRACTOR IS REASONABLY CERTAIN THAT THE MATERIAL SPECIFIED IN THIS SUBMITTAL MEETS THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. SIGNATURE:		
<u> </u>					
ARCHITECT'S USE ONLY BELOW THIS LINE.					
Action:					
	No Excep	otion Taken Make Corrections Noted	□ Rejected/Resub	omit 🗆 F	Revise and Resubmit
Com	nments:		Date Received By RC Date Sent to Consulta Date Received From:	Structural Mechanical Electrical Other	
			No. of Copies Received		
Fina	l Distributi	on: Contractor Inspector	District	/P.M	Architect

SECTION 01 33 26 QUALITY CONTROL SUBMITTALS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Administrative requirements for submittals reporting results of tests and inspections.

1.02 RELATED SECTIONS

- A. Section 01 10 00- Summary of Work: Subcontractor and materials suppliers list, Work includes Contractor use of site, work sequence.
- B. Section 01 33 23 Shop Drawings, Product Data and Samples: Quality control submittals for products prior to field work.
- C. Section 01 40 00 Quality Control: Test and inspection procedures.
- D. Section 01 77 00 Contract Closeout: Submittals for occupancy, Acceptance and Final Payment.

1.03 ADMINISTRATIVE REQUIREMENTS

- A. Administration: Make all submittals to the Architect through the Construction Manager, unless otherwise directed.
- B. Submittal Identification: Identify each submittal by Specification Section number followed by a number indicating sequential submittal for that Section. Coordinate submittal numbers with submittals specified in Section 01 3323 Shop Drawings, Product Data and Samples. Resubmittals shall use same number as original submittal, followed by a letter indicating sequential resubmittal.
 - 1. 03 30 00-1First submittal for Section 03 30 00 Cast in Place Concrete.
 - 2. 03 30 00-2Second submittal for Section 03 30 00 Cast in Place Concrete.
 - 3. 03 30 00-2AResubmittal of second submittal for Section 03 30 00 Cast in Place Concrete.
 - 4. 03 30 00-2BSecond resubmittal of second submittal for Section 03 30 00 Cast in Place Concrete.
- C. Project Identification: Title each submittal with Project name, submittal date and Architect's Project number.
- D. Copies: Submit one (1) copy electronically via email or file transfer site or six (6) copies, minimum, of reports of quality control reports on dry-process xerographic copies only.
- E. Contractor's Review: Submittals shall be made by Contractor in accordance with requirements specified herein and in individual Sections. Indicate clearly on each submittal the specified or referenced values for each quality control activity and the values obtained. Contractor shall note clearly and sign each submittal certifying that reported quality control activity "Conforms" or "Does Not Conform".
- F. Changes and Deviations: Identify all deviations from requirements of Drawings and Specifications. Changes in the Work shall not be authorized by submittals review actions. No review action, implicit or explicit, shall be interpreted to authorized changes in the Work. Changes shall only be authorized by separate written Change Order or Construction Change Authorization, in accordance with the General Conditions.
- G. Record Submittals: When record submittals are specified, submit three copies or sets only. Record submittals will not be reviewed but will be retained for historical and maintenance purposes.
- H. Unsolicited Submittals: Unsolicited submittals will be returned unreviewed.

1.04 QUALITY CONTROL SUBMITTALS SCHEDULE

A. Schedule Format: Include quality control submittals on Submittals Schedule specified in accordance with General Conditions.

B. Schedule Content: List all tests, inspections and reports specified to be submitted, indicating submittal number, submittal type (field test, field inspection, fabrication inspection, etcetera), scheduled date of quality control activity and date report should be made.

1.05 ARCHITECT'S REVIEW

- A. General: Review by Architect and Architect's consultants shall be only for general conformance with the design concept and requirements based on the information presented. Neither Architect nor Architect's consultants shall verify submitted quality control data.
- B. Contract Requirements: Review by Architect and Architect's consultants shall not relieve the Contractor from compliance with requirements of the Drawings and Specifications. Changes shall only be authorized by separate written Change Order or Construction Change Authorization, in accordance with the General Conditions and Section 01 26 00- Contract Modification Procedures.

PART 2 - PRODUCTS

2.01 (NOT APPLICABLE TO THIS SECTION.)

PART 3 - EXECUTION

3.01 (NOT APPLICABLE TO THIS SECTION.)

SECTION 01 35 50 REQUESTS FOR ELECTRONIC FILES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Requirements to receive electronic construction document files from Architect.
- B. Hold Harmless Agreement form.

1.02 RELATED SECTIONS (AS APPLICABLE)

- A. Section 01 33 23 Shop Drawings, Product Data and Samples.
- B. Section 01 77 00 Contract Closeout.
- C. Divisions 31 through 33 Sitework.

1.03 REQUIREMENTS

- A. Electronic files have legal ramifications as information therein can be modified.
- B. In order to receive this electronic information, the following Hold Harmless Agreement form must be executed in its entirety, including signature by a company officer.
- C. Costs for processing and handling electronic files, however limited, will be \$250.00

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION

3.01 ELECTRONIC FILE TRANSFER PROCEDURE

- A. Submit a check in the amount of \$250.00 along with a list of the requested sheet numbers and an acknowledged copy of this waiver to the office of the Architect, Ruhnau Clarke Architects, 3775 Tenth Street, Riverside, CA 92501.
- B. In order to expedite the transfer, upon receipt of a fax copy of this acknowledgement, the requested CAD files will be sent in the form of a compact disc to the recipient, as requested, by UPS or similar delivery service
- C. It is expressly understood that any transfer is done as a courtesy and can be revoked at any time by the Architect.

HOLD HARMLESS AGREEMENT

Clarke Architects harmless for any def	_, understand that we may be receiving electronic ressarily intended for construction. We agree to holects in this data. We agree that it shall be our responser plans, and that only the paper plans shall be re-	ld Ruhnau onsibility to
field notes, laboratory test data, calcular professional service, not products. In a electronic media generated and provide and agree that all such drawings and data.	that the Architect's reports, drawings, specifications attions, estimates and other similar documents are in accepting and utilizing any drawings or other data ded by the Design Professionals, the Parties listed about are instruments of service of the Design Professings and data, and shall retain all common law, starting	on any form of bove covenant sionals, who
	utilizing any drawings and other data, that the Des or any subsequent use of these data, the accuracy of ontained herein.	
project other than the project which is all claims against the Design Profession	se drawings and data, in whole or in part, for any pathe subject of this Agreement. The Parties further anals resulting in any way from any unauthorized cher than for the project which is the subject of this A	agree to waive nanges of the
subconsultants and their officers, agent	d and hold harmless the Design Professionals and its, employees from any claims, damages, losses, liasing out of use of such documents without Consult	ibilities or
	of the drawings and other data be deemed a sale by onals make no warranties, either express or implied for any particular purpose.	
Acknowledged by:		
Signature of Company Officer	Date	
Print or Type Name	Company Name	
Street Address		

END OF SECTION

City, State, Zip Code

E-mail Address

SECTION 01 40 00 QUALITY REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Regulatory requirements for testing and inspection.
- B. Contractor's quality control.
- C. Quality of the Work.
- D. Inspections and tests by governing authorities.
- E. Inspections and tests by serving utilities.
- F. Inspections and tests by manufacturer's representatives.
- G. Inspections by independent testing and inspection agency.

1.02 RELATED SECTIONS

- A. Section 01 33 26 Quality Control Submittals: Administrative requirements for submittals reporting results of tests and inspections during field Work.
- B. Section 01 41 00 Regulatory Requirements: Compliance with applicable codes, ordinances and standards.
- C. Section 01 45 33 Code Testing, Special Inspection and Procedures: Testing laboratory services and inspections required during the course of construction.
- D. Section 01 60 00 Product Requirements: Product options, substitutions, transportation and handling requirements, storage and protection requirements, and system completeness requirements.

1.03 REGULATORY REQUIREMENTS FOR TESTING AND INSPECTION

A. Regulatory Requirements for Testing and Inspection: Inspections, testing and approvals as required by authorities having jurisdiction. Refer to Section 01 41 00 - Regulatory Requirements and Section 01 45 33 - Code Required Special Inspections and Procedures.

1.04 CONTRACTOR'S QUALITY CONTROL

- A. Contractor's Quality Control: Contractor shall ensure that products, services, workmanship and site conditions comply with requirements of the Drawings and Specifications by coordinating, supervising, testing and inspecting the Work and by utilizing only suitably qualified personnel.
- B. Quality Requirements: Work shall be accomplished in accordance with quality requirements of the Drawings and Specifications, including, by reference, all Codes, laws, rules, regulations and standards. When no quality basis is prescribed, the quality shall be in accordance with the best accepted practices of the construction industry for the locale of the Project, for projects of this type.
- C. Quality Control Personnel: Contractor shall employ and assign knowledgeable and skilled personnel as necessary to perform quality control functions to ensure that the Work is provided as required.

1.05 QUALITY OF THE WORK

- A. Quality of Products: Unless otherwise indicated or specified, all products shall be new, free of defects and fit for the intended use.
- B. Quality of Installation: All Work shall be produced plumb, level, square and true, or true to indicated angle, and with proper alignment and relationship between the various elements.
- C. Protection of Existing and Completed Work: Take all measures necessary to preserve and protect existing and completed Work free from damage, deterioration, soiling and staining, until Acceptance by the Owner.

- D. Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Unless more stringent requirements are indicated or specified, comply with manufacturer's instructions and recommendations, reference standards and building code research report requirements in preparing, fabricating, erecting, installing, applying, connecting and finishing Work.
- E. Deviations from Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Document and explain all deviations from reference standards and building code research report requirements and manufacturer's product installation instructions and recommendations, including acknowledgement by the manufacturer that such deviations are acceptable and appropriate for the Project.
- F. Verification of Quality: Work shall be subject to verification of quality by Owner, or Architect in accordance with provisions of the General Conditions of the Contract.
 - 1. Contractor shall cooperate by making Work available for inspection by Owner, Architect or their designated representatives.
 - 2. Such verification may include mill, plant, shop, or field inspection as required.
 - Provide access to all parts of the Work, including plants where materials or equipment are manufactured or fabricated.
 - 4. Provide all information and assistance as required, including that by and from subcontractors, installers, fabricators, materials suppliers and manufacturers, for verification of quality by Owner, or Architect.
 - 5. Contract modifications, if any, resulting from such verification activities shall be governed by applicable provisions in the General Conditions.
- G. Observations by Architect and Architect's Consultants: Periodic and occasional observations of Work in progress will be made by Architect and Architect's consultants as deemed necessary to review progress of Work and general conformance with design intent.
- H. Limitations on Inspection, Test and Observations: Neither employment of an Independent Testing and Inspection Agency nor observations by Architect and Architect's consultants shall in any way relieve Contractor of obligation to perform Work in full conformance to all requirements of Contract Documents and applicable Building Code and other regulatory requirements.
- I. Architect's Acceptance and Rejection of Work: Architect reserves the right to reject all Work not in conformance to the requirements of the Drawings and Specifications.
- J. Correction of Non-Conforming Work: Non-conforming Work shall be modified, replaced, repaired or redone by the Contractor at no change in Contract Sum or Contract Time.
- K. Acceptance of Non-Conforming Work: Acceptance of non-conforming Work, without specific written acknowledgement and approval of the Owner, shall not relieve the Contractor of the obligation to correct such Work.
 - 1. Acceptance of structurally related non-conforming work shall be submitted to DSA for review and approval.
- L. Contract Adjustment for Non-conforming Work: Should Architect or Owner determine that it is not feasible or in Owner's interest to require non-conforming Work to be repaired or replaced, an equitable reduction in Contract Sum shall be made by agreement between Owner and Contractor. If equitable amount cannot be agreed upon, a Construction Change Directive will be issued and the amount in dispute resolved in accordance with applicable provisions of the General Conditions.
- M. Non-Responsibility for Non-Conforming Work: Architect and Architect's consultants disclaim any and all responsibility for Work produced not in conformance with the Drawings and Specifications.

1.06 INSPECTIONS AND TESTS BY GOVERNING AUTHORITIES

A. Inspections and Tests by Authorities Having Jurisdiction: Contractor shall cause all tests and inspections to be made for Work under this Contract, as required by Building Departments, Department of Public Works, Fire Department, Health Department and similar agencies having jurisdiction. Except as specifically noted, scheduling, conducting and paying for such inspections shall be solely the Contractor's responsibility.

1.07 INSPECTIONS AND TESTS BY SERVING UTILITIES

A. Inspections and Tests by Serving Utilities: Contractor shall cause all tests and inspections required by serving utilities to be made for Work under this Contract. Scheduling, conducting and paying for such inspections shall be solely the Contractor's responsibility.

1.08 INSPECTIONS AND TESTS BY MANUFACTURER'S REPRESENTATIVES

A. Inspections and Tests by Manufacturer's Representatives: Contractor shall cause all tests and inspections specified to be conducted by materials or systems manufacturers to be made. Additionally, all tests and inspections required by materials or systems manufacturers as conditions of warranty or certification of Work shall be made, the cost of which shall be included in the Contract Sum.

1.09 INSPECTIONS BY INDEPENDENT TESTING AND INSPECTION AGENCY

A. Inspections by Independent Testing and Inspection Agency or Agencies: Contractor shall cause all tests and inspections required during the course of construction to be conducted. See Section 01 45 33 - Code Required Procedures and Special Inspections.

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

PART 3 - EXECUTION - (NOT APPLICABLE TO THIS SECTION.)
END OF SECTION

SECTION 01 41 00 REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 AUTHORITY AND PRECEDENCE OF CODES, ORDINANCES AND STANDARDS

- A. Authority: All codes, ordinances and standards referenced in the Drawings and Specifications shall have the full force and effect as though printed in their entirety in the Specifications.
- B. Precedence:
 - 1. Where specified requirements differ from the requirements of applicable codes, ordinances and standards, the more stringent requirements shall take precedence.
 - 2. Where the Drawings or Specifications require or describe products or execution of better quality, higher standard or greater size than required by applicable codes, ordinances and standards, the Drawings and Specifications shall take precedence so long as such increase is legal.
 - 3. Where no requirements are identified in the Drawings or Specifications, comply with all requirements of applicable codes, ordinances and standards of authorities having jurisdiction.

1.02 APPLICABLE CODES, LAWS AND ORDINANCES

- A. Applicable Codes, Laws and Ordinances: Refer also to Section 00100 Summary (provided under separate cover by CM), General Conditions, and Supplementary General Conditions, regarding permits and licenses.
 - 1. Performance of the Work shall be governed by all applicable laws, ordinances, rules and regulations of Federal, State and local governmental agencies and jurisdictions having authority over the Project, including accessibility requirements.
 - 2. Performance of the Work shall be accomplished in conformance with all rules and regulations of public utilities, utility Owners and other agencies serving the development.
 - 3. Where such laws, ordinances, rules and regulations require more care or greater time to accomplish Work, or require better quality, higher standards or greater size of products, Work shall be accomplished in conformance to such requirements with no change to the Contract Time and Contract Sum, except where changes in laws, ordinances, rules and regulations occur subsequent to the execution date of the Agreement.
- B. Applicable Building Codes: References on the Drawings or in the Specifications to "code" or "building code" not otherwise identified shall mean the codes specified below, together with all additions, amendments, changes, and interpretations adopted by code authorities of the jurisdiction having authority over the Project.
 - 1. Local and State Building Codes: Performance of the Work shall meet or exceed the minimum requirements of the following, as adopted by the DSA:
 - a. 2019 Building Standards Administrative Code Part 1, Title 24 CCR.
 - b. 2016 California Building Code (CBC), Part 2, Title 24 CCR.
 - c. 2016 California Electrical Code (CEC), Part 3, Title 24 CCR.
 - d. 2016 California Mechanical Code (CMC), Part 4, Title 24 CCR.
 - e. 2016 California Plumbing Code (CPC), Part 5, Title 24 CCR.
 - f. 2016 California Energy Code, Part 6, Title 24 CCR.
 - g. 2016 California Fire Code (CFC), Part 9, Title 24 CCR.
 - i. 2016 California Referenced Standards Code, Part 12, Title 24 CCR.
 - j. Title 19 CCR, Public Safety, State Fire Marshal Regulations.
 - 2. Safety Codes: State of California, California Administrative Code, California Code of Regulations (CCR), Title 8 Industrial Relations, Chapter 4, Subchapter 7, General Industry Safety Orders.
 - 3. General Standards: California Building Code (CBC) Standards, UL Building Products Listing, FM Approval Guide and ASTM Standards in Building Codes.
 - 4. Fire and Life Safety Standards: All referenced standards pertaining to fire rated construction and exiting.

- 5. State of California Requirements: Performance of the Work shall also comply with applicable requirements of the State of California, California Code of Regulations (CCR), as follows:
 - a. Title 19 Public Safety.
 - b. Title 22 Social Security.
 - c. Title 24 Building Standards, Parts 2 through 7 specifically and any other applicable chapters, and Title 25 as applicable.
 - d. Title 24 Accessibility Requirements shall conform to the following:
 - 1) Chapters 10, 11B and 30 specifically and any other applicable chapters of 2016 California Building Code, Part 2, Title 24, CCR.
 - 2) Applicable sections of 2016 Edition California Electrical Code, Part 3, Title 24, CCR.
 - 3) Applicable sections of 2016 California Plumbing Code, Part 5, Title 24, CCR.
- C. Date of Codes, Laws and Ordinances: The applicable edition of all codes shall be that adopted at the time of issuance of permits by the jurisdiction having authority and shall include all modifications and additions adopted by that jurisdiction. The applicable date of laws and ordinances shall be that of the date of performance of the Work.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION - (NOT USED)

SECTION 01 45 33

CODE TESTING, SPECIAL INSP. & PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Div of the State Architect (D.S.A.) Procedures for construction oversight and inspections required during the course of construction.
- B. Div of the State Architect (D.S.A.) approved testing laboratory services and inspections required during the course of construction.

1.02 CONTRACTOR RESPONSIBILITIES

- A. Each Multi-Prime Contractor or Subcontractor shall comply with DSA Construction Oversight Procedure PR 13-01. California Code of Regulations (CCR), Title 24, Part 1, CCR, Chapter 4, Article 1 (Sections 4-211 through 4-220) and Group1, Articles 5 and 6 (Sections 4-331 through 4-344) which provide regulations governing the construction process for projects under the jurisdiction of the Division of the State Architect (DSA).
 - 1. Assist the Project Inspector (IOR) and complete and fill out the following forms during the course of construction.
 - a. Form-102-IC: Construction Start Notice/ Inspection Card Request: Verify Project Inspector has an active form issued by DSA.
 - b. Form-151: Project Inspector Notifications: Contractor to notify IOR and assist.
 - c. Form-152: Project Inspection Card: See below.
 - d. Form-154: Notice of Deviations/ Resolution of Deviations: Contractor to verify all deviations are reviewed, corrected, and accepted by the design professional; and filed with DSA through the Project Inspector (IOR).
 - When the Project Inspector identifies deviations from the DSA approved construction documents the inspector must verbally notify the contractor. If the deviations are not corrected within a reasonable time frame, the inspector is required to promptly issue a written notice of deviation to the contractor, with a copy sent to the design professional in general responsible charge and the DSA.
 - 2) When the noticed deviations are corrected, the inspector is required to promptly issue a written notice of resolution to the contractor, with a copy sent to the design professional in general responsible charge and the DSA.
 - 3) Deviations include both construction deviations and material deficiencies.
 - 4) The written notice of deviations shall be made using form DSA 154.
 - 5) The notice of resolution of deviations shall be made using the original form DSA 154 that reported the deviations.
 - e. Form-156: Commencement/Completion of Work Notification
 - f. Form-6.C: Verified Report Contractor: From each contractor having a contract with the school board.
- B. Duties of contractor related to the use of form DSA 152 are as follows:
 - 1. The contractor shall carefully study the DSA approved documents and shall plan a schedule of operations well ahead of time.
 - 2. If at any time it is discovered that work is being done which is not in accordance with the DSA approved construction documents, the contractor shall correct the work immediately.
 - 3. Verify that forms DSA 152 are issued for the project prior to the commencement of construction.
 - 4. Meet with the design team, the Laboratory of Record and the Project Inspector to mutually communicate and understand the testing and inspection program and the methods of communication appropriate for the project.

- 5. Notify the Project Inspector, in writing, of the commencement of construction of each and every aspect of the work at least 48 hours in advance by submitting form DSA 156 (or other agreed upon written documents) to the Project Inspector.
- 6. Notify the Project Inspector of the completion of construction of each and every aspect of the work by submitting form DSA 156 (or other agreed upon written documents) to the Project Inspector.
- 7. Consider the relationship of the signed off blocks and sections of the form DSA 152 and the commencement of subsequent work. Until the Project Inspector has signed off applicable blocks and sections of the form DSA 152, the contractor may be prohibited from proceeding with subsequent construction activities that cover up the unapproved work. Any subsequent construction activities, that cover up the unapproved work, will be subject to a "Stop Work Order" from the DSA or the district and are subject to removal and remediation if found to be in non-compliance with the DSA approved construction documents.

1.03 TESTS

- A. The District will select an independent testing laboratory to conduct tests. Material required to be tested will be selected by the laboratory or the District's Inspector and not by the Contractor.
- B. The Contractor shall notify the District's Inspector a minimum of 5 working days in advance of the manufacture of material to be supplied by him under the Contract Documents, which must be by terms of the Contract be tested, in order that the District may arrange for the testing of such material at the source of supply.
- C. Material shipped by the Contractor from the source of supply before having satisfactorily passed such testing and inspection or before the receipt of notice from said Inspector that such testing and inspection will not be required, shall not be incorporated in the Project.
- D. The District will select and pay testing laboratory costs for all tests and inspections, but may be reimbursed by the Contractor for such costs under the Contract conditions. Any direct payments by the Contractor to the testing laboratory on this project is prohibited.
- E. DSA Form 291 shall be from the engineering manager of the laboratory of record.
- F. Duties of the Laboratory of Record related to the use of form DSA 152 are as follows:
 - 1. Meet with the Project Inspector, design professionals, and contractor as needed to mutually communicate and understand the testing and inspection program and the methods of communication appropriate for the project.
 - 2. Obtain a copy of the DSA approved construction documents from the design professional in general responsible charge prior to the commencement of construction
 - 3. Obtain a copy of the DSA approved Statement of Structural Tests and Special Inspections (form DSA 103) from the design professional in general responsible charge prior to the commencement of construction.
 - 4. Report all project related activities to the Project Inspector. The Project Inspector is responsible for monitoring the work of the Laboratory of Record and Special Inspectors to ensure the testing and special inspection program is satisfactorily completed
 - 5. Provide material testing as identified in the DSA approved construction documents.
 - 6. Submit test reports to the Project Inspector on the day the tests were performed for any tests performed on-site
 - 7. Submit material test reports in a timely manner such that construction is not delayed and not to exceed 14 days from the date the material tests were performed. Test reports are to be submitted to the architect, structural engineer, Project Inspector and school district.
 - 8. Immediately submit reports of material tests not conforming to the requirements of the DSA approved construction documents. These reports shall be submitted to the DSA, architect, structural engineer, Project Inspector and school district.
 - 9. Submit Verified Reports form DSA 291 to the DSA, Project Inspector, district and design professional in responsible charge. The reports are required to be submitted upon any of the following events occurring:
 - 10. Within 14 days of the completion of the material testing/special inspection program.
 - 11. Work on the project is suspended for a period of more than one month.

- 12. The services of the laboratory of record are terminated for any reason prior to completion of the project.
- 13. The DSA requests a Verified Report. (See interim verified reports below. This is a "DSA request.")
- 14. Submit an interim Verified Report (form DSA 291) to the DSA and a copy to the Project Inspector for each of the applicable sections of the form DSA 152, prior to the Project Inspector signing off that section of the project inspection card, if that section required material testing. The sections are:
 - a. Initial Site Work
 - b. Foundation
 - c. Vertical Framing
 - d. Horizontal Framing
 - e. Appurtenances
 - f. Non-Building Site Structures
 - g. Finish Site Work
 - h. Other Work
 - i. Final
- 15. The Verified Reports shall be sent electronically to the DSA.
- G. Duties of Special Inspectors, employed by the Laboratory of Record, related to the use of form DSA 152 are as follows:
 - 1. Meet with the Project Inspector, design professionals, and contractor as needed to mutually communicate and understand the testing and inspection program and the methods of communication appropriate for the project.
 - 2. Report all project related activities to the Project Inspector. The Project Inspector is responsible for monitoring the work of the Laboratory of Record and Special Inspectors to ensure the testing and special inspection program is satisfactorily completed.
 - 3. Perform work under the supervision of the Engineering Manager for the Laboratory of Record
 - 4. Perform inspections in conformance with the DSA approved construction documents, applicable codes and code reference standards
 - 5. Prepare detailed daily inspection reports outlining the work inspected and provide the Project Inspector a copy of the reports on the same day the inspections were performed.
 - 6. Prepare detailed daily inspection reports outlining the work inspected and provide the Project Inspector a copy of the reports on the same day the inspections were performed.
 - 7. Immediately submit reports of materials or work not conforming to the requirements of the DSA approved construction documents. These reports shall be submitted to the DSA, architect, structural engineer, Project Inspector and school district.
 - 8. Submit daily special inspection reports in a timely manner such that construction is not delayed and not to exceed 14 days from the date the special inspections were performed. The reports are to be submitted to the architect, structural engineer, Project Inspector and school district.
 - 9. Submit Verified Report forms DSA 292 to the DSA, Project Inspector, district and design professional in responsible charge.
 - 10. The reports are required to be submitted upon any of the following events occurring:
 - 11. Within 14 days of the completion of the special inspection work.
 - 12. Work on the project is suspended for a period of more than one month.
 - 13. The services of the special inspector are terminated for any reason prior to completion of the project.
 - 14. The DSA requests a Verified Report. (See interim verified reports below. This is a "DSA request")
 - 15. Submit an interim Verified Report (form DSA292) to the DSA and a copy to the Project Inspector for each of the applicable sections of the form DSA 152, prior to the Project Inspector signing off that section of the project inspection card, if that section required special inspections. The sections are:
 - a. Initial Site Work
 - b. Foundation
 - c. Vertical Framing
 - d. Horizontal Framing
 - e. Appurtenances

- f. Non-Building Site Structures
- g. Finish Site Work
- h. Other Work
- i. Final
- 16. The Verified Reports shall be sent electronically to the DSA as required per PR 13-01.

1.04 TESTING LABORATORY

- A. Testing and inspections will be performed by an independent testing laboratory selected and employed by the District and approved by the Division of the State Architect (DSA). Qualification of a testing agency or laboratory will be under the jurisdiction of the DSA Structural Safety Section (SSS). Procedural and acceptance criteria are set forth in the 2016 California Building Code (CBC) Sec. 4-335.
- B. Testing and inspection services which are performed shall be in accordance with requirements of the 2016 CBC, and as specified herein. Testing and inspection services shall verify that work meets the requirements of the Contract Documents.
- C. In general, tests and inspections for structural materials shall include all items enumerated on the Structural Tests and Inspections list for this project as prepared and distributed by the Architect.
- D. Test reports shall be signed by a Civil Engineer licensed in the State of California.

1.05 PAYMENTS

- A. Costs of initial testing and inspection, except as specifically modified herein, or specified otherwise in technical sections, will be paid for by the District, providing such testing and inspection indicates compliance with Contract Documents. Initial tests and inspections are defined as the first tests and inspections as herein specified.
- B. In the event a test or inspection indicates failure of a material or procedure to meet requirements of Contract Documents, costs for retesting and reinspection will be paid by the District and backcharged to the Contractor.
- C. Additional tests and inspections not herein specified but requested by District or Architect, will be paid for by District, unless results of such tests and inspections are found to be not in compliance with Contract Documents, in which case the District will pay all costs for initial testing as well as retesting and reinspection and backcharge the Contractor.
- D. Costs for additional tests or inspections required because of change in materials being provided or change of source or supply will be paid by District and backcharged to the Contractor.
- E. Costs for tests or inspections which are required to correct deficiencies will be paid by the District and backcharged to the Contractor.
- F. Cost of testing which is required solely for the convenience of Contractor in his scheduling and performance of work will be paid by the District and backcharged to the Contractor.
- G. Overtime costs for testing and inspections performed outside the regular work day hours, including weekends and holidays, will be paid for by the District and backcharged to the Contractor. Such costs include overtime costs for the District's Inspector.
- H. Testing Laboratory shall separate and identify on the invoices, the costs covering all testing and inspections which are to be backcharged to the Contractor as specified above.
- Testing Laboratory shall furnish to District a cost estimate breakdown covering initial tests and
 inspections required by Contract Documents. Estimate shall include number of tests, man-hours required
 for tests, field and plant inspections, travel time, and costs.

1.06 TEST AND INSPECTION REPORTS

- A. At the completion of the project, Testing Laboratory shall certify in writing and on all required DSA forms, that all work specified or required to be tested and inspected conforms to drawings, specifications and applicable building codes.
- B. Each and every test or inspection report shall bear the File Number and Application Number assigned to this project by the DSA.

C. The Testing Laboratory will make the following distribution of test and inspection reports:

1.	School District	1
2.	Architect	2
3.	Structural Engineer	1
4.	Contractor	1
5.	District's Inspector	1
6.	Division of the State Architect	1
7.		1

- D. Test reports shall include all tests made, regardless of whether such tests indicate that the material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Records of special sampling operations as required shall also be reported. The reports shall show that the material or materials were sampled and tested in accordance with the requirements of the 2016 CBC, and with the approved specifications. They shall also state definitely whether or not the material or materials tested comply with requirements.
 - 1. Test reports shall be issued within 14 days of finding being known, to all parties listed above.

1.07 VERIFICATION OF TEST REPORTS

- A. The Testing Laboratory of record shall submit to the DSA a verified report covering all tests which are required to be made by that agency during the progress of the project. Such report shall be furnished each time that work on the project is suspended, covering the tests up to that time, and at the completion of the project.
- B. DSA Form 292 Special Inspection Verified Report shall be from all special inspectors contracting directly and individually with the school board.

1.08 REPORTING TEST FAILURES

A. Immediately upon determination of a test failure, the Laboratory shall telephone the results to the Architect. On the same day, Laboratory shall send test results by facsimile (or email if agreed to in advance) to the Architect, Structural Engineer, and District's Inspector

1.09 AVAILABILITY OF SAMPLES

- A. Contractor shall make materials required for testing available to Laboratory and assist in acquiring these materials as directed by the District's Inspector. The samples shall be taken under the immediate direction and supervision of the Testing Laboratory or District's Inspector.
- B. If work which is required to be tested or inspected is covered up without prior notice or approval, such work may be uncovered at the discretion of Architect at no additional cost to the District. Refer to paragraph "Payments" herein.
- C. Unless otherwise specified, Contractor shall notify Testing Laboratory a minimum of 10 working days in advance of all required tests, and a minimum of 2 working days in advance of all required inspections. All extra expenses resulting from a failure to notify the Laboratory will be paid by the District and backcharged to the Contractor.
- D. Contractor shall give sufficient advance notice to Testing Laboratory in the event of cancellation or time extension of a scheduled test or inspection. Charges due to insufficient advance, notice of cancellations, or time extension will be paid for by the District and backcharged to the Contractor.

1.10 REMOVAL OF MATERIALS

A. Unless otherwise directed, materials not conforming to the requirements of Contract Documents shall be promptly removed from the Project site.

1.11 INSPECTION BY THE DISTRICT

A. The District shall have the right to reject materials and workmanship which are defective, or to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without charge to the District. If the Contractor does not correct such rejected

- work within a reasonable time, the District may correct such rejected work and charge the expense to the Contractor.
- B. Should it be considered necessary or advisable by the District at any time before final acceptance of the entire work to make an examination of work already completed by removing or tearing out the completed work, the Contractor shall on request promptly furnish necessary facilities, labor and materials. If such work is found to be defective in any respect due to fault of the Contractor or his subcontractor, he shall defray all expenses of such examinations and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the additional cost of labor and material necessarily involved in the examination and replacement shall be allowed the Contractor.

1.12 DISTRICT'S INSPECTOR (INSPECTOR OF RECORD)

- A. An Inspector employed by the District and approved by Architect, Structural Engineer and DSA in accordance with the requirements of the 2016 CBC will be assigned to the work. His duties are specifically defined in CCR Title 24 Part 1, Sec. 4-342.
- B. The District's Inspector shall at all times have access for the purpose of inspection to all parts of the work and to the shops where the work is in preparation, and the Contractor shall at all times maintain proper facilities and provide safe access for such inspection.
- C. The work of construction in all stages of progress shall be subject to the personal continuous observation of the Inspector. The Contractor shall furnish the Inspector reasonable facilities for obtaining such information as may be necessary to keep him fully informed respecting the progress and manner of the work and the character of the materials. Inspection of the work shall not relieve the Contractor from any obligation to fulfill this Contract.
 - 1. Inspector of Record is required to work a normal 40 hour week on this project only. Any overtime required will be at the expense of the Contractor and sub-contractor requiring the inspection.

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

PART 3 - EXECUTION

3.01 TESTS AND INSPECTIONS

- A. Tests and inspections for the following will be required in accordance with DSA IR 17-4, 17-6, 17-7, and the 2016 CBC, unless otherwise specified:
- B. Structural Steel (Chapter 22A):
 - 1. Materials:

a.	Structural Steel, Cold Formed Steel	2212A.1
b.	Material Identification	2203A

2. Inspection of Structural Steel:

a.	Tests of Structural & Cold Formed Steel	2212A.1
b.	Tests of H.S. Bolts, Nuts, Washers	2212A.2
c.	Tests of End Welded Studs	2212A.3
d.	Welding Inspection	1704A.3.1
e.	Shop Fabrication Inspection	1704A.3.2.1
f.	Tests of Beam-to-Column Moment Connection	2212A.4

- C. Miscellaneous Fasteners:
 - 1. Anchorage test methods as shown on Drawings and as specified in respective sections.

3.02 TESTING AND INSPECTION OF STRUCTURAL STEEL

A. Mill certificates or affidavits and manufacturers' certification shall be supplied to the Testing Laboratory and Inspector for verification of steel materials. Testing Laboratory shall be notified at least 2 working days in advance of fabrication and supplied with the reports so that it can make a shop inspection of the steel.

- B. Tests of Steel Materials: If structural steel cannot be identified by heat or melt numbers, or if its source is questionable, not less than one tension test and one bend test will be made for each 5 tons or fractional part thereof. Comply with CBC 2212A.1. Such testing shall be paid for by the District and backcharged to the Contractor.
 - 1. CBC 2212A.1 Exception: No mechanical tests are required for unidentified steel when the minimum yield stress required by the design is less than or equal to 25 ksi (172 MPa) and the steel is not part of the designated lateral-force-resisting system.

C. General Inspection:

- 1. Testing Laboratory will visit the fabricator's plant to verify that materials used check with the mill tests, affidavits of test reports, and that fabrication and welding procedures meet specifications.
- 2. Testing Laboratory will visually check fabricated steel against the contract drawings and reviewed shop drawings for compliance, and will make physical tests and measurements as required to meet the specifications. Single pass fillet welds may be visually checked.
- 3. Testing Laboratory will review welding procedure specifications as prepared by the fabricator.
- 4. Inspection of Shop Fabrication: Inspection of shop fabrication is required. This inspection shall be made by a qualified inspector approved by the DSA. He shall furnish the Architect and the DSA a report duly verified by him that the materials and workmanship conform to the approved plans and specifications.
- 5. Inspection of welding shall be in accordance with the requirements of the 2016 CBC Title 24 Part 2, Sec. 1704A.3.1.
- 6. Erection Inspection: Testing Laboratory will visually inspect bolted and field welded connections, perform such additional tests and inspections of field work as are required by the Architect and prepare test reports for the Architect's review.
- 7. Shop Fabrication Inspection Outside of Area: The added cost of shop fabrication inspection, and material testing outside the State of California or 150 mile radius of the Project site will be paid by the District and backcharged to the Contractor.
- 8. Special inspection for high tension bolting will be provided by the Testing Laboratory. Inspection shall be in accordance with AISC Specification for Structural Joints Using ASTM A325 or A490 Bolts, June 30, 2004.
- 9. Ultrasonic Testing: All full penetration multi-pass groove welds shall be subject to ultrasonic testing.
 - a. Defective welds shall be repaired and retested with ultrasonic equipment.
 - b. Initially, all multi-pass groove field welds shall be tested at the rate of 100 percent of each individual welder. If rejectable defects occur in less than 5 percent of the welds tested, the frequency of testing may be reduced to 25 percent. If the rate of rejectable defects increases to 5 percent or more, 100 percent testing shall be reestablished until the rate is reduced to less than 5 percent. The percentage of rejects shall be calculated for each welder independently.
 - c. When ultrasonic indications arising from the weld root can be interpreted as either a weld defect or the backing strip itself, the backing strip shall be removed at the expense of the Contractor, and if no root defect is visible, the weld shall be retested. If no defect is indicated on this retest, and no significant amount of the base and weld metal have been removed, no further repair or welding is necessary. If a defect is indicated, it shall be repaired at the Contractor's expense.
- 10. The ultrasonic instrumentation shall be calibrated by the technician to evaluate the quality of the welds in accordance with AWS D1.1 latest Edition.
- 11. Should defects appear in welds tested, repairs shall be similarly inspected at the Contractor's expense and at the direction of the Architect until satisfactory performance is assured.
- 12. Other methods of inspection, for example, X-ray, gamma ray, magnetic particle, or dye penetrant, may be used on welds if felt necessary by the Architect.

D. Corrections:

1. Correct deficiencies in structural steel work which inspections and test reports indicate to be not in compliance with the specified requirements.

2. Perform additional tests required to reconfirm noncompliance of the original work and to show compliance of corrected work. Costs for all additional tests will be paid for by the District and backcharged to the Contractor.

3.03 SPECIAL INSPECTIONS FOR CONCRETE CONSTRUCTION (CHAPTER 19A)

- A. Inspection:
 - 1. Job Site Inspection: CBC 1704A.4.5(Conc. Preplacement), 1704A.4.6(Placing Record), and 1905A.7(Equipment Placement).
 - 2. Batch Plant or Weighmaster Inspection: CBC 1704A.4.3.
 - a. Waiver of Batch Plant Inspection: Batch plant inspection may be waived if the concrete plant complies fully with the requirements of CBC 1704A.4.3 and has been certified to comply with the requirements of the National Ready Mixed Concrete Association. The plant must be equipped with an automatic batcher in which the total batching cycle, except for the measuring and introduction of an admixture, is completed by activating a single starter device. Prior to waiving of batch plant inspection, the testing lab must certify and submit evidence of compliance to DSA and obtain agency approval prior to mixing concrete.
 - 1) Approved inspector of the testing laboratory shall check the first batching at the start of work each day and furnish mix proportions to the licensed weigh-master.
 - 2) Licensed weigh-master shall positively identify materials as to quantity and certify each load by a ticket.
 - 3) Tickets shall be transmitted to the Inspector of Record by a truck driver with load identified thereon. The inspector shall not accept the load without a load ticket identifying the mix and will keep a daily record of placements, identifying each truck, its load and time of receipt and approximate location of deposit in the structure and will transmit a copy of the daily record to the enforcement agency.
 - 4) At the end of the project, the weigh-master shall furbish an affidavit to the enforcement agency certifying that all the concrete furnished conforms in every particular to proportions established by mix designs.
- B. Reinforcing Steel, Including Prestressing of Tendons and Placement: Verify compliance with approved contract documents and ACI 318, 3.5 and 7.1 through 7.7; periodic.
 - 1. Reinforcing Bars: CBC 1903A.4, 1916A.2
 - 2. Tests:
 - a. Tests shall be performed before the delivery of steel to Project site. Steel not meeting specifications shall not be shipped to the Project.
 - b. Testing procedure shall conform to ASTM A615 or ASTM A706.
 - c. Sample at the place of distribution, before shipment: Make one tensile test and one bending test from samples out of 10 tons, or fraction thereof, of each size and kind of reinforcing steel, where taken from bundles as delivered from the mill and properly identified as to heat number. Mill analysis shall accompany report. Where identification number cannot be ascertained, or where random samples are taken, make one series of tests from each 2-1/2 tons, or fraction thereof, of each size and kind of reinforcing steel. Tests on unidentified reinforcing steel will be paid by the District and backcharged to the Contractor. Samples shall include not fewer than 2 pieces, each 18 inches long, of each size and kind of reinforcing steel
 - d. District's Inspector will inspect all reinforcement for concrete work for size, dimensions, locations and proper placement.
- C. Reinforcing Steel Welding: Verify compliance with AWS D1.4 and ACI 318, 3.5.2; periodic.
 - 1. Reinforcing Bar Welding Inspection: CBC 1704A.3.1.3.
 - 2. Inspection of welding of reinforcing steel shall be done by a specially qualified laboratory inspector and tested in accordance with AWS D1.4. Inspector shall be present during welding of all reinforcing steel. Inspector of welded reinforcing steel shall meet requirements of 1704A.4.1.
- D. Bolts Installed in Concrete: Where allowable loads have been increased or where strength design is used, verify compliance with approved contract documents and ACI 318, 8.1.3 and 21.2.8 prior to and during placement of concrete; continuous.

- E. Anchors Installed in Hardened Concrete: Verify compliance with ACI 318, 3.8.6, 8.1.3 and 21.2.8; periodic.
- F. Design Mix: Verify plastic concrete complies with the design mix in approved contract documents and with ACI 318, Chapter 4 and 5.2; periodic.
 - 1. Portland Cement Tests: CBC 1704A.4.1, 1903A, 1916A.1
 - 2. Concrete Aggregates: CBC 1704A.4.1, 1903A.7, 1903A.5
 - 3. Batch Plant Inspection: CBC 1704A.4.2
 - 4. Waiver of Batch Plant Inspection and Tests: CBC 1704A.4.3
 - 5. Admixtures: CBC 1903A, 1903A.4
 - 6. Proportions of Concrete: CBC 1904A(Durability) and 1905A,1,2,3,4,5(Quality).
- G. Concrete Sampling Concurrent with Strength Test Sampling: Each time fresh concrete is sampled for strength tests, verify compliance with ASTM C172, ASTM C31 and ACI 318, 5.6 and 5.8 and record the following, continuous:
 - 1. Slump.
 - 2. Air content.
 - 3. Temperature of concrete.
 - 4. Strength Tests of Concrete: CBC 1905A.1.1 and 1905A.6.
- H. Concrete and Shotcrete Placement: Verify application techniques comply with approved contract documents and ACI 318, 5.9 and 5.10; continuous.
- I. Specified Curing Temperature and Techniques: Verify compliance with approved contract documents and ACI 318, 5.11 through 5.13; periodic.
- J. Concrete Strength in Situ: Verify concrete strength complies with approved contract documents, CBC 1704 and ACI 318, 6.2, for the following.
 - 1. Beams and structural slabs, prior to removal of shores and forms; periodic.
- K. Formwork Shape, Location and Dimensions: Verify compliance with approved contract documents and ACI 318, 6.1.1; periodic.
- L. Materials: If the Contractor cannot provide sufficient data or documentary evidence that concrete materials conform to the quality standards of ACI 318, the AHJ will require that the Special Inspector verify compliance with the appropriate standards and criteria in ACI 318, Chapter 3.
- M. District Inspector (IOR) will do the following:
 - 1. Inspect placing of reinforcing steel and concrete at Project.
 - 2. Obtain weighmaster's certificate and identify mix before accepting each load. Keep daily record of concrete placement, identifying each truck load, time of receipt, and location of concrete in structure. Keep record until completion of Project and make available for inspection by DSA Field Engineer or representative. See also subparagraph on Waiver of Batch Plant Inspection above.
 - 3. During progress of work, take reasonable number of test cylinders as directed by Architect. Conform to CBC 1905A.6 (ACI 318). Test cylinders need not be made for concrete used in exterior flatwork.
 - a. ACI 318 Section 5.6.2.1 shall be replaced and the Contractor shall comply with the following:
 - 1) Samples for strength test of each class of concrete placed each day shall not be taken less than once for each 50 cubic yards (38.3m3) of concrete, or not less than once for each 2,000 square feet (186 m2) of surface area of for slabs or walls. Additional samples for seven -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.
 - 4. One set of cylinders shall consist of 4 samples all taken from same batch, one to be tested at age of 7 days and two at 28 days. The 28-day test may be omitted if the 7-day compressive strength exceeds 85 percent of the specified 28-day strength.
 - 5. Make and store cylinders according to ASTM C31.
 - 6. Deliver cylinders to laboratory or store cylinders in a suitable protected environment for pick up by laboratory personnel.
 - 7. Make slump test of wet concrete according to test for slump of portland cement concrete, ASTM C143, at least at the same frequency that the cylinders are taken.

SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary utilities.
- B. Temporary telecommunications services.
- C. Temporary sanitary facilities.
- D. Temporary Controls: Barriers, enclosures, and fencing.
- E. Security requirements.
- F. Vehicular access and parking.
- G. Waste removal facilities and services.
- H. Project identification sign.

1.02 TEMPORARY UTILITIES

- A. Owner will provide the following:
 - 1. Electrical power, consisting of connection to existing facilities.
 - 2. Water supply, consisting of connection to existing facilities.
- B. Existing facilities may be used.
- C. Use trigger-operated nozzles for water hoses, to avoid waste of water.

1.03 TELECOMMUNICATIONS SERVICES

- A. Provide equivalent equipment and connections for Owner's field office.
- B. Provide equivalent equipment and connections for Architect's field office.
- C. Telecommunications services shall include:
 - 1. Windows-based personal computer dedicated to project telecommunications, with necessary software and laser printer.
 - 2. Telephone Land Lines: One line, minimum; one handset per line.
 - 3. Internet Connections: Minimum of one; DSL modem or faster.
 - 4. Facsimile Service: Minimum of one dedicated fax machine/printer, with dedicated phone line.
 - 5. Facsimile Service: Fax-to-email software on personal computer.
 - 6. Project web site.

1.04 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
 - 1. Contractor(s) shall provide temporary toilet facilities if maximum number of personnel on project is greater than 10.
 - 2. Contractor shall submit proposed location of temporary toilet(s) to Construction Administrator for approval.
 - a. Place on-site portable toilets away from building air intakes and entryway.
- B. Use of existing facilities is permitted.
 - 1. Construction personnel (less than 10 on site) may use existing sanitary facilities but must keep them clean. Sanitary facilities may not be used for clean up of personnel (other than washing of hands.)

- C. Maintain daily in clean and sanitary condition.
- D. At end of construction, return facilities to same or better condition as originally found.

1.05 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.06 FENCING

- A. Construction: Contractor's option.
- B. Provide 6 foot high fence around construction site; equip with vehicular and pedestrian gates with locks.

1.07 EXTERIOR ENCLOSURES

A. Provide temporary weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.08 INTERIOR ENCLOSURES

- A. Provide temporary partitions and ceilings as indicated to separate work areas from Owner-occupied areas, to prevent penetration of dust and moisture into Owner-occupied areas, and to prevent damage to existing materials and equipment.
- B. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces:
 - 1. STC rating of 35 in accordance with ASTM E90.
 - 2. Maximum flame spread rating of 75 in accordance with ASTM E84.
- C. Paint surfaces exposed to view from Owner-occupied areas.

1.09 SECURITY

- A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.
- B. Coordinate with Owner's security program.

1.10 CAFETERIA AND FOOD

- A. Construction personnel shall police their own areas. All cups, cans, paper, wrappers, and discarded food must be placed in trash receptacles at end of each break.
- B. Contractor(s) shall submit to Construction Administrator proposed location of any break areas and eating areas for approval.

1.11 SMOKING AND TOBACCO

A. Smoking is not permitted indoors.

- B. Smoking is permitted outdoors in designated areas.
- C. All ashes and cigarette butts must be deposited in approved receptors.
- D. No chewing tobacco or spitting of tobacco is permitted.

1.12 VEHICULAR ACCESS AND PARKING

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Existing on-site roads may be used for construction traffic.
- F. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

1.13 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.14 PROJECT IDENTIFICATION

- A. Provide project identification sign of design and construction indicated on Drawings.
- B. Erect on site at location established by Architect.
- C. No other signs are allowed without Owner permission except those required by law.

1.15 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet. Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition.
- E. Restore new permanent facilities used during construction to specified condition.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

SECTION 01 60 00 PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General product requirements.
- B. Transportation, handling, storage and protection of products.
- C. Product option requirements.
- D. Substitutions and procedures, Request for Substitution Form.
- E. System Completeness.
- F. Installation of Products.
- G. Procedures for Owner-supplied products.
- H. Maintenance materials, including extra materials, spare parts, tools, and software.

1.02 RELATED REQUIREMENTS

- A. Instructions to Bidders: Product options and substitution procedures prior to bid date.
- B. Section 01 33 23 Shop Drawings, Product Data and Samples: Requirements applicable to submittals for "or equal" and substitute products.
- C. Section 01 40 00 Quality Requirements: Product quality monitoring.
- D. Section 01 41 00 Regulatory Requirements: Codes and standards applicable to product specifications; minimum requirements.

1.03 REFERENCE STANDARDS

A. NFPA 70 - National Electrical Code; National Fire Protection Association; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.04 SUBMITTALS

- A. See Section 01 33 23 Shop Drawings, Product Data and Samples.
- B. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
 - 1. Submit within 10 days after date of Notice to Proceed.
 - 2. For products specified only by reference standards, list applicable reference standards.
- C. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- E. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

PART 2 PRODUCTS

2.01 GENERAL PRODUCT REQUIREMENTS

- A. Drawings and Specifications: If a specific product is indicated on the Drawings for use, then that product shall be used without exception in the location identified. If the Contractor proposes the use of another product other than the item indicated, whether or not listed in these specifications, the Contractor shall submit the product using the complete substitution process. See the the Article titled "SUBSTITUTIONS" below
 - AHJ approval is also required prior to the use or installation of any substitution, on any product or location of product (requiring a revision to the Drawings or Specifications), included in these construction documents. Installation of a non-approved product may result in the contractor removing and replacing the non-approved product at the Contractor's own expense.
 - 2. If a conflict exists between the Drawings and the Specifications (Project Manual), then the Contractor shall submit a Request for Interpretation from the Architect.
 - a. As noted in the General Conditions, the more stringent requirements shall govern, including cost of materials and/or installation.
- B. Products, General: Items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock, and include materials, equipment, assemblies, fabrications and systems.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model designations indicated in the manufacturer's published product data.
 - 2. Materials: Products that are shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed or installed to form a part of the Work.
 - 3. Equipment: A product with operating parts, whether motorized or manually operated, that requires connections such as wiring or piping.
- C. Specific Product Requirements: Refer to requirements of Section 01 40 00 Quality Control and individual product Specifications Sections in Divisions 2 through 33 for specific requirements for products.
- D. Minimum Requirements: Specified requirements for products are minimum requirements. Refer to general requirements for quality of the Work specified in Section 01 40 00 Quality Control and elsewhere herein.
- E. Product Selection: Provide products that fully comply with the Contract Documents, are undamaged and unused at installation. Comply with additional requirements specified herein in Article titled "PRODUCT OPTIONS".
- F. Standard Products: Where specific products are not specified, provide standard products of types and kinds that are suitable for the intended purposes and that are usually and customarily used on similar projects under similar conditions. Products shall be as selected by Contractor and subject to review and acceptance by the Owner (Owner) and Architect.
- G. Product Completeness: Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect. Comply with additional requirements specified herein in Article titled "SYSTEM COMPLETENESS".
- H. Code Compliance: All products, other than commodity products prescribed by Code, shall have a current ICC Evaluation Service Research Report (ICC ESRR) or CABO National Evaluation Report (NER). Refer to additional requirements specified in Section 01 41 00 Regulatory Requirements.
- I. Interchangeability: To the fullest extent possible, provide products of the same kind from a single source. Products required to be supplied in quantity shall be the same product and interchangeable throughout the Work. When options are specified for the selection of any of two or more products, the product selected shall be compatible with products previously selected.
- J. Product Nameplates and Instructions:
 - 1. Except for required Code-compliance labels and operating and safety instructions, locate nameplates on inconspicuous, accessible surfaces. Do not attach manufacturer's identifying nameplates or trademarks on surfaces exposed to view in occupied spaces or to the exterior.

- 2. Provide a permanent nameplate on each item of service-connected or power-operated equipment. Nameplates shall contain identifying information and essential operating data such as the following example:
 - a. Name of manufacturer
 - b. Name of product
 - c. Model and serial number
 - d. Capacity
 - e. Operating and Power Characteristics
 - f. Labels of Tested Compliance with Codes and Standards
- 3. Refer to additional requirements which may be specified in Division 23 Mechanical, if included in the Project Manual.
- 4. For each item of service-connected or power-operated equipment, provide operating and safety instructions, permanently affixed and of durable construction, with legible machine lettering. Comply with all applicable requirements of authorities having jurisdiction and listing agencies.
- K. Electrical Product Requirements: Comply with requirements specified in Divisions 26, 27, & 28 Electrical, as applicable.

2.02 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by the Contract Documents.
- B. Do not use products having any of the following characteristics:
 - 1. Made outside the United States, its territories, Canada, or Mexico.
 - 2. Made using or containing CFC's or HCFC's.
 - 3. Made of wood from newly cut old growth timber.
- C. Where all other criteria are met, Contractor shall give preference to products that:
 - 1. Are extracted, harvested, and/or manufactured closer to the location of the project.
 - 2. Have longer documented life span under normal use.
 - 3. Result in less construction waste.
- D. Provide interchangeable components of the same manufacture for components being replaced.
- E. Wiring Terminations: Provide terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated. Size terminal lugs to NFPA 70, include lugs for terminal box.
- F. Cord and Plug: Provide minimum 6 foot cord and plug including grounding connector for connection to electric wiring system. Cord of longer length is specified in individual specification sections.

2.03 PRODUCT OPTIONS

- A. Products Specified by Description: Where Specifications describe a product, listing characteristics required, with or without use of a brand name, provide a product that has the specified attributes and otherwise complies with specified requirements.
- B. Products Specified by Performance Requirements: Where Specifications require compliance with performance requirements, provide product(s) that comply and are recommended by the manufacturer for the intended application. Verification of manufacturer's recommendations may be by product literature or by certification of performance from manufacturer.
- C. Products Specified by Reference to Standards: Where Specifications require compliance with a standard, provided product shall fully comply with the standard specified. Refer to general requirements specified in Section 01 42 00 Reference Standards and Abbreviations regarding compliance with referenced standards, standard specifications, codes, practices and requirements for products.
- D. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- E. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- F. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

- G. Products Specified by Identification of Manufacturer and Product Name or Number:
 - 1. "Specified Manufacturer": Provide the specified product(s) of the specified manufacturer.
 - a. If only one manufacturer is specified, without "acceptable manufacturers" being identified, provide only the specified product(s) of the specified manufacturer.
 - b. If the phrase "or equal" is stated or reference is made to the "or equal provision," products of other manufacturers may be provided if such products are equivalent to the specified product(s) of the specified manufacturer. Equivalence shall be demonstrated by submission of information in compliance with requirements specified herein under the Article titled "SUBSTITUTIONS."
 - 2. "Acceptable Manufacturers": Product(s) of the named manufacturers, if equivalent to the specified product(s) of the specified manufacturer, will be acceptable in accordance with the requirements specified herein in the Article titled "SUBSTITUTIONS", except considerations regarding changes in Contract Time and Contract Sum will be waived if no increase in Contract Time or Contract Sum results from use of such equivalent products.
 - 3. Unnamed manufacturers: Product(s) of unnamed manufacturers will be acceptable when disclosed during the bidding period and only as follows:
 - a. Unless specifically stated that substitutions will not be accepted or considered, the phrase "or equal" shall be assumed to be included in the description of specified product(s). Equivalent products of unnamed manufacturers will be accepted in accordance with the "or equal" provision specified herein, below.
 - b. If provided, products of unnamed manufacturers shall be subject to the requirements specified herein in the Article titled "SUBSTITUTIONS."
 - 4. Quality basis: Specified product(s) of the specified manufacturer shall serve as the basis by which products by named acceptable manufacturers and products of unnamed manufacturers will be evaluated. Where characteristics of the specified product are described, where performance characteristics are identified or where reference is made to industry standards, such characteristics are specified to identify the most significant attributes of the specified product(s) which will be used to evaluate products of other manufacturers.
- H. Products Specified by Combination of Methods: Where products are specified by a combination of attributes, including manufacturer's name, product brand name, product catalog or identification number, industry reference standard, or description of product characteristics, provide products conforming to all specified attributes.
- I. "Or Equal" Provision: Where the phrase "or equal" or the phrase "or approved equal" is included, equivalent product(s) of unnamed manufacturer(s) may be provided as specified above in subparagraph titled "Unnamed manufacturers" and Article herein titled "SUBSTITUTIONS" with the following conditions:
 - 1. The requirements specified herein in the Article titled "SUBSTITUTIONS" shall apply to products provided under the "or equal" provision except, if the proposed product(s) are determined to be equivalent to the specified product(s) of the specified manufacturer, the requirement specified for substitutions to result in a net reduction in Contract Time or Contract Sum will be waived.
 - 2. Use of product(s) under the "or equal" provision shall not result in any delay in completion of the Work, including completion of portions of the Work for use by Owner or for work under separate contract by Owner.
 - 3. Use of product(s) under the "or equal" provision shall not result in any costs to the Owner, including design fees and permit and plancheck fees.
 - 4. Use of product(s) under the "or equal" provision shall not require substantial change in the intent of the design, in the opinion of the Architect. The intent of the design shall include functional performance and aesthetic qualities.
 - 5. The determination of equivalence will be made by the Architect and Owner, and such determination shall be final.
- J. Visual Matching: Where Specifications require matching a sample, the decision by the Architect on whether a proposed product matches shall be final. Where no product visually matches but the product complies with other requirements, comply with provisions for substitutions for selection of a matching product in another category.

K. Visual Selection of Products: Where requirements include the phrase "as selected from manufacturer's standard colors, patterns and textures", or a similar phrase, selections of products will be made by indicated party or, if not indicated, by the Architect. The Architect will select color, pattern and texture from the product line of submitted manufacturer, if all other specified provisions are met.

2.04 SYSTEM COMPLETENESS

- A. System Completeness:
 - 1. The Contract Drawings and Specifications are not intended to be comprehensive directions on how to produce the Work. Rather, the Drawings and Specifications are instruments of service prepared to describe the design intent for the completed Work.
 - 2. It is intended that all equipment, systems and assemblies be complete and fully functional even though not fully described. Provide all products and operations necessary to achieve the design intent described in the Contract Documents.
 - 3. Refer to related general requirements specified in Section 01 41 00 Regulatory Requirements regarding compliance with minimum requirements of applicable codes, ordinances and standards.
- B. Omissions and Misdescriptions: Contractor shall report to Architect immediately when elements essential to proper execution of the Work are discovered to be missing or misdescribed in the Drawings and Specifications or if the design intent is unclear.
 - 1. Should an essential element be discovered as missing or misdescribed prior to receipt of Bids, an Addendum will be issued so that all costs may be accounted for in the Contract Sum.
 - 2. Should an obvious omission or misdescription of a necessary element be discovered and reported after execution of the Agreement, Contractor shall provide the element as though fully and correctly described, and a no-cost Change Order shall be executed.
 - 3. Refer to related General Conditions or general requirements specified in Section 01 31 14 Facility Services Coordination regarding construction interfacing and coordination.

2.05 MAINTENANCE MATERIALS

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION

3.01 SUBSTITUTION PROCEDURES

- A. Substitutions Regulation: Pursuant to Section 3400 of the Public Contract Code, requests for substitution will be considered if received up to 7 days prior to the bid date. Subsequent requests will be considered only in the case of product unavailability, through no fault of the Contractor, or for reasons of cost reducing value engineering requested by the Owner.
- B. Substitutions: Requests by Contractor to deviate from specified requirements for products, materials, equipment, and methods, or to provide products other than those specified, shall be considered requests for substitutions except under the following conditions:
 - 1. Substitutions are requested during the bidding period, and accepted prior to execution of the Contract. Acceptance shall be in the form of written Addendum to the Bidding documents or revision to the Drawings or Specifications for use as Construction Contract Documents.
 - 2. Changes in products, materials, equipment, and methods of construction are directed by the Owner or Architect.
 - 3. Contractor options for provision of products and construction methods are specifically stated in the Contract Documents.
 - 4. Change in products, materials, equipment, and methods of construction is required for compliance with Codes, ordinances, regulations, orders and standards of authorities having jurisdiction.
- C. Substitutions will not be considered when a product becomes unavailable through no fault of the Contractor.

- D. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- E. Substitution Provisions: Refer to substitution provisions of the Conditions of the Contract, in addition to the requirements specified herein. Provisions for consideration and acceptance of substitutions shall be as follows:
 - 1. Documentation: Substitutions will not be considered if they are indicated or implied on shop drawing, product data or sample submittals. All requests for substitution shall be made by separate written request from Contractor.
 - 2. Cost and Time Considerations: Substitutions will not be considered unless a net reduction in Contract Sum or Contract Time results to the Owner's benefit, including redesign costs, life cycle costs, changes in related Work and overall performance of building systems.
 - 3. Design Revision: Substitutions will not be considered if acceptance will require substantial revision of the Contract Documents or will substantially change the intent of the design, in the opinion of the Architect. The intent of the design shall include functional performance and aesthetic qualities.
 - 4. Data: It shall be the responsibility of the Contractor to provide adequate data demonstrating the merits of the proposed substitution, including cost data and information regarding changes in related Work.
 - 5. Determination by Architect: Architect will determine the acceptability of proposed substitutions and will notify Contractor, in writing within a reasonable time, of acceptance or rejection. The determination by the Architect regarding functional performance and aesthetic quality shall be final.
 - 6. Non-Acceptance: If a proposed substitution is not accepted, Contractor shall immediately provide the specified product.
 - 7. Substitution Limitation: Only one request for substitution will be considered for each product.
- F. A request for substitution constitutes a representation that the submitter:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - 2. Will provide the same warranty for the substitution as for the specified product.
 - 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 - Will reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.
- G. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- H. Substitution Submission Period:
 - 1. Time Limit: Only within 10 days of Notice to Proceed or execution of the Owner-Contractor Agreement, whichever is earliest, will the Owner and Architect consider requests for substitutions.
 - 2. Product Availability Waiver: Substitutions will be considered after 35 day time limit only when a product becomes unavailable due to no fault of Contractor. Failure to place orders for specified products sufficiently in advance of required date for incorporation into the Work will not be considered as a valid reason for which Contractor may request a substitution or deviation from requirements of the Drawings and Specifications.
 - 3. Waiver: At the discretion of the Owner, limitations on substitutions may be waived.
- I. Request for Substitution Process:
 - 1. Contractor shall prepare a request for substitution and submit the request to the Architect for review and acceptance. Submit a minimum of 4 copies. Form and other administrative requirements shall be as included herein or as directed by the Architect.
 - Substitution requests shall included complete product data, including drawings and descriptions of products, fabrication details and installation procedures. Include samples where applicable or requested.

- 3. Substitution requests shall include appropriate product data for the specified product(s) of the specified manufacturer, suitable for use in comparison of characteristics of products.
 - a. Include a written, point-by-point comparison of characteristics of the proposed substitute product with those of the specified product.
 - b. Include a detailed description, in written or graphic form as appropriate, indicating all changes or modifications needed to other elements of the Work and to construction to be performed by the Owner and by others under separate Contract with Owner, that will be necessary if the proposed substitution is accepted.
- 4. Substitution requests shall include a statement indicating the substitution's effect on the Construction Schedule. Indicate the effect of the proposed substitution on overall Contract Time and, as applicable, on completion of portions of the Work for use by Owner or for work under separate contract by Owner.
- 5. Except as otherwise specified, substitution requests shall include detailed cost data, including a proposal for the net change, if any, in the Contract Sum.
- 6. Substitution requests shall include signed certification that the Contractor has reviewed the proposed substitution and has determined that the substitution is equivalent or superior in every respect to product requirements indicated or specified in the Contract Documents, and that the substitution is suited for and can perform the purpose or application of the specified product indicated or specified in the Contract Documents.
- 7. Substitution requests shall include a signed waiver by the Contractor for change in the Contract Time or Contract Sum because of the following:
 - a. Substitution failed to perform adequately.
 - b. Substitution required changes in on other elements of the Work.
 - c. Substitution caused problems in interfacing with other elements of the Work.
 - d. Substitution was determined to be unacceptable by authorities having jurisdiction.
- 8. If, in the opinion of the Architect, the substitution request is incomplete or has insufficient data to enable a full and thorough review of the intended substitution, the substitution may be summarily refused and determined to be unacceptable.

J. Substitution Submittal Procedure:

- 1. Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution.
- 2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
- 3. The Architect will notify Contractor in writing of decision to accept or reject request.

K. Contract Document Revisions:

- 1. Should a Contractor-proposed substitution or alternative sequence or method of construction require revision of the Contract Drawings or Specifications; including revisions for the purposes of determining feasibility, scope or cost, or revisions for the purpose of obtaining review and approval by authorities having jurisdiction; revisions will be made by Architect or other consultant of Owner who is the responsible design professional, as approved in advance by Owner.
- 2. Services of Architect or other consultant of the Owner, including time spent in researching and reporting on proposed substitutions or alternative sequence and method of construction, shall be paid by Contractor when such activities are considered additional services to the design services contracts of the Architect or other responsible design professional with the Owner.
- 3. Costs of services by Architect or other responsible design professional of the Owner shall be paid on a time and materials basis, based on current hourly fee schedules, with reproduction, long distance telephone and shipping costs reimbursable at cost plus usual and customary mark-up for handling and billing.
- 4. Such fees shall be paid whether or not the proposed substitution or alternative sequence or method of construction is ultimately accepted by Owner and a Change Order is executed.
- 5. Such fees shall be paid from Contractor's portion of savings, if a net reduction in Contract Sum results. If fees exceed Contractor's portion of net reduction, Contractor shall pay all remaining fees unless otherwise agreed in advance by the Owner.

- 6. Such fees owed shall be deducted from the amount owed Contractor on the Application for Payment next made following completion of revised Contract Drawings and Specifications or completion of research and other services. Owner will then pay Architect or other consultant of the Owner.
- 7. Substitutions require Field Change Directive approval from DSA.

3.02 TRANSPORTATION AND HANDLING

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
 - 1. Schedule delivery to minimize long-term storage and prevent overcrowding construction spaces. Coordinate with installation to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.
- B. Transport and handle products in accordance with manufacturer's instructions.
- C. Transport products by methods to avoid product damage.
- Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- E. Deliver products in undamaged condition in manufacturer's original sealed container or packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
- F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.03 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Inspection Provisions: Arrange storage to provide access for inspection and measurement of quantity or counting of units.
- C. Structural Considerations: Store heavy materials away from the structure in a manner that will not endanger supporting construction.
- D. Store and protect products in accordance with manufacturers' instructions.
 - 1. Store with seals and labels intact and legible.
- E. Weather-Resistant Storage:
 - 1. Store moisture-sensitive products above ground, under cover in a weathertight enclosure or covered with an impervious sheet covering. Provide adequate ventilation to avoid condensation.
 - 2. Maintain storage within temperature and humidity ranges required by manufacturer's instructions.
 - 3. For exterior storage of fabricated products, place products on raised blocks, pallets or other supports, above ground and in a manner to not create ponding or misdirection of runoff. place on sloped supports above ground.
 - 4. Store loose granular materials on solid surfaces in a well-drained area. Prevent mixing with foreign matter.
- F. For exterior storage of fabricated products, place on sloped supports above ground.
- G. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- H. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- J. Prevent contact with material that may cause corrosion, discoloration, or staining.
- K. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

- L. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.
- M. Protection of Completed Work:
 - 1. Provide barriers, substantial coverings and notices to protect installed Work from traffic and subsequent construction operations.
 - 2. Remove protective measures when no longer required and prior to Substantial Completion review of the Work.
 - 3. Comply with additional requirements specified in Section Temporary Construction Facilities.

3.04 INSTALLATION OF PRODUCTS

- A. Installation of Products:
 - 1. Comply with manufacturer's instructions and recommendations for installation of products, except where more stringent requirements are specified, are necessary due to Project conditions or are required by authorities having jurisdiction.
 - 2. Anchor each product securely in place, accurately located and aligned with other Work.
 - 3. Clean exposed surfaces and provide protection to ensure freedom from damage and deterioration at time of Substantial Completion review. Refer to additional requirements specified in General Conditions, Section Temporary Construction Facilities and Section Final Cleaning.

SECTION 01 60 00.01 REQUEST FOR SUBSTITUTION

BSTITUTION REQUI				
Date:				
Project Name:	Shade Structures –	Shade Structures – San Jacinto Campus		
Project Number:	1-51-07	1-51-07		
To:		Ruhnau Clarke Architects 3775 Tenth Street, Riverside, California 92501		
From:				
product and the propos	your consideration the forced substitution. The und the cause for rejection of respection of respective terms.	ersigned fully unde	erstands tha	
for inclusion by Adden	n may be made during b adum) and not later than earliest, except under co	35 days after awar	d of contra	ct or Notice to
Project Manual Section	n Title	Number	Page	Paragraph
Dansvin a Ma				il No
Proposed Substitution: Manufacturer:			Tel	:
Proposed Substitution: Manufacturer:			Tel	:
Proposed Substitution: Manufacturer:			Tel	:
Proposed Substitution: Manufacturer: Reason request for sub Does proposed substitu		ted:gages, weights, etc	Tel	: ng? No Yes
Proposed Substitution: Manufacturer: Reason request for sub Does proposed substitution:	stitution is being submit	ted:gages, weights, etc	Tel	: ng? No Yes
Proposed Substitution: Manufacturer: Reason request for sub Does proposed substitution: (explain how) Does proposed substitution:	ation affect dimensions, ation require changes in cost of these changes is	gages, weights, etc Drawings or design	Tel on Drawi	eng? NoYes
Proposed Substitution: Manufacturer: Reason request for sub Does proposed substitution: (explain how) Does proposed substitution:	stitution is being submit	gages, weights, etc Drawings or design	Tel on Drawi	eng? NoYes
Proposed Substitution: Manufacturer: Reason request for sub Does proposed substitu (explain how) Does proposed substitu NoYes (If yes, Does proposed substitu NoYes Explain	ation affect dimensions, ation require changes in cost of these changes is ation affect product cost,	gages, weights, etc Drawings or design the responsibility delivery time, or constant to the c	Tel . on Drawi	ng? NoYes lation changes? cractor.)
Proposed Substitution: Manufacturer: Reason request for sub Does proposed substitution: (explain how) Does proposed substitution: NoYes(If yes, Does proposed substitution. NoYes Explain Does proposed substitution.	ation affect dimensions, ation require changes in cost of these changes is ation affect product cost,	gages, weights, etc Drawings or design the responsibility delivery time, or consideration of the constant of	Tel . on Drawi	eng? NoYes lation changes? cractor.) n schedule? ASTM Numbers
Proposed Substitution: Manufacturer: Reason request for sub Does proposed substitution: (explain how) Does proposed substitution NoYes (If yes, Does proposed substitution NoYes Explain Does proposed substitution Yes Explain	stitution is being submit	gages, weights, etc Drawings or design the responsibility of delivery time, or considered ICC Number, United ICC Number, Unite	Tel on Drawin and instal of the Cont construction UL Rating,	:

If yes, has impact on their work been included in Does proposed substitution product guarantee di		
NoYes (explain how)		spooning product.
	It is NT	1:, 00
If the substitution request is accepted, it will rest Attach a listing of 3 projects (one in service for a	-	
Substantiating Data: Attach product data/brochu and substitute product. Provide samples for both Certification: Undersigned has examined Construction understands indicated application of product, understands indicated application of product Architect/Engineer. Undersigned states that propand complies with Construction Documents and product within limitations stated above. Undersiapplication and installation of proposed substitutes resulting from incorporation of proposed substitutes perform according to specified requirements. Undesign, including additional studies, investigation Architect caused by the requested substitution.	ruction Documents, i oduct, and understan posed substitution ha will perform at leas igned accepts respon tion and waives all c aution into Project or indersigned will pay the	itute products, if applicable is familiar with specified ids design intent of its been fully investigated it equally to specified sibility for coordinating claims for additional costs its subsequent failure to for changes to the building
Submitted by: Signatu	ure Γ	 Date
Signature must be made by person having legal a		
Architects Comments:	,	
Accepted, accepted as noted,	not accepted,	received too late.
Reviewed by:		
Architect	Date	
Construction Administrator	Date	
	Date	

SECTION 01 70 00 EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Pre-installation meetings.
- C. Cutting and patching.
- D. Cleaning and protection.
- E. Starting of systems and equipment.
- F. Closeout procedures, except payment procedures.
- G. General requirements for maintenance service.

1.02 RELATED REQUIREMENTS

- A. Section 01 10 00 Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
- B. Section 01 30 00 Administrative Requirements: Submittals procedures.
- C. Section 01 40 00 Quality Requirements: Testing and inspection procedures.
- D. Section 01 78 00 Closeout Submittals: Project record documents, operation and maintenance data, warranties and bonds.
- E. Individual Product Specification Sections:
 - 1. Advance notification to other sections of openings required in work of those sections.
 - 2. Limitations on cutting structural members.

1.03 REFERENCE STANDARDS

A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2009.

1.04 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate Contractor.
- C. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.05 PROJECT CONDITIONS

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.
- C. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- D. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.

E. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

1.06 COORDINATION

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Notify affected utility companies and comply with their requirements.
- C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- F. Coordinate completion and clean-up of work of separate sections.
- G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 60 00.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Architect 14 calendar days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 - 1. Review conditions of examination, preparation and installation procedures.
 - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.04 GENERAL INSTALLATION REQUIREMENTS

- A. In addition to compliance with regulatory requirements, conduct construction operations in compliance with NFPA 241, including applicable recommendations in Appendix A.
- B. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- C. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- D. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- E. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- F. Make neat transitions between different surfaces, maintaining texture and appearance.

3.05 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. Perform whatever cutting and patching is necessary to:
 - 1. Complete the work.
 - 2. Fit products together to integrate with other work.
 - 3. Provide openings for penetration of mechanical, electrical, and other services.
 - 4. Match work that has been cut to adjacent work.
 - 5. Repair areas adjacent to cuts to required condition.
 - 6. Repair new work damaged by subsequent work.
 - 7. Remove samples of installed work for testing when requested.
 - 8. Remove and replace defective and non-conforming work.
- C. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- D. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- E. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- F. Restore work with new products in accordance with requirements of Contract Documents.
- G. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with CFC, to full thickness of the penetrated element.

I. Patching:

- 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
- 2. Match color, texture, and appearance.
- 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.06 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.07 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

3.08 SYSTEM STARTUP

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
- C. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- D. Verify that wiring and support components for equipment are complete and tested.
- E. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.
- F. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.09 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.10 FINAL CLEANING

- A. Use cleaning materials that are nonhazardous.
- B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.

- D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- E. Clean filters of operating equipment.
- F. Clean debris from roofs, gutters, downspouts, and drainage systems.
- G. Clean site; sweep paved areas, rake clean landscaped surfaces.
- H. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.11 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
- B. Notify Architect when work is considered ready for Substantial Completion.
- C. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's review.
- D. Correct items of work listed in executed Certificates of Substantial Completion and comply with requirements for access to Owner-occupied areas.
- E. Notify Architect when work is considered finally complete.
- F. Complete items of work determined by Architect's final inspection.

3.12 MAINTENANCE

- A. Provide service and maintenance of components indicated in specification sections.
- B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.
- C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- E. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

SECTION 01 73 29 CUTTING AND PATCHING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Requirements and limitations for cutting and patching of Work.

1.02 RELATED SECTIONS

- A. Summary of Work: Work by Owner or by separate contractors.
- B. Individual product Specification Sections:
 - 1. Cutting and patching incidental to Work specified in the Section.
 - Coordination with Work specified in other Sections for openings required to accommodate Work specified in those other Sections.

1.03 SUBMITTALS

- A. Written Requests for Cutting and Alteration:
 - 1. Submit written request in advance of cutting or alteration which affects:
 - a. Structural integrity of any element of new or existing construction.
 - b. Integrity of weather-exposed or moisture-resistant elements.
 - c. Efficiency, maintenance, or safety of operational elements.
 - d. Visual qualities of elements exposed to view in the completed construction.
 - e. Work of Owner or separate contractor.
 - f. Existing construction not otherwise indicated to be revised by Work under the Contract.
 - 2. Include in requests for cutting and alteration:
 - a. Identification of Project.
 - b. Location and description of affected Work. Include shop drawings as necessary to identify locations and communicate descriptions.
 - c. Explanation of necessity for cutting and patching.
 - d. Description of proposed Work and products to be used.
 - e. Alternatives to cutting and patching.
 - f. Effect on work of Owner or separate contractor.
 - g. Effect on existing construction of Owner and, if applicable, work for Project being provided by Owner under separate contract.
 - 3. Include written evidence that those performing work under separate contract for Owner have been notified and acknowledge that cutting and patching work will be occurring. Include written permission for intended cutting and patching, included scheduled times.
 - 4. Indicate date and time cutting and patching Work will be performed.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Primary Products: As required for original installation and to match surrounding construction.
- B. Product Substitution: For each proposed change in materials, submit request for substitution under provisions of Section 01 60 00 Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

A. After uncovering existing Work, inspect conditions affecting proper accomplishment of Work.

B. Beginning of cutting or patching shall be interpreted to mean that existing conditions were found by Contractor to be acceptable.

3.02 PREPARATION

- A. Temporary Supports: Provide supports to ensure structural integrity of the Work. Provide devices and methods to protect other portions of Project from damage.
- B. Weather Protection: Provide protection from elements for areas which may be exposed by uncovering Work. Maintain excavations free of water.

3.03 CUTTING AND PATCHING

- A. Cutting and Patching: Execute cutting, fitting, and patching, excavation and fill, to complete the Work.
 - 1. Coordinate installation or application of products for integrated Work.
 - 2. Uncover completed Work as necessary to install or apply products out of sequence.
 - 3. Remove and replace defective or non-conforming Work.
 - 4. Provide openings in the Work for penetration of mechanical and electrical Work.

3.04 PERFORMANCE

- A. Execute cutting and patching by methods to avoid damage to adjoining Work, and which will provide appropriate surfaces to receive final finishing.
- B. Execute cutting and patching of weather-exposed, moisture-resistant elements and surfaces exposed to view by methods to preserve weather, moisture and visual integrity.
- C. Cut rigid materials using diamond grit abrasive saw or similar cutter for smooth edges. Do not overcut corners.
 - 1. Core drill holes through concrete and masonry.
 - 2. Pneumatic tools will not be allowed without prior approval.

D. Restoration:

- 1. Restore Work with new Products as specified in individual Sections.
- 2. Fit work neat and tight allowing for expansion and contraction. Butt new finishes to existing exposed structure, pipes, ducts, conduit, and other penetrations through surfaces.
- E. Penetrations at Fire-Rated Construction: At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with material in accordance with CFC, to full thickness of the penetrated element.
- F. Finishing: Refinish surfaces to match adjacent and similar finishes as used for the Project.
 - 1. For continuous surfaces, refinish to nearest intersection or natural break.
 - 2. For an assembly, refinish entire unit.

EXAMINATION, GENERAL: INSPECT EXISTING CONDITIONS PRIOR TO COMMENCING WORK, INCLUDING ELEMENTS SUBJECT TO DAMAGE OR MOVEMENT DURING CUTTING AND PATCHING.

SECTION 01 77 00 CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Contract closeout procedures.
- B. Project record documents.

1.02 RELATED SECTIONS

- A. Section 01 30 00 Administrative Requirements: General requirements for submittals.
- B. Section Construction Facilities: Cleaning and debris removal during construction.
- C. General Conditions and Section Final Cleaning: Cleaning as part of Contract closeout.

1.03 FINAL COMPLETION ACTIONS

- A. Final Application for Payment: In the Application for Payment that coincides with the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed substantially complete.
- B. Warranties, Bonds and Certificates: Submit specific warranties, guarantees, workmanship bonds, maintenance agreements, final certifications and similar documents.
- C. Locks and Keys: Change temporary lock cylinders over to permanent keying and transmit keys to the Owner, unless otherwise directed or specified.
- D. Tests and Instructions: Complete start-up testing of systems, and instruction of the Owner's personnel. Remove temporary facilities from the site, along with construction tools, mock-ups, and similar elements.

1.04 SUBSTANTIAL COMPLETION REVIEW

- A. Contractor's Notification for Substantial Completion Review: When the Contractor determines that the Work is complete in accordance with Contract Documents, the Contractor shall submit to the Owner and Architect written certification that the Contract Documents have been reviewed, the Work has been inspected by the Contractor and by authorities having jurisdiction, and the facility is ready for the Substantial Completion review.
- B. Preliminary Contract Closeout Review Meeting: As authorized by the Owner, Architect and Architect's and Owner's consultants, as appropriate, will attend a meeting at the Project site to review Contract closeout procedures and to review the list of items to be completed and corrected (punch list) to make the Work ready for acceptance by the Owner. This meeting shall be scheduled not earlier than 14 days prior to the date anticipated for the Substantial Completion review.
- C. Correction (Punch) List: Contractor shall prepare and distribute at the preliminary Contract closeout review meeting, a typewritten, comprehensive list of items to be completed and corrected (punch list) to make the Work ready for acceptance by the Owner.
 - 1. The punch list shall include all items to be completed or corrected prior to the Contractor's application for final payment.
 - 2. The punch list shall identify items by location (room number or name) and consecutive number. For example, 307-5 would identify item 5 in Room 307, Roof-4 would identify item 4 on Roof.
 - 3. Contractor shall prepare separate lists according to categories used for Drawings. For example, provide lists for Architectural, Structural, Mechanical, Plumbing, Electrical, Civil, Landscape, Process Piping and Laboratory Furnishings. Provide a list also for the Fire Protection (sprinkler) system.
 - 4. Architect, Architect's consultants and Owner's consultants, if in attendance, will conduct a brief walk-through of Project with the Contractor to review scope and adequacy of the punch list.

- 5. Verbal comments will be made to the Contractor by the Architect and the Architect's and Owner's consultants, if in attendance, during the walk-through. These comments will indicate generally the additions and corrections to be made to the punch list. Such comments shall not be considered to be comprehensive; Contractor shall use the comments as guidance in preparing the punch list for the Substantial Completion review.
- D. Substantial Completion Meeting: On a date mutually agreed by the Owner, Architect, and Contractor, a meeting shall be conducted at the Project site to determine whether the Work is satisfactory and complete for filing a Notice of Completion (Substantial Completion).
 - 1. Contractor shall provide three working days notice to Architect for requested date of Substantial Completion meeting.
 - 2. The Architect and the Architect's and Owner's consultants, as authorized by the Owner, will attend the Substantial Completion meeting.
 - 3. In addition to conducting a walk-through of the facility and reviewing the punch list, the purpose of the meeting shall include submission of warranties, guarantees and bonds to the Owner, submission of operation and maintenance data (manuals), provision of specified extra materials to the Owner, and submission of other Contract closeout documents and materials as required and if not already submitted
 - 4. The Architect and Architect's consultants, as appropriate, will conduct a walk-through of the facility with the Contractor and review the punch list.
 - 5. Contractor shall correct the punch list and record additional items as may identified during the walk-through, including notations of corrective actions to be taken.
 - 6. Contractor shall retype the punch list and distribute it within three working days to those attending the meeting.
 - 7. If additional site visits by the Architect and the Architect's and Owner's consultants are required to review completion and correction of the Work, the costs of additional visits shall be reimbursed to the Owner by the Contractor by deducting such costs from the Final Payment.
- E. Uncorrected Work: Refer to requirements specified in Section 01 40 00 Quality Control regarding Contract adjustments for non-conforming Work.
- F. Clearing and Cleaning: Prior to the Substantial Completion review, Contractor shall conduct a thorough cleaning and clearing of the Project area, including removal of construction facilities and temporary controls. Refer to Contract General Conditions, Section 01740 Final Cleaning (provided under separate cover by CM).
- G. Inspection and Testing: Prior to the Substantial Completion review, complete inspection and testing required for the Work, including securing of approvals by authorities having jurisdiction.
 - 1. Complete all inspections, tests, balancing, sterilization and cleaning of plumbing and HVAC systems.
 - 2. Complete inspections and tests of electrical power and signal systems.
 - 3. Complete inspections and tests of conveying (elevator or wheelchair lift) systems.
- H. Architect's Certification of Substantial Completion: When Architect determines that list of items to be completed and corrected (Punch List) is sufficiently complete for Owner to occupy Project for the use to which it is intended, Architect will complete and issue to the Owner and Contractor a Certificate of Substantial Completion using The American Institute of Architects Form G704 CERTIFICATE OF SUBSTANTIAL COMPLETION or other form if directed by the Owner.
- Notice of Completion: Contractor, after receipt of Architect's certification, shall record and pay for Notice of Completion in compliance with the requirements of authorities having jurisdiction. Provide copies to Owner and Architect.

1.05 FINAL COMPLETION SUBMITTALS

A. See Section 01 78 00

1.06 PROJECT RECORD DOCUMENTS

A. See Section 01 78 00.

1.07 FINAL PAYMENT

- A. Final Payment: After completion of all items listed for completion and correction, after submission of all documents and products and after final cleaning, submit final Application for Payment, identifying total adjusted Contract Sum, previous payments and sum remaining due. Payment will not be made until the following are accomplished:
 - 1. All Project Record Documents have been transferred and accepted by Owner.
 - 2. All extra materials and maintenance stock have been transferred and received by Owner.
 - All warranty documents and operation and maintenance data have been received and accepted by Owner.
 - 4. All liens have been released or bonded by Contractor.
 - 5. Contractor's surety has consented to Final Payment.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION - (NOT USED)

SECTION 01 78 00 CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.

1.02 RELATED REQUIREMENTS

- A. General Conditions: Performance bond and labor and material payment bonds, warranty, and correction of work.
- B. Section 01 30 00 Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- C. Section 01 70 00 Execution and Closeout Requirements: Contract closeout procedures.
- D. Individual Product Sections: Specific requirements for operation and maintenance data.
- E. Individual Product Sections: Warranties required for specific products or Work.

1.03 SUBMITTALS

- A. Final Completion Submittals: Prior to application for final payment, Contractor shall submit the following:
 - 1. Agency Document Submittals: Submit to Owner all documents required by authorities having jurisdiction, including serving utilities and other agencies. Submit original versions of all permit cards, with final sign-off by inspectors. Submit all certifications of inspections and tests.
 - 2. Final Specifications Submittals: Submit to Owner all documents and products required by Specifications to be submitted, including the following:
 - a. Project record drawings and specifications.
 - b. Operating and maintenance data.
 - c. Guarantees, warranties and bonds.
 - d. Keys and keying schedule.
 - e. Spare parts and extra stock.
 - f. Test reports and certificates of compliance.
 - 3. Certificates of Compliance and Test Report Submittals: Submit to Owner certificates and reports as specified and as required by authorities having jurisdiction, including the following:
 - a. Sterilization of water systems.
 - b. Sanitary sewer system tests.
 - c. Gas system tests.
 - d. Lighting, power and signal system tests.
 - e. Ventilation equipment and air balance tests.
 - f. Fire sprinkler system tests.
 - g. Fire detection system, smoke alarms and dampers.
 - h. Roofing inspections and tests.
 - 4. Lien and Bonding Company Releases: Submit to Owner, with copy to Architect, evidence of satisfaction of encumbrances on Project by completion and submission of The American Institute of Architects Forms G706 CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS, G706A CONTRACTOR'S AFFIDAVIT OF RELEASE OF LIENS, and (if applicable) G707 CONSENT OF SURETY. Comply also with other requirements of Owner, as directed. All signatures shall be notarized.

- 5. Subcontractor List: Submit to two copies to Owner and two copies to Architect of updated Subcontractor and Materials Supplier List.
- 6. Warranty Documents: Prepare and submit to Owner all warranties and bonds as specified in Contract General Conditions.
- B. Project Record Documents: Submit documents to Architect for review, prior to submitting claim for final payment.
- C. Operation and Maintenance Data:
 - 1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and return one copy with comments.
 - 2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
 - 3. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
 - 4. Submit two sets of revised final documents in final form within 10 days after final inspection.

D. Warranties and Bonds:

- 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
- 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
- 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS

- A. Maintain on site, one set of the following record documents; record actual construction and all revisions to the Work:
 - 1. Contract Drawings.
 - 2. Project Manual, with Specifications.
 - a. Addenda.
 - b. Change Orders and other modifications to the Contract.
 - 3. Reviewed shop drawings, product data, and samples.
 - 4. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record in PART 2 PRODUCTS at each section description of actual products installed or used, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Record information continuously as Work progresses. Do not conceal Work permanently until all required information is recorded. Legibly and to scale, mark a reproducible set of Contract Drawings to record actual construction, including:
 - 1. Reproducible set of Contract Drawings will be provided to Contractor by Owner through Architect.
 - 2. Measured depths of foundations and footings in relation to finish first floor datum.

- 3. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
- 4. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
- 5. Field changes of dimension and detail.
- 6. Details not on original Contract drawings.
 - a. Application of copies of details produced and provided by Architect during construction will be accepted.
- G. Submission: Submit Record Documents to Architect prior to final Application for Payment.
 - 1. Maintain one additional paper copy and one in PDF format (on CD) of the fire suppression and fire protection detection system drawings and specifications at the building premises. One copy is to be kept on site for a period of three years to comply with CFC section 901.6.2.

3.02 OPERATION AND MAINTENANCE DATA

- A. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For Each Product, Applied Material, and Finish:
 - 1. Product data, with catalog number, size, composition, and color and texture designations.
 - 2. Information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional information as specified in individual product specification sections.
- E. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
 - 1. Description of unit or system, and component parts.
 - 2. Identify function, normal operating characteristics, and limiting conditions.
 - 3. Include performance curves, with engineering data and tests.
 - 4. Complete nomenclature and model number of replaceable parts.
- B. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- C. Include color coded wiring diagrams as installed.
- D. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.

- E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- F. Provide servicing and lubrication schedule, and list of lubricants required.
- G. Include manufacturer's printed operation and maintenance instructions.
- H. Include sequence of operation by controls manufacturer.
- Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- J. Provide control diagrams by controls manufacturer as installed.
- K. Provide Contractor's coordination drawings, with color coded piping diagrams as installed.
- L. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- M. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- N. Include test and balancing reports.
- O. Additional Requirements: As specified in individual product specification sections.

3.05 OPERATION AND MAINTENANCE MANUALS

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- B. Prepare data in the form of an instructional manual.
- C. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- E. Provide tabbed dividers for each separate product and system, with typed description of product and major component parts of equipment.
- F. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.
- G. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- H. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.
- I. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 - 3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.

- b. Air and water balance reports.
- c. Certificates.
- d. Photocopies of warranties and bonds.
- Provide a listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.
- K. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Architect, Consultants, and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.

3.06 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Manual: Bind in commercial quality 8-1/2 by 11 inch three D side ring binders with durable plastic covers.
- F. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- H. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

SECTION 01 78 23 OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Format and content of operation and maintenance manuals.
 - 1. Data requirements for materials and finishes.
 - 2. Data requirements for equipment and operating systems.
- B. Instruction of Owner's personnel.
- C. Submission of operation and maintenance manuals.

1.2 RELATED SECTIONS

- A. Section 01 40 00 Quality Requirements: Manufacturer's instructions; test and balance reports.
- B. Section 01 77 00 Contract Closeout: Contract closeout procedures, project record documents and warranties and bonds.
- C. Individual Product Specifications Sections: Specific requirements for operation and maintenance data.

1.3 QUALITY ASSURANCE

- A. Preparation of data shall be done by persons:
 - 1. Trained and experienced in maintenance and operation of the described products.
 - 2. Familiar with requirements of this Section.
 - 3. Skilled in technical writing to the extent required to communicate essential data.
 - 4. Skilled as drafters competent to prepare required drawings.

1.4 FORMAT AND CONTENT OF OPERATION AND MAINTENANCE MANUALS

- A. Format for Operation and Maintenance Data Manuals: Prepare data in the form of an instructional manual. Comply with the general requirements specified below and comply with specific requirements for types of products in Articles following. See Article titled "SUBMISSION OF OPERATION AND MAINTENANCE MANUALS" for number of copies of manuals.
- B. Binders: 8-1/2 x 11 inch, standard three-ring binders with heavy duty vinyl covers with hard cardboard backing, black color, with provision on binder spine for inserting identification card; Maximum binder ring size shall be 3-inches. Use multiple binders as necessary to avoid overfilling. When multiple binders are used, correlate data into related consistent groupings.
- C. Cover: Identify each binder with typed or printed card inserted on binder spine, stating OPERATION AND MAINTENANCE DATA, the Project name and the general subject matter of the contents of the binder.
- D. Operation and Maintenance Data Organization: Organize operation and maintenance data in 3-ring binders and organize the contents of each binder following the organization of the Contract Specifications.

- Organize the group of binders and the contents of individual binders in sequence
 according to the Section numbers and titles as listed in the Table of Contents of
 the Project Manual. Number the binders consecutively; coordinate with
 Paragraph below titled "Tables of Contents."
- 2. Organize each binder with color-coded tabbed dividers for each distinct product and system, with typed inserts in tabs identifying the product or system.
- 3. Organize the contents of each tabbed division according to the Article headings in PART 2 PRODUCTS in each product Specification Section.
 - a. Within each tabbed division, organize the information according to major component parts of equipment and systems, as applicable, and to facilitate locating information.
 - b. Separate operation and maintenance data for each product under separate tabbed divisions, where feasible.
 - c. Within each tabbed division, include a cover sheet identifying the specific products and component parts included in the tabbed division.
- 4. If the products of more than one Specification Section are included in the binder, provide separate, heavy cover stock dividers to separate information for each Section.
- E. Title Page: In each volume (binder) of operation and maintenance data, include a title page with the following:
 - 1. Name of the Project.
 - 2. Names, addresses and telephone numbers of the responsible design professionals (Architect and Architect's or Owner's consultant, as applicable).
 - 3. Name, address and telephone numbers of Contractor, including names of contact persons.
- F. Table of Contents: In each volume (binder) of operation and maintenance data, include a listing of the contents of the volume. In a separate, first binder, provide a master Table of Contents of operation and maintenance data, identifying the product and systems, the applicable Specification Section number and title, and the operation and maintenance data binder number.
- G. Schedule of Products and Systems: In the first volume of the set of operation and maintenance data, include a schedule of products and systems, indexed to the Table of Contents of the volumes (binders) and cross-referenced to the Contract Drawings and Specifications.
- H. Operation and Maintenance Data: Include manufacturer's pre-printed data where feasible or provide typewritten data on 20 pound, correspondence quality bond paper.
- I. Drawings: When included, neatly fold drawings to size of text pages and provide reinforced, punched binding edge. Add binding strip as necessary to avoid punching through drawing content.
- J. Operation and Maintenance Data: In each tabbed division of operation and maintenance data for each product or system, provide the following:
 - 1. On a cover page for each tabbed division, provide the following:
 - a. Identify by name, address and telephone number, the manufacturer, supplier and installer. Include names of contact persons, if known.
 - b. Identify by name, address and telephone number, local sources of supplies, replacement parts and factory-authorized service.

- 2. Within each tabbed division, include complete operation and maintenance data as published by the product manufacturer. All data shall be neatly typewritten. Strike-through information on printed literature not applicable.
- 3. Supplement the manufacturer's printed data with neatly typewritten text and professionally drafted diagrams as necessary to suit the particular installation for the Project and to fully explain operation and maintenance procedures. Provide logical sequence of instructions for each procedure.
- K. Drawings: Supplement operation and maintenance data to illustrate configurations and relationships of component parts of equipment and systems, and to show control and flow diagrams, as applicable. Do not use Project Record Documents as maintenance drawings.
- L. Additional Data: As specified in individual product Specification Sections.

1.5 DATA REQUIREMENTS FOR MATERIALS AND FINISHES

- A. Data for Building Products, Applied Materials and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Provide information for re-ordering custom manufactured Products.
- B. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- C. Data for Moisture Protection and Weather-Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional Requirements: As specified in individual product Specification Sections.

1.6 DATA REQUIREMENTS FOR EQUIPMENT AND OPERATING SYSTEMS

- A. Data for Equipment and Operating Systems: Include description of each unit or system, and component parts.
 - 1. Include manufacturer's printed operation and maintenance instructions.
 - 2. Identify function, normal operating characteristics and limiting conditions.
 - 3. Include performance curves, with engineering data and tests.
 - 4. Include sequence of operation by controls manufacturer, as applicable.
 - 5. Provide diagrams by controls manufacturer for control systems, as applicable and as installed.
- B. Piping Data: Provide Contractor's coordination drawings, with piping diagrams as installed. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams. Color code diagrams as necessary for clarity.
- C. Reports: Include test and balancing reports, as applicable and as specified in individual product Specification Sections.
- D. Panelboard Circuit Directories: Provide electrical service characteristics, controls and communications.
- E. Wiring Diagrams: Include diagrams of wiring as installed, with color coding as necessary for clarity.
- F. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.

- G. Maintenance Requirements: Include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- H. Servicing and Lubrication: Provide servicing and lubrication schedule, and list of lubricants required.
- I. Parts Data: Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams as necessary for service and maintenance. Include complete nomenclature and catalog numbers for consumable and replacement parts. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in stock by the Owner or operator.
- J. Additional Requirements: As specified in individual product Specification Sections.

1.7 INSTRUCTION OF OWNER'S PERSONNEL

- A. Instruction of Owner's Personnel: Prior to Substantial Completion review, complete instruction of Owner's designated personnel in the operation, adjustment and routine cleaning, service and maintenance of products, equipment, and systems. Schedule indoctrination and training sessions at times acceptable to Owner.
- B. Basis for Instruction: Use operation and maintenance manuals as basis for instruction. Review contents of manual with personnel in detail to explain all aspects of operation and maintenance.
- C. Instructional Material: Prepare and insert additional data in Operation and Maintenance Manual when need for such data becomes apparent during instruction.

1.8 SUBMISSION OF OPERATION AND MAINTENANCE MANUALS

- A. Preliminary Draft Submittal: Submit two (2) copies of preliminary draft or proposed formats and outlines of contents before start of Work. Show general arrangement, nature of contents in each portion, probable number of drawings and their size, and proposed method of binding and covering. Architect will review draft and return one copy with comments. Secure the Architect's review comments prior to proceeding.
- B. Preliminary Submittal: Submit two (2) copies of completed preliminary volumes in final form 15 days prior to indoctrination of operation and maintenance personnel and prior to Substantial Completion review. See Section 01 77 00 Contract Closeout. One copy will be returned after Substantial Completion review with Architect's comments.
- C. Advance Submittals: For equipment and systems, or component parts of systems, put into service during construction and operated by Owner, submit documents within ten days of start of operation by Owner.
- D. Revisions: After completion of indoctrination of Owner's personnel, review all proposed revisions of the operation and maintenance manuals with the Architect. Revise content of documents in accordance with Architect's review comments and to include additional information as necessary from experience of instruction of Owner's personnel.
- E. Final Submittal: Submit three (3) copies of revised volumes in final form prior to submission of final Application for Payment.

PART 2 - PRODUCTS - (Not Applicable to this Section.)

PART 3 - EXECUTION - (Not Applicable to this Section.)

SECTION 02 16 05 PATCHING AND REPAIR

PART 1- GENERAL

1.1 SECTION INCLUDES

A. Patching and repair as required by damage during relocation. The Conditions of the Contract and Division 1 apply to this section as fully as if repeated herein.

1.2 UNCOVERED CONDITIONS

A. If removal of finish materials discloses the presence of termites, the Contractor shall inform the District immediately. The District will make a determination at that time what measures for control will be taken. Do not cover suspect areas until directed by the Architect.

PART 2- PRODUCTS

Not Applicable to this Section.

PART 3- EXECUTION

3.1 PATCHING AND REPAIRS

- A. Patch areas requiring patching, damaged by moving operations.
- B. Chain Link Fence: Remove section of chain link fence as required. Install new galvanized steel post, to match existing, in 24 inch deep concrete footing. Re-stretch and fasten existing fabric to new post.
- C. Patch existing asphalt concrete paved areas indicated or damaged by work under this Contract. Patch shall be smooth, even with adjacent grades and match existing paving in depth and compaction. Paint all cut surfaces of existing paving, and all cold joints with an SS-1 asphalt emulsion before the new paving is laid.
- D. Patch portland cement concrete paving with 2500 psi concrete. Clean areas to be patched. Dampen adjacent cut concrete surfaces, or apply concrete bonding agent to exposed cuts. Place and compact concrete and finish flush with, and textured to match, adjacent concrete surfaces. Damp cure for at least 7 days.
- E. At buildings with plywood exteriors, provide T-1-11 plywood closures fabricated as indicated with wood frames faced with 5/8-inch plywood siding to match existing plywood.

3.2 SITEWORK ALTERATIONS

- A. Drawings showing existing construction, utilities, and irrigation system are based on casual field observation and existing record documents only.
 - 1. Verify that construction, utility, and irrigation arrangements are as shown.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified and matching existing.
 - 2. Remove items indicated on drawings and where required by new construction.

- 3. Relocate items indicated on drawings and where required by new construction.
- C. Services (Including but not limited to Landscape Planting and Irrigation): Remove, relocate, and extend existing systems to accommodate new construction.
 - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide new control valves.
 - 2. Contractor to relocate existing heads to provide 100% coverage.
 - 3. Where existing active systems are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
 - a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
 - 4. Remove abandoned pipe, ducts, conduits, and equipment; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- D. Protect existing work to remain.
 - 1. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - 2. Repair adjacent construction and finishes damaged during removal work.
- E. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
 - 1. When existing 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.
 - 2. Where removal of planting and irrigation is required; provide new to match existing.
- F. Remove demolition debris and abandoned items from alterations areas and dispose of offsite; do not burn or bury.
- G. System Startup
 - 1. Notify Architect and District seven days prior to start-up of each item.
 - 2. Verify that each piece of irrigation heads or system has been checked for proper pressure and coverage.
 - 3. Execute start-up under supervision of applicable Contractor personnel in accordance with manufacturers' instructions.
 - 4. Adjust operating irrigation head coverage to ensure proper coverage at the correct time of day when the irrigation time clock activates the circuit.

SECTION 02 41 19 SELECTIVE SITE DEMOLITION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Demolition and removal of existing site improvements within Project area, as indicated on Drawings and as necessary to accomplish the Work, including:
 - 1. Asphaltic concrete and portland cement concrete paving.
 - 2. Abandoned underground utility lines outside of utility easement.
 - 3. Pavement cutting and removal.
 - 4. Debris removal.
- B. Handling and disposal of removed materials.
- C. Dewatering of excavations as necessary to control surface and sub-surface water.

1.02 RELATED SECTIONS (AS APPLICABLE)

- A. Summary of Work: Requirements for scheduling and sequencing of Work.
- B. Construction Facilities: Barriers and barricades for protection of persons and property; temporary partitions to allow continued operation of adjoining facilities; run-off control.
- C. Division 2, 22, & 33 Plumbing: Demolition of plumbing components.
- D. Division 2 & 23 Mechanical: Demolition of mechanical components.
- E. Division 2, 26, 27, & 28 Electrical: Demolition of electrical components.

1.03 SUBMITTALS

- A. Demolition and Removal Procedures and Schedule: Submit for Project record only.
- B. Project Record Drawings: Submit in accordance with provisions specified in Section 01 7700 Contract Closeout. Indicate verified locations of underground utilities and storm drainage system on project record drawings.

1.04 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with California Building Code (CBC) including requirements of CCR Title 24, Volume 2, Part 2, Chapter 18A, 33 and 34 requirements with California Fire Code Chapter 33 for demolition activities and all applicable laws, ordinances and regulations of local, State and Federal authorities having jurisdiction, regarding environmental protection and waste management.
 - 1. Obtain required demolition and disposal permits from authorities having jurisdiction.
 - 2. Notify serving utility companies and agencies before starting demolition Work on utilities. Comply cutting and capping sequences and procedures of serving utility.
 - 3. Do not close or obstruct roadways sidewalks hydrants without permits. Maintain fire lanes and exitways clear at all times. Arrange for haul routes with local Public Works Department.
 - 4. Conform to applicable regulatory procedures when discovering hazardous or contaminated materials.

B. Pre-Construction Conference:

- 1. Convene a conference at the Project site 3 days prior to starting demolition to review the Drawings and Specifications, requirements of authorities having jurisdiction, instructions and requirements of serving utilities, sequencing and interface considerations and project conditions.
- 2. Conference shall be attended by Owner and Architect, supervisory and quality control personnel of Contractor and all subcontractors performing this and directly-related Work.
- 3. Submit minutes of meeting to Owner, Project Inspector and Architect, for Project record purposes.

1.05 PROJECT CONDITIONS

- Field Measurements and Conditions: In addition to provisions of the Conditions of the Contract, verify dimensions and field conditions prior to construction. Verify condition of substrate and adjoining Work before proceeding with demolition Work. If conflict is found notify Construction Manager, Project Inspector and Architect.
- Sequencing and Scheduling: Refer to sequence requirements specified in Section Summary of Work; and construction progress schedule requirements specified in Section Construction Schedule.
- Existing Conditions: Conduct demolition to minimize interference with continuing operation of adjoining facilities and to surrounding landscaped areas.

Demolition:

- Use techniques acceptable to authorities having jurisdiction and which will achieve intended results and provide protection of surrounding features to remain.
- Some items may have been demolished prior to Work of this Contract. Verify existing conditions 2. prior to start of demolition. If items are or have been demolished, contact the Owner.
- 3. Some items may require postponement of demolition until late in Contract Time period.
- Phase demolition as necessary to provide adequate interfacing of related Work. 4.
- Protection: Protect existing construction and adjacent areas with temporary barriers and security devices in accordance with requirements specified in Section Construction Facilities.
 - Review location and type of construction of temporary barriers with Owner and/or the Construction
 - 2. Barriers shall control dust, debris and provide protection for persons occupying and using adjacent facilities.
 - Maintain protected egress and access at all times, in accordance with requirements of authorities 3. having jurisdiction and with permission of Building Services Department having jurisdiction.

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

PART 3 - EXECUTION

3.01 PREPARATION

- A. Preparation for Demolition: Erect and maintain temporary barriers to prevent spread of debris, to provide for continued use of adjacent properties.
 - Protect existing construction which is not indicated to be altered. 1.
 - Refer to Division 1 Section Construction Facilities. 2.

3.02 DEMOLITION, GENERAL

- Selective Demolition of Site and Building Elements:
 - Use techniques acceptable to authorities having jurisdiction and which will achieve intended results and provide protection of surrounding features to remain.
 - Some items may have been demolished prior to Work of this Contract. Verify existing conditions prior to start of demolition. If items are or have been demolished contact the Architect and Construction Manager.
 - 3. Some items may require postponement of demolition until late in Contract Time period.
 - 4. Phase demolition as necessary to provide adequate interfacing of related Work.
 - 5. Demolish in an orderly and careful manner. Protect existing foundations, retaining walls, utility structures, other structures and finish materials to remain.

Utilities Demolition:

- 1. Disconnect, remove, and cap designated utility services within demolition areas.
- Mark location of disconnected utilities. Identify and indicate capping locations on project record 2. drawings.

- 3. Coordinate cutting and capping sequences and procedures with serving utility and those affected by such activities. Remove utilities in a manner to minimize disturbance of portions to remain.
- C. Cutting and Patching: Refer to requirements specified in Section 01 73 29 Cutting and Patching.

3.03 SALVAGED MATERIALS

- A. Ownership: Unless otherwise indicated, all materials demolished and removed shall become property of Contractor.
- B. Disposal of Materials: Contractor shall haul and dispose of all demolished and removed materials to offsite disposal sites in any legal manner.
 - 1. Except where noted otherwise, immediately remove demolished materials from site.
 - 2. Promptly remove from the site and properly dispose of all contaminated, vermin infested, or dangerous materials encountered.
 - 3. Do not burn or bury materials on site.

3.04 PORTLAND CEMENT CONCRETE AND ASPHALTIC CONCRETE PAVING DEMOLITION

- A. Cutting: Make a saw cut at edges of existing paving to be removed, where portions of existing paving are indicated to remain.
- B. Cutting Method: Cut with abrasive type, water-cooled saw to a minimum depth of 1-1/2 inches. Cut lines straight and square to face of paving.
- C. Aggregate Base: Existing aggregate base may be retained except where landscaping and overexcavation are indicated.
- D. Concrete Removal: Break concrete and remove debris. Preserve straight cut.
- E. Disposal: Remove debris from the site except where allowed or directed for fill for subsequent earthwork or for landscape walls.

3.05 WELL ABANDONMENT

- A. Existing wells shall be abandoned in accordance with California Well Standards Bulletin 74-81 & Supplement Bulletin 74-90.
- B. Contractor shall have a C-57 California Contractors License and be registered with the County Environmental Health Department.
- C. Contractor shall obtain a Well Permit Application from the County Department of Environmental Health submitted in triplicate and signed by the Contractor and Owner.
- D. Well appurtenances shall be demolished, removed and disposed of offsite at no expense to the Owner.

3.06 UTILITY LINES, POSTS AND STRUCTURES

- A. Work by Utility: Posts, conductors, guy wires, boxes, structures and equipment shown to be cleared or removed by the responsible utility company or agency shall be considered work under a separate contract.
- B. Coordination: The Contractor shall arrange, schedule and coordinate work by utility companies and agencies.
- C. Payment: Costs, if any, imposed by utility companies and agencies shall be included in the Contract Sum.

3.07 DEWATERING

- A. Dewatering: Dewater site in localized areas as Work progresses.
 - 1. Provide an adequate system to lower and control groundwater in order to permit excavation, construction of structures, and placement of fill materials under dry conditions.
 - 2. Install sufficient dewatering equipment to pre-drain waterbearing strata above and below bottom of structure foundations, drains, sewers, and other excavations.
 - 3. Maintain excavations free of standing water.

- 4. Provide dewatering 24 hours per day in advance of placement of concrete.
- 5. Allow no concrete to be placed in standing water.
- 6. Ensure that trenching and excavations do not cave in due to water.
- B. Surface Run-off Water Control:
 - 1. Minimize flow of ground water from adjacent areas into Work areas.
 - 2. Do not restrict flow from adjacent properties such that natural flow is hindered.
- C. Water Disposal:
 - 1. Dispose of run-off by legal means and as acceptable to authorities having jurisdiction.
 - 2. Dispose of water removed from excavations in a manner to avoid endangering public health, property, and portions of Work under construction or completed.
 - 3. Dispose of water in a manner to avoid inconvenience to others engaged in work about site.
 - 4. Provide sumps, sedimentation tanks, and other flow control devices as required by authorities having jurisdiction.

3.08 DUST CONTROL

A. Refer to requirements of Division 1 Section - Construction Facilities.

SECTION 03 30 01 CAST IN PLACE CONCRETE SYSTEM

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Cast in place reinforced concrete footings, foundations and foundation walls.
- B. Formwork with shoring, bracing and anchorage as necessary.
- C. Concrete reinforcement.

1.2 RELATED SECTIONS

A. Section 32 13 13 - Portland Cement Concrete Paving: Concrete for pedestrian traffic, curbs, gutters and other concrete paving work.

1.3 REFERENCES

- A. American Concrete Institute (ACI): As noted throughout this Section.
- B. American Society for Testing and Materials (ASTM): As noted throughout this Section.
- C. ASTM C33/C33M Standard Specification for Concrete Aggregates; 2013 is current; use 2013 as indicated in 2016 CBC Reference Standards.

1.4 SUBMITTALS

- A. Product Data: Proprietary admixtures, curing compounds, hardeners and sealers, form release agent.
- B. Mix Design: For Project record only, and not for review or approval, submit mix designs sealed and signed by a licensed California Civil or Professional Engineer.
- C. Quality Control Submittals:
 - 1. Field tests: Submit reports of all slump, strength and air content tests as required by authorities having jurisdiction and as indicated on the Drawings and specified herein.
 - Delivery tickets: Have available copies of delivery tickets complying with ASTM C94 for each load of concrete delivered to site. Include on the tickets the additional information specified in the ASTM document.

1.5 QUALITY ASSURANCE

- A. Industry Standards:
 - 1. Perform cast in place concrete Work in accordance with ACI 301, ACI 302.1 and ACI 318.
 - a. When outdoor ambient air temperature is higher than 90 degrees F, comply with ACI 305.
 - b. When air temperature in the shade and away from artificial heat falls below 40 degrees F, or when concrete without special protection is likely to be subject to freezing temperatures before expiration of specified curing period, comply with ACI 306
 - 2. Formwork design and construction shall be in accordance with ACI 301 and ACI 318.
 - 3. Concrete reinforcement shall be in accordance with ACI 301, ACI 318, CRSI Manual of Standard Practice, CRSI 63 and CRSI 65.
- B. Regulatory Requirements: Conform to 2016 California Building Code (CBC) Chapter 19A requirement, as amended and adopted by authorities having jurisdiction. Chemical products field-applied to concrete shall comply with applicable air quality requirements of authorities having jurisdiction.

C. Testing Agency Services: District will engage an independent testing and inspection agency to conduct tests and perform other services specified for quality control during construction, as required.

1.6 DELIVERY AND HANDLING

- A. Protection During Concrete Placement: Provide protective coverings and runways, and use appropriate equipment and means of access to Work areas to avoid soiling or damage to existing conditions.
- B. Runoff: Prevent run off of water contaminated by construction agents and chemicals from soiling existing surfaces and from contaminating existing and future landscape areas.
- C. Delivery: Deliver reinforcement bars new and free from rust and mill scale in original marked bundles.
- D. Storage: Store reinforcement to avoid excessive rusting or fouling with grease, oil, dirt or other bond-weakening coatings.

PART 2 - PRODUCTS

2.1 CONCRETE MIX DESIGN

- A. Mix Design: Contractor shall coordinate with the Testing Laboratory of Record, under supervision of California Registered Civil Engineer, to determine mix proportions to fulfill specified requirements for strength, aggregate, size and workability of concrete. Mix design shall bear signature and seal of the Civil or Structural Engineer licensed in the State of California.
- B. Concrete Mix and Delivery: ASTM C94 Ready-Mixed Concrete, minimum compressive strength indicated below, unless identified otherwise on Drawings.
 - 1. Proportions: For normal weight concrete, in accordance with ACI 301.
 - 2. Concrete Strengths: 2500 psi unless noted otherwise on the Drawings.
 - 3. Water/Cement Ratio: Not to exceed 0.45.
 - 4. Slump: Not to exceed 4 inches.

2.2 CONCRETE MATERIALS

- A. Concrete Materials, General: Acquire cement and aggregates from single source for all cast in place concrete.
- B. Portland Cement: ASTM C150, gray color. Type as indicated on Structural Drawings, or if not indicated, as required by Architect.
- C. Aggregates for Regular Weight Concrete: [Fine and coarse aggregates] [Pea gravel aggregates for pumping], CBC Title 24, Part 2, Sec. 1903A.3, ASTM C33, Class 2M and as follows.
 - 1. Structural and Non-Structural Concrete: Maximum size not larger than 1/4 of narrowest dimension between forms, 1/3 depth of slab nor 3/4 of minimum clear spacing between individual reinforcing bars. Maximum aggregate size shall be 1-1/2 inch.
- D. Water: Clean, fresh and potable, free of amounts of acids, alkalis and organic materials detrimental to concrete production.

2.3 ADMIXTURES

- A. Chemical Admixtures, General: Admixtures which result in more than 0.1 percent of soluble chloride ions by weight of cement are prohibited. Use no admixtures not included in mix design. Products of the following manufacturers are specified and will be acceptable provided they comply with referenced standards all other requirements of the Contract Documents:
 - 1. Anti-Hydro Co., Inc., Newark, NJ (201/242-8000).
 - 2. Euclid Chemical Co., Cleveland, OH (216/531-9222 or 800/321-7628).
 - 3. Master Builders Technology, Inc., Cleveland, OH, (216/831-5500; local representative, California 800/228-3318).

- 4. W.R. Meadows, Inc., Elgin, IL (700/683-4500; local representative Walnut, CA, 909/469-2606 or 800/342-5976).
- 5. Sika Corporation, Lyndhurst, NJ (201/933-8800; local representative, Santa Fe Springs, CA, 310/941-0231).
- B. Air-Entraining Admixture: ASTM C260 and certified by manufacturer for compatibility with other mix components. The following products, providing they comply with the requirements of the Contract Documents, will be acceptable.
 - 1. Air-Mix or Perma-Air by Euclid Chemical Co.
 - 2. MB-VR or Micro-Air by Master Builders Technology, Inc.
 - 3. Sika AER by Sika Corporation.
- C. Water-Reducing Admixture: ASTM C494, Type A. The following products, provided they comply with requirements of the Contract Documents, will be acceptable:
 - 1. Eucon WR-75 by Euclid Chemical Co.
 - 2. Pozzolith Normal or Polyheed by Master Builders Technology, Inc.
 - 3. Plastocrete 161 by Sika Corporation.
- D. High-Range Water-Reducing Admixture (Superplasticizer): ASTM C494, Type F or G. The following products, provided they comply with requirements of the Contract Documents, will be acceptable:
 - 1. Super P by Anti-Hydro Co., Inc.
 - 2. Eucon 37 by Euclid Chemical Co.
 - 3. Rheobuild or Polyheed by Master Builders Technology, Inc.
 - 4. Sikament 300 by Sika Corporation.
- E. Water-Reducing, Accelerating Admixture: ASTM C494, Type E. The following products, or approved equals, provided they comply with requirements of the Contract Documents, will be acceptable:
 - 1. Accelguard 80 by Euclid Chemical Co.
 - 2. Pozzutec 20 by Master Builders Technology, Inc.
- F. Water-Reducing, Retarding Admixture: ASTM C494, Type D. The following products, provided they comply with requirements of the Contract Documents, will be acceptable:
 - 1. Eucon Retarder 75 by Euclid Chemical Co.
 - 2. Pozzolith R by Master Builders Technology, Inc.
 - 3. Plastiment by Sika Corporation.
- G. Evaporation Reducer: For use where the concrete surface evaporation rate exceeds the concrete bleed rate, such as in direct sunlight, low humidity or during hot and/or windy conditions. The following products, or approved equals will be acceptable:
 - 1. Atlas Finish Film by Atlas Construction Supply, Inc., San Diego, CA.
 - 2. Confilm by ChemRex, Shakopee, MN.
 - 3. Evapre by W.R. Meadows, Inc., Pomona, CA.
 - 4. Profilm 19 by ProMix Technologies, Allen, TX.
 - 5. Monofilm by Nox-Crete Products Group, Omaha, NB.
- H. Color Admixture for Integrally Colored Concrete: Colors will be selected by the Architect from manufacturer's full range of colors or as scheduled on Drawings. Acceptable products, or approved equal:
 - 1. Admixtures, Inc.; Colorfull.
 - 2. Davis Colors.
 - 3. L.M. Scofield; Chromix Admixture.

2.4 FORMING MATERIAL

- A. Panel type material, largest practical size to minimize joints, to provide continuous, straight, smooth, exposed surfaces.
- B. Formwork materials and installation shall conform to ACI 301 and 347, and shall be sufficient capacity to withstand pressures of concrete placement and to support concrete in place until cured, without distortion.
- C. Form release agent shall be commercial formulation, non-bonding, non-staining, and in compliance with SCAOMD.

2.5 CONCRETE REINFORCEMENT

- A. Reinforcing Bars: ASTM A615, Grade 60, deformed steel, unless indicated otherwise.
- B. Tie Wire: Black annealed type, 16 gage or heavier.
- C. Supports and Spacers: Non-corrosive types as required for spacing and clearance conforming to CRSI Manual of Practice.
- D. Welded Wire Fabric: Welded steel wire fabric, ASTM A185, Plain Type, flat sheets of gage and center-to-center spacing as indicated.

2.6 JOINT DEVICES, FILLER MATERIALS AND OTHER

- A. Control Joints: Sawcut joints after concrete placement and finish. Preformed joint materials are not required.
- B. Joint Filler, Non-Sealed Joints: Premolded bituminous type, ASTM D1751.
- C. Joint Filler, Sealed Joints: Non-bituminous rubber or cork, ASTM D1752.
- D. Expansion Joints: Pre-molded joint filler, 1/2-inch thick by full depth of slab less 3/4" for joint sealer and backer rod.
- E. Moisture-Retaining Cover: One of the following, complying with ASTM C171, for moist curing of concrete.
 - 1. Waterproof paper: ASTM C171, non-staining reinforced type, Sisalkraft Orange Label by Fortifiber Corp., Los Angeles, CA (213/268-6783 or 800/443-4079), or approved equal.
 - 2. Polyethylene film: 6 mil clear polyethylene sheet.
 - 3. White burlap-polyethylene sheeting.

2.7 BONDING COMPOUNDS

- A. Bonding Compounds, General: Products of the following manufacturers are specified and will be acceptable provided they comply with requirements of the Contract Documents:
 - 1. The Burke Group, Converse, TX (800/423-9140; local representative, Martinez, CA, 510/370-7937).
 - 2. Dayton Superior Chemical and Cement Products, Miamisburg, OH (877/823-4860; local office, Fontana, CA 909/829-2765 or 877/531-3344).
 - 3. Euclid Chemical Co., Cleveland, OH (216/531-9222 or 800/321-7628).
 - 4. Tamms Industries Co. (A.C. Horn), Mentor, OH (216/974-2399 or 800/218-2667; local representative, Los Angeles, CA, 213/269-1846).
 - 5. L&M Construction Chemicals, Inc., Omaha, NE (402/453-6600 or 800/362-3331).
 - 6. Larsen Products Corp., Rockville, MD (301/770-5200 or 800/633-6668)
 - 7. Master Builders Technology, Inc., Cleveland, OH, (216/831-5500; local representative, Rancho Cucamonga, CA, 909/987-1758).
 - 8. W.R. Meadows, Inc., Elgin, IL (700/683-4500; local representative Walnut, CA, 909/469-2606 or 800/342-5976).
 - 9. Sonneborn Building Products, Division of BASF Building Systems, Shakopee, MN (800/433-9517; local representative 562/799-6325).
 - 10. Stonhard, Inc., USA, Maple Shade, NJ (800/736-9300).
 - 11. Thoro System Products, Miami, FL (800/327-1570).
 - 12. Symons Corporation, Des Plaines, IL (708/298-3200; local representative, Industry, CA, 818/330-6855).
 - 13. US Mix Products Co., Denver, CO (303/778-7227 or 800/397-9903).
- B. Bonding Compound: Polyvinyl acetate, acrylic or styrene butadiene base. Provide polyvinyl acetate compound at interior locations only.
 - 1. Polyvinyl Acetate (Interior Only):
 - a. Superior Concrete Bonder by Dayton Superior Corp.
 - b. Deck-O-Weld by W.R. Meadows, Inc.
 - c. Euco Weld by Euclid Chemical Co.

- d. Weld-Crete by Larsen Products Corp.
- e. Everweld by L&M Construction Chemicals, Inc.
- f. Ready Bond by Symons Corp.
- g. US Spec Bondcoat by US Mix Products Co.
- 2. Acrylic or Styrene Butadiene:
 - a. Acrylic Bondcrete by The Burke Co.
 - b. Day-Chem Ad Bond by Dayton Superior Corp.
 - c. SBR Latex by Euclid Chemical Co.
 - d. Hornweld by Tamms Industries Co. (A.C. Horn)
 - e. Everbond by L&M Construction Chemicals, Inc.
 - f. Acryl-Set by Master Builders Inc.
 - g. Intralok by W.R. Meadows, Inc.
 - h. Acryl 60 by Thero System Products.
 - i. Stonlock LB2 by Stonhard, Inc.
 - j. Strong Bond by Symons Corp.
 - k. US Spec Acrylcoat by US Mix Products Co.

2.8 CURING, HARDENING AND SEALING MATERIALS

- A. Specified Manufacturer: Sonneborn Building Products, Division of BASF Building Systems, Shakopee, MN (800/433-9517).
- B. Acceptable Manufacturers: Equivalent products of the manufacturers listed below will be acceptable in accordance with the "or equal" provision specified in Section 01600 Product Requirements. Equivalent products of other manufacturers meeting or exceeding physical and performance characteristics of specified products will be considered in accordance with the substitution provisions specified in Section 01600 Product Requirements.
 - 1. Dayton Superior Chemical and Cement Products, Miamisburg, OH (877/823-4860; local office, Fontana, CA 909/829-2765 or 877/531-3344).
 - 2. Euclid Chemical Co., Cleveland, OH (216/531-9222 or 800/321-7628).
 - 3. Master Builders Technology, Inc., Cleveland, OH, (216/831-5500; local representative, Rancho Cucamonga, CA, 909/987-1758).
 - 4. US Mix Products Co., Denver, CO (303/778-7227 or 800/397-9903).
 - 5. W.R. Meadows, Inc., Pomona, CA (800/342-5976 or 909/469-2606).
- C. Curing, Hardening and Sealing Materials, General: Provide materials suitable for concrete finish and not detrimental to materials to be applied to concrete. Materials shall be compatible with concrete admixtures, shall be recommended by manufacturer for intended use and shall comply with applicable air quality requirements of authorities having jurisdiction.
- D. Curing, Hardening and Dustproofing Compound: Sonneborn Sonosil, water-based inorganic silicate-base compound, to cure, harden and dustproof concrete, VOC-compliant.
- E. Surface Hardening and Dustproofing Compound: Sonneborn Lapidolith concrete hardening compound, chemically-active solution which interacts with free lime in concrete to form dense, impervious wearing surface, VOC-compliant.
- F. Mix Design: Contractor shall coordinate with the Testing Laboratory of Record, under supervision of Civil Engineer licensed in the State of California, to determine mix proportions to fulfill specified requirements for strength, aggregate, size and workability of concrete.

2.9 SCREED PINS AND CHAIRS

A. Manufacturers: Grann Adjustable Quick Screed (800/554-7266), or similar products by Dayton Richmond (800/745-3700), Aztek (877/531-3344), or equal.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that concrete cover requirements are met in formwork construction and reinforcement placement.
- B. Verify that base material (sand, gravel or natural as specified or indicated on Drawings) level, vapor barrier/retarder properly placed and that required clearances to reinforcing steel have been maintained.
- C. Verify that all embedded products and formed openings and recesses are correctly placed.

3.2 PREPARATION

- A. Soil Forms: Hand trim sides and bottom of soil forms. Remove loose soil prior to placing concrete.
- B. Constructed Formwork: Design to support all applied loads until concrete is adequately cured, within allowable tolerances and deflection limits.
 - 1. Minimize form joints of exposed concrete and make leak proof.
- C. Cleaning: Prepare previously placed concrete by cleaning with hydro-blasting or wet sand blasting to provide suitable surface for bonding. Provide minimum aggregate exposure of 1/4-inch.
- D. Bonding: Apply bonding agent in accordance with manufacturer's instructions and recommendations.
- E. Doweling: In locations where new concrete is to be doweled to existing concrete, drill holes and insert dowels, packing solid with non-shrink cement or polymer (epoxy) grout.

3.3 REINFORCEMENT

- A. Placement: Place and secure as specified or noted on Drawings, and in compliance with CRSI Placing Reinforcing Bars.
- B. Splices: Lap ends and tightly wire tie, complying with ACI 318 for minimum lap. Stagger horizontal bars so that adjacent splices are minimum 48 inches apart.
- C. Minimum Concrete Cover: 3 inches at earth forms, 2 inches below grade, 1-1/2 inches above grade, and center in concrete slab-on-grade.
- D. Wire Fabric Placement: Place sheets as long as possible, lap one full mesh, lace with 16 gage wire. Offset end laps. Extend fabric to within 1-inch of slab edge. Cut mesh at expansion joints or full-depth control joints.

3.4 CONCRETE MIXING

- A. Concrete Mixing, General: Comply with ACI 304 Guide for Measuring, Mixing, Transporting, and Placing Concrete. Introduce and mix admixtures in compliance with manufacturer's instructions and recommendations.
- B. No water shall be added during transit or at the job without specific instructions from engineer responsible for mix design. Concrete shall be placed within 90 minutes after addition of water and admixtures.

3.5 CONCRETE PLACEMENT

- A. Notify District's Inspector and DSA at least 2 working days in advance of placing concrete to allow for inspection of formwork and reinforcing.
- B. Placement and Consolidation, General: Comply with ACI 304 and as follows:
 - 1. Schedule continuous placement of concrete to prevent the formation of cold joints.
 - 2. Provide construction joints if concrete for a particular element or component cannot be placed in a continuous operation.
 - 3. Deposit concrete as close as possible to its final location, to avoid segregation.

- C. Placement in Forms: Limit horizontal layers to depths which can be properly consolidated, but in no event greater than 24 inches.
 - 1. Consolidate concrete by means of mechanical vibrators, inserted vertically in freshly placed concrete in a systematic pattern at close intervals. Penetrate previously placed concrete to ensure that separate concrete layers are knitted together.
 - 2. Vibrate concrete sufficiently to achieve consistent consolidation without segregation of coarse aggregates.
 - 3. Do not use vibrators to move concrete laterally.
- D. Hot Weather Placement: Comply with recommendations of ACI 305 when ambient temperature before, during, or after concrete placement is expected to exceed 90 degrees F (32 deg C) or when combinations of high air temperature, low relative humidity, and wind speed are such that the rate of evaporation from freshly poured concrete would otherwise exceed 0.2 pounds per square foot per hour.
 - 1. Use evaporation reducer.
 - 2. Do not add water to approved concrete mixes under hot weather conditions.
 - 3. Provide mixing water at lowest feasible temperature, and provide adequate protection of poured concrete to reduce rate of evaporation.
 - 4. Use fog nozzle to cool formwork and reinforcing steel immediately prior to placing concrete.
- E. Cold-Weather Placement: Comply with provisions of ACI 306 when air temperature has fallen to or is expected to fall below 40 deg F (4 deg C). Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
 - 1. Uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F (10 deg C) and not more than 80 deg F (27 deg C) at point of placement.
 - 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 - 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise accepted in mix designs.
- F. Protection: Ensure that reinforcement, embedded products, joint fillers and joint devices are not disturbed during concrete placement.
- E. Skateboard Deterrent at Seat Walls: Refer to Drawings for details and layout information.

3.6 JOINTS

- A. Construction Joints: Locate and install construction joints so they do not impair strength or appearance of the structure, as acceptable to Architect.
 - 1. Locate construction joints perpendicular to main reinforcement. Continue reinforcement across construction joints except as indicated otherwise. Do not continue reinforcement through sides of strip placements.
 - a. Dowel Joints: Grease one end of dowel.
 - 2. Use bonding agent on existing concrete surfaces that will be joined with fresh concrete.

3.7 FINISHING FORMED SURFACES

- A. Repairs, General: Repair surface defects, including tie holes, immediately after removing formwork.
 - 1. Remove honeycombed areas and other defective concrete down to sound concrete, cutting perpendicular to surface or slightly undercutting. Dampen patch location and area immediately surrounding it prior to applying bonding compound or patching mortar.
 - 2. Before bonding compound has dried, apply patching mixture matching original concrete in materials and mix except for omission of coarse aggregate, and using a blend of white and normal portland cement as necessary to achieve color match. Consolidate thoroughly and strike off slightly higher than surrounding surface.
- B. Unexposed Form Finish: Repair tie holes and patch defective areas. Rub down or chip off fins or other raised areas exceeding 1/4-inch height.

- C. Exposed Form Finish: Repair and patch defective areas, with fins or other projections completely removed and smoothed.
 - 1. Grout cleaned finish: Apply to surfaces indicated after all contiguous surfaces are accessible; do not clean as work progresses.
 - a. Prepare grout using 1 part portland cement, 1-1/2 parts fine sand, and enough water to produce a mixture with consistency of thick paint. Achieve grout color matching concrete surface color by blending normal and white portland cements.
 - b. Wet areas to be cleaned and apply grout mixture evenly by brush or spray. Scrub surface immediately after grout application to fill minor air bubbles, using cork float or stone, and remove excess grout while it is still plastic. After initial drying, rub surface vigorously with clean burlap, and keep moist for not less than 36 hours.
 - 2. Contiguous unformed surfaces: Strike smooth and float to a similar texture tops of walls, horizontal offsets, and other unformed surfaces adjacent to or contiguous with formed surfaces. Continue final finish of formed surfaces across unformed surfaces, unless otherwise specifically indicated.

3.8 MISCELLANEOUS CONCRETE ITEMS

- A. Filling In: Fill in holes and openings left in concrete structures for passage of Work specified in other Sections, after such Work is in place. Mix, place, and cure concrete as specified to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete Work.
- B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.
- C. Equipment Bases and Foundations: Provide machine and equipment bases and foundations as shown on Drawings. Set anchor bolts for machines and equipment to template at correct elevations, complying with diagrams or templates of manufacturer furnishing machines and equipment.

3.9 CONCRETE CURING AND SEALING

- A. Curing, General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
 - 1. In hot, dry, and windy weather protect concrete from rapid moisture loss before and during finishing operations with an evaporation-reducing material.
 - 2. Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Weather permitting, keep continuously moist for not less than 7 days, or as recommended by manufacturer.
 - 3. Apply curing compounds after screeding and bull floating, but before power floating and troweling.
 - 4. Moist cure interior concrete floor slabs on grade, prepared to receive finish flooring materials.
- B. Application of Liquid and Dust-On Agents: Apply agents in accordance with manufacturer's instructions and recommendations.

3.10 FIELD QUALITY CONTROL

- A. Inspection and Testing: Field inspection and testing will be performed in accordance with ACI 301 and under provisions of General Conditions, Testing and Inspections.
- B. Field Tests of Concrete: Perform tests in accordance with applicable Building Code requirements, ACI 301 and requirements of authorities having jurisdiction.
- C. Compressive Strength Tests: Take four test cylinders for each 50 cubic yards of structural concrete with a minimum of one test for each day's placement of concrete placed.
 - 1. Test one cylinder at 7 days and two at 28 days after placement.

- 2. Maintain fourth cylinder to be tested at 56 days only if 28-day test fails to meet strength requirement.
- 3. Take one additional test cylinder during cold weather concreting and cure it at job site under same conditions as concrete it represents. Test cold weather cylinder at 28 days.
- D. Slump Tests: Make slump test for each 10 cubic yards of concrete placed.
- E. Field Certifications: For all concrete, provide signed copy of batch plant's certificate stating quantity of each material, amount of water, admixtures, departure time and date accompanying each load of materials or concrete.
- F. Special Inspection: Employ a special inspector during taking of test specimens and placing of pneumatically placed concrete and all reinforced foundation concrete which is required to have a compressive strength in excess of 2,500 psi. Additional inspections, if required, indicated on Structural Drawings.

3.11 FORMWORK REMOVAL

A. Provided that concrete has hardened sufficiently to prevent damage, and has achieved sufficient strength to support its own weight, forms may be removed after 24 hour curing period at not less than 50 degrees F.

3.12 DEFECTIVE CONCRETE

- A. Defective Concrete: The following concrete will be deemed to be defective, and shall be removed promptly from the job site.
 - 1. Concrete which is not formed as indicated, is not true to intended alignment, is not plumb or level where so intended, is not true to intended grades and levels;
 - 2. Has voids or honeycomb that have been cut, resurfaced, or filled, unless with the approval of the Architect;
 - 3. Has sawdust, shavings, wood, or embedded debris;
 - 4. Does not conform fully to provisions of the Contract Documents.
- B. Repairs and Replacements:
 - 1. Where defective concrete is found after removal of the forms, cut out the defective concrete, if necessary, and make the surfaces match adjacent surfaces.
 - Work uneven surfaces and angles of concrete to a surface matching adjacent concrete surfaces.

3.13 PROTECTION

- A. Protection: Protect concrete from marring and damage due to weather and construction activities.
 - Protective measures shall include providing temporary coverings and prohibiting all nonessential construction activities, including cleaning and maintenance of construction equipment.

3.14 SCHEDULE - CONCRETE TYPE AND FINISHES

- A. Non-Structural concrete: Non-structural concrete strengths, aggregate sizes and slumps shall meet the following requirements unless noted otherwise on Drawings:
 - 1. Non-structural concrete topping.
 - a. Min. 28-day Compressive Strength: 2,500psi
 - b. Max. Aggregate Size: 3/8 inch (9.5 mm)
 - c. Max. Slump (+/- 1 inch): 4 inches.
 - d. Max. Water/Cement Ratio: 0.45

SECTION 07 90 05 JOINT SEALERS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Exterior joints sealers in vertical surfaces and non-traffic horizontal surfaces

1.2 SUBMITTALS

- A. Product Data: Each joint sealant product required. Indicate sealant chemical characteristics, performance criteria, limitations, color availability.
- A. Installation Instructions: Instructions for joint preparation and joint sealer application. Note all deviations from SWRI recommendations.
- B. Samples:
 - 1. For initial selection purposes: Manufacturer's standard bead samples, consisting of strips of actual products showing full range of colors available, for each product exposed to view.
 - 2. For verification purposes: Each type and color of joint sealant required. Install joint sealant samples in 1/2-inch-wide joints formed between two 6-inch-long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

1.3 QUALITY ASSURANCE

- A. Applicator's Qualifications: Company specializing in joint sealer work with minimum three years documented experience and approved by sealant manufacturer. Installer shall have successfully completed, within previous 3 years, at least 3 joint sealer installations of similar type and scope as that required for Project.
- B. Single Source Responsibility for Joint Sealer Materials: Obtain joint sealer materials from a single manufacturer for each different product required.
- C. Industry Standard: Conform to SWRI Sealants: The Professionals Guide, requirements and recommendations for installation conditions, substrate materials and sealant product selection.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Deliver materials in original, tightly sealed containers or unopened packages with manufacturer's name, labels, product identification, lot numbers (where appropriate), color, expiration period for use, pot life, curing time, and mixing instructions for multi-component materials.
- B. Storage and Handling: Store and handle materials in compliance with manufacturers' instructions and recommendations, to prevent their deterioration or damage due to moisture, high and low temperatures, contaminants, or other causes. Store materials out of weather in original containers or unopened packages as recommended by manufacturer.

1.5 WARRANTY

A. Extended Warranty: Contractor and sealant applicator shall jointly furnish a written warranty to the District stating that joints sealed as specified in this Section which fail to achieve and maintain air tight and watertight seal, exhibit loss of adhesion or cohesion, or do not cure within a period of five years from the date established in "Notice of Completion", except for failure due to structural defects, will be repaired or reconstructed at no cost to District.

1.6 PROJECT CONDITIONS

- A. Environmental Conditions: Do not proceed with installation of joint sealants under the following conditions:
 - 1. When ambient and substrate temperature conditions are outside the limits permitted by joint sealant manufacturer; below 40 degrees F or above 100 degrees F.
 - 2. When joint substrates are wet.
- B. Joint Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than allowed by joint sealant manufacturer for application indicated.
- C. Joint Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with their adhesion are removed from joint substrates.
- D. Project Conditions:
 - 1. Do not install solvent curing sealants in enclosed building spaces.
 - 2. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealers, joint fillers and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
- B. Colors: Standard or custom colors as selected by Architect to match or suit surrounding finish materials.

2.2 LATEX JOINT SEALANTS

- A. Acrylic-Emulsion Sealant: Manufacturer's standard, one part, non-sag, mildew-resistant, acrylic-emulsion sealant complying with ASTM C834, formulated to be paintable and recommended for exposed applications on interior and on protected exterior locations involving joint movement of not more than plus or minus 5 percent.
 - 1. Acceptable Products and Manufacturers: As listed below. Products of other manufacturers will be considered in accordance with the "or equal" provision specified in Section 01 60 00 Product Requirements.
 - a. Chem-Calk 600, by Bostik Construction Products Div.
 - b. AC-20, by Pecora Corp.
 - c. Sonolac, by Sonneborn Building Products Div.; Rexnord Chemical Products, Inc.
 - d. Tremco Acrylic Latex 834, by Tremco Inc.

2.3 MISCELLANEOUS MATERIALS

- A. Joint Sealant Backing, General: Provide sealant backings of material and type which are non-staining; are compatible with joint substrates, sealants, primers and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Primer: Provide type recommended by joint sealer manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from pre-construction joint sealer-substrate tests and field tests.
- C. Cleaners for Non-porous Surfaces: Provide non-staining, chemical cleaners of type which are acceptable to manufacturers of sealants and sealant backing materials, which are not harmful to substrates and adjacent non-porous materials, and which do not leave oily residues or otherwise have a detrimental effect on sealant adhesion or in-service performance.
- D. Masking Tape: Provide non-staining, non-absorbent type compatible with joint sealants and to surfaces adjacent to joints.
- E. Plastic Foam Joint Fillers: Preformed, compressible, resilient, non-waxing, non-extruding strips of flexible, non-gassing plastic foam of material indicated below; non-absorbent to water and gas; and of size, shape and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
 - 1. Specified Manufacturer and Product: Applied Technologies, Inc., Sof Rod, proprietary, reticulated, closed-cell polymeric foam, non-outgassing, with a density of 2.5 pcf and tensile strength of 35 psi per ASTM D1623, and with water absorption less than 0.02 gms/cc per ASTM C1247.
 - 2. Acceptable Manufacturer and Product: None identified. Equivalent products of other manufacturers will be considered in accordance with the "or equal" provision specified in Section 01600 Product Requirements.
- F. Elastomeric Tubing Joint Fillers: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D1056, non-absorbent to water and gas, capable of remaining resilient at temperatures down to -26 degrees F. Provide products with low compression set and of size and shape to provide a secondary seal, to control sealant depth, and otherwise contribute to optimum sealant performance.
- G. Bond-Breaker Tape: Polyethylene tape or other plastic tape as recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.
- H. Mineral Wool: For fire-rated joint construction, Partek Paroc Industrial Board 1240 or equal. Product shall be as required for UL-listed fire-rated joint construction.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces are ready to receive work. Field verify condition and location in field.
- B. Examine joints to be sealed for construction defects which would adversely affect execution of Work. Correct all defects and detrimental conditions before proceeding with joint sealers.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealers to comply with recommendations of joint sealer manufacturers and the following requirements:
 - 1. Remove all foreign material from joint substrates which could interfere with adhesion of joint sealer, including dust; paints, except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer; old joint sealers; oil; grease; waterproofing; water repellents; water; surface dirt; and frost.
- B. Joint Priming: Prime joint substrates where indicated or where recommended by joint sealer manufacturer based on pre-construction joint sealer-substrate tests or prior experience. Apply primer to comply with joint sealer manufacturer's recommendations. Confine primers to areas of joint sealer bond, do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces which otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 **JOINT DIMENSIONS**

- A. Butyl Base Type Sealant: Minimum joint width 1/4-inch and depth of 3 times width of joint, with maximum depth of 3/4-inch.
- B. Silicone Rubber Sealant: Minimum joint width 1/4-inch and depth of approximately one-half the width, but in no case less than 1/4-inch. Other wide-to-depth ratios as follows:

JOINT WIDTH:	JOINT DEPTH:	
For Non-Porous Surfaces:	Minimum:	Maximum:
1/4" (minimum)	1/4"	1/4"
1/4" to 1/2"	1/2 of width	Equal to width
Over 1/2"	Not Permitted	
For Porous Surfaces:		
1/4" (minimum)	1/4"	1/4"
1/4" to 1/2"	1/4"	Equal to width
1/2" to 1"	1/2"	Equal to width
Over 1"	Not Permitted	
Over 1"	Not Permitted	

C. Acrylic and Polyurethane: Minimum joint width 1/4-inch and depth equal to width, but in no case deeper than 1/2-inch. Other width-to-depth ratios as follows:

JOINT WIDTH:	JOINT DEPTH:	
For Non-Porous Surfaces:	Minimum:	Maximum:
1/4" (minimum)	1/4"	1/4"
1/4" to 1/2"	Equal to width	Equal to width
Over 1/2" to 1" maximum	1/2"	1/2"
For Porous Surfaces:		
1/4" (minimum)	1/4"	1/4"
1/4" to 1/2"	1/4"	Equal to width
1/2" to 1"	1/2"	Equal to width

Over 1" Not Permitted

3.4 INSTALLATION OF JOINT SEALANTS

- A. Installation of Joint Sealants, General: Comply with joint sealant manufacturer's printed installation instructions applicable to products and applications indicated, except where more stringent requirements apply.
- B. Elastomeric Sealant Installation Standard: Comply with recommendations of ASTM C920 and C1193 for use of joint sealants as applicable to materials, applications and conditions indicated.
- C. Solvent-Release-Curing Sealant Installation Standard: Comply with requirements of ASTM C1311 for use of solvent-release-curing sealants.
- D. Latex Sealant Installation Standard: Comply with requirements of ASTM C834 and C1193 for use of latex sealants.
- E. Installation of Sealant Backings: Install sealant backings to comply with the following requirements:
 - 1. Install joint fillers of type specified, to provide support of sealants during application and at position required to produce the cross-sectional shapes and depths of installed sealants relative to joint widths which allow optimum sealant movement capability.
 - a. Do not leave gaps between ends of joint fillers.
 - b. Do not stretch, twist, puncture, or tear joint fillers.
 - c. Remove absorbent joint fillers which have become wet prior to sealant application and replace with dry material.
 - 2. Install bond breaker tape between sealants and joint fillers, compression seals, or back of joints where adhesion of sealant to surfaces at back of joints would result in sealant failure.
 - 3. Install compressible seals serving as sealant backings to comply with requirements indicated above for joint fillers.
- F. Installation of Sealants: Install sealants by proven techniques that result in sealants directly contacting and fully wetting joint substrates, completely filling recesses provided for each joint configuration, and providing uniform, cross-sectional shapes and depths relative to joint widths which allow optimum sealant movement capability.
- G. Tooling of Non-Sag Sealants: Immediately after sealant application and prior to time skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated, to eliminate air pockets, and to ensure contact and adhesion of sealant with sides of joint. Remove excess sealants from surfaces adjacent to joint. Do not use tooling agents which discolor sealants or adjacent surfaces or are not approved by sealant manufacturer.
 - 1. Provide concave joint configuration in conformance to Figure 4 in ASTM C1193, unless otherwise indicated.
 - 2. Provide flush joint configuration in conformance to Figure 4 in ASTM C1193, where indicated. Use masking tape to protect adjacent surfaces of recessed tooled joints.
 - 3. Provide Recessed joint configuration in conformance to Figure 4 in ASTM C1193, of recess depth and at locations indicated.

3.5 CLEANING AND PROTECTION

- A. Progress Cleaning: Clean off excess sealants or sealant smears adjacent to joints as work progresses by methods and with cleaning materials approved by manufacturers of joint sealers and of products in which joints occur.
 - 1. Clean joints by mechanical means or with solvent as recommended by sealant manufacturer and compatible with finish material, to eliminate soiling and overlap on adjacent surfaces.
 - 2. Clean adjacent soiled surfaces.
- B. Repairs: Repair or replace defaced or disfigured finishes caused by joint sealer Work.

3.6 PROTECTION

- A. Protection: Protect joint sealants during and after curing period from contact with contaminating substances or from damage resulting from construction operations or other causes.
 - 1. Joint sealers shall be without deterioration or damage at Substantial Completion review.
 - 2. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so that and installations with repaired areas are indistinguishable from original work.

END OF SECTION

SECTION 13 31 33

PRE-ENGINEERED FABRIC SHADE STRUCTURES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: A single, licensed shade structure contractor shall be responsible for the complete design, engineering, fabrication, supply and installation of the work specified herein. The intent of this specification is to have only one contractor be responsible for the above functions.

1.02 RELATED SECTIONS

A. 03 30 01 - Cast In Place Concrete Systems: Footings.

1.03 REFERENCES

- A. AWS D1.1 American Welding Society Structural Welding Code
- B. AWS D1.2 American Welding Society Structural Welding Code, Aluminum
- C. NFPA 701 National Fire Protection Association Fire Test for Flame Propagation of Textiles and Films
- D. ASCE 7 American Society of Civil Engineers, Minimum Design Loads for Buildings and other structures.
- E. ASTM A 500 Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.

1.04 PERFORMANCE REQUIREMENTS

- A. Division of the State Architect Approved Bid Scope:
 - 1. Building Codes: Proposed structure is approved as part of the overall A-Number for this project.
 - a. Approved structure contains proprietary information of the manufacturer. Selected sheets of Drawings have not been released for bid and will be made available to the successful bidders after Notice to Proceed.
 - b. Alternate products are required to follow Design-Build Scope as noted below and substitutions procedure: See Section 01 60 00 Product Requirements.

B. Pre-Approval Bid Scope:

- 1. Building Codes: Proposed structure shall be PC or A number approved and conform to the 2016 CBC using a minimum wind load based on 115 mph, 3 second gusts, exposure C, and a seismic (earthquake) load based on Category D. All shade structures shall be engineered with a zero wind pass through on the fabric.
 - a. Contractor is responsible for submittal through the Architect and approval by Division of the State Architect.
- 2. Foundation designs shall be based on CBC 2016, table 1804.2, soil type 5 (1500 lbs./sq. ft.)
- 3. Concrete shall be tested per Section 01 45 33 Code Required Special Inspection and Procedures, 2016 CBC section 1903A and inspected per 2016 CBC section 1704A.4

C. Design Build Scope:

- 1. Building Codes: Proposed structure shall be Division of the State Architect approved and conform to the 2016 CBC using a minimum wind load based on 115 mph, 3 second gusts, exposure C, and a seismic (earthquake) load based on Zone 4. All shade structures shall be engineered with a zero wind pass through on the fabric.
 - a. Contractor is responsible for submittal through the Architect and approval by Division of the State Architect.
- 2. Foundation designs shall be based on CBC 2016, table 1804.2, soil type 5 (1500 #/sf2)
- 3. Concrete shall be tested per Section 01 45 33 Code Required Special Inspection and Procedures, 2016 CBC section 1903A and inspected per 2016 CBC section 1704A.4

1.05 SUBMITTALS

- A. Product Data:
 - 1. Provide data in the form of manufacturing technical data and specifications.
 - 2. Provide a list of at least 5 DSA similar reference projects that have been installed a minimum of 8 years. At least 3 of these projects shall have utilized PVC the same membrane Fabric.
 - 3. Shop Drawings:
 - a. Provide minimum 11x17 copy of DSA Pre-Approved structural Drawings referencing PC or A number. showing the following:
 - 1) Overall site plan with dimensioned location(s) of shade structure.
 - 2) Foundation plan for each shade structure.
 - 3) Plans and elevations of shade structure with dimensions and material callouts.
 - 4) Details of attachments.
 - 4. Provide written Welding Procedures for any shop or field welding.
 - 5. Samples:
 - a. Provide fabric samples of a minimum of 7 color options of approved fabric.
 - b. Provide powder coat color selections for steel.
 - 6. Certifications:
 - a. Provide a letter of authorization from fabric manufacture for use of fabric for the fabric specified in section 2.02 G.1.
 - b. Proof of IAS (International Accreditation Service) certification as per section 1.02 F.
 - c. The Tensioned Fabric Structure fabricator shall provide proof of an ongoing written Quality Assurance program for 5 years or more.

1.06 QUALITY ASSURANCE

- A. Special inspection requirements by a DSA approved independent inspection agency shall follow and meet the T & I list as approved by DSA. The shop fabrication shall include welding of all steel members and identification of steel and fabric material through mill certification or material testing. Uncertified steel shall be tested to the requirements of 2016 CBC, sections 1704.A.2, 1704A.2.1, 1704A.2.2 and 1704A.3.1
- B. All bidders shall have at least 5 years experience in the design, engineering, manufacture, and installation of similar scope with a successful construction record of in-service performance as well as a minimum of 8 years experience in the specific manufacture and installation of Division of the State Architect approved structures and provide written proof of all items per Part 1 Article Submittals.
- C. Fabrication of the steel structures shall be performed by an authorized licensee. Material Testing (or mill certificates) and inspection of welding shall be conducted per CBC 2013 Sections 1704A, 1705A, 1705A.2 and Table 1705A.2.1.
- D. Welder Qualifications: The personnel manufacturing the metal frames must be certified welders.
- E. Professional Engineer Qualifications: A professional Civil or Structural Engineer who is licensed to practice in California and who is experienced in providing engineering services for installing Tensioned Fabric Structures similar to those indicated for this project and with a record of successful in service performance.

1.07 DELIVERY, STORAGE AND HANDLING

- A. All materials shall be handled per manufacturer's recommendations and Section 01 60 00 Product Requirements. The more restrictive requirements shall govern.
- B. Delivery and Storage: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer. Store materials in accordance with manufacturer's instructions, in a clean, dry, well ventilated area, above ground on blocking, and do not allow materials to become wet, stained, or dirty.
- C. Handling: Handle materials to protect materials, coatings, and finishes during transportation and installation to prevent damage or staining. Handle fabric in accordance with manufacturer's instructions.

Use care in handling of fabric to avoid damage to fabric material and coating. Do not damage, crush, or kink cables where occurs.

D. All cables and end fittings shall be delivered clean and dry.

1.08 WARRANTY

- A. A supplemental warranty from the manufacturer shall be provided for a period of 5 years on fabric and 10 years on the structural integrity of the steel from date of substantial completion.
- B. The warranty shall not deprive the Owner of other rights the Owner may have under the provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under requirements of the Contract Documents.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Pre-Engineered Package: The proposed structure(s) manufactured by USA Shade & Fabric Structures, Inc., shall be modular and pre-fabricated, and include the structural steel frame, fabric roof, steel cables, all fasteners, and installation of structure(s) including foundations. Contact SHADE STRUCTURES, a brand of USA Shade & Fabric Structures, Inc., 350 Kalmus Drive, Costa Mesa CA Attn: Patti Abrecht ((714) 427-6981.
- B. Substitutions: See Section 01 60 00 Product Requirements and Performance Requirements in Part 1. Substitutions are subject to DSA review and approval. Contractor shall be responsible for all related costs including DSA review fees.
- C. Approved equals must be pre-qualified and approved in accordance with Division 1 "Product Requirements". Please submit product documentation, fabric samples and quality assurance criteria as per Division 1 Section "Product Requirements" prior to bid to be considered.

2.02 PRODUCTS

A. Selected product for Basis of Design: The structures shall be manufactured by USA SHADE & FABRIC STRUCTURES, Inc., or approved equal and include engineering drawings and calculations, patterning and fabrication of architectural membrane, structural steel frame, architectural HDPE membrane roof, steel cables, all fasteners, and installation of structure(s) including foundations.

B. Steel:

- 1. All steel members of the shade structure shall conform to ASTM A-36 or ASTM A-500 Grade B (46Ksi), A500 Grade C (50Ksi) or A-53 Type E or S and be designed in strict accordance with the requirements of the "American Institute of Steel Construction" (AISC) Specifications and the "American Iron and Steel Institute" (AISI) Specifications for Cold Formed Members.
- 2. All connections shall have a maximum internal sleeving tolerance of .0625 inches using high tensile strength steel sections with a minimum sleeve length of 6 inches.
- 3. The structural members shall be fabricated in as large segments as possible to minimize field joints.
- 4. All segments of the assembly will be welded or stamped with the appropriate part number in a manner that will still be visible after powder coating is applied.
- 5. Grind all corners and sharp edges.

C. Bolts:

- 1. All structural field connections of the shade structure shall be designed and made with high strength bolted connections using ASTM A-325 structural bolts and ASTM A-307 stainless steel bolts on low stress connections. (Mill Certification will be required for all high strength bolts.)
- 2. Fasteners used on main structural members shall be hot-dipped galvanized high-strength bolts including nuts and washers, and conforming with ASTM A325 as applicable. All other fasteners shall be adequately sized and treated for corrosion protection.
- 3. Concrete anchor bolts shall conform to ASTM F-1554 and be stainless steel or hot-dipped galvanized.
- D. Welding:

- 1. All shop welded connections of the shade structure shall be designed and performed in strict accordance with the requirements of the "American Welding Society" (AWS) Specifications. Structural welds shall be made in compliance with the requirements of the "Prequalified" welded joints where applicable and by certified welders. No onsite or field welding shall be permitted.
- All full penetration welds shall be continuously inspected by an independent inspection agency and shall be tested to the requirement of 2016 CBC and AWSD1.1 for hot rolled and AWSD1.3 for cold rolled.

E. Powder coating:

- 1. All steel shall be cleaned by abrasive blasting and primer applied prior to powder coating in accordance with the manufacturer's specifications.
- 2. Powder coating shall be sufficiently applied, with a minimum 4 mils thickness, and cured at the recommended temperature to provide proper adhesion and stability to meet salt spray and adhesion tests as defined by the American Society of Testing Materials.
- 3. Powder used in the powder coat process shall have the following characteristics:
 - a. Specific Gravity: 1.68 +/- 0.05.
 - b. Theoretical coverage: 114 +/- 4ft2/lb/mil
 - c. Mass loss during cure: <1%
 - d. Maximum storage temperature: 75oF
- 4. Color: Color shall be as scheduled on Drawings or as selected by Architect from the manufacturer's standard color chart.

F. Cables and Fittings

- 1. Tension Cable: Steel cable is determined based on calculated engineering load.
 - a. The design load is the load in the cable under a pre-stressed load condition per the recommendation of the engineer of record.
 - b. For light and medium loads; ½" (nominal) galvanized 7x19 strand cable to be used and tensioned to minimum of 250 lbs
 - c. For heavy loads; 3/8" (nominal) galvanized 7 x 19 cable to be used and tensioned to minimum of 250 lbs.

2. Galvanized Cables and Fittings:

- a. All structural wire rope shall be made from Wire Rope conforming to AISI Steel Cable Manual requirements with a Class A galvanized coating or approved substitute. The cable should be IWRC improved plow steel. All cable terminations and connectors shall be hotdipped galvanized for corrosion protection.
 - 1) Cables should be designed with a minimum safety factor of 2 on breaking strength.
- b. Cables which are designated to be prestretched shall be prestretched per ASTM A603 for wire rope. Cables of the same type shall have the same modulus of elasticity.
- c. All swaged and speltered fittings shall be designed and attached to develop the full breaking strength of the cable. Thimble end fittings shall develop a minimum of 110% of the cable breaking strength.
- d. Swaged end fittings, pins, nuts and washers shall be electro-galvanized.
- e. Speltered end fittings shall be hot dipped galvanized.
- f. Attach a tag indicating the cable length and mark number to each cable assembly.
- g. Cables shall be tensioned to double the design load before length is cut.
- h. Cables shall be tensioned to the design load when measuring the cut length that is indicated on the shop drawings.
- 3. Stainless Steel Cables and Fittings:
 - a. Cables shall be 1x19 Stainless Steel Open Strands, Grade 316.
 - b. Cables and fittings will be fabricated per the standard operating procedures of the manufacturers.
 - c. Attach a tag indicating the cable length and mark number to each cable assembly.
 - d. Cables shall be tensioned to double the design load before length is cut.
 - e. Cables shall be tensioned to the design load when measuring the cut length that is indicated on the shop drawings.
- G. Fabric Roof Systems:

- 1. UV Shade Fabric:
 - a. UV Shade fabric is made of a UV stabilized high-density polyethylene. Mesh shall be rachel-knitted with monofilament and tape yarn filler to ensure that material will not unravel if cut. Panels to be 10ft wide.
 - b. Fabric shall meet the following fire resistance tests:
 - 1) ASTM E84 Class A
 - 2) NFPA 701-97 (Weathered or unweathered)
 - 3) CA Fire Marshall Rating (Reg. # FA-52001)
 - c. Fabric shall meet the U.S. Standards for testing and labeling of UV Protective textiles ASTM D6603 Test Method AATCC 183.
- 2. Stitching & Thread:
 - a. All sewing threads are to be double stitched.
 - b. Thread shall be GORE Tenara Sewing Thread manufactured form 100% expanded PTFE; mildew resistant exterior approved thread. Thread shall meet or exceed the following:
 - 1) Flexible temperature range
 - 2) Very low shrinkage factor
 - 3) Extremely high strength, durable in outdoor climates
 - 4) Resists flex and abrasion of fabric
 - 5) Unaffected by cleaning agents; acid rain, mildew, salt water and rot resistant, unaffected by most industrial pollutants.
 - 6) Treated for prolonged exposure to the sun.
- 3. Shade and UV Factors:
 - a. Shade protection and UV screen protection factors shall be as follows:

ColorUV Block %Shade %

Pacific Blue84%82%

Forest Green83%81%

Red84%85.5%

Silver85%81%

Desert Sand86%84.5%

Terracotta85%81%

Yellow86%84%

- 4. Color: Color shall be as scheduled on Drawings or as selected by Architect from the manufacturer's standard color chart.
- H. Poured-in-place footings and piers: Concrete for footing and piers shall be minimum 3,000 psi per Division 3 Section "Concrete". Reinforced steel shall be as specified in Division 3 Section "Concrete Reinforcement".

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Field Measurements: Verify layout information for shade structures shown on the Drawings in relation to the property survey and existing structures, and verify locations by field measurements prior to construction.
- B. Correct unsatisfactory conditions before proceeding with installation.

3.02 PREPARATION

- A. Installation of shade structures shall be performed by manufacturer certified installers experienced in tension fabric structures. Installation shall be performed in strict accordance with manufactures instructions for assembly, installation, and erection per approved drawings.
- B. Manufacturer shall prepare a full and comprehensive assembly procedure guide prior to installation.

3.03 ERECTION

- A. Weather Conditions: Proceed with installation of the fabric and associated work only when existing and forecasted weather conditions will permit work to be performed in accordance with manufacturers recommendations. The Tensioned Fabric Structure shall not be installed when wind conditions are deemed in excess of manufacturer's determination of safe wind speed erection conditions. It shall be the manufacturer's sole discretion to determine acceptable and safe wind condition for installation.
- B. Framing and structural members: Anchor bolts shall be accurately set. Uniform bearing under base plates shall be provided using non shrink grouting compound where applicable. Members shall be accurately set to assure proper fitting and covering. As erection progresses, the work shall be securely fastened to resist the dead load and wind and erection stresses. Erected structural frame work shall be adequately guyed and secured to resist all possible loads due to wind and the installation process.
- C. Fabric: Prior to start of installation; check all surfaces of framing members and other rigid construction elements to be in contact with fabric to ensure that all edges are smooth and well rounded. Remove any potential causes for snagging or tearing of the fabric. Properly install all connections and provide all materials and equipment required for the erection and stressing of the fabric. Unroll the fabric in such a manner as to avoid snagging or dragging the fabric over sharp objects during installation. Adequate fabric prestress shall be confirmed by the fabric structure manufacturer and the appearance of the fabric membrane roof shall be smooth and wrinkle free. Creasing or folding the fabric around sharp corners shall be avoided at all times.
- D. Fabric tensioning system: Cables shall be free of all kinks and bends. Care shall be taken not to damage the cables during installation. Bolt holes shall be 1/16" larger than the bolt, unless otherwise indicated.

3.04 FIELD QUALITY CONTROL

A. Restore marred or abraded surfaces to original condition using same paint or coating as factory-applied finishes, when the results are acceptable to the Architect, otherwise replace damaged item.

END OF SECTION

SECTION 32 11 23 AGGREGATE BASE COURSES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Aggregate base course.
- B. Paving aggregates.
- C. Soil sterilization.

1.02 RELATED REQUIREMENTS

A. Section 32 13 13 - Concrete Paving.

1.03 REFERENCE STANDARDS

- A. ASTM D698 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)); 2007.
- B. ASTM D1556 Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method; 2007.
- C. ASTM D2487 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System); 2010.
- D. Standard Specifications for Public Works Construction, City of Beaumont, latest edition.
 - 1. Standard Specifications shall be as amended and adopted by authorities having jurisdiction, including the City of Beaumont.
 - 2. Where reference is made to Standard Details, such reference shall be to the Standard Details accompanying the Standard Specifications, as amended and adopted by the authorities having jurisdiction.
 - 3. Wherever term "Agency" occurs in Standard Specifications, it shall be understood to mean Owner (District) for purposes of the Contract.
 - 4. Wherever term "Engineer" occurs in Standard Specifications, it shall be understood to mean Architect for purposes of the Contract.

1.04 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Samples: 10 lb sample of each type of aggregate; submit in air-tight containers to testing laboratory.
- C. Materials Sources: Submit name of imported materials source.
- D. Certificates of Conformance: Aggregate and sterilant materials.
- E. Aggregate Composition Test Reports: Results of laboratory tests on proposed and actual materials used.
- F. Compaction Density Test Reports.

1.05 QUALITY ASSURANCE

- A. Regulatory Requirements: Where reference is made to Standard Specifications, the following shall apply.
 - Perform off-site Work in public rights-of-way in accordance with requirements of authorities
 having jurisdiction, including Standard Specifications for Public Works Construction, as amended
 and adopted by those authorities. For conditions not indicated otherwise on Contract Drawings,
 conform to Standard Details adopted by authorities having jurisdiction, including Standard Details
 for Public Works Construction, as amended and adopted by those authorities.
 - 2. Perform on-site Work as indicated and referenced on Contract Drawings and as specified herein.

- B. The quantity of volatile organic compounds (VOC) used in weed killer, tack coat, primer and other materials shall not exceed limits permitted under current regulations of:
 - 1. Sacramento Metropolitan Air Quality Management District (SMQMD).
- C. Source Quality Control: Obtain materials from one source throughout.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. When necessary, store materials on site in advance of need.
- B. When aggregate materials need to be stored on site, locate stockpiles where indicated.
 - 1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
 - 2. Prevent contamination.
 - 3. Protect stockpiles from erosion and deterioration of materials.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Sub-Base Material: Existing or imported materials as recommended in geotechnical report.
- B. Aggregate: Coarse or crushed aggregate, conforming to City of Beaumont Public Works Department standard.
 - 1. Green Book Standard Specifications 200-2.2.
- C. Herbicide: Soil Sterilant; Comply with all applicable environmental protection and hazardous materials laws and regulations.
 - 1. Monobor-Chlorate non-selective weed and grass killer, by J.R. Simplot Co., Lathrop, CA;
 - 2. Poly-Bor Chlorate or Mono-Bor-Chlorate by United States Borax;
 - 3. B.Monobar-Chlorate by Occidental Chemical;
 - 4. Casoron 50W by Uniroyal Chemical Co., Inc.

2.02 SOURCE QUALITY CONTROL

- A. See Section 01 40 00 Quality Control, for general requirements for testing and analysis of aggregate materials.
- B. Where aggregate materials are specified using ASTM D2487 classification, testing of samples for compliance will be provided before delivery to site.
- C. If tests indicate materials do not meet specified requirements, change material and retest.
- D. Provide materials of each type from same source throughout the Work.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that survey bench marks and intended elevations for the work are as indicated.
- B. Verify substrate has been inspected, gradients and elevations are correct, and is dry.

3.02 PREPARATION

- A. Soil Sterilant: Sterilize soil areas to receive paving. Apply soil sterilant in accordance with manufacturer's instructions and applicable environmental regulations. Take care to confine application to the areas to be paved.
- B. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and re-compacting.
- C. Do not place aggregate on soft, muddy, or frozen surfaces.

3.03 INSTALLATION

- A. Place and compact aggregate base material in accordance with Standard Specifications, Subsection 301-
 - 1. Place aggregate base below curbs and gutters and paving also, compacted to 95 percent at vehicular traffic and 90 percent at pedestrian-only traffic.
- B. Under Portland Cement Concrete Paving (Including Pervious Paving):
 - 1. Compact to 95 percent of maximum dry density and 90 percent at pedestrian-only traffic.
- C. Place aggregate in maximum 4 inch layers and roller compact to specified density.
- D. Level and contour surfaces to elevations and gradients indicated.
- E. Add small quantities of fine aggregate to coarse aggregate as appropriate to assist compaction.
- F. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.
- G. Use mechanical tamping equipment in areas inaccessible to compaction equipment.
- H. Apply herbicide to finished surface.

3.04 TOLERANCES

- A. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.
- B. Scheduled Compacted Thickness: Within 1/4 inch.
- C. Variation From Design Elevation: Within 1/2 inch.

3.05 FIELD QUALITY CONTROL

- A. See Section 01 40 00 Quality Control, for general requirements for field inspection and testing.
- B. Compaction density testing will be performed on compacted aggregate base course in accordance with ASTM D1556.
- C. Results will be evaluated in relation to compaction curve determined by testing uncompacted material in accordance with ASTM D 698 ("standard Proctor").
- D. If tests indicate work does not meet specified requirements, remove work, replace and retest.
- E. Proof roll compacted aggregate at surfaces that will be under slabs-on-grade and paving.

3.06 CLEANING

- A. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.
- B. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

END OF SECTION

SECTION 32 13 13 CONCRETE PAVING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Concrete sidewalks, integral curbs, gutters, and miscellaneous site footings.

1.02 RELATED REQUIREMENTS

A. Section 07 90 05 - Joint Sealers: Sealant for joints.

1.03 REFERENCE STANDARDS

- A. ACI 211.1 Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; American Concrete Institute International; 1991 (Reapproved 2002).
- B. ACI 301 Specifications for Structural Concrete for Buildings; American Concrete Institute International; 2010.
- C. ACI 304R Guide for Measuring, Mixing, Transporting, and Placing Concrete; American Concrete Institute International; 2000.
- D. ACI 305R Hot Weather Concreting; 2010.
- E. ACI 306R Cold Weather Concreting; 2010.
- F. ACI 503 Standard Specification for Bonding Plastic Concrete to Hardened Concrete with a Multi-Component Epoxy Adhesive.
- G. ASTM A615/A615M Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement; use 2012 as indicated in 2016 CBC Referenced Standards.
- H. ASTM C33/C33M Standard Specification for Concrete Aggregates; 2011a is current; use 2003 as indicated in 2010 CBC Referenced Standards.
- ASTM C39/C39M Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2012a.
- J. ASTM C94/C94M Standard Specification for Ready-Mixed Concrete; 2012 is current; use 2004a as indicated in 2010 CBC Referenced Standards.
- K. ASTM C150/C150M Standard Specification for Portland Cement; 2012 is current; use 2007 as indicated in 2010 CBC Referenced Standards.
- L. ASTM C309 Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete; 2011.
- M. ASTM C494/C494M Standard Specification for Chemical Admixtures for Concrete; 2013.
- N. ASTM D1751 Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (nonextruding and Resilient Bituminous Types); 2004 (Reapproved 2008).
- O. ASTM D1752 Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction; 2004a (Reapproved 2008).
- P. Standard Specifications for Public Works Construction ("Green Book"), by Joint Cooperative Committee of the Southern California Chapter of the American Public Works Association and the Southern California Districts of the Associated General Contractors of California. Standard Specifications is published by and available from Building News, Division of BNI Publications, Inc., Los Angeles, CA, (213/202-7775).

1.04 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Mix Design: Design mixes for each concrete mix.
- C. Product Data: Provide data on joint filler, admixtures, and curing compound.
 - 1. Material Certificates signed by manufacturers for each of the following:
 - a. Cementitious materials and aggregates.
 - b. Steel reinforcement and reinforcement accessories.
 - c. Admixtures.
 - d. Curing compounds.
 - e. Joint fillers.
 - 2. Colored concrete product data and color selections.
- D. Samples: Submit 6 sample panels, 6 x 6 inch in size illustrating each finish.
 - 1. Samples can be of sufficient size for color selection and/or verification.
- E. Shop drawings: For pattern layout and verification.

1.05 QUALITY ASSURANCE

- A. Industry Standard: Perform concrete paving Work in accordance with ACI 301.
- B. Regulatory Requirements: Where reference is made to Standard Specifications, the following shall apply.
 - 1. Where reference is made to Standard Specifications, the following shall apply:
 - a. Perform off-site Work in public rights-of-way as indicated on the Contract Drawings and in accordance with requirements of authorities having jurisdiction, including Standard Specifications for Public Works Construction, as amended and adopted those authorities. For conditions not indicated otherwise on Contract Drawings, conform to Standard Details adopted by authorities having jurisdiction, including Standard Details for Public Works Construction, as amended and adopted those authorities.
 - b. Perform on-site Work as indicated and referenced on the Contract Drawings and as specified herein.
 - 2. Conform to California Department of Transportation (CalTRANS) standard specifications.
 - 3. Conform to California Code of Regulations (CCR), Volume 2, Part 2, Chapters 18, 18A, 19 and 19A.
 - 4. Conform to California Building Code (CBC), Chapter 11B and ADAAG for accessibility requirements.
 - a. Portland cement concrete paving shall be stable, firm and slip resistant. Comply with Sections 11B-302 and 11B-403.
 - b. Concrete paving and concrete finishes along accessible routes of travel shall be at least as slip-resistant as that described as a medium salted finish for slopes of less than 6%, and slip resistant at slopes of 6% or greater; CBC 11B-403.2.
 - 5. Comply with OSHA and Cal-OSHA requirements.
 - 6. Continuous surfaces, including walks and sidewalks, shall have a continuous common surface, not interrupted by steps or by abrupt changes in level exceeding 1/2-inch (CBC 11B-303.3) and shall have a minimum width of 48 inches; CBC 11B-403.5.1.
 - 7. Surface cross slopes shall not exceed 2 percent on any accessible path of travel.
- C. Source Quality Control: Obtain like materials from one source throughout.
- D. Lines and Levels: Established by State of California licensed Surveyor or registered Civil Engineer. Costs of surveying services shall be included in the Contract Sum.

1.06 DELIVERY, STORAGE AND HANDLING

A. Delivery, Storage and Handling: Comply with requirements specified by manufacturer.

PART 2 PRODUCTS

2.01 BASE MATERIAL

A. Sub-Base and Aggregate Base Material under Portland Cement Concrete Paving: For pavement subject to vehicular traffic, provide sub-base and aggregate base material as indicated on the Drawings. Aggregate base is not required under portland cement concrete paving subject only to pedestrian traffic in normal use.

2.02 PAVING ASSEMBLIES

- A. Comply with applicable requirements of ACI 301.
- B. Concrete Sidewalks and Median Barrier: 3,000 psi 28 day concrete, 4 inches thick, buff color Portland cement, exposed aggregate finish.

2.03 FORM MATERIALS

- A. Wood form material, profiled to suit conditions.
- B. Joint Filler: Preformed; non-extruding bituminous type (ASTM D 1751) or sponge rubber or cork (ASTM D 1752).
 - 1. Thickness: 1/2 inch.

2.04 REINFORCEMENT

- A. General: As indicated on Drawings and specified following. Reinforcement for portland cement concrete paving in public rights-of-way shall comply with all applicable requirements in the Standard Specifications for Public Works Construction and Standard Details, as adopted by local authorities having jurisdiction.
- B. Reinforcing Steel: ASTM A615/A615M Grade 60 (420); deformed billet steel bars; unfinished finish.
- C. Welded Wire Mesh: ASTM A185, welded plain cold-drawn steel wire fabric, minimum 6 x 6 / 1.9 x 1.9 or as noted on Drawings or required by reference standards and details. Furnish reinforcement in flat sheets, not rolls.
- D. Tie Wires: 18 gage minimum, black annealed steel.
- E. Dowels: ASTM A615/A615M Grade 60 (420); deformed billet steel bars; unfinished finish.

2.05 PERFORMANCE REQUIREMENTS

A. Albedo reflectance of finish concrete shall be minimum 0.30.

2.06 CONCRETE MATERIALS

- A. Obtain cementitious materials from same source throughout.
- B. Cement: ASTM C150/C150M Normal Type I portland type, grey color.
- C. Fine and Coarse Mix Aggregates: ASTM C33.
- D. Water: Clean, and not detrimental to concrete.
- E. Chemical Admixtures: ASTM C494/C494M, Type A Water Reducing, Type B Retarding, Type D Water Reducing and Retarding, Type F Water Reducing, High Range, and Type G Water Reducing, High Range and Retarding.

1. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.

2.07 JOINT SEALANT

- A. Concrete Paving Joint Sealant: Polyurethane, self-leveling; ASTM C920, Class 25, Uses T, I, M and A; single component.
 - 1. Color: Gray.
 - 2. Applications: Use for:
 - a. Joints in sidewalks and vehicular paving.
 - 3. Products:
 - a. Pecora Corporation; NR-201 Self-Leveling Traffic and Loop Sealant: www.pecora.com.
 - b. Sherwin-Williams Company; Stampede 1SL Polyurethane Sealant: www.sherwin-williams.com.
 - c. Substitutions: See Section 01 60 00 Product Requirements.

2.08 ACCESSORIES

- A. Liquid Curing Compound: ASTM C 309, Type 1, Class A. Comply with all applicable air pollution requirements.
 - 1. Tennis Courts: Curing compounds should not be used unless the curing compound manufacturer specifically states the surface may be coated with water based acrylic coatings.

B. Integral Colored Concrete:

- 1. Color Additive, Integral Colored Concrete: Chromix by L.M. Scofield Company, Los Angeles, CA. (800) 800-9900 or approved equal, color as indicated or, if not indicated, as selected by Architect from manufacturer's standard color line. Provide in pre-measured, pre-packaged units to suite concrete mix design to achieve required color saturation.
- 2. Color Hardener: Lithochrome color Hardener by L.M. Scofield Company or Bomanite Color Hardener by Bomanite Corporation, Madera, CA. (209/673-8246) or approved equal.
- 3. Color Wax Curing Agent for project without continued maintenance: Lithochrome Colorwax by L.M. Scofield Company, or approved equal, color as indicated or, if not indicated, as selected by Architect for full color line. Provide as color matched curing and finishing material for integral color portland cement concrete paving.
- 4. Concrete Cleaner for Colored Concrete: Clean with a mild detergent and damp mop.
- 5. Color Additive, Natural Color Concrete Paving: Carbon black, harmless to set and strength of concrete, amount per cubic yard of concrete as required by Standard Specifications and details adopted by authorities having jurisdiction.
- 6. Liquid Curing Compound: ASTM C309 Type I. Comply with all applicable air pollution requirements.
- 7. Liquid Curing, Sealing and Hardening Materials: Natural color concrete pedestrian areas shall have applied Ashford Formula (801/489-5663), or approved equal, as recommended by manufacturer for intended use.

2.09 CONCRETE MIX DESIGN

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- B. Concrete Mix for Pedestrian (Sidewalk) Pavements, Natural Color, unless indicated otherwise: Standard Specification for Public Works Construction, Section 201-1.1.2 Class 520-B-2500, with minimum slump of 4-inches, except concrete paving in public rights of way shall be as required authorities having jurisdiction.

- C. Concrete Mix for Trash Enclosure and other Exterior Slabs on Grade: ASTM C94 Ready-Mixed Concrete, Alternative No. 2, minimum 28 day compressive strength as indicated on Drawings or, if not indicated, 3000 psi.
- D. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience or trial mixtures, as specified in ACI 301.
 - 1. For trial mixtures method, employ independent testing agency acceptable to Architect for preparing and reporting proposed mix designs.
- E. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended by manufacturer.
 - 1. Use accelerating admixtures in cold weather or set retarding admixtures in hot weather only when approved by Architect/Engineer. Do not use calcium chloride.

F. Concrete Properties:

- 1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: 3,000 psi.
- 2. Water-Cement Ratio: Maximum 40 percent by weight.
 - a. Concrete mix for Tennis Courts: Shall be placed with a water/cement ratio of.45.
- 3. Maximum Slump: 3 inches.

2.10 MIXING

A. Transit Mixers: Comply with ASTM C94/C94M.

2.11 ACCESSORY MATERIALS

- A. Soil Sterilant: As specified in Standard Specifications for Public Works Construction. Soil sterilant shall comply with all applicable environmental protection and hazardous materials laws and regulations. See Section 32 1313 Aggregate Base Course for product.
- B. Headers and Stakes: Pressure preservative treated douglas fir, 2x6 nominal size except at curves provide laminated 1x6. Use hot dipped galvanized nails only.
- C. Expansion Joint Filler: ASTM D1751, premolded, compressible 1/2-inch thick non-extruding bituminous type resilient filler, compatible with joint backing and sealing products.
- D. Joint Backing and Sealer: As specified in Section 07 90 05 Joint Sealers.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify compacted subgrade is acceptable and ready to support paving and imposed loads.
- B. Fine grading, checking, shaping, and compacting of subgrade shall be complete before start of concrete paving Work.
- C. Verify gradients and elevations of base are correct.

3.02 SUBBASE

A. Prepare subbase in accordance with County of Riverside standards.

3.03 PREPARATION

- A. Project Conditions:
 - 1. Water and Dust Control: Maintain control of concrete dust and water at all times. Do not allow adjacent planting areas to be contaminated.
 - 2. Do not place pavement when base surface or ambient temperature is less than 40 degrees F (4 degrees C) or if base surface is wet or frozen.

- 3. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Moisten base to minimize absorption of water from fresh concrete. Do not place concrete on standing water.
- C. Curbs and Gutters: Schedule portland cement concrete curbs and gutters to be in place and cured prior to start of adjoining asphaltic concrete and portland cement concrete paving Work.

3.04 COORDINATION WITH EXISTING CONSTRUCTION

- A. Connection to Existing Construction: Where new concrete is doweled to existing construction, drill holes in existing concrete, insert steel dowels and pack with non-shrinking grout.
- B. Preparation of Existing Concrete: Prepare previously placed concrete by cleaning with steel brush and apply bonding agent in accordance with manufacturer's instructions.

3.05 FORMING

- A. Place and secure forms to correct location, dimension, profile, and gradient.
 - 1. Surfaces and Edges: Except where special finishes and tooled edges are indicated, provide all exposed finish surfaces of dense concrete with sharp arises and outside corners.
 - 2. Recesses and Openings: As indicated on Drawings or as directed.

B. Concrete Formwork:

- 1. Construct formwork accurately and to configurations and dimensions indicated for finish concrete Work.
- 2. Formwork shall be substantial, mortar-tight and braced to maintain position and shape during placement of reinforcing and concrete.
- 3. Hold forms rigidly in place by stakes, clamps, spreaders and braces where required to ensure rigidity.
- 4. Construct curb forms with smooth side placed next to exposed concrete face.
- 5. Curb forms shall have true, smooth upper edge.
- 6. Depth of curb forms at back of curbs shall be equal to full depth of curb.
- 7. Depth of face forms shall be equal to full face height of curb.
- 8. Benders or thin plank forms may be used to form curves and at grade changes and curb returns.
- 9. Back forms for curb returns may be made of 1/2-inch thick benders cleated together for full depth of the curb.
- 10. Formwork shall not deviate more than 1/4-inch maximum from required positions and levels.
- 11. Verify formwork alignment and levels as Work proceeds, promptly making adjustments and adding bracing as necessary.
- C. Assemble formwork to permit easy stripping and dismantling without damaging concrete.
 - 1. Remove the form on the front of curbs in not less than one hour nor more than 6 hours after the concrete has been placed.
 - 2. Remove side forms for sidewalks, gutter depressions, island paving and driveways, not less than 12 hours after the finishing has been completed.
- D. Place joint filler vertical in position, in straight lines. Secure to formwork during concrete placement.

3.06 REINFORCEMENT

A. Place reinforcement at midheight of slabs-on-grade.

- B. Reinforcement Placement, General: Locate reinforcement as indicated on Drawings or in Standard Specifications, whichever is more stringent.
 - 1. Locate reinforcement to provide required cover by concrete. If not otherwise indicated on Drawings or in Standard Specifications, provide concrete cover in compliance with ACI 318, Table 3.3.2.3.
 - 2. Place, support and secure reinforcement against displacement.
- C. Reinforcement Spacing: Space reinforcement as indicated on Drawings or in Standard Specifications, whichever is more stringent. If not indicated, maintain clear spacing of two times bar diameter but not less than 1-1/2 inches nor less than 1-1/3 times maximum size aggregate.
- D. Coordination: Locate reinforcement to accommodate embedded products and formed openings and recesses.
- E. Reinforcement Supports: Provide load bearing pads under supports or provide precast concrete block bar supports.
- F. Wire Fabric Placement: Place fabric in sheets as long as practicable, lapping adjoining pieces at least one full mesh and lace splices with 16 gage wire. Offset end laps in adjacent widths to prevent continuous laps. Extend fabric to within 1-inch of edge at slabs on grade. Cut mesh at expansion joints and full depth control joints.
- G. Interrupt reinforcement at contraction and expansion joints.
- H. Place dowels to achieve pavement and curb alignment as detailed.
 - 1. Secure tie dowels in place before depositing concrete. Provide No. 3 bars for securing dowels where no other reinforcement is provided.

3.07 COLD AND HOT WEATHER CONCRETING

- A. Follow recommendations of ACI 305R when concreting during hot weather.
- B. Follow recommendations of ACI 306R when concreting during cold weather.
- C. Do not place concrete when base surface temperature is less than 40 degrees F, or surface is wet or frozen.

3.08 PLACING CONCRETE

- A. Mixing: If batch plant is within travel time not exceeding maximum limits, transit mix concrete in accordance with ASTM C94. If travel time exceeds limits, provide alternative means for mixing and submit for review and approval.
- B. Place concrete in accordance with ACI 304R.
- C. Do not place concrete when base surface is wet.
- D. Ensure reinforcement, inserts, embedded parts, formed joints are not disturbed during concrete placement.
- E. Concrete Conveying and Placement: Convey and place concrete in accordance with ACI 301.
- F. Place concrete continuously over the full width of the panel and between predetermined construction joints. Do not break or interrupt successive pours such that cold joints occur.
- G. Place concrete to pattern indicated.

3.09 JOINTS

- A. Align curb, gutter, and sidewalk joints.
- B. Place 1/2 inch wide expansion / contraction/ construction joints at 20 foot intervals and to separate paving from vertical surfaces and other components and in pattern indicated. Place in all concrete walks, other exterior flatwork and concrete curbs and gutters. If expansion joints

are not indicated, comply with standard details and specifications of authorities having jurisdiction, including Standard Details for Public Works Construction and Standard Specification for Public Works Construction, as applicable.

- 1. Place expansion control filler to correct elevation and profile. Form joints with joint filler extending from bottom of pavement to within 1/2 inch of finished surface.
- 2. Secure to resist movement by wet concrete.
- 3. Coordinate locations to align expansion joints in adjoining concrete walks, curbs, gutters and other exterior flatwork.
- 4. Provide expansion joints also at beginning and end of all curved segments.
- 5. Provide expansion joints also at intersections of concrete curbs and gutters and building footing.
- 6. Provide expansion joints also at intersections of concrete paving and building footing.
- 7. Lay out expansion joint locations to occur where possible at penetrations such as handrail posts and columns.
- 8. Place expansion control filler to correct elevation and profile.
- 9. Align curb, gutter, and sidewalk expansion joints.
- 10. Construction (cold) joints should consist of thickened butt joints with 1/2 inch dowels at 18 inches on center or a thickened keyed-joint to resist vertical deflection at the joint.

C. Provide scored control joints:

- 1. As indicated on Drawings. If not indicated, locate joints in compliance with Standard Details.
 - a. Control joints shall be provided in all concrete slabs-on-grade at a maximum spacing of 36 times the slab thickness ("X" feet maximum on-center, each way) as recommended by American Concrete Institute [ACI] guidelines.
- 2. Evenly spaced at maximum 5 feet intervals.
- 3. Between sidewalks and curbs.
- 4. Between curbs and pavement.
- 5. Lay out control joint locations to occur at penetrations such as handrail posts and columns and where shown on Drawings.
- 6. Refer to Architectural, Landscape and Civil Drawings for additional information and joint locations.
- D. Provide keyed joints as indicated.
- E. Saw cut contraction joints 1/8 inch wide at an optimum time after finishing. Cut 1/3 into depth of slab.
 - 1. Contraction joints in the slabs should be tooled at the time of the pour or saw cut within 8 hours 'of concrete placement.

3.10 FINISHING

- A. Concrete Paving Finish: ACI 301, two-step trowel finish, followed after surface has achieved initial set by flooding of surface and light rubbing with bristle brush so that concrete fines are exposed slightly.
 - 1. Finish surfaces less than 6 percent slope shall receive medium broom finish resembling medium grit sandpaper. CBC 11B-403.2.
 - 2. Finish surfaces greater than 6 percent slope shall receive heavy broom finish. CBC 11B-403.2.
 - 3. Surfaces shall have static coefficients of friction of 1.3 to 1.6 (dry) and 1.2 to 1.4 (wet) when field tested in accordance with ASTM C1028.
- B. Sidewalk Paving: Light broom, texture perpendicular to direction of travel with troweled and radiused edge 1/8 inch radius.

- 1. Broomed: Pull broom across freshly floated concrete to produce medium texture in straight lines perpendicular to main line of traffic. Do not dampen brooms.
- 2. Tooled Joints: 1-inch deep by 3/16-inch wide tooled joints with 1/8-inch radius corners.
- C. Curbs and Gutters: Comply with Standard Specifications.
- D. Specific Finishes:
 - 1. Trowel: Precautions should be taken to ensure that the surface is uniformly troweled so that it is not slippery. Do not over-trowel or burnish the surface.
- E. Curing and Sealing:
 - 1. Place curing compound on exposed concrete surfaces immediately after finishing. Apply in accordance with manufacturer's instructions.
 - 2. Curing, Concrete Curbs and Gutters: Apply curing compound immediately after finishing. Apply compound in accordance with manufacturer's instructions.
 - 3. Precautions shall be taken in hot weather to prevent plastic cracking resulting from excessively rapid drying at surface as described in CIP 5 Plastic Shrinkage Cracking published by the National Ready Mixed Concrete Association.
 - 4. Do not cover concrete with plastic sheeting.

3.11 JOINT SEALING

A. See Section 07 90 05 for joint sealer requirements.

3.12 TOLERANCES

- A. ACI 301, Class B, except paving in public rights-of-way shall comply with the Standard Specifications.
- B. Maximum Variation of Surface Flatness: 1/4 inch in 10 ft.
- C. Maximum Variation From True Position: 1/4 inch.

3.13 FIELD QUALITY CONTROL

- A. An independent testing agency will perform field quality control tests, as specified in Section 01 45 33.
 - 1. Provide free access to concrete operations at project site and cooperate with appointed firm.
 - 2. Tests of concrete and concrete materials may be performed at any time to ensure conformance with specified requirements.
- B. Compressive Strength Tests: ASTM C 39/C 39M. For each test, mold and cure three concrete test cylinders. Obtain test samples for every 75 cu yd or less of each class of concrete placed each day.
 - 1. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.
 - 2. Perform one slump test for each set of test cylinders taken.
- C. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.14 PROTECTION

- A. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, and mechanical injury.
- B. Do not permit pedestrian traffic over pavement until 75 percent design strength of concrete has been achieved.

C.	C. Provide lumber ramping and plywood covering where curbs and gutters are subject to vehicular and equipment traffic during construction.					
	END OF SECTION					

SECTION 32 31 13 CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Galvanized steel chain link fence framework, fabric, and accessories.
- B. Gates and supporting hardware.

1.2 SUBMITTALS

- A. Product Data: Manufacturer's technical data, specifications, and installation instructions for fence and gate posts, fabric, gates, and accessories.
- B. Shop Drawings: Indicate plan layout of fence, gates, each post, and details of post foundation installation, hardware anchorage, extension arms, gate swing, hardware, accessories, and schedule of components.

1.3 **QUALITY ASSURANCE**

- A. Structural Design: Fence, gates and all components shall be designed and constructed to withstand 90 mph wind loading. Pipe frame sizes indicated for particular uses are minimum.
- B. Regulatory Requirements: Provide fences and gates meeting life safety and accessibility requirements of California Building Code (CBC) Title 24, Part 2, Chapter 10 and 11B; and ADA Accessibility Guidelines for Buildings and Facilities, per latest amendments.

PART 2 - PRODUCTS

2.1 GALVANIZED STEEL FENCING

- A. Acceptable Manufacturers:
 - 1. Allied Tube and Conduit Corp.
 - 2. American Chain Link Fence Company.
 - 3. American Tube Company.
 - 4. Anchor Fence, Inc.
 - 5. Capitol Wire and Fence Co., Inc.
 - 6. Century Tube Corp.
 - 7. Cyclone Fence Div./USX Corp.
- B. Steel Chain Link Fabric: Comply with Chain Link Fence Manufacturers Institute (CLFMI) Product Manual. Furnish one-piece fabric widths up to 12 feet high. Wire size includes zinc coating.
 - 1. Size: 2-inch mesh opening, 0.148-inch diameter (9 gage) wire.
 - 2. Galvanized steel finish: ASTM A817, Type 2, Class 1 or Class 2, zinc-coated (galvanized), with not less than 2.0 oz. zinc per sq. ft. of uncoated wire surface on wire coated before weaving (Class 1) or not less than 2.0 oz. zinc per sq. ft. of uncoated wire surface on wire of fabric coated after weaving (Class 2), as determined from the average of two or more samples and not less than 1.8 oz. zinc per sq. ft. of uncoated wire surface for any individual sample.
 - 3. Fabric Selvage: Knuckled at bottom and top selvage.

- C. Steel Framework: For posts, rails, braces, and gate frames, galvanized steel, 1-1/4 inch NPS (1.66-inch OD) Type I or II steel pipe. Conform to strength requirements of ASTM F669. Fencing height shall be as indicated on the Drawings.
- D. Steel Framework, Round Pipe: Straight, true to section, material, and sizes specified.
 - 1. Type I Pipe: Hot-dipped galvanized steel pipe conforming to ASTM F1083, plain ends, standard weight (schedule 40) with not less than 1.8 oz. zinc per sq. ft. of surface area coated.
 - 2. Type II Pipe: Manufactured from steel conforming to ASTM A569 or A 446, grade D, cold formed, electric welded with minimum yield strength of 50,000 psi and triple coated with minimum 0.9 oz. zinc per sq. ft. after welding, a chromate conversion coating and a clear polymer overcoat. Corrosion protection on inside surfaces shall protect the metal from corrosion when subjected to the salt spray test of ASTM B117 for 300 hours with the end point of 5 percent Red Rust.
 - 3. Steel pipe weights: Conform to the following weights per foot.

	Outside			
	Diameter			
NPS in	(OD) in	Type I	Type II	
<u>inches</u>	inches	<u>Steel</u>	<u>Steel</u>	
1	1.315	1.68	1.35	
1-1/4	1.660	2.27	1.84	
1-1/2	1.900	2.72	2.28	
2	2.375	3.65	3.12	
2-1/2	2.875	5.79	4.64	
3	3.500	7.58	5.71	
3-1/2	4.000	9.11	6.56	
4	4.500	10.79		
6	6.625	18.97		
8	8.625	28.55		

- E. End, Corner, and Pull Posts:
 - 1. For fabric height up to 6 feet: 2.375-inch OD Type I or II steel pipe, 2-inch square galvanized steel tubing weighing 2.60 lb. per lin. ft., or 3.5-inch by 3.5-inch roll-formed sections weighing 4.85 lb. per lin. ft.
- F. Line or Intermediate Posts:
 - 1. For fabric height up to 6 feet: 1.90-inch OD Type I or II steel pipe, 1.875-inch by 1.625-inch C section weighing 2.28 lb. per lin. ft., or 2.25-inch by 1.70-inch galvanized steel H section weighing 3.26 lb. per lin. ft.
- G. Gate Posts: Provide posts for supporting single gate leaf, or one leaf of a double gate installation, for nominal gate widths as follows:
 - 1. For fabric height up to 6 feet: 2.875-inch OD Type I or II steel pipe, 2.50-inch square galvanized steel tubing weighing 5.10 lbs. per lin. ft., or 3.5-inch by 3.5-inch roll-formed sections weighing 4.85 lbs. per lin. ft.
- H. Post Brace Assembly: Manufacturer's standard adjustable brace at end and gate posts and at both sides of corner and pull posts, with horizontal brace located at mid-height of fabric.
 - 1. Use same material as top rail for brace, and truss to line posts with 3/8-inch diameter rod and adjustable tightener.
 - 2. Provide manufacturers standard galvanized steel or cast iron or cast aluminum cap for each end.
- I. Top Rail: Manufacturer's longest lengths, with expansion-type couplings, approximately 6-inches long, for each joint. Provide means for attaching top rail securely to each gate corner, pull, and end post.

- J. Bottom and Center Rail: Same material as top rail. Provide manufacturer's standard galvanized steel or cast iron or cast aluminum cap for each end.
- K. Post and Line Caps: Provide weathertight closure cap for each post. Provide line post caps with loop to receive tension wire or top rail.

2.2 CHAIN LINK FENCE FITTINGS AND ACCESSORIES

- A. Tension Wire: 0.177-inch diameter metallic-coated steel marcelled tension wire conforming to ASTM A824 with finish to match fabric.
- B. Tie Wires: 12-gage (0.106-inch diameter) galvanized steel with a minimum of 0.80 oz. per sq. ft. of zinc coating of surface area in accordance with ASTM A641, Class 3 or 9-gage (0.106-inch diameter) aluminum wire alloy 1100-H14 or equal, to match fabric core material.
- C. Tension and Brace Bands: Minimum 3/4-inch wide hot-dip galvanized steel with minimum 1.2 oz. zinc coating per sq. ft. of surface area.
 - 1. Tension Bands: Minimum 14 gage (0.074-inch) thick.
 - 2. Tension and Brace Bands: Minimum 12 gage (0.105-inch) thick.
- D. Concrete: ASTM C94, 3000 psi compressive strength at 28 days, using 3/4-inch maximum size aggregate and complying with general requirements specified on Drawings. Site mixed concrete will be acceptable. Grout shall consist of one part cement to three parts clean, well-graded sand, and the minimum amount of water required to produce a workable mix.
 - 1. Mix materials to obtain concrete with a minimum 28-day compressive strength of 2500 psi.
 - 2. Use at least 4 sacks of cement per cu. yd., 1-inch maximum size aggregate, maximum 3-inch slump, and 2 to 4 percent entrained air.
- E. Other Fencing Accessories: Provide other pressed steel or cast iron accessories and fencing items necessary for a complete installation as required by Project conditions and as recommended by fencing manufacturer.

2.3 GATES

- A. Fabricate perimeter frames of gates from metal and finish to match fence framework.

 Assemble gate frames by welding. Provide horizontal and vertical members to ensure proper gate operation and attachment of fabric, hardware, and accessories with additional horizontal and vertical members to insure proper gate operation.
- B. Use same fabric as for fence, installed with stretcher bars and bands at vertical edges and at top and bottom edges.
- C. Install diagonal cross bracing consisting of 3/8-inch diameter truss rods with drop forged steel turnbuckles where necessary to insure frame rigidity without sag or twist.
- D. Swinging Gates: Meet the requirements of ASTM F900.
 - 1. Gate Hardware: Meet the requirements of CBC 11B-404 for gates in accessible route.
 - a. Hinges: Manufacturer's standard non-lift-off type, offset to permit 180 degree gate opening.
 - b. Latch: Fork type to permit operation from either side of gate by means of lever handle, and including padlock eye as integral part of latch or weld a long rod to fork to reduce grasping and pressure to operate. Latch shall be mounted 40 inches above finish grade. Comply with California Fire Code (CFC) Article 1208.
 - c. Hardware shall comply with local Fire Authority, California Reference Standards code. T-24, Part 12, Section 12-10-202, Item (F), and California Fire Code (CFC) Article 1208.

- d. Double Gates: Provide gate stops set in concrete to engage center drop rod or plunger bar. Include locking device and padlock eyes as integral part of latch, permitting both gate leaves to be locked with single padlock.
- e. Gates in Path of Travel: Hand-activated gate opening hardware, handles, pulls, latches, locks and other operating devices on accessible gates shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist to operate per CBC Section 11B-404. The lever of lever actuated latches or locks for an accessible gate shall be curved with a return to within ½" of the (face of) gate to prevent catching on clothing or person. California Referenced Standards code. T-24 Part 12, Section 12-10-202, Item (F).
- f. Gates across an exit to a public way or a safe dispersal area shall have panic hardware, in accordance with CBC Section 11B-404.
- g. The bottom 10" of an accessible gate shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16" of the same plane as the other and be free of sharp or abrasive edges. Cavities created by added kick plates shall be capped. The maximum effort to operate the gate shall not exceed 5lbs (22.2 N) per CBC Section 11B-404.2.10.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install fence in compliance with ASTM F567 and chain link fence manufacturer's instructions and recommendations. Do not begin installation and erection before final grading is completed, unless otherwise permitted.
- B. Fence Layout: Lay out fencing in advance of installation, noting locations for posts, gates, operators and accessories applicable to the installation. Space line posts maximum 10 feet o.c., unless otherwise indicated. Straight runs between braced posts shall not exceed 500 feet
- C. Excavation: Excavate line post holes minimum 10 inch diameter and to a depth of not less than 30 inches for post plus 3 inches below bottom of post. Excavate corner end, pull and gate posts minimum 12 inch diameter and to a depth of not less than 36 inches for post plus 3 inches below bottom of post.
- D. Fastening: Fasten all fence and gate hardware secured in place by peening or welding to allow proper operation of components, but to prevent disassembly of fencing or removal of gates. Fastenings, hardware, and all other connections which have been peened or welded, shall be covered with a heated re-galvanizing alloy.
- E. Brace and frame fence sections in accordance with fencing manufacturer's instructions.
- F. Fabric Installation: Install fabric on security (outside) side of posts. Fasten fabric to tension wires with 11-gage hog rings of same material and finish as fabric wire, spaced maximum 24-inches o.c. Leave approximately 2 inches between finish surface and bottom of selvage.
- G. Gates: Install gates plumb, level and secure. Install as recommended by fence manufacturer. Adjust hardware for smooth operation and lubricate as required.
- H. Adjust fabric for rigid installation. Tighten hardware, fasteners, and accessories. Bend ends of tie wires to preclude snagging.
- I. Remove excess and waste materials from Project site.

END OF SECTION

SECTION 33 41 11 SITE STORM DRAINAGE SYSTEM

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK:

- A. Extent of storm drainage systems work is indicated on drawings and schedules, and by requirements of this section.
- B. Refer to Drawings for excavation and backfill required for storm drainage systems; not work of this section.
- C. Refer to Division 3 sections for concrete work required for storm drainage systems; not work of this section.

1.02 QUALITY ASSURANCE:

- A. Manufacturer's Qualifications: Firms regularly engaged in manufacture of storm drainage system's products of types, materials, and sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.
- B. Installer's Qualifications: Firm with at least 3 years of successful installation experience on projects with storm drainage work similar to that required for project.
- C. Codes and Standards:
 - 1. Comply with the applicable portions of the California Building Codes, See Division 1 Section Regulatory Requirements.
 - 2. Coordinate work of this Section with Permit provisions of the State of California Water Resources Control Board Order Number 92-08-DWQ.
 - 3. The District's Storm Water Pollution Prevention Plan.
 - 4. Cal-OSHA.
 - 5. OSHA.
 - 6. ASTM F 477, Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
 - 7. ASTM C 12, Practice for installing Vitrified Clay Pipe Lines.
 - 8. ASTM C 425, Compression Joints for Vitrified Clay Pipe and Fittings.
 - 9. ASTM C 700, Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated.
 - 10. ASTM D 2321, Recommended Practice for Underground Installation of Flexible Thermoplastic Storm drain Pipe.
 - 11. ASTM D 3034, Type PSM Polyvinyl Chloride (PVC) Storm drain Pipe and Fittings.
 - 12. AWWA Publications regarding pipe and installation;
 - a. AWWA C 110.
 - b. AWWA C 111.
 - c. AWWA C 115.
 - d. AWWA C 151.
 - e. AWWA C 153.
 - f. AWWA C 200
 - g. AWWA C 218
 - h. AWWA C 205
 - i. AWWA C 207
 - i. AWWA C 208
 - k. AWWA C 214
 - 1. AWWA C 503.
 - m. AWWA C 509.
 - n. AWWA C 511.
 - o. AWWA C 600.
 - p. AWWA C 651.

- q. AWWA C 900.
- r. AWWA C 901.
- s. UNI B 3 with AWWA C 900.
- 13. Plumbing Code Compliance: Comply with applicable portions of National Standard Plumbing Code pertaining to selection and installation of storm drainage system's materials and products.
- 14. Environmental Compliance: Comply with applicable portions of local Environmental Agency regulations pertaining to storm drainage systems.

1.03 SUBMITTALS:

- A. Product Data: Submit manufacturer's technical product data and installation instructions for storm drainage system materials and products.
- B. Shop Drawings: Submit shop drawings for storm drainage systems, showing piping materials, size, locations, and inverts. Include details of underground structures, connections, and manholes. Show interface and spatial relationship between piping and proximate structures.
- C. Record Drawings: At project close-out, submit record drawings of installed storm drainage piping and products, in accordance with Division 1.
- D. Maintenance Data: Submit maintenance data and parts lists for storm drainage system materials and products. Include this data, product data, shop drawings, and record drawings in maintenance manual; in accordance with requirements of Division 1.

PART 2 - PRODUCTS

2.01 IDENTIFICATION:

- A. Underground-Type Plastic Line Marker: Manufacturer's standard permanent, bright-colored, continuous-printed plastic tape, intended for direct-burial service; not less than 6" wide x 4 mils thick. Provide green tape with black printing reading "CAUTION STORM DRAIN LINE BURIED BELOW."
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering identification markers which may be incorporated in the work include, but are not limited to, the following:
 - a. Allen Systems Inc.
 - b. Emed Co., Inc.
 - c. Seton Name Plate Corp.

2.02 PIPES AND PIPE FITTINGS:

- A. General: Provide pipes of one of the following materials, of weight/class indicated. Provide pipe fittings and accessories of same material and weight/class as pipes, with joining method as indicated.
- B. Cast-Iron Soil Pipe: ASTM A 74, hub and spigot ends, service weight unless otherwise indicated.
 - 1. Fittings: Cast-iron hub and spigot complying with ASTM A 74; lead/oakum calked joints, or compression joints with rubber gaskets complying with ASTM C 564.
- C. Reinforced Concrete Pipe: ASTM C 76, Class II, D- Load 2000 unless otherwise indicated.
 - 1. Fittings: Reinforced concrete, same strength as adjoining pipe, tongue-and-groove gasketed joints complying with ASTM C 443.
- D. Polyvinyl Chloride (PVC) storm drain Pipe: ASTM D 3033, Type PSP, SDR 35; or ASTM D 3034, Type PSM, SDR 35.
 - 1. Fittings: PVC, ASTM D 3033 or D 3034, solvent cement joints complying with ASTM D 2855 using solvent cement complying with ASTM D 2564; or elastomeric joints complying with ASTM D 3212 using elastomeric seals complying with ASTM F 477.

2.03 STORM DRAIN MANHOLES AND CLEANOUTS

- A. General: Place precast concrete sections as indicated. Where manholes and cleanouts occur in pavements, set tops of frames and covers flush with finish surface. Elsewhere, set tops 2" above finish surface, unless otherwise indicated.
- B. Form bottom of excavation clean and smooth to correct elevation.
- C. Form and place cast-in-place concrete base pad, with provision for sanitary sewer pipe end sections.
- D. Form and place cast-in-place concrete base pad over existing sewer line with provisions for both existing flow direction and realigned flow direction. Existing flows shall be diverted and or temporarily blocked during construction of new manhole.
- E. Install cleanouts at the minimum frequency dictated by the Uniform Plumbing Code regardless if they are indicated on the plans or not. Unless approved by the Civil Engineer of Record cleanouts are to be placed at a minimum frequency of every 100 feet.
- F. Reconstruct existing manhole base to accommodate new flow direction of relocated sewer where indicated.
- G. Install in accordance with ASTM C 891.
- H. Provide rubber joint gasket complying with ASTM C 443 at joints of sections.
- I. Apply bituminous mastic coating at joints of sections.
- J. Establish elevations and pipe inverted for inlets and outlets as indicated.
- K. Mount lid and frame level in grout, secured to top cone section to elevation indicated.

2.04 TAP CONNECTIONS

- A. Make connections to existing piping and underground structures, so that finished work will conform as nearly as practicable to requirements specified for new work.
- B. Use commercially manufactured wyes for branch connections. Field cutting into piping will not be permitted. Spring wyes into existing line and encase entire wye, plus 6" overlap, with not less than 6" of 3,000 psi 28-day compressive strength concrete.
- C. Branch connections made from side into existing 4" to 21" piping shall have wye sprung into existing line, and entire wye encased with not less than 6" of 3,000 psi 28-day compressive strength concrete.
- D. Take care while making tap connections to prevent concrete or debris from entering existing piping or structure. Remove debris, concrete, or other extraneous material, which may accumulate.
- E. General: Provide concrete cast in place manholes as indicated in the project construction documents.

2.05 CATCH BASINS:

- A. General: Provide cast in place catch basins as indicated in the project construction documents.
- B. Provide reinforcement in PCC base as indicated in construction document details.
- C. Frame and Grate: Ductile-iron, heavy-duty, vandal proof, and ADA compliant.
- D. Sediment Filter: Provide sediment filter compliant with BMP practice for NPDES II, as indicated on Drawings.
 - 1. Transpo Industries, Inc.; Product, Storm Water Sediment Control Grate Insert: www.transpo.com
- E. Provide pre-manufactured basins in landscape areas as indicated in the project construction documents.

2.06 HEADWALLS & OUTLETS:

- A. Provide cast in place PCC headwalls as indicated in the project construction documents.
- B. Provide grouted rock slope protection at all storm drain outlets per the project construction documents.

PART 3 - EXECUTION

3.01 INSTALLATION OF IDENTIFICATION:

A. General: During back-filling/top-soiling of storm drainage systems, install continuous underground-type plastic line marker, located directly over buried line at 6" to 8" below finished grade.

3.02 INSTALLATION OF PIPE AND PIPE FITTINGS:

- A. General: Install piping in accordance with governing authorities having jurisdiction, except where more stringent requirements are indicated.
- B. Inspect piping before installation to detect apparent defects. Mark defective materials with white paint and promptly remove from site.
- C. Lay piping beginning at low point of system, true to grades and alignment indicated, with unbroken continuity of invert.
- D. Place bell ends or groove ends of piping facing upstream.
- E. Install gaskets in accordance with manufacturer's recommendations for use of lubricants, cements, and other special installation requirements.
- F. Concrete Pipe: Install in accordance with applicable provisions of ACPA "Concrete Pipe Installation Manual".
- G. Plastic Pipe: Install in accordance with manufacturer's installation recommendations, and in accordance with ASTM D 2321.
- H. Cleaning Piping: Clear interior of piping of dirt and other superfluous material as work progresses. Maintain swab or drag in line and pull past each joint as it is completed.
 - 1. In large, accessible piping, brushes and brooms may be used for cleaning.
 - 2. Place plugs in ends of uncompleted conduit at end of day or whenever work stops.
 - 3. Flush lines between manholes if required to remove collected debris.
- I. Joint Adaptors: Make joints between different types of pipe with standard manufactured adapters and fittings intended for that purpose.
- J. Alignment: Inspector of Record shall verify both horizontal and vertical locations of all underground utilities prior to beginning backfill. District's agent shall provide all construction staking in accordance with industry standards for construction staking of underground utilities. All survey hubs as provided shall be preserved for reference and verification of installation location.
- K. Interior Inspection: Inspect piping to determine whether line displacement or other damage has occurred.
 - 1. Make inspections after lines between manholes, or manhole locations, have been installed and approximately 2' of backfill is in place, and again at completion of project.
 - 2. If inspection indicates poor alignment, debris, displaced pipe, infiltration or other defects, correct such defects, and reinspect.

3.03 INSTALLATION OF CATCH BASINS:

- A. General: Construct catch basins to sizes and shapes indicated.
- B. Pour base of catch basins with steel reinforcement as indicated. Place pre-fabricated drain box before PCC base sets to allow box to imbed into base.
- C. Set frames and grates to elevations indicated. All grates shall be tamper proof, ADA approved and installed with slots perpendicular to the direction of travel.

3.04 HEADWALLS & OUTLETS:

- A. PCC headwalls shall be constructed per Caltrans Standard Details and Specifications as indicated in the project construction documents.
- B. Construct grouted "Facing Class" rock slope protection at all storm drain outlets per Caltrans Standard Details and Specifications as indicated in the project construction documents.

3.05 TAP CONNECTIONS:

- A. Make connections to existing piping and underground structures, so that finished work will conform to the requirements specified by the Plans and City Public Works Department.
- B. Use commercially manufactured wyes for branch connections. Field cutting into piping will not be permitted. Spring wyes into existing line and encase entire wye, plus 6" overlap, with not less than 6" of 3000 psi 28-day compressive strength concrete.
- C. Take care while making tap connections to prevent concrete or debris from entering existing piping or structure. Remove debris, concrete, or other extraneous material which may accumulate.

3.06 BACKFILLING:

- A. General: Conduct backfill operations of open-cut trenches closely following laying, jointing, and bedding of pipe, and after initial inspection and testing are completed.
 - 1. To minimize local area traffic interruptions, allow no more than 100' between pipe laying and point of complete backfilling.
 - 2. Bedding requirements as shown on Drawings.

3.07 FIELD QUALITY CONTROL:

- A. Testing: Perform testing of completed site piping in accordance with the Uniform Plumbing Code using water or air pressure test.
- B. Inspection: Perform video inspection of all piping prior to final acceptance of work. All video operations shall be recorded on tape or disk for playback if required. All video inspections will include a detailed narrative identifying exact locations of the installed lines and limits of areas to be re-installed.

END OF SECTION



List of Required Structural Tests &

INCREMENT #

DSA File No.: Application No.:

33-C3 04-117233

Date Submitted:

District Mt. San Jacinto Community College District

12/17/2019

Revised:

School Name

San Jacinto Community College (San Jacinto Campus)

IMPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A.

NOTE: This form is also available for projects submitted for review under the 2007, 2010, and 2013 CBC.

INSTRUCTIONS: Click a plus sign (+) before any category or subcategory to reveal additional tests and special inspections. A shaded box indicates a test or special inspection that may be required, depending on the scope of the construction and other issues. A shaded box can be clicked indicating your selection of that test. **Note:** A minus (-) on a category or subcategory heading indicates that it can be collapsed. However, any selections you may have made will be cleared. Click on the "COMPILE" button to show only the tests and inspections finally selected. **For more information on use of this form, see DSA-103.INSTR.**

	Note: References are to the 2016 edition of the California Building Code (CBC) unless otherwise noted.						
	TEST OR SPECIAL INSPECTION RECURE TO SPECIAL INSPECTION RECURE TO SPECIAL INSPECTION RECURE TO SPECIAL INSPECTION RECURE TO SPECIAL INSPECTION						
-	SOILS (Indicate if project has geotechnic	cal repoi	rt):	 Project has a geotechnical report, or CDs indicate soils special inspection is required by GE. Project does NOT have and does NOT require a geotechnical report. 			
-	1. GENERAL:	Table 1705	A.6				
X	a. Verify that: • site has been prepared properly prior to placement of controlled fill and/or excavations for foundations, • foundation excavations are extended to proper depth and have reached proper material, and • materials below footings are adequate to achieve the design bearing capacity.	Periodic	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)			
-	4. CAST-IN-PLACE DEEP FOUNDATIONS (PIE	RS):	Table	e 1705A.8			
X	 Inspect drilling operations and maintain complete and accurate records for each pier. 	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)			
X	 Verify pier locations, diameters, plumbness, bell diameters (if applicable), lengths, and embedment into bedrock (if applicable). Record concrete or grout volumes. 	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)			
X	d. Confirm adequate end strata bearing capacity.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)			
X	e. Concrete piers.	Provide tests a	and inspe	ections per CONCRETE section below.			
-	CONCRETE Table 1705A.3, ACI 318-14 Sections 26.12 & 26.13						
-	7. CAST-IN-PLACE CONCRETE						
	Material Verification and Testing:						
X	a. Verify use of required design mix.	Periodic	SI	Table 1705A.3 Item 5, 1910A.1 (1909.2.3 ⁺)			



List of Required Structural Tests &

INCREMENT #

DSA File No.: Application No.:

33-C3 04-117233

Date Submitted:

12/17/2019

Revised:

X		Test	LOR	1910A.2 (1909.2.4 ⁺); ACI 318-14 Section 26.6.1.2. DSA IR 17-10.16 (See Appendix for exemptions.)
X	During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	Table 1705A.3 item 6 ; ACI 318-14 Sections 26.5 & 26.12
X	d. Test concrete (f'c).	Test	LOR	1905A.1.16 (1909.3.7 ⁺); ACI 318-14 Section 26.12.
	Inspection:	•		
X	h. Welding of reinforcing steel.	Provide specia	ıl inspect	ion per STEEL, category 19.1(d) & (e) and/or 19.2(g) & (h) below.
+	MASONRY	TMS 402-13/A	CI 530-1	3/ASCE 5-13 Table 3.1.3 & TMS 602-13/ACI 530.1-13/ASCE 6-13 Table 5
_	STEEL, ALUMINUM	Table 1705A.2	.1, AISC	303-10, AISC 360-10, AISC 341-10, AISC 358-10, AISI S100-07/S2-10
-	17. STRUCTURAL STEEL, COLD-FORMED ST	EL, AND	ALUM	NUM USED FOR STRUCTURAL PURPOSES
	Material Verification:			
X	Material sizes, types and grades comply with requirements.	Periodic	*	2203A.1 (2203.1 ⁺), Table 1705A.2.1 Item 3a-3c ; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S220-11 Section A4. * By special inspector or qualified technician when performed off-site.
X	DI FOST GITTAGE TITAGE TO SEE	Test	LOR	2203A.1 (2203.1 ⁺).
X	c. Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
	Inspection:	1	1	
X	 Verify and document steel fabrication per DSA approved construction documents. 	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4).
-	18. HIGH STRENGTH BOLTS:	RCSC 2009		
	Material Verification of High-Strength Bolts, Nuts, and Wa	shers:	1	
X	 Verify identification markings and manufacturer's certificates of compliance conform to ASTM standards specified in the DSA approved documents. 	Periodic	SI	Table 1705A.2.1 Item 1, 2203A.1; RCSC 2009 Section 2.1. DSA IR 17-9
X	b. Test high-strength bolts, nuts and washers.	Test	LOR	2213A.1 (2212.6.1 ⁺). RCSC 2009 Section 7.2 DSA IR 17-8.16
	Inspection of High-Strength Bolt Installation:			
X	c. Bearing-type ("snug tight") connections.	Periodic	SI	Table 1705A.2.1 Item 2a ; RCSC 2009 Section 9.1. DSA IR 17-9
-	19. WELDING:			1705A.2.5, Table 1705A.2.1 Items 4 & 5; DSA IR 17-3, AWS D1.1 and AWS D1.8 for structural steel, AWS D1.2 for Aluminum, AWS D1.3 for cold-formed steel, AWS D1.4 for reinforcing steel. (See Appendix for exemptions.)
	Verification of Materials, Equipment, Welders, etc:			
X	designation listed on the BOA approved documents and the WF 6.	Periodic	SI	DSA IR 17-3.
X	 Verify weld filler material manufacturer's certificate of compliance. 	Periodic	SI	DSA IR 17-3.
X	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
-	19.1 SHOP WELDING:			
X	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds	Continuous	SI	Table 1705A.2.1 Item 5a1-4. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
X	b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds	Periodic	SI	1705A.2.2, Table 1705A.2.1 Item 5a.5 & 5a.6. Per AISC 360-10 (and AISC 341-10 as applicable).



DSA-103 Revised 5/8/2019
List of Required Structural Tests &

INCREMENT #

DSA File No.: Application No.:

33-C3 04-117233 Revised:

Date Submitted:

12/17/2019

Revised:	

			<u>'</u> '	cvisca.	
+					
+	WOOD				
+	OTHER				



List of Required Structural Tests &

INCREMENT #

DSA File No.: Application No.:

33-C3	
04-117	233

Date Submitted:

12/17/2019

Reviseu:	
Revised:	

st of	required verified report(s):					
	Soils testing and Inspection: Geotechnical Verified Report - Form DSA-293					
2	Structural Testing and Inspection: Laboratory Verified Report - Form DSA-291					
3	Shop Welding Inspection: Laboratory Verified Report - Form D	OSA-291, or, for independent	y contracting SI, Special Inspection Verified Report - Form DSA-292			
ŀ	HS Bolt Installation Inspection: Laboratory Verified Report - Form	n DSA-291, or, for independe	ntly contracting SI, Special Inspection Verified Report - Form DSA-292			
	KEY to Columns					
	1 Type -	2 Performe	d Bv -			
	Турс		that the special inspection is to be performed by a registered geotechnical enginee	r or his or		
	Continuous – Indicates that a continuous special inspection is required	her authorized r		OI TIIS OI		
	Devicable Indicates that a mariadic analist increation is usually	LOR – Indicates	s that the test or special inspection is to be performed by a testing laboratory accep	ted in the		
	Periodic – Indicates that a periodic special inspection is required	DSA Laboratory	Evaluation and Acceptance (LEA) Program. See CAC Section 4-335.			
	Test – Indicates that a test is required	PI – Indicates th	nat the special inspection is to be performed by a project inspector			
		SI – Indicates th	nat the special inspection is to be performed by an appropriately qualified/approved	special		
		inspector				
Ro	ger Clarke		IDENTIFICATION STAMP			
Name	Name of Architect or Engineer in general responsible charge		DIV OF THE STATE ARCHITECT			
riani			APP. # 04-117233			
			01111200			
	Name of Structural Engineer (When structural design has been delegated) —DocuSigned by:		AC N/A F/LS N/A SS			
	12/17/2019					
			DATE			
Oigile	ture of Architect or Structural Engineer date AA344130CD3943C					



List of Required Structural Tests &

INCREMENT #

DSA File No.: Application No.:

33-C3 04-117233 Revised:

Date Submitted:

12/17/2019

Revised:

Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

Exempt items given in IR A-22 or the 2016 CBC (including DSA amendments) and those items identified below with an "X" by the design professional are NOT subject to DSA requirements for the structural tests / special inspections noted. Items marked as exempt shall be identified on the approved construction documents. The project inspector shall verify all construction complies with the approved construction documents.

kite	ndred to duck
	Soils:
	Deep foundations acting as a cantilever footing designed based on minimum allowable pressures per CBC Table 1806A.2 and having no geotechnical report for the following cases: A) free standing sign or scoreboard, B) cell or antenna towers and poles less than 35'-0" tall (e.g., lighting poles, flag poles, poles supporting open mesh fences, etc.), C) singlestory structure with dead load less than 5 psf (e.g., open fabric shade structure), or D) covered walkway structure with an apex height less than 10'-0" above adjacent grade.
	2. Shallow foundations, etc. are exempt from special inspections and testing by a Geotechnical Engineer for the following cases: A) buildings without a geotechnical report and meeting the exception item #1 criteria in CBC Section 1803A.2 supported by native soil (any excavation depth) or fill soil (not exceeding 12" depth per CBC Section 1804A.6), B) soil scarification/recompaction not exceeding 12" depth, C) native or fill soil supporting exterior non-structural flatwork (e.g., sidewalks, site concrete ramps, site stairs, parking lots, driveways, etc.), D) unpaved landscaping and playground areas, or E) utility trench backfill.

Exer	De jar Produ.
	Welding:
	1. Solid-clad and open-mesh gates with maximum leaf span or rolling section for rolling gates of 10' and apex height less than 8'-0" above lowest adjacent grade. When located above circulation or occupied space below, these gates are not located within 1.5x gate/fence height (max 8'-0") to the edge of floor or roof.
	2. Handrails, guardrails, and modular or relocatable ramps associated with walking surfaces less than 30" above adjacent grade (excluding post base connections per the 'Exception' language in Section 1705A.2.1); fillet welds cannot be ground flush.



List of Required Structural Tests &

INCREMENT #

DSA File No.: Application No.:

33-C3 04-117233

Date Submitted:

12/17/2019

Revised:	
Revised:	

Concrete/Masonry:	3. Non-structural interior cold-formed steel framing spanning less than 15'-0", such as in interior partitions, interior soffits, etc. supporting only self weight and light-weight finishes or adhered tile, masonry, stone, or terra cotta veneer no more than 5/8" thickness and apex less than 20'-0" in height and not over an exit way. Maximum tributary load to a member shall not exceed the equivalent of that occurring from a 10'x10' opening in a 15' tall wall for a header or king stud.
1. Post-installed anchors for the following: A) exempt non-structural components (e.g., mechanical, electrical, plumbing equipment - see item 7 for "Welding") given in CBC Section 1616A.1.18 (which replaces ASCE 7-10, Section 13.1.4) or B) interior nonstructural wall partitions meeting criteria listed in exempt item 3 for "Welding."	4. Manufactured support frames and curbs using hot rolled or cold-formed steel (i.e., light gauge) for mechanical, electrical, or plumbing equipment weighing less than 2000# (equipment only) (connections of such frames to superstructure elements using welding will require special inspection as noted in selected item(s) for section 19, 19.1 and/or 19.2 of listing above).
Concrete batch plant inspection is not required for items given in CBC Section 1705A.3.3.2 subject to the requirements and limitations in that section.	5. Manufactured components (e.g., Tolco, B-Line, Afcon, etc.) for mechanical, electrical, or plumbing hanger support and bracing (connections of such components to superstructure elements using welding will require special inspection as noted in selected item(s) for section 19, 19.1 and/or 19.2 of listing above).
Non-bearing non-shear masonry walls may be exempt from certain DSA masonry testing and special inspection items as allowed per IR 21-1.16. Refer to construction documents for specific exemptions accordingly for each applicable wall condition.	6. TV Brackets, projector mounts with a valid listing (see DSA IR A-5) and recreational equipment (e.g., playground structures, basketball backstops, etc.) (connections of such elements to superstructure elements using welding will require special inspection as noted in selected item(s) for section 19, 19.1 and/or 19.2 of listing above).
Epoxy shear dowels in site flatwork and/or other non-structural concrete.	7. Any support for exempt non-structural components given in CBC Section 1616A.1.18 (which replaces ASCE 7-10, Section 13.1.4) meeting the following: A) when supported on a floor/roof, <400# and resulting composite center of mass (including component's center of mass) <= 4' above supporting floor/roof, B) when hung from a wall or roof/floor, <20# for discrete units or <5 plf for distributed systems.
Testing of reinforcing bars is not required for items given in CBC Section 1910A.2 subject to the requirements and limitations in that section.	



San Jacinto Campus Map

100	Business & Technology	1
200	Administration, Business Services,	
	Human Resources	1
250	Pump House	1
300	Library/Learning Resource Center	1
700	M&O, Receiving	1
750	Campus Safety, Trio Program (751)	1
800	Printing Department	
900	Auto Shop	1
950	Warehouse	
1100	Student Center-Cafeteria, SGA,	
	Instruction, Eagle Access Center	
	(1120), EOPS/CARE, Disabled	1
	Students Programs & Services	1
1150	Student Center-Enrollment	1
	Services, Career/Transfer Center,	1

Counseling, Financial Aid

1200	Classrooms-Humanities,
	Assessment Center (1210)
1250	Classrooms-Science
1300	Science Annex
1400	Fine Arts Center & Gallery
1420/1	421 Classrooms
1425	Institutional Effectiveness,
	Planning Office, DELTA
1450	Bookstore, Community Educa
	(1455A), Job Connect/CalWOI

1450	Bookstore, Community Education
	(1455A), Job Connect/CalWORKs
	(1456A), Learning Skills Program,
	TV Studio, Student Athlete Support
1500	Theater

1500	Theater
1540	Student Health Center/Lactation Room
1550	Theater Annex

1560 Veterans Resource Center1600 Music Building

1900	Gymnasium & Dance Studios
	Wellness Center (1918)
1950	Coach Offices
1953	Storage
1960	Athletic Dept. Offices
1970	P. E. Offices & Locker Rooms
2100/2	150 Child Development Center
AA	Purchasing





November 30, 2020

Addendum 1

To the Contract Documents for the Construction of Shade Structures at Mt. San Jacinto College Mt. San Jacinto Community College District DSA Application 04-117233 / File 33-C3

NOTICE TO BIDDERS

It is intended that all work affected by the following provisions shall conform to the original plans and specifications. Delete or modify each of the following items wherever appearing on Drawings, and/or specifications. Acknowledge receipt of Addendum No. 1 in the space provided on the Contractor's proposal. Failure to do so may subject bidder to disqualification.

General

Item 1.1: For Bonding purposes, the Architect's construction cost estimate for the project is \$345,000.

Item 1.2: To clarify, the District has contracted directly with USA Shade to provide and install all shade structures, including foundation work, as shown on the approved plans. All other site work shown on the approved plans shall be included under this sitework bid package.

Item 1.3: To clarify, the Contractor awarded this contract shall be required to fully coordinate the placement and location of the new shade structures with USA Shade Structures designated installer. Contractor shall be required to prepare site to receive new structures including, but not limited to demolition, site prep, utility coordination, and final surface finishes as shown and specified. Contractor will be required to provide site survey/shade structure column / footing placement location per approved plans and as directed by USA Shade Structures designated installer.

Item 1.4: The following is the projected bid and construction schedule:

December 15, 2020	-	Pre-Bid Job Walk (2:00 p.m. at project site)
December 17, 2020	-	Pre-Bid RFI's due to purchasing by 5:00 p.m.
December 21, 2020	-	Issue Addendum as required
December 21, 2020	-	USA Shade releases production to commence
January 5, 2021	-	Bid Opening (2:00 p.m. Location or virtual TBD)
January 21, 2021	-	Board Award
January 25, 2021	-	NTP
January 25 - January 29, 2021	-	Contractor to obtain bonds and insurance certs
February 1 - February 5, 2021	-	District Review
February 8, 2021	-	Pre-Construction Meeting (Time / location TBD)
February 15, 2021	-	Construction commences



March 1, 2021 - USA Shade mobilizes and commences foundation

work

March 15, 2021 - USA Shade complete (sail fabric to follow)

May 16, 2021 - Construction Complete (90 Calendar Days)

June 21, 2021 - DSA Close out and Project Certification

Item 1.5: To clarify, the project site address is 1499 N. State Street, San Jacinto, Ca. 92583

Item 1.6: To clarify, the project will be managed by college personnel. A construction manager will not be utilized for project oversight.

Item 1.7: To clarify, there is no project allowance to be included in the Contractors bid proposal.

Item 1.8: To clarify, only Prime Contractors need to be pre-qualified.

Item 1.9: Refer to Sheet AS-1-3, Keynote 2-7. Existing material to be patched and repaired to be equal to Plexipave System as manufactured by California Products Corp. Color to match existing surfaces.

Item 1.10: The Contractor shall utilize the attached Underground Utility Survey to assist with locating existing underground utilities. In addition, the Contractor shall retain the services of a certified underground utility locating company and perform GPR survey of all established footing locations as a secondary precaution prior to USA Shade commencing foundation drilling.

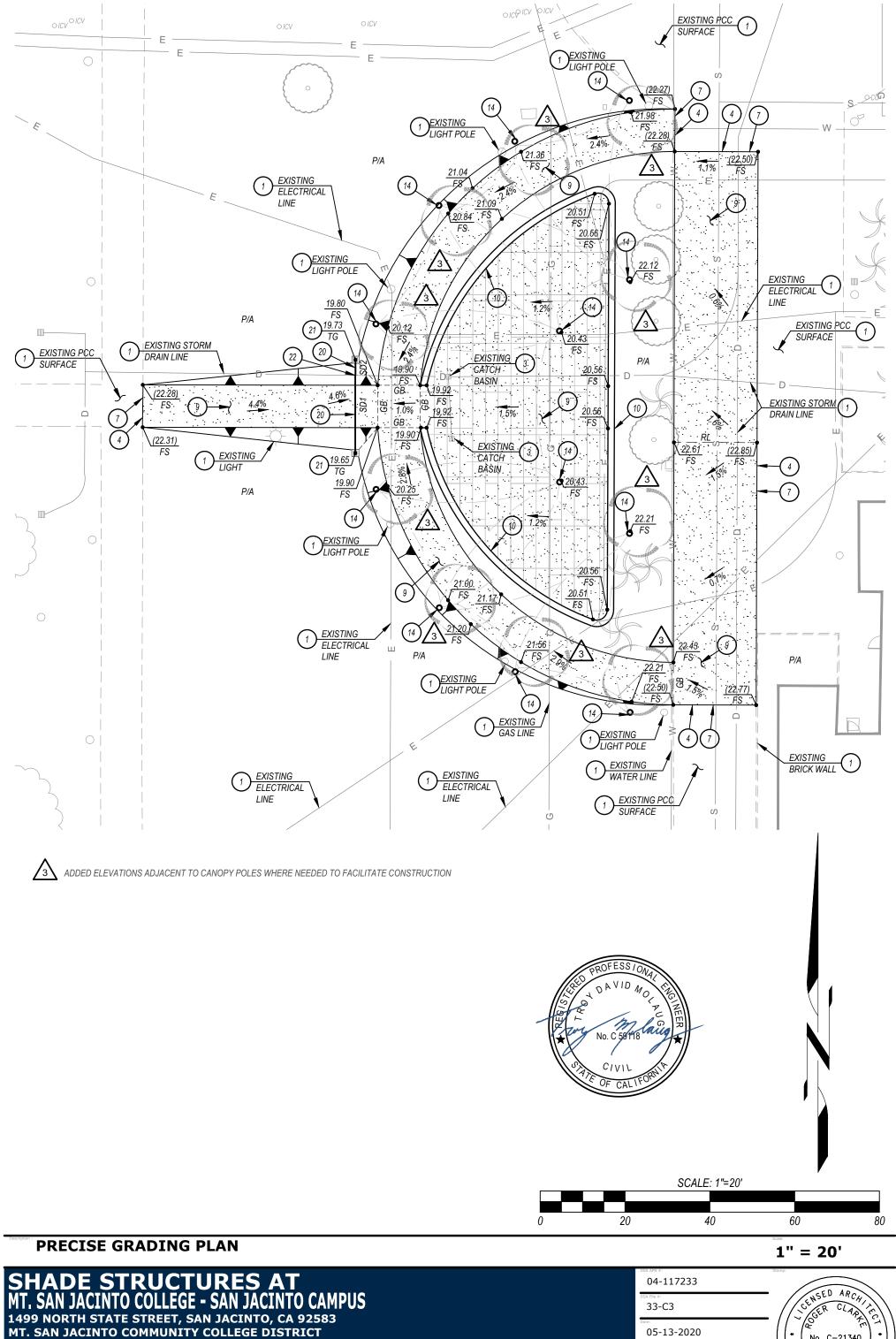
Item 1.11: All grading spoils, resulting from foundation drilling by USA Shade, shall be removed by Contractor under this sitework bid package.

Item 1.12: Contractor shall refer to Sheet C-3.1. Additional spot elevations provided per attached Sketch CSK-3.1

Item 1.13: Contractor shall refer to Sheet AS-1.3. Provide mow curb columns as shown on Detail 20 and Keynote 2.7 clarified per attached revised Sheet AS-1.3.

End of Addendum 1

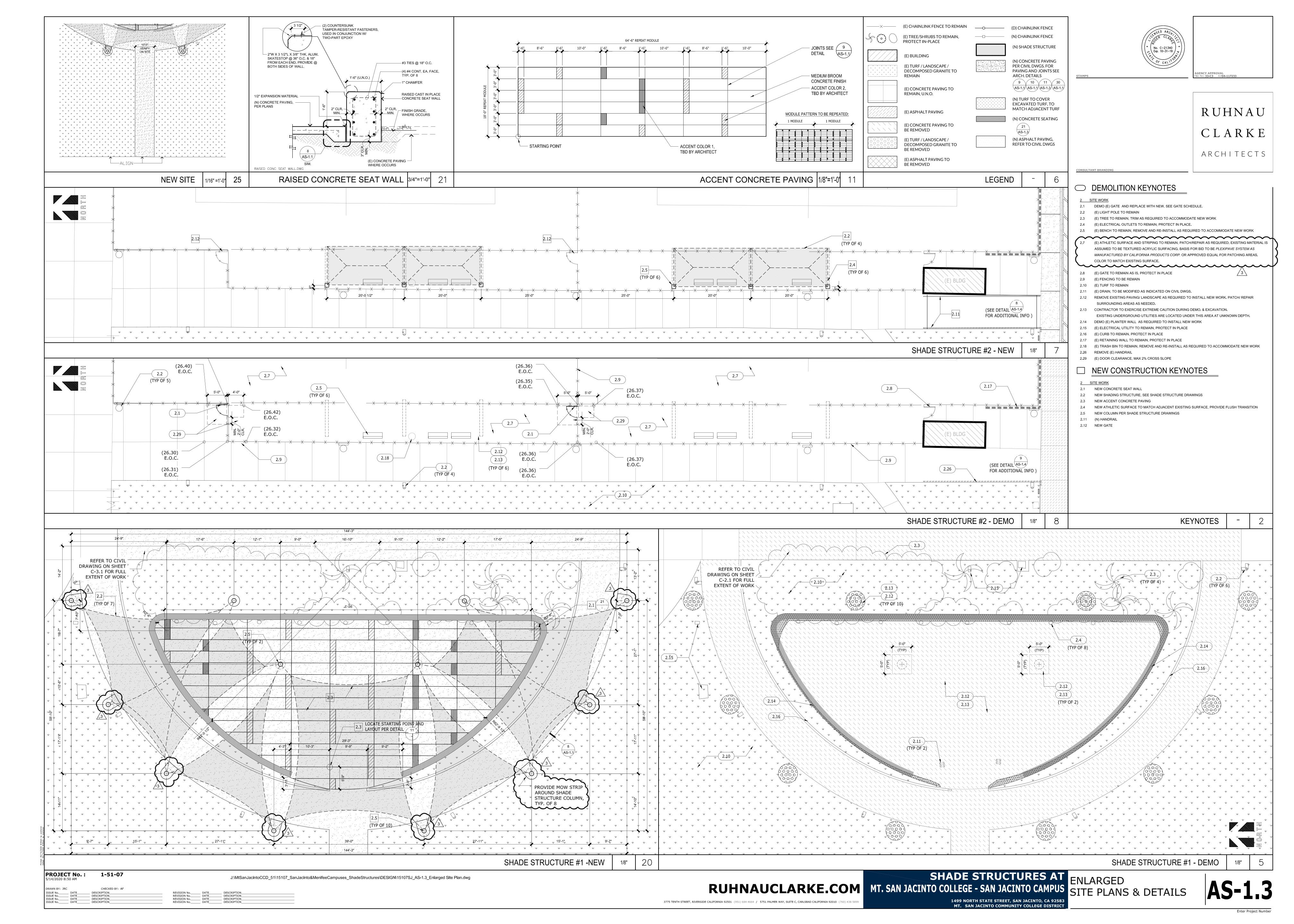
David Higginson, AIA SGH Architects



RUHNAUCLARKE.COM 3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899 05-13-2020

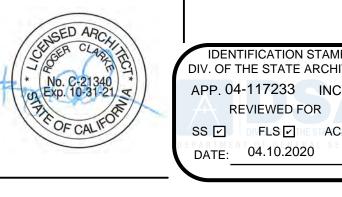
1-51-07 **CSK-3.1**





SHADE STRUCTURES AT MT. SAN JACINTO COLLEGE SAN JACINTO CAMPUS

for Mt. San Jacinto Community College District



DIV. OF THE STATE ARCHITE APP. 04-117233 INC: SS I DIFLS I HESTACS I

RUHNAU CLARKE

ARCHITECTS

ANGLE CONTRACTOR TO VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING CONDITIONS ON THE **DIRECTION OF VIEW** MAXIMUM JOB SITE PRIOR TO THE START OF THIS CONTRACT. NOTIFY THE ARCHITECT IMMEDIATELY OF ANCHOR BOLT MT. SAN JACINTO COMMUNITY COLLEGE DISTRICT CLIMATE ZONE 18 MACHINE BOLT SECTION IDENTIFICATION NUMBER ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND INFORMATION SHOWN ON SITE SEISMIC DESIGN CRITERIA MT. SAN JACINTO COLLEGE METAL CORNER BEAD ASPHALTIC CONCRE THE CONSTRUCTION DOCUMENTS. EXISTING CONDITIONS ARE INDICATED BASED ON $S_{MS} = 2.44 \, g$ **BUILDING SECTION** (951) 487-6752 INFORMATION SHOWN ON AVAILABLE DOCUMENTS. ANY DAMAGE TO EXISTING CONDITIONS IS ACCESSIBLE $S_1 = 1.115 g$ $S_{D1} = 1.115 g$ **SAN JACINTO CAMPUS** ACOUSTIC PANE THE SOLE RESPONSIBILITY OF THE APPLICABLE CATEGORY CONTRACTOR. ACOUSTIC TILE SITE WIND DESIGN CRITERIA 1499 North State Street ABOVE FINISHED FLOC WIND (ULT) = 115 MPH **MISCELLANEOUS** DIRECTION OF VIEW LYNN PURPER, FACILITIES PLANNING WIND (ASD) = 89 MPH San Jacinto, Ca 92583 MASONRY OPENING ANODIZED EXPOSURE = 'C' **ELEVATION IDENTIFICATION NUMBER** OF OUR KNOWLEDGE, EXISTING UTILITIES ARE AS SHOWN ON THESE PLANS. THE APPLICABLE AWP ACOUSTIC WALL PANEL **EXTERIOR ELEVATION** CATEGORY CONTRACTOR SHALL ASCERTAIN THE TRUE VERTICAL AND HORIZONTAL LOCATION AND SIZE OF ALL UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SHEET ON WHICH ELEVATION OCCURS **RUHNAU CLARKE ARCHITECTS** PUBLIC OR PRIVATE UTILITIES, SHOWN OR NOT SHOWN HEREIN. BLDG BUILDING BLKG BLOCKING 3775 TENTH STREET, RIVERSIDE, CA 92501 BENCH MARK (951) 684-4664 ON CENTER BUILT-UP ROOFING **DETAIL REFERENCE TO OUTSIDE DIAMETEI** - DIRECTION OF CUT CAB CABINET OWNER FURNISHED SHEET ON WHICH DETAIL OCCURS **CONTACT: CONTRACTOR INSTALLEI** CAST IRON ROGER CLARKE, PRINCIPAL RCLARKE@RUHNAUCLARKE.COM CONSTRUCTION/COLD JOINT UNDER NO CIRCUMSTANCE SHALL WORKING DIMENSIONS BE SCALED FROM THE PLANS ROOM NAM OPPOSITE HAND CENTERLINE SECTIONS OR DETAILS ON THE DRAWINGS. **MULTI-PURPOSE** ALL STANDARDS, MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE STATE BUILDING CMU CONCRETE MASONRY UNIT PLANTER AREA COLUMN POWDER ACTUATED FASTENER CONC CONCRETE PORTLAND CEMENT PLASTER **EPIC ENGINEERS** CEMENT PLASTER INTERIOR ELEVATION DETAIL AND SHEET NUMBER, PREFINISHED 101 E. REDLANDS BLVD., SUITE 146, REDLANDS, CA 92373 WHEN INT. ELEV. IS NOT PROVIDED THE FINISH SCHED. PANIC HARDWARE CERAMIC TILE DETAIL AND SHEET NUMBER IS PROVIDED (909) 792-5969 PAINTED INSULATION FACING PLAM PLASTIC LAMINATE DRINKING FOUNTAIN **CONTACT:** INTERIOR ELEVATION DECOMPOSED GRANITE - DIRECTION OF VIEW TROY MOLAUG, PRINCIPAL TROY@EPICRCE.COM IDENTIFICATION TRACY WARD, PROJECT MANAGER TRACY@EPICRCE.COM SHEET NUMBER PAINTED SHEET METAL DOWN BE EXECUTED UNDER THIS CONTRACT PRIOR TO SUBMISSION OF BID. NO ADDITIONAL COSTS WILL PRESSURE TREATED DOOR BE APPROVED FOR ITEMS READILY VISIBLE WHICH WERE REQUIRED TO BE REMOVED OR DIVISION OF STATE ARCHITECT REWORKED TO FACILITATE FINISHED CONDITIONS. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY WRITTEN IDENTIFICATION RADIUS/RISER/REMOVABLE MULLION ADDENDA OR A CCD APPROVED BY THE DIVISION OF THE STATE ARCHITECT. AS REQUIRED BY **EXPANSION JOINT** ROOF DRAIN ELEV ELEVATION A PROJECT INSPECTOR EMPLOYED BY THE DISTRICT, (OWNER) AND APPROVED AND CERTIFIED BY REFERENCE ENCL ENCLOSURE THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE REINF REINFORCING PANIC HARDWARE REQ'D REQUIRED WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR THE IDENTIFICATION - DOOR NUMBER EXPOSED STRUCTURE INSPECTOR OF RECORD SHALL BE "CLASS 2" (IOR). RM ROOM FIRE RATING BY MINUTE EGGSHELL PAINT ROUGH OPENING THE ARCHITECTURAL SITE DRAWINGS SHALL BE REFERENCED FOR DETERMINING THE EXPANSION/EXPOSED RSLB RESILIENT BASE INTENDED LIMITS OF CONSTRUCTION. FXTFRIOR REFRIGERATOR WINDOW NUMBER WHERE CONFLICTS EXIST IN THE DRAWINGS PERTAINING TO QUANTITIES OF EQUIPMENT OR EWC ELECTRIC WATER COOLER IDENTIFICATION FIRE RATING BY MINUTE **PROJECT TEAM** DEVICES SHOWN, THE LARGER QUANTITY SHALL GOVERN. SPLASH BLOCK FLOOR DRAIN SOLID CORE B CERTIFICATION OF THIS DSA PROJECT IS CONTINGENT ON ALL PREVIOUS DSA PROJECTS FIRE EXTINGUISHER CABINET SCHED SCHEDULE FINISH FLOOR STORM DRAIN Green Acres Google FINISH GRADE FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION SHALL COMPLY WITH CFC 2016, KEY NOTE SEMI GLOSS PAINT TITLE SHEET FIRE HOSE CABINET SHFFT FLAT HEAD WOOD SCREWS SHEATHING WHILE SCHOOL IS IN SESSION, CONSTRUCTION CREW SHALL ONLY OCCUPY SPACES RELATED SIMILAR Map data ©2018 Google 1 mi L TO THE WORK AND SHALL MINIMIZE DISRUPTION TO STUDENTS AND STAFF. TITLE SHEET FLOWLINE SPECIFICATIONS TOPOGRAPHIC MAP FLOOR CONSTRUCTION CREW SHALL WEAR APPROPRIATE SAFETY GEAR AND COMPLY WITH SOUARE CIVIL PLAN FACE OF CONCRETE CURRENT APPLICABLE SAFETY REGULATIONS. SEAMLESS RESILIENT FLOORING FACE OF FINISH HORIZONTAL CONTROL PLAN STAINLESS STEEL CONSTRUCTION CREW SHALL ADHERE TO BEHAVIOR AND DRESS CODE THAT IS FACE OF MASONRY C-5.1 DETAIL SHEET SOUND TRANSMISSION CLASS COLOR / TEXTURE APPROPRIATE FOR SCHOOL AND ACCEPTABLE WITH DISTRICT REPRESENTATIVES. FACE OF STUD STANDARD IDENTIFICATION FIRE RATED ASSEMBLY SMOKING SHALL NOT BE ALLOWED ON CAMPUS. STEEL FIBERGLASS REINFORCED PANEL OVERALL SITE PLAN STAIN THERE SHALL BE NO POSSESSION OR CONSUMPTION OF DRUGS OR ALCOHOLIC BEVERAGES FIRE RETARDANT TREATED LOCAL FIRE AUTHORITY SITE PLAN STRUCTURAL/STRUCTURE ON THE JOB SITE BY ANY PERSON. ANYONE WHO DOES NOT COMPLY WITH THESE FURN FURNISH/FURNITURE ENLARGED SITE PLAN AND DETAILS SUSP SUSPENDED REQUIREMENTS SHALL BE DIRECTED TO LEAVE THE JOB SITE AND WILL NOT BE PERMITTED VICINITY MAP FOW FACE OF WINDOW ENLARGED SITE PLAN AND DETAILS TO RETURN DURING THE REMAINDER OF THE CONTRACT. **GATE KEYNOTE** FOD FACE OF DOOR TACKBOARD (E) ENLARGED RESTROOM PLANS / INTERIOR ELEV. **SEE GATE SCHEDULE** THE CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AS NEEDED TO PROTECT HIS TOP OF CURB ACCESSIBILITY AND SIGNAGE DETAILS ON / WORK AREA AND REMAINING WORK FROM WEATHER AND OTHER INCLEMENT CONDITIONS. PARTIAL LIST OF APPLICABLE CODES PARTIAL LIST OF APPLICABLE STANDARDS TERRAZZO GALV GALVANIZED ANY DAMAGE INCURRED DUE TO FAILURE BY THE CONTRACTOR TO PROPERLY PROTECT NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS (CA AMENDED) TOP OF GRATE 019 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 C.C.R. * 2016 EDITION SHADE STRUCTURE (PC DRAWINGS: A# 04-117140, MODEL # DSA3022060-16) GALVANIZED IRON SUCH WORK, SHALL BE REPAIRED AT CONTRACTORS EXPENSE. TOOLED JOINT 016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R. NFPA 14 STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS 2013 EDITION HEIGHT GLULAM GLUE LAMINATED TOP OF MASONRY 2013 EDITION ALL AREAS IN WHICH WORK IS DONE SHALL BE LEFT CLEAN AND IN GOOD REPAIR. ANY DAMAGE (2015 INTERNATIONAL BUILDING CODE VOL. 1 & 2, AND 2016 CALIFORNIA AMENDMENTS) NFPA 17 STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS GYPSUM PLASTER CASEWORK IDENTIFICATION INDICATES SPECIAL -TOP TOP OF PARAPET NFPA 17A STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS 2013 EDITION DONE TO THE EXISTING WORK BY THE CONTRACTOR OR ANY OF HIS SUBCONTRACTORS OR 2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R. GSM GALVANIZED SHEET META P.C. T-2.0 DSA 103 FORM < 141 → W.I.C.# TOP OF WALL 2016 EDITION NFPA 20 STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION EMPLOYEES SHALL BE REPAIRED TO THE SATISFACTION OF THE ARCHITECT AND AT NO COST TO (2014 NATIONAL ELECTRICAL CODE AND 2016 CALIFORNIA AMENDMENTS GWB GYPSUM WALLBOARD 10.1-1000 PRODUCT INFORMATION LENGTH 48 L LOCK TOSHT TOP OF SHEATHING NFPA 22 STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION 2013 EDITION)16 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24 C.C.R. GWW WATER RESISTANT GWB 10.2-2000 REACTIONS TOS TOP OF STEEL STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR (2015 IAPMO UNIFORM MECHANICAL CODE AND 2016 CALIFORNIA AMENDMENTS) THIS COVER SHEET CONTAINS A LIST OF DRAWINGS WHICH COMPRISE A FULL SET OF DRAWINGS TYPICAL HB HOSE BIBB 016 CALIFORNIA PLUMBING CODE (CPC) PART 5, TITLE 24 C.C.R. APPURTENANCES 2016 EDITION M= REVERSE **CUSTOM SHADE STRUCTURE** FOR THIS PROJECT. THIS FULL DRAWING SET ALONG WITH THE SPECIFICATIONS COMPRISE A T TEMPERED GLASS NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED) (2015 IAPMO UNIFORM PLUMBING CODE AND 2016 CALIFORNIA AMENDMENTS) HDW HARDWARE 2016 EDITION NOTES/LOM WHOLE BIDDING PACKAGE THAT IS NEVER TO BE SPLIT AND BID IN PARTS OR SECTIONS. ANY 016 CALIFORNIA ENERGY CODE (CEC) PART 6, TITLE 24 C.C.R. NFPA 80 STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES 2016 EDITION HDWD HARDWOOD VIEWS AND DETAILS CONTRACTOR, SUB- CONTRACTOR, VENDOR OR ANY OTHER PERSON PARTICIPATING IN OR UNDER CUT EXPLANATION OF -116 CALIFORNIA FIRE CODE (CFC) PART 9, TITLE 24 C.C.R. \ NFPA 2001 STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEMS 2015 EDITION HC HOLLOW CORE 3000 FOUNDATION LAYOUT BIDDING ON THE PROJECT SHALL BE RESPONSIBLE FOR THE INFORMATION CONTAINED IN ANY UNO UNLESS NOTED OTHERWISE SPECIAL CONDITION (2015 INTERNATIONAL FIRE CODE AND 2016 CALIFORNIA AMENDMENTS) STANDARD FOR FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION HOLLOW METAL DRILLED PIERS 3001 AND ALL THE SHEETS OF THIS DRAWING SET AND SPECIFICATIONS. IF ANY PERSON, PARTY OR ONLY IF NEEDED 116 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGreen), PART 11, TITLE 24 C.C.R. OF COMMERCIAL COOKING EQUIPMENT HORIZ HORIZONTAL 3002 SPREAD FOOTINGS ENTITY ELECTS TO SUBMIT BIDS FOR ANY PORTION, OR ALL OF THIS PROJECT, THAT PERSON, FIRE EXTINGUISHER 2016 CALIFORNIA REFERENCE STANDARD, PART 12, TITLE 24 C.C.R. AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS HR HOUR MATERIAL SPECS PARTY OR ENTITY SHALL BE RESPONSIBLE FOR ANY AND ALL INFORMATION CONTAINED IN THESI AND CABINET VERTICAL TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS INCLUDING ACCESSORIES 2003 EDITION VINYL COMPOSITION TILE DRAWINGS AND SPECIFICATIONS, BUT NOT LIMITED TO, ANY SUBSEQUENT ADDENDUMS OR INSUL INSULATION 13 ASME A17.1/CSA B44-13 SAFETY CODE FOR ELEVATORS AND ESCALATORS STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS 1999 EDITION TOTAL SHEETS: 22 VINYL TILE CLARIFICATIONS THAT MAY BE ISSUED IN RELATION TO THE RESPECTIVE BIDDERS DISCIPLINE INTERIOR STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPAIRED 2002 EDITION VINYL SHEET FLOORING INV INVERT STANDARDS FOR BLEACHERS, FOLDING AND TELESCOPING SEATING AND GRANDSTANDS 2012 EDITION VINYL WALL COVERING 3 ANY SYMBOL OR LEGEND ITEM SHOWN IN THIS DRAWING SET REPRESENTS A COMPLETE FUNCTIONAL SYSTEM INCLUDING NEEDED HEAD, END, SUPPLY AND CONNECTIONS TO SHOWN FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2016 CBC (SFM) CHAPTER 35 AND JOIST WATERCLOSET 4 ALL WORK SHALL CONFORM TO 2016 EDITION TITLE 24, CALIFORNA CODE OF REGULATIONS WOOD KCPL KEENES CEMENT PLASTER SEE CALIFORNIA BUILDING CODE, CHAPTER 35, FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS. WIREGLASS WATER HEATER LAB LABORATORY A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) * ALL PARTS OF THE 2016 CALIFORNIA BUILDING CODE BECOME EFFECTIVE JANUARY 1, 2017 EXCEPT THE EFFECTIVE WOOD VENEER LAVATORY SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT. DATE FOR THE USE OF THE 2016 BUILDING ENERGY EFFICIENCY STANDARDS (TITLE 24, PART 1, CHAPTER 10) IS WELDED WIRE FABRIC LAMINATED MARKER BOARD 6 GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND X FACTORY FINISHED PREFINISHED LAMINATED PLASTIC AND THE EFFECTIVE DATE FOR THE USE OF THE CALIFORNIA ADMINISTRATIVE CODE (TITLE 24, PART 1, CHAPTER 4) IS ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES. FABRICATION AND INSTALLATION OF DEFERRED SUBMITTAL ITEMS SHALL NOT BE STARTED UNTIL CONTRACTOR'S DRAWINGS, SPECIFICATIONS, AND ENGINEERING CALCULATIONS FOR **ARCHITECTURAL SYMBOLS** SHEET INDEX APPLICABLE CODES THE ACTUAL SYSTEMS TO BE INSTALLED HAVE BEEN ACCEPTED AND SIGNED BY ARCHITECT OR STRUCTURAL ENGINEER AND APPROVED BY THE DIVISION OF STATE ARCHITECT. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE STATE OF CALIFORNIA ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, DEPARTMENT OF GENERAL SERVICES NEW CONSTRUCTION OF (3) SHADE STRUCTURES CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING FOR ARCHITECT/ENGINEERS WHO UTILIZE PLANS, INCLUDING DIVISION OF THE STATE ARCHITECT SHADE STRUCTURE #1 = 143'-8" X 60'-2" / 5,813 SQ.FT. / 16'-0" H CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS 10920 VIA FRONTERA, SUITE 300 BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER SHADE STRUCTURE #2 = 40'-0" X 10'-0" / 800 SQ.FT. / 15'-0" H WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION SAN DIEGO, CA 92127 LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS SHADE STRUCTURE #3 = 40'-0" X 10'-0" / 800 SQ.FT. / 15'-0" H CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING (858) 674-5400 AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA ☐ THIS DRAWING, PAGE OF SPECIFICATIONS/CALCULATIONS MISC. SITE IMPROVEMENTS BEFORE PROCEEDING WITH THE WORK. (SECCTION 4-317(C), PART I, TITLE 24, CCR) HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND/OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. IT HAS BEEN EXAMINED BY ME FOR: RIVERSIDE COUNTY FIRE DEPARTMEN <u> SHADE STRUCTURE (PC DRAWINGS: A# 04-117140)</u> CONTRACTORS OPERATIONS SHALL NOT BLOCK, HINDER, IMPEDE OR OTHERWISE INHIBIT THE P.C. T-1.0 P.C. TITLE SHEET USE OF REQUIRED EXITS AT ANY TIME. CONTRACTOR SHALL MAINTAIN UNOBSTRUCTED ACCESS OF REGULATIONS AND THE PROJECT SPECIFICATIONS PREPARED BY ME, AND
2) COORDINATION WITH THE PLANS AND SPECIFICATIONS AND IS ACCEPTABLE FOR INCOPORATION INTO THE P.C. T-2.0 DSA 103 FORM TO FIRE EXTINGUISHERS. FIRE HYDRANTS. TEMPORARY HIRE PROTECTION FACILITIES. RIVERSIDE OFFICE 10.1-1000 PRODUCT INFORMATION STAIRWAYS AND OTHER ACCESS ROUTES FOR FIRE-FIRGHTING EQUIPMENT AND OR PERSONNEL. 2300 MARKET STREET, STE 150 10.2-2000 REACTIONS THE STATEMENT OF GENERAL CONFORMANCE "SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DUTIES, AND RIVERSIDE, CA 92501 RESPONSIBILITIES UNDER SECTIONS 17802 AND 81138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341, AND 4-344" OF TITLE 24 PROJECT FINISHES TO COMPLY WITH CFC CHAPTER 33. CUSTOM SHADE STRUCTURE FAC: 951-955-4886 NOTES/LOM VIEWS AND DETAILS 181 Jake 12/13/19 FOUNDATION LAYOUT 3001 DRILLED PIERS ARCHITECT OR ENGINEER DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE 3002 SPREAD FOOTINGS MATERIAL SPECS STATEMENT OF GENERAL CONFORMANCE **APPLICABLE AGENCIES GENERAL NOTES SCOPE OF WORK** ARCHITECTURAL ABBREVIATIONS

CHECKED BY: AF
 REVISION No.
 DATE
 DESCRIPTION

 REVISION No.
 DATE
 DESCRIPTION

 REVISION No.
 DATE
 DESCRIPTION

 REVISION No.
 DATE
 DESCRIPTION

1-51-07

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (

GRADING GENERAL NOTES

BUILDING CODE. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THI STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (APWA GREEN BOOK), LATEST EDITION AND AMENDMENTS WHENEVER SPECIAL REQUIREMENTS CONFLICT ON ANY SUBJECT MATTER THE ENGINEER OF RECORD AND/OR HIS REPRESENTATIVE WILL DETERMINE WHICH SPECIAL REQUIREMENT AND/OR CODE WILL GOVERN. 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEARING AND DISPOSAL OF THE PROPOSED WORK

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE CALIFORNIA

- 3. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS IN ACCORDANCE WITH CITY, COUNTY, AND STATE ORDINANCES AND STATUTES.
- 4. NO FILL SHALL BE PLACED ON THE EXISTING GROUND UNTIL THE GROUND HAS BEEN CLEARED OF WEEDS, DEBRIS, TOPSOIL, DELETERIOUS MATERIAL AND PREPARED PER THE PROJECT SPECIFICATIONS AND

5. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL. ANY CUT SLOPE

SPECIFICATIONS AND GEOTECHNICAL REPORT. 6. FILLS SHALL BE COMPACTED THROUGHOUT TO 90% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D1557-91 AND CERTIFIED BY THE GEOTECHNICAL ENGINEER.

THAT IS NOT STABLE SHALL BE OVEREXECAVATED AND RECOMPACTED AS INDICATED BY PROJECT

AREAS TO RECEIVE FILL SHALL BE PROPERLY PREPARED AND APPROVED BY THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE PRIOR TO PLACING OF FILL.

8. ALL EXISTING FILLS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER AND STATE INSPECTOR OR

- HIS REPRESENTATIVE BEFORE ANY ADDITIONAL FILLS ARE ADDED. 9. THE EXISTING IRRIGATION LINES AND CISTERNS SHALL BE REMOVED, BACKFIELD, AND APPROVED BY THE GRADING INSPECTOR AND GEOTECHNICAL ENGINEER.
- 10. SLOPES EXCEEDING FIVE FEET IN HEIGHT MUST BE PLANTED WITH AN APPROVED IRRIGATION SYSTEM INLESS OTHERWISE NOTED ON LANDSCAPE ARCHITECTS PLANS.

11. THE STOCKPILING OF EXCESS MATERIAL SHALL BE APPROVED BY THE OWNER IF IT IS TO BE ONSITE AND

- THE AGENCY WITH JURISDICTION IF IT IS TO BE OFFSITE. 12. ALL TRENCH BACKFILLS SHALL BE TESTED AND APPROVED BY THE SITE GEOTECHNICAL ENGINEER AND
- 13. ALL CUT SLOPES SHALL BE INVESTIGATED BOTH DURING AND AFTER GRADING BY AN ENGINEERING GEOLOGIST TO DETERMINE IF ANY SLOPE STABILITY PROBLEM EXISTS. SHOULD EXCAVATION DISCLOSE ANY GEOLOGICAL HAZARDS OR POTENTIAL GEOLOGICAL HAZARDS, THE ENGINEERING GEOLOGIST SHALL RECOMMEND NECESSARY TREATMENT TO THE PROJECT ARCHITECT FOR APPROVAL.
- 14. WHEN CUT PADS ARE BROUGHT TO NEAR GRADE, THE ENGINEERING GEOLOGIST SHALL DETERMINE IF THE BEDROCK IS EXTENSIVELY FRACTURED OR FAULTED AND WILL READILY TRANSMIT WATER. CONSIDERED NECESSARY BY THE ENGINEERING GEOLOGIST AND GEOTECHNICAL ENGINEER, A COMPACTED FILL BLANKET WILL BE PLACED.
- 15. THE FINAL COMPACTION REPORT AND APPROVAL FROM THE GEOTECHNICAL ENGINEER SHALL CONTAIN THE TYPE OF FIFI D. TESTING PERFORMED. THE METHOD OF OBTAINING THE IN-PLACE DENSITY, WHETHER SAND CONE, NUCLEAR GAGE, OR DRIVE RING SHALL BE SO NOTED FOR EACH TEST. SUFFICIENT MAXIMUM DENSITY DETERMINATIONS SHALL BE PERFORMED TO VERIFY THE ACCURACY OF THE MAXIMUM DENSITY CURVES USED BY THE FIELD TECHNICIAN.
- 16. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE.
- 17. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 18. ALL EXISTING DRAINAGE COURSES ON THE PROJECT SITE MUST CONTINUE TO FUNCTION. ESPECIALLY DURING STORM CONDITIONS AND APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING THE GRADING PROJECT. IN ALL CASES, THE CONTRACTOR AND/OR DEVELOPER SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO DBSTRUCTING NATURAL DRAINAGE PATTERS
- 19. ANY WATER WELLS SHALL BE ABANDONED IN COMPLIANCE WITH THE COUNTY STANDARDS AND IN ACCORDANCE WITH THE STATE DEPARTMENT OF WATER RESOURCES. 20. ANY EXISTING SEWERS, CESSPOOLS, AND SEPTIC TANKS OR OTHER SEWAGE DISPOSAL FACILITIES SHALL
- BE ABANDONED IN COMPLIANCE WITH THE CALIFORNIA PLUMBING CODE AND TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER AND GRADING INSPECTOR.
- 21. EXPORT SOILS MUST GO TO A LEGAL DUMP SITE OR TO A PERMITTED SITE APPROVED BY THE LOCAL AGENCY HAVING JURISDICTION. 22. PERMISSION IS REQUIRED FROM THE ADJACENT PROPERTY OWNER WHENEVER WORK IS PROPOSED
- ACROSS THE PROPERTY LINE 23. ANY DIRT, ROCK OR CONSTRUCTION MATERIAL THAT MAY BE TRACKED OR DROPPED WITHIN THE PUBLIC RIGHT-OF-WAY DURING THE TRANSPORTATION OF SAID MATERIAL OR EQUIPMENT ASSOCIATED WITH THE
- PROJECT SHALL BE CLEANED OR REMOVED DAILY. 24. DIRT ACCESS RAMPS OVER CURB AND GUTTER TO CONSTRUCTION SITE ARE NOT ALLOWED. WHEN NECESSARY FOR ENTRANCE TO SUCH CONSTRUCTION SITES. ASPHALT RAMPS WITH A MINIMUM 3" DIAMETER PIPE WILL BE CONSTRUCTED TO CONVEY GUTTER DRAINAGE. ALL BASE, GRAVEL, SOIL OR OTHER MATERIAL CARRIED INTO THE ROADWAY BY CONTRACTORS PERSONNEL OR EQUIPMENT WILL BE CLEANED AS NECESSARY AND NO LESS THAN ONCE A DAY. TRUCKS HAULING BASE, GRAVEL, FILL OR EXPORT MATERIALS WITHIN CITY LIMITS WILL BE TARPED AS NECESSARY TO PREVENT MATERIAL FROM
- 25. PRIOR TO ANY CONSTRUCTION WHICH INVOLVES HAZARDOUS CONDITIONS, THE CONTRACTOR SHALL FIRST OBTAIN A PERMIT FROM THE DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (DOSH). 26. PROPOSED REVISIONS TO THE GRADING PLAN SHALL BE DRAWN IN RED PENCIL ON BLUELINES OF THE APPROVED PLAN. THESE BLUELINES ARE THEN TO BE SUBMITTED TO THE OWNERS REPRESENTATIVES FOR REVIEW AND APPROVAL. ONLY AFTER THE BLUELINE APPROVAL IS GIVEN SHOULD THE ORIGINALS BE
- 27. RULE 403, AIR QUALITY CONTROL MANAGEMENT DISTRICT, MUST BE IMPLEMENTED BY CONTRACTORS
- 28. CONSTRUCTION ACTIVITIES SHALL OCCUR ONLY BETWEEN THE HOURS OF 7:00 A.M. AND 7:00 P.M. MONDAY THROUGH FRIDAY, AND BETWEEN THE HOURS OF 9:00 A.M. AND 6:00 P.M. ON SATURDAYS. NO CONSTRUCTION ACTIVITIES SHALL BE PERMITTED OUTSIDE OF THESE PERMITTED HOURS OR ON SUNDAY
- 29. CONSTRUCTION PARKING SHALL BE ONSITE. TRAFFIC CONTROL AND ACCESS SHALL BE IN ACCORDANCE WITH THE GENERAL CONDITION REQUIREMENTS.
- 30. TRUCKS AND LARGE CONSTRUCTION VEHICLES WILL OBTAIN APPROVED TRUCK ROUTES FROM THE CITY 31. THE CONTRACTOR SHALL CONTROL DUST IN AREAS USED FOR OFF-ROAD PARKING, MATERIALS LAYDOWN
- R THOSE AWAITING FUTURE CONSTRUCTION. FREQUENTLY ACCESSED AREAS SHALL BE PAVED AS EARLY AS POSSIBLE TO MINIMIZE DIRT TRACKOUT TO THE PUBLIC RIGHT OF WAY.
- 32. THE CONTRACTOR SHALL UTILIZE MEASURES TO PREVENT DIRT FROM BEING TRACKED, WASHED BLOWN OR OTHERWISE CONVEYED ONTO PAVED ROADWAYS, AND WILL WASH OR SWEEP CONSTRUCTION ACCESS POINTS ON A ROUTINE BASIS AS SPECIFIED BY THE COUNTY AT A PREGRADE MEETING AS WELL AS WHENEVER DIRT IS VISIBLE MORE THAN 50 FEET FROM THE ACCESS POINT INDEPENDENT OF THE
- 33. TRUCKS USED IN HAULING DIRT TO OR FROM THE SITE ON PUBLIC ROADS WILL BE COVERED OR WILL MAINTAIN A SIX INCH DIFFERENTIAL BETWEEN THE MAXIMUM HEIGHT OF ANY HAULED MATERIAL AND THE TOP OF THE TRAILER. HAUL TRUCK DRIVERS WILL LOAD PRIOR TO LEAVING THE SITE TO PREVENT SOIL LOSS DURING TRANSPORTATION.

ASPHALT PAVING GENERAL NOTES

1. A PRE-PAVING MEETING IS REQUIRED 48 HOURS PRIOR TO PAVING. THE PROJECT INSPECTOR SHALL BE IN

MAXIMUM AND FIELD DENSITY TO BE DETERMINED IN ACCORDANCE WITH ASTM D1557-91 MODIFIED.

2. THE AGGREGATE BASE SECTION SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY.

3. A "TACK COAT" (PAINT BINDER) SHALL BE APPLIED BETWEEN PAVEMENT LAYERS, AND ON EXISTING

- PAVEMENT TO BE RESURFACED AT A RATE OF 0.10 GAL/SQ.YD. THE TACK COAT SHALL BE A TYPE SSI ASPHALT EMULSION. 4. THE ASPHALT CONCRETE FOR PARKING LOTS SHALL BE CLASS C2 AS SPECIFIED IN SECTION 203-6,
- STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST APPROVED EDITION. THE PAVING ASPHALT TO BE MIXED WITH AGGREGATE SHALL CONFORM TO THE PROVISIONS OF SECTION 203-1 AND SHALL BE STEAMED REFINED ASPHALT WITH A PERFORMANCE GRADE OF PG-64-10 TO THE SATISFACTION
- 5. ASPHALT CONCRETE PAVEMENT SHALL BE DISTRIBUTED AND SPREAD IN ACCORDANCE WITH SECTION 302-5.5 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. THE MAXIMUM LIFT DURING SPREADING SHALL BE 3" COMPACTED THICKNESS.
- 6. A QUALIFIED PAVING INSPECTOR IS REQUIRED DURING PAVING OPERATIONS AT THE JOB SITE AND AT THE ASPHALT PLANT. ASPHALT TICKETS SHALL BE PROVIDED TO THE INSPECTOR FOR ALL LOADS. 7. ALL ASPHALT AREAS SHALL BE PAVED AT A MINIMUM GRADIENT OF 1.25%.

DEMOLITION GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION OF THE SITE AND SHALL REMOVE AND DISPOSE OF ALL STRUCTURES ABOVE AND OR BELOW GROUND. ANY HAZARDOUS MATERIALS ENCOUNTERED SHALL BE HANDLED AND REMOVED AS REQUIRED BY LOCAL AND OR STATE LAWS. 2. EXISTING WATER LATERALS AND IRRIGATION LINES SHALL BE CUT AND CAPPED AT THE LIMIT OF THE

DEMO AREA SHOWN. ALL WATER SERVICES SHALL BE TERMINATED IN A FLUSH UTILITY BOX FOR FUTURE

- 3. EXISTING SEWER LATERALS SHALL BE CUT AND PLUGGED AT THE LIMIT OF THE DEMO AREA SHOWN. ALL PLUGGED ENDS FOR LATERALS WILL BE BROUGHT TO GRADE WITH A STANDARD SEWER CLEAN OUT.
- 4. EXISTING ELECTRICAL LINES SHALL BE TEMPORARILY REPOUTED AROUND THE LIMITS OF THE DEMO AREA. ALL TEMPORARY WIRING CONNECTIONS SHALL BE TERMINATED IN AN ABOVE GROUND RISER.
- 5. THE CONTRACTOR SHALL EXERCISE DUE CARE TO AVOID DAMAGE TO EXISTING HARDSCAPE IMPROVEMENTS, UTILITY FACILITIES, AND LANDSCAPING FEATURES THAT ARE NOT TO BE REMOVED. 6. ALL JOIN LINES SHALL BE SAW CUT ON A NEAT, STRAIGHT LINE PARALLEL WITH THE JOIN. THE CUT EDGE
- SHALL BE PROTECTED FROM CRUSHING, AND ALL BROKEN EDGES SHALL BE RE CUT PRIOR TO JOINING. ALL EXISTING OBJECTIONABLE MATERIALS THAT CONFLICT WITH PROPOSED IMPROVEMENTS INCLUDING. BUT NOT LIMITED TO. BUILDING FOUNDATIONS, UTILITIES AND APPURTENANCES, TREES, SIGNS, AND STRUCTURES, ETC. SHALL BE REMOVED AND DISPOSED BY THE CONTRACTOR, UNLESS OTHERWISE INDICATED HEREIN, OR AS DIRECTED BY THE ARCHITECT OR ENGINEER. 8. THE CONTRACTOR SHALL PROTECT ALL EXISTING CONCRETE FROM DAMAGE CAUSED BY HIS

OPERATIONS. ANY CONCRETE DAMAGED DURING HIS OPERATIONS SHALL BE SAWCUT AND REPLACED AT NO COST TO THE OWNER. ANY EXISTING CONCRETE IDENTIFIED AS POTENTIALLY NEEDING TO BE

- REPLACED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OR THE OWNERS REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK. 9. THE CONTRACTOR SHALL PERFORM AND BE RESPONSIBLE FOR ALL CLEARING AND GRUBBING
- OPERATIONS AS NECESSARY TO COMPLETE THE WORK, INCLUDING TRANSPORTATION AND DISPOSAL OF ALL REMOVED MATERIALS, AND ALL ASSOCIATED COSTS.
- 10. THE CONTACTOR SHALL ABANDON EXISTING WELLS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SHALL HAVE A C-57 CALIFORNIA CONTRACTORS LICENCE.
- 11. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND DETERMINE THE EXTENT OF DEMOLITION BASED ON THE PROPOSED IMPROVEMENTS SHOWN IN THIS SET OF PLANS.

UTILITY GENERAL NOTES

1. ALL WATER LINES 3" AND SMALLER SHALL BE SCHEDULE 80 PVC, PER ASTM D-1784 WITH SOLVENT WELD FITTINGS. ALL WATER LINES 4" AND GREATER SHALL BE CLASS 150 C900 PVC.

LEGEND

CONC

DCDA

ELEC

ASPHALT CONCRETE

BACK FLOW DEVICE

CHAIN LINK FENCE

CURB FACE

CLEANOUT

CONCRETE

ELECTRIC

EDGE OF CONCRETE

EDGE OF PAVEMENT

FINISHED FLOOR

FINISHED GROUND

FINISHED SURFACE

INVERT (SEWER)

LANDSCAPE AREA

POWER POLE

SIDEWALK

TOP OF BERM

TOP OF CURB

TOP OF FOOTING

BOTTOM OF SLOPE

TOP OF PAVEMENT

TOP OF GRATE

TOP OF SLOPE

TOP OF WALL

WATER METER

WATER VALVE

UTILITY

TOP

WV

POST INDICATOR VALVE

FIRE DEPARTMENT CONNECTION

FIRE HYDRANT

FLOWLINE

HIGH POINT

INVERT (SD)

AMERICAN DISABILITIES ACT

DOUBLE CHECK DETECTOR ASSEMBLY

- WATER MAIN AND SEWER MAIN CROSSINGS SHALL COMPLY WITH STATE AND COUNTY HEALTH DEPARTMENT REGULATIONS, WATER SERVICE LINES AND SEWER LATERALS SHALL NOT BE IN THE SAME TRENCH. WATER AND SEWER LINES ONSITE SHALL HAVE A TEN FOOT MINIMUM HORIZONTAL CLEARANCE WHENEVER POSSIBLE. WATER MAINS SHALL CLEAR ABOVE ALL SEWER LATERALS BY A MINIMUM OF ONE FOOT VERTICAL CLEARANCE OR UNDER BY 3' MINIMUM. WHEN WATER LINE CROSSES UNDER SEWER, OR MINIMUM CLEARANCE OVER SEWER IS NOT ACHIEVED, SEWER SHALL BE ENCASED IN CONCRETE 10' EACH
- LINES MAY HAVE A MINIMUM COVER OF 30" IN NON TRAFFIC AREAS AND A MINIMUM COVER OF 36" IN THE UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING COMPACTION TESTS OF ALL TRENCH BACKFILL AND SUBMIT THEM TO THE CONSTRUCTION MANAGER FOR APPROVAL. ALL BEDDING SHALL

MINIMUM WATER LINE COVER FROM FINISH GRADE TO THE TOP OF PIPE SHALL BE 36" OF COVER. MINIMUM

FIRE LINE COVER FROM FINISH GRADE TO THE TOP OF PIPE SHALL BE 48" COVER. WHERE REQUIRED, FIRE

- HAVE A SAND EQUIVALENT OF 30 OR BETTER. WATER SERVICE CONNECTION TO THE BUILDINGS SHALL BE INSTALLED BY THE BUILDING PLUMBING 6. A PIPE "DEFLECTOR' OR "REROUNDER" SHALL NOT BE USED TO REROUND OVERDEFLECTED PIPES.
- 7. ALL VALVE AND CLEAN OUT COVERS TO HAVE TRAFFIC RATED VANDAL PROOF COVERS AND ADJUSTED BY CONTRACTOR TO FINISH GRADE AFTER PAVING. ALL COVERS SHALL INDICATE "S" FOR SEWER, "W" FOR WATER, AND "SD" FOR STORM DRAIN.

ALL UNDERGROUND FERROUS METALS ARE TO BE PROTECTED FROM CORROSION WITH 40 MIL EXTRUDED

POLYETHYLENE, 20 MIL PLASTIC TAPE OVER PRIMER PER AWWA STANDARD C209, OR HOT APPLIED COAL TAR ENAMEL OR TAPE PER AWWA STANDARD C203. 9. BARE STEEL APPURTENANCES SUCH AS BOLTS, JOINT HARNESSES OR FLEXIBLE COUPLINGS SHOULD BE

COATED WITH A COAL TAR OR RUBBER-BASED MASTIC AFTER ASSEMBLY.

- CONTRACTOR SHALL EXPOSE ALL EXISTING WATER & SEWER PIPELINES AT PROPOSED CONNECTION POINTS TO CONFIRM MATERIAL TYPES LOCATION, AND ELEVATION PRIOR TO BEGINNING CONSTRUCTION.
- ALL UNDERGROUND PIPELINES SHALL HAVE UNDERGROUND WARNING TAPE PLACED 12" ABOVE THE LINES IN THE TRENCH. NON-METALLIC LINES SHALL HAVE METALLIC LINED TAPE.
- 12. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR AND COORDINATE THE RELOCATION OF ANY EXISTING UTILITIES DEEMED NECESSARY BY THE PROPOSED IMPROVEMENT.
- WHENEVER IT BECOMES NECESSARY TO TUNNEL UNDER EXISTING IMPROVEMENTS. THE CONTRACTOR SHALL SUPPORT THOSE IMPROVEMENTS IN A MANNER APPROVED BY THE PROJECT ENGINEER OR THE CONTRACTOR SHALL SAWCUT, REMOVE AND REPLACE THOSE IMPROVEMENTS IN ACCORDANCE WITH THE
- 14. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES (BY POTHOLING OR OTHER MEANS), CONTRACTORS SHALL NOTIFY UNDERGROUND SERVICE ALÈRT (U.S.A.) 800/227-2600 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO LOCATE EXISTING UTILITIES.
- 15. CONTRACTOR SHALL OBTAIN ANY REQUIRED O.S.H.A. PERMITS PRIOR TO ANY EXCAVATIONS. 16. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE STARTING WORK.
- SHOULD CONDITIONS EXIST WHICH ARE CONTRARY TO THOSE SHOWN ON PLANS, THE ENGINEER SHALL BE NOTIFIED BEFORE PROCEEDING WITH WORK. PURSUANT TO SECTION 8771 OF THE BUSINESS AND PROFESSIONS CODE. EXISTING SURVEY MONUMENTS
- SHALL BE NOTED AND DOCUMENTED BEFORE CONSTRUCTION IF MONUMENTS ARE DISTURBED DURING CONSTRUCTION. THE CONTRACTOR SHALL PAY A REGISTERED LICENSED LAND SURVEYOR OR ENGINEER TO RESET SUCH MONUMENTS. UNLESS OTHERWISE SPECIFIED OR DESIGNATED. 18. ALL SEWER PIPES SHALL BE INSTALLED AT STRAIGHT GRADES BETWEEN INVERT ELEVATIONS INDICATED.
- ALL SEWER AND STORM DRAIN CONNECTIONS SHALL BE MADE WITH WYE'S, TEES SHALL NOT BE USED. ALL PIPES SHALL BE LAID WITH BELL END OF PIPE FACING UPSTREAM. 19. ALL CHANGES IN HORIZONTAL ALIGNMENT OF SEWER PIPE SHALL BE ACCOMPLISHED BY USE OF
- MANUFACTURED FITTINGS AND ELBOWS. AND WHERE ADDITIONALLY NECESSARY, PIPE JOIN DEFLECTIONS WITHIN ALLOWABLE LIMITS PER THE PRODUCT SPECIFICATIONS. 20. ALL WET UTILITY TRENCHES, BEDDING AND BACKFILL SHALL CONFORM TO SECTION 306-1.2.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. SUBSTITUTION OF BEDDING MATERIAL
- SHALL BE APPROVED BY THE PROJECT CIVIL ENGINEER. 21. THE CONTRACTOR SHALL PERFORM TESTING, FLUSHING AND DISINFECTING OF SYSTEMS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. THE CONTRACTOR SHALL PREPARE A COMPLETE SET OF "AS-BUILT" DRAWINGS IN ACCORDANCE WITH THE
- ALL PIPE SIZE REFERENCES ARE MINIMUM INSIDE DIAMETER SIZE. HORIZONTAL DIMENSIONS SHOWN ON THESE PLANS ARE TO CENTERLINE OF PIPES.
- 24. NATURAL GAS SERVICE LINES MAY BE INSTALLED IN A COMMON TRENCH WITH WATERLINES IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS DRINKING FOUNTAIN AND IRRIGATION APPURTENANCES SHOWN HEREON ARE APPROXIMATE AND THE
- CONTRACTOR SHALL REFER TO THE ARCHITECTS AND LANDSCAPE ARCHITECTS PLANS FOR THE EXACT
- 26. CLEANOUTS FOR SEWER AND STORM DRAIN UTILITIES SHALL BE INSTALLED PER THE UPC, LATEST EDITION WHETHER GRAPHICALLY INDICATED OR NOT AT INTERVALS OF 100 FEET IN STRAIGHT RUNS OTHERWISE AT EVERY HORIZONTAL AND VERTICAL ANGLE POINT AND AT ALL CHANGES IN PIPE SIZE. ALL OTHER CLEANOUTS SHOWN ON PLAN ARE AS DEEMED NECESSARY BY THE DESIGN ENGINEER AND ARE

PRIVATE ENGINEER'S NOTICE TO CONTRACTOR

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR AND THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDERS." THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTORS AND SUBCONTRACTORS COMPLIANCE WITH SAID REGULATIONS AND ORDERS.

CONTRACTOR FURTHER AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB-SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE CIVIL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT. EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

THE EXISTENCE AND APPROXIMATE LOCATIONS OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. THE CIVIL ENGINEER ASSUMES NO LIABILITY AS TO THE EXACT LOCATION OF SAID LINES NOR FOR UTILITY OR IRRIGATION LINES WHOSE LOCATIONS ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY AND IRRIGATION COMPANIES PRIOR TO WORK OR EXCAVATION TO DETERMINE THE EXACT LOCATIONS OF ALL LINES AFFECTING THIS WORK, WHETHER OR NOT SHOWN HEREON, AND FOR ANY DAMAGE OR PROTECTION

ACCESSIBILITY NOTES

TO THESE LINES.

- 1. ALL SLOPES IN THE DIRECTION OF TRAVEL SHOWN ON THIS PLAN WERE DESIGNED BELOW THE MAXIMUM ALLOWED GRADES BY THE AMERICANS WITH DISABILITIES ACT ACCESS GUIDE (ADAAG OR CBC) IN ORDER TO ALLOW FOR CONSTRUCTION TOLERANCES. IT IS THE RESPONSIBILITY OF THE CONTRACTORS TO FAMILIARIZE THEMSELVES WITH THE ADAAG AND CBC AND IN THE EVENT THAT A DESIGN QUESTION SHOULD ARISE, OR A FIELD CONDITION PRESENT ITSELF THAT IS DIFFERENT THAN SHOWN ON THESE PLANS, WORK SHOULD CEASE AND THE DESIGN ENGINEER SHALL BE NOTIFIED SO THAT AN ACCEPTABLE SOLUTION CAN BE DETERMINED.
- THE CONTRACTOR IS ADVISED TO CAREFULLY CHECK ALL PHASES OF WORK RELATING TO ACCESSIBILITY FOR THIS PROJECT. SINCE THE CODE DOES NOT ALLOW FOR A CONSTRUCTION TOLERANCE. ANY CONSTRUCTION THAT EXCEEDS MAXIMUM OR MINIMUM DIMENSIONS AND SLOPES AS CALLED OUT BY CBC OR ADAAG ARE SUBJECT TO REJECTION BY THE INSPECTOR AND SHALL BE REMOVED AND REPLACED. 3. SINCE THE CIVIL ENGINEER OR SURVEYOR CANNOT CONTROL THE EXACT METHODS OR MEANS USED BY THE GENERAL CONTRACTOR OR THEIR SUB-CONTRACTORS DURING THE GRADING AND CONSTRUCTION OF THE PROJECT. THE CIVIL ENGINEER OR SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE FINAL
- 4. COMPLIANCE WITH THE CONSTRUCTION REQUIREMENTS FOR ACCESSIBILITY WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND HIS SUB-CONTRACTORS.

ACCEPTANCE OF ADAAG RELATED ITEMS OF THIS PROJECT BY THE INSPECTING AUTHORITY OR OTHER

GRADING CONSTRUCTION NOTES

FIRE HYDRANT

MANHOLE

POWER POLE

CONTROL POINT

POST INDICATOR VALVE

DOUBLE DETECTOR CHECK

FIRE DEPARTMENT CONNECTION

DRAIN BOX

CLEANOUT

DIRECTION OF SLOPE

________ EDGE OF PAVEMENT

PROPOSED STORM DRAIN

— CHANGE IN AC/PCC THICKNESS

PROPOSED RETAINING WALL

———— D———— EXISTING STORM DRAIN

———— S — EXISTING SEWER LINE

————— EXISTING WATER LINE

————E———— EXISTING ELECTRIC LINE

PROPOSED PCC SURFACE

PROPOSED AC SURFACE

GRIND AND OVERLAY

———— F ———— EXISTING FIRE LINE

———— G———— EXISTING GAS LINE

_ - - FLOWLINE

— — — — — GRADEBREAK

SIGN

- (1) PROTECT IN PLACE SPECIFIED ITEM

 - 2 ADJUST EXISTING ITEM TO PROPOSED FINISHED GRADE
 - REMOVE AND DISPOSE OF EXISTING OBJECT (4) JOIN PROPOSED SURFACE TO EXISTING SURFACE WITH FLUSH TRANSITION, MATCH GRADE. DOWELING FOR
 - PCC ONLY PER DETAIL "A" ON SHEET C-5.1 (5) GRIND AND OVERLAY EXISTING ASPHALT SURFACE 0.12' MINIMUM
- 6) SAWCUT, REMOVE AND DISPOSE OF AC SURFACE

ELEVATION IS ACHIEVED.

- 7) SAWCUT, REMOVE AND DISPOSE OF PCC SURFACE 8) CONSTRUCT 3.5" AC OVER 4" CRUSHED AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION, AND 12" SUBGRADE COMPACTED TO 90% RELATIVE COMPACTION. FINAL PAVEMENT SECTION SHOULD BE BASED UPON R-VALUE TESTING PERFORMED ON A REPRESENTATIVE SOIL SAMPLE COLLECTED WHEN SUB-GRADE
- 9) CONSTRUCT 4" PCC (520-C-2500) WITH #4 18 O.C. BOTH WAYS; WITH THICKENED EDGE PER DETAIL "B" ON SHEET C-5.1, OVER 12" SUBGRADE, COMPACTED TO 90% RELATIVE COMPACTION. SCORING PATTERNS
- COLOR AND FINISH PER ARCHITECT'S PLANS AND SPECIFICATIONS
- (10) CONSTRUCT SEAT WALL PER ARCHITECT'S PLANS AND SPECIFICATIONS (11) CONSTRUCT 0"- 6" PCC (520-C-2500) CURB TRANSITION PER DETAIL "C" ON SHEET C-5.1
- (12) CONSTRUCT 0" PCC (520-C-2500) CURB ONLY PER DETAIL "D" ON SHEET C-5.1 [13] CONSTRUCT CURB TYPE A1-6 PER SPPWC STANDARD PLAN 120-2 ON SHEET C-5.1

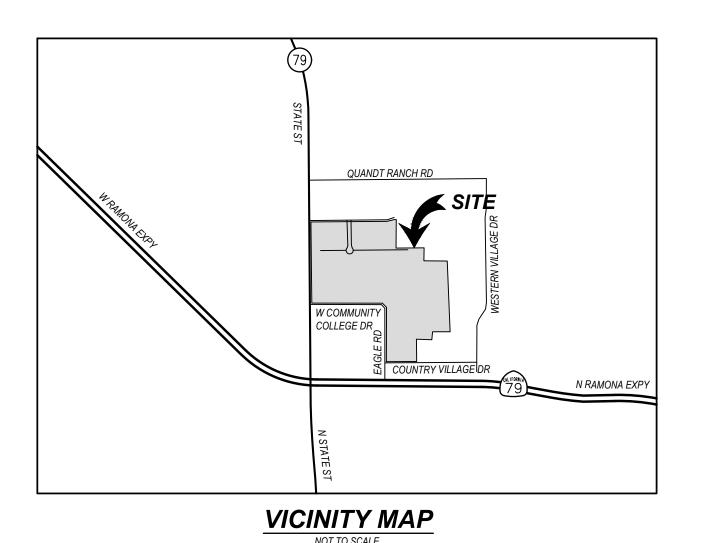
(14) FURNISH AND INSTALL SHADE STRUCTURE POST PER ARCHITECT'S PLANS AND SPECIFICATIONS

UTILITY CONSTRUCTION NOTES

STORM DRAIN

- (20) FURNISH & INSTALL 6" SDR 35 PVC STORM DRAIN PIPE
- igl(21igr) FURNISH & INSTALL 12" X 12" PREFABRICATED CATCH BASIN (J&R CB1212 OR APPROVED EQUAL) PER DETAIL
- (22) CONNECT TO EXISTING STORM DRAIN

SHEET INDEX									
SHEET No.	SHEET DESCRIPTION	No.							
C-1.1	TITLE SHEET	1							
C-2.1	TOPOGRAPHIC MAP	2							
C-3.1	CIVIL PLAN	3							
C-4.1	HORIZONTAL CONTROL PLAN	4							





CONSULTANT BRANDING



IDENTIFICATION STAMP

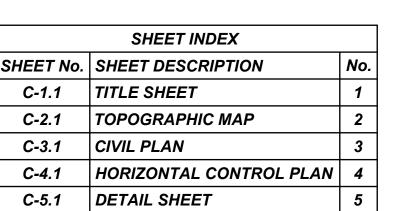
DIV. OF THE STATE ARCHITEC

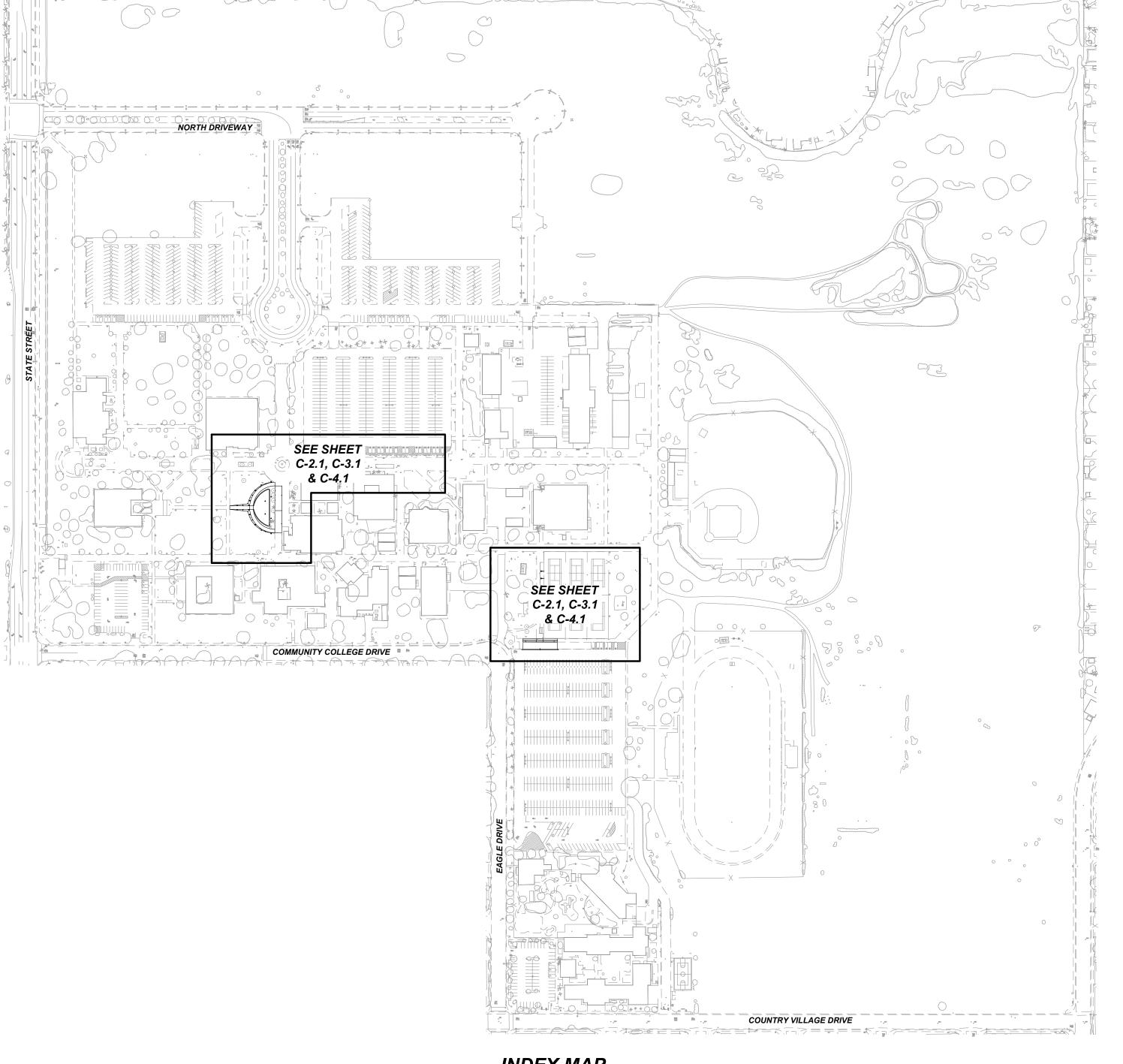
REVIEWED FOR

SS I DIFLS I HESTACS I

APP. 04-117233 INC:

DATE: 04.10.2020







PROJECT No. : 1-51-07

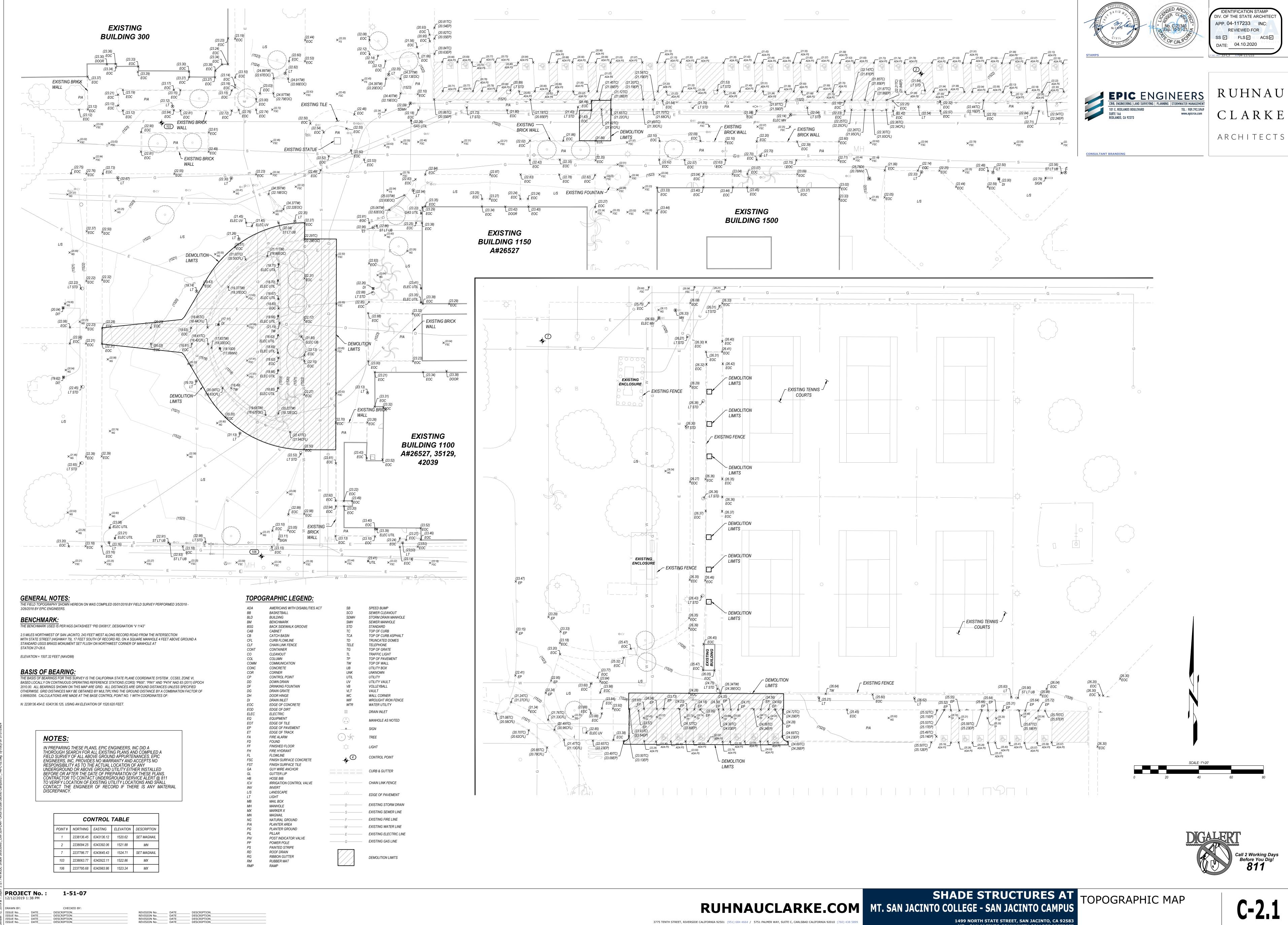
CHECKED BY

SHADE STRUCTURES AT RUHNAUCLARKE.COM MT. SAN JACINTO COLLEGE - SAN JACINTO CAMPUS

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

1499 NORTH STATE STREET, SAN JACINTO, CA 92583

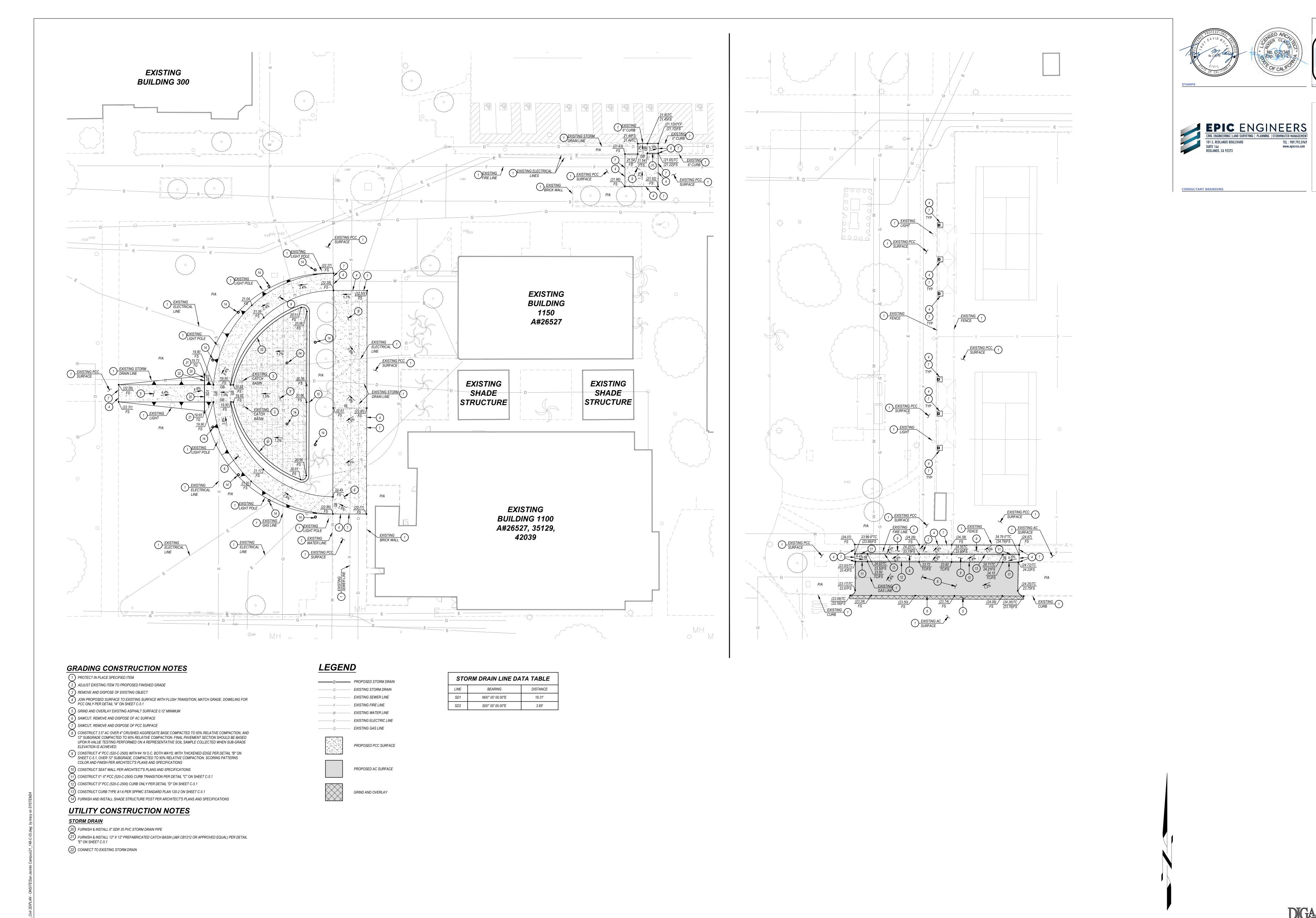
MT. SAN JACINTO COMMUNITY COLLEGE DISTRICT



DESCRIPTION_____
DESCRIPTION____
DESCRIPTION____
DESCRIPTION____

1499 NORTH STATE STREET, SAN JACINTO, CA 92583

MT. SAN JACINTO COMMUNITY COLLEGE DISTRICT





REVIEWED FOR

RUHNAU

CLARKE

ARCHITECTS

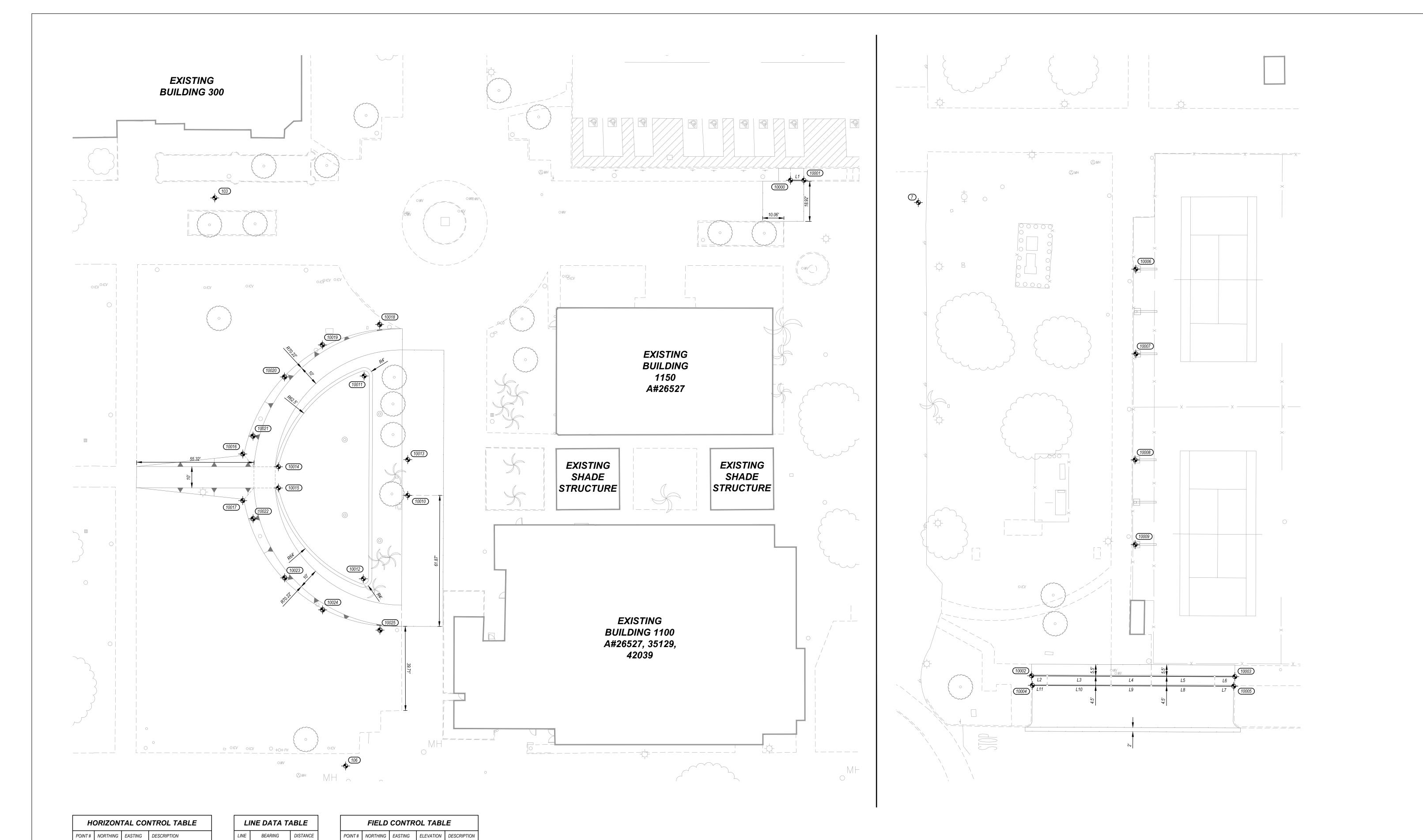
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

SHADE STRUCTURES AT CIVIL PLAN

RUHNAUCLARKE.COM MT. SAN JACINTO COLLEGE - SAN JACINTO CAMPUS 1499 NORTH STATE STREET, SAN JACINTO, CA 92583 MT. SAN JACINTO COMMUNITY COLLEGE DISTRICT

PROJECT No. : 12/12/2019 1:39 PM

1-51-07



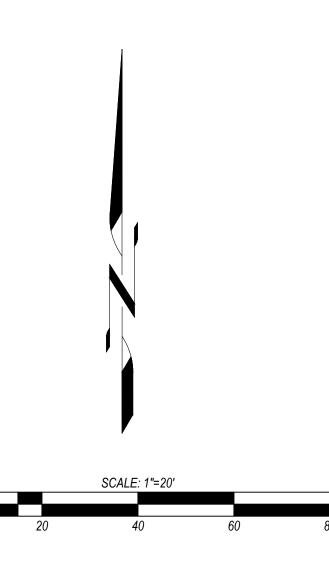








RUHNAU CLARKE ARCHITECTS





PROJECT No. : 12/12/2019 1:39 PM 1-51-07

POINT# NORTHING EASTING DESCRIPTION

10000 2238072.11 6343193.77 START OF CURB

10001 2238072.10 6343200.07 END OF CURB

10002 2237563.42 6343698.87 START OF CURB

10003 2237563.03 6343794.75 END OF CURB

10004 2237558.92 6343699.23 START OF CURB

10005 | 2237558.53 | 6343794.23 | END OF CURB

10006 | 2237755.33 | 6343748.00 | SHADE STRUCTURE COLUMN

10007 | 2237715.33 | 6343748.06 | SHADE STRUCTURE COLUMN

10008 2237665.33 6343747.66 SHADE STRUCTURE COLUMN

10009 2237625.33 6343747.71 SHADE STRUCTURE COLUMN

10010 2237923.35 6343013.17 WALL RADIUS POINT

10011 2237979.71 6342992.60 WALL RADIUS POINT 10012 2237884.02 6342992.21 WALL RADIUS POINT 10013 | 2237940.23 | 6343013.20 | WALL RADIUS POINT 10014 | 2237936.89 | 6342952.16 | START OF WALL 10015 2237926.89 6342952.14 END OF WALL 10016 2237942.92 6342935.35 CATCH BASIN

10017 | 2237920.92 | 6342935.31 | CATCH BASIN

10018 | 2238004.03 | 6342999.91 | SHADE STRUCTURE COLUMN 10019 2237994.41 6342972.90 SHADE STRUCTURE COLUMN

 10020
 2237979.29
 6342955.01
 SHADE STRUCTURE COLUMN

 10021
 2237951.36
 6342940.17
 SHADE STRUCTURE COLUMN

10022 2237912.35 6342940.20 SHADE STRUCTURE COLUMN 10023 2237884.46 6342955.10 SHADE STRUCTURE COLUMN 10024 2237869.37 6342973.00 SHADE STRUCTURE COLUMN 10025 2237859.78 6343000.07 SHADE STRUCTURE COLUMN 1 2238136.45 6343136.12 1520.62 SET MAGNAIL
2 2238094.25 6343392.06 1521.88 MN

103 2238063.77 6342922.11 1522.86 MX

106 2237795.68 6342983.86 1523.24

2237786.77 6343645.43 1524.71 SET MAGNAIL

L1 S89° 51′ 35.13″E 6.30′

L2 S89° 45′ 58.28″E 7.38′

L3 S89° 45′ 58.28″E

L4 S89° 45′ 58.28″E

L5 S89° 45′ 58.28″E

L6 S89° 45′ 58.28″E

L7 N89° 45′ 58.28″W

L8 N89° 45′ 58.28″W

L9 N89° 45′ 58.28″W

L10 N89° 45′ 58.28″W 30.12′

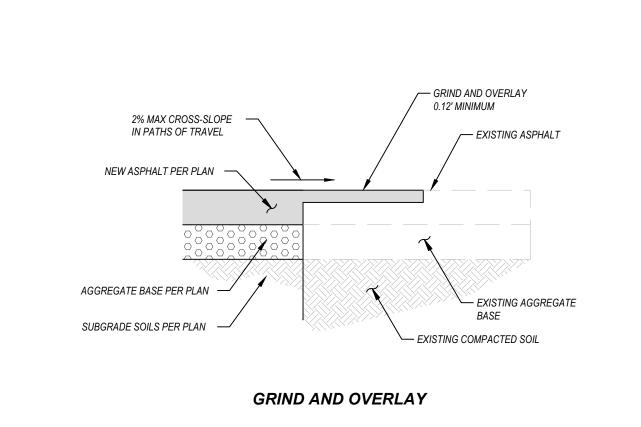
L11 N89° 45′ 58.28″W 7.00′

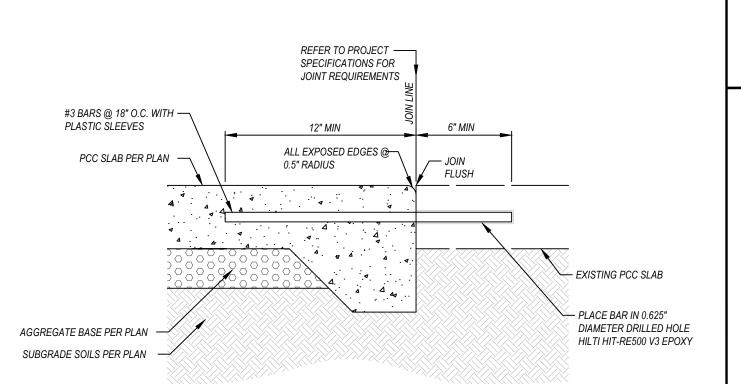
CHECKED BY:

___ DESCRIPTION____
__ DESCRIPTION____
__ DESCRIPTION____
__ DESCRIPTION____ REVISION No. DATE DESCRIPTION
REVISION No. DATE DESCRIPTION
REVISION No. DATE DESCRIPTION
REVISION No. DATE DESCRIPTION

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

SHADE STRUCTURES AT HORIZONTAL MT. SAN JACINTO COLLEGE - SAN JACINTO CAMPUS CONTROL PLAN 1499 NORTH STATE STREET, SAN JACINTO, CA 92583 MT. SAN JACINTO COMMUNITY COLLEGE DISTRICT

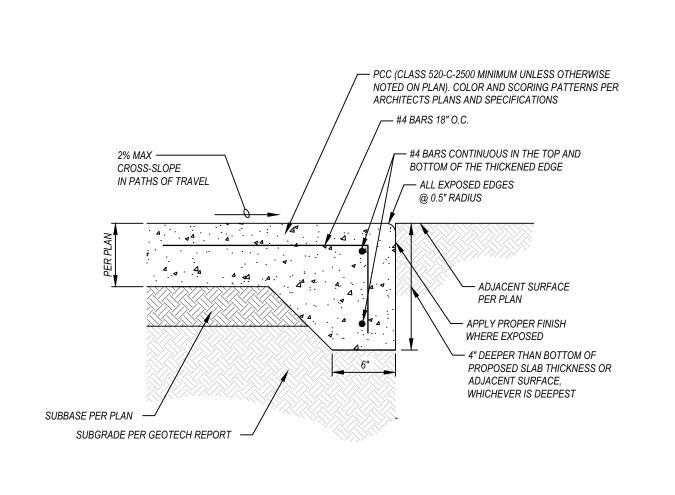




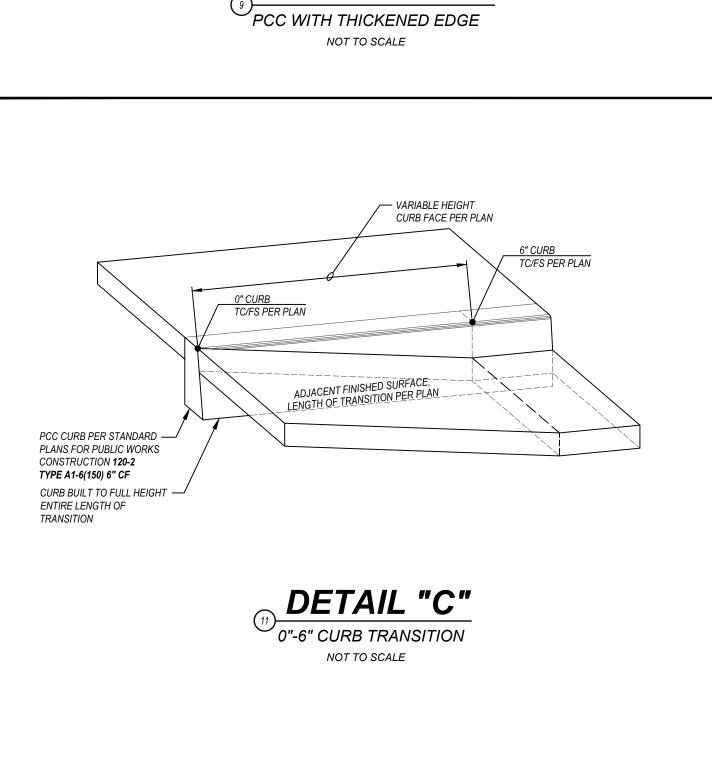


DOWELING DETAIL AT

EXISTING PCC







 REVISION No.
 DATE
 DESCRIPTION

 REVISION No.
 DATE
 DESCRIPTION

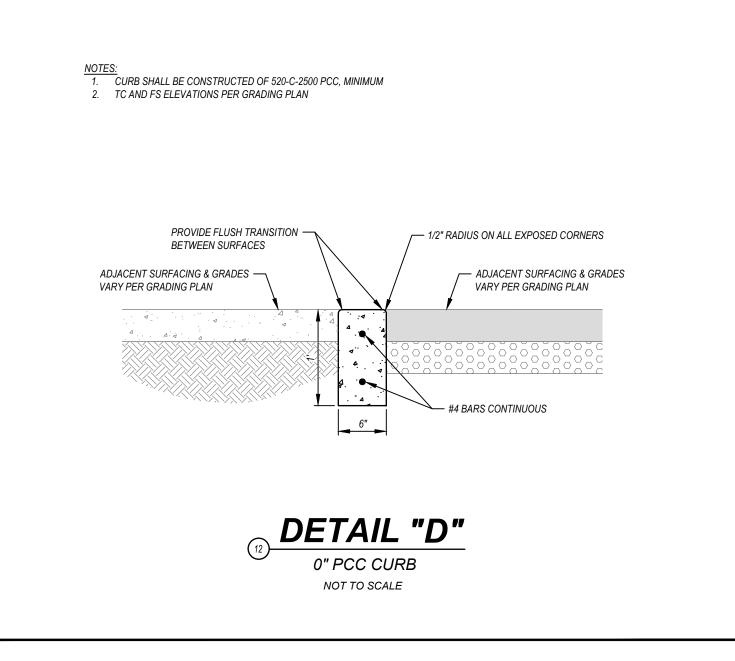
 REVISION No.
 DATE
 DESCRIPTION

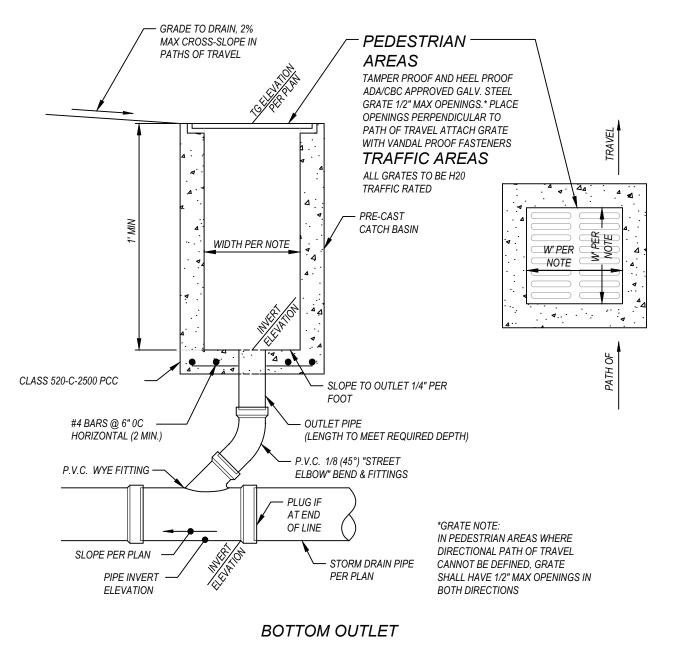
 REVISION No.
 DATE
 DESCRIPTION

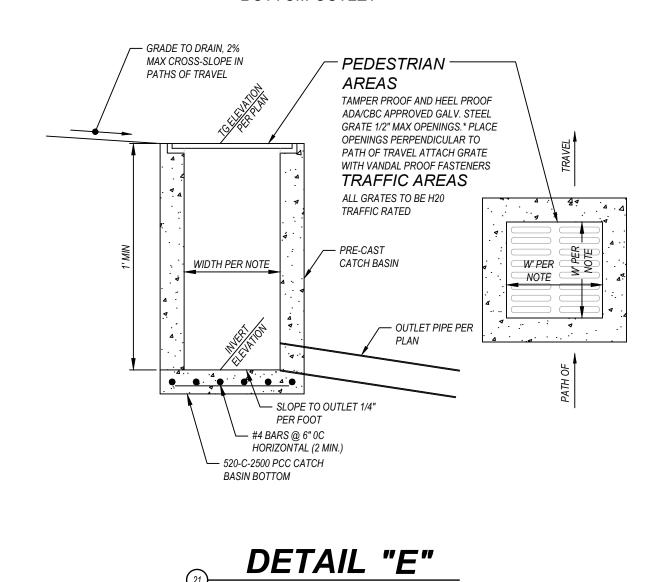
PROJECT No.: 12/12/2019 1:39 PM

1-51-07

CHECKED BY:

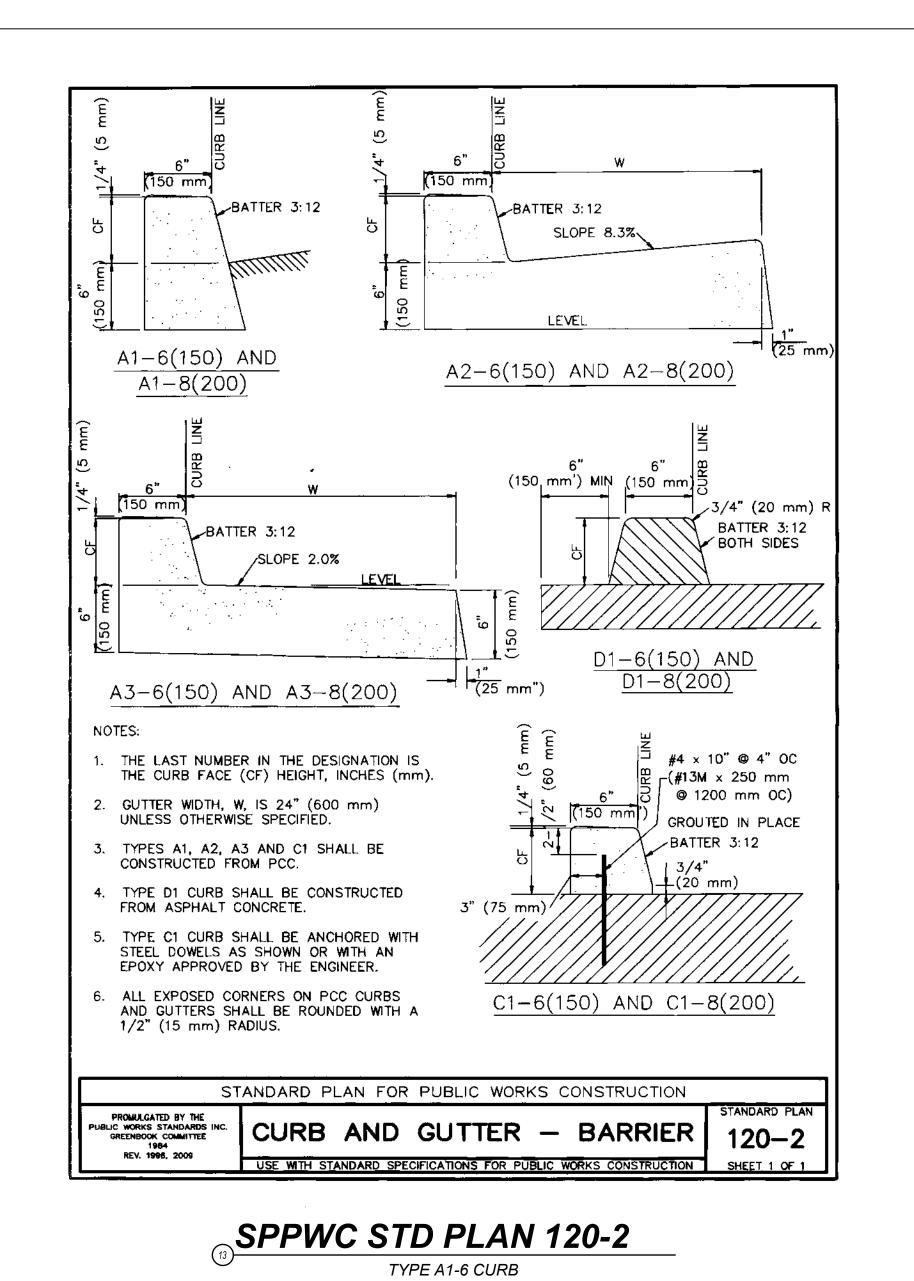






PRECAST PCC CATCH BASINS

NOT TO SCALE



NOT TO SCALE









RUHNAU ARCHITECTS

GRADING CONSTRUCTION NOTES

1) PROTECT IN PLACE SPECIFIED ITEM

(2) ADJUST EXISTING ITEM TO PROPOSED FINISHED GRADE

(3) REMOVE AND DISPOSE OF EXISTING OBJECT (4) JOIN PROPOSED SURFACE TO EXISTING SURFACE WITH FLUSH TRANSITION, MATCH GRADE. DOWELING FOR

PCC ONLY PER DETAIL "A" ON SHEET C-5.1 (5) GRIND AND OVERLAY EXISTING ASPHALT SURFACE 0.12' MINIMUM

6 SAWCUT, REMOVE AND DISPOSE OF AC SURFACE

(7) SAWCUT, REMOVE AND DISPOSE OF PCC SURFACE

(8) CONSTRUCT 3.5" AC OVER 4" CRUSHED AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION, AND 12" SUBGRADE COMPACTED TO 90% RELATIVE COMPACTION. FINAL PAVEMENT SECTION SHOULD BE BASED UPON R-VALUE TESTING PERFORMED ON A REPRESENTATIVE SOIL SAMPLE COLLECTED WHEN SUB-GRADE

ELEVATION IS ACHIEVED. (9) CONSTRUCT 4" PCC (520-C-2500) WITH #4 18 O.C. BOTH WAYS; WITH THICKENED EDGE PER DETAIL "B" ON

SHEET C-5.1, OVER 12" SUBGRADE, COMPACTED TO 90% RELATIVE COMPACTION. SCORING PATTERNS COLOR AND FINISH PER ARCHITECT'S PLANS AND SPECIFICATIONS

(10) CONSTRUCT SEAT WALL PER ARCHITECT'S PLANS AND SPECIFICATIONS

(11) CONSTRUCT 0"- 6" PCC (520-C-2500) CURB TRANSITION PER DETAIL "C" ON SHEET C-5.1

(12) CONSTRUCT 0" PCC (520-C-2500) CURB ONLY PER DETAIL "D" ON SHEET C-5.1 (13) CONSTRUCT CURB TYPE A1-6 PER SPPWC STANDARD PLAN 120-2 ON SHEET C-5.1

(14) FURNISH AND INSTALL SHADE STRUCTURE POST PER ARCHITECT'S PLANS AND SPECIFICATIONS

UTILITY CONSTRUCTION NOTES

STORM DRAIN

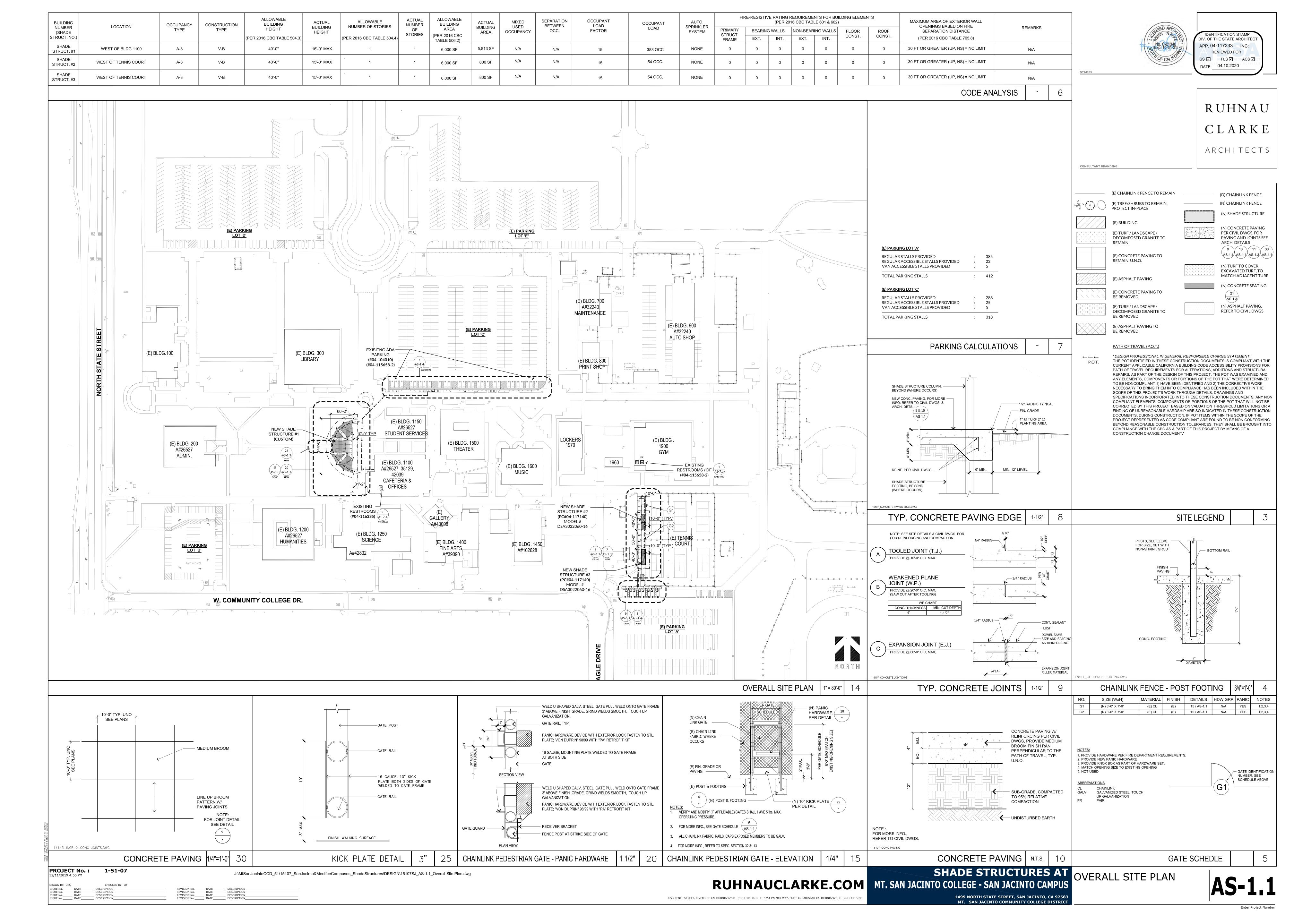
(20) FURNISH & INSTALL 6" SDR 35 PVC STORM DRAIN PIPE

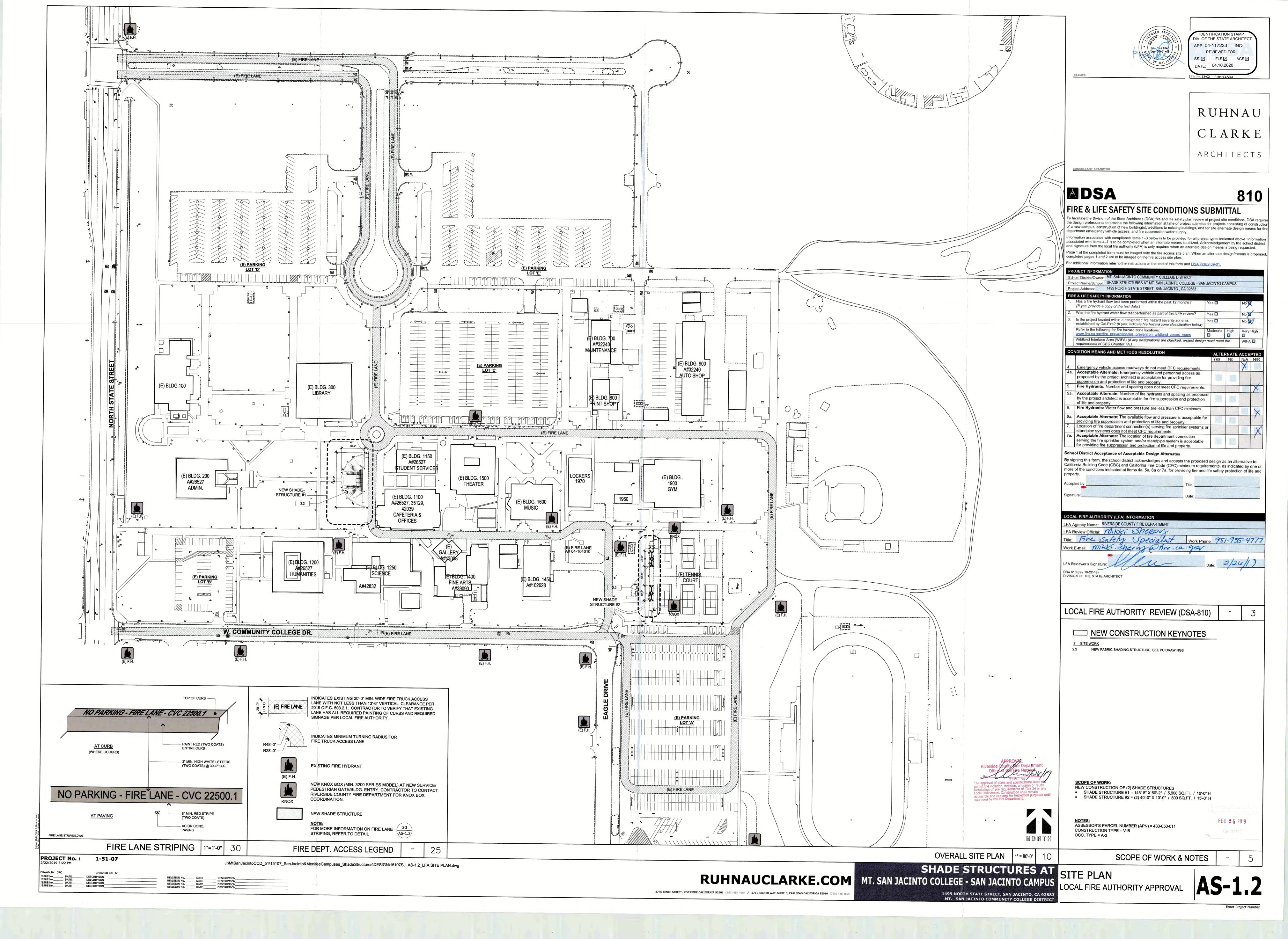
(21) FURNISH & INSTALL 12" X 12" PREFABRICATED CATCH BASIN (J&R CB1212 OR APPROVED EQUAL) PER DETAIL "E" ON SHEET C-5.1

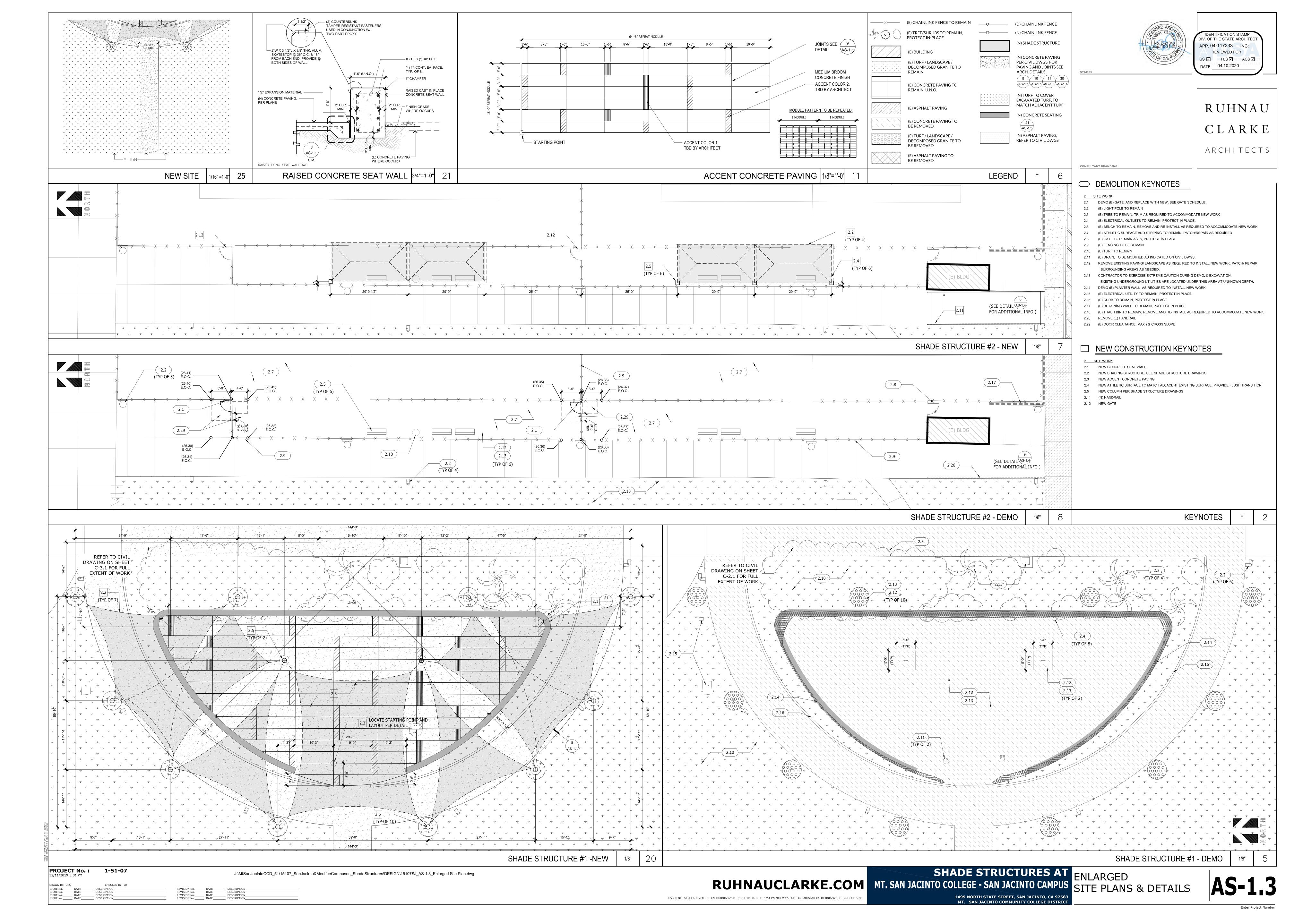
(22) CONNECT TO EXISTING STORM DRAIN

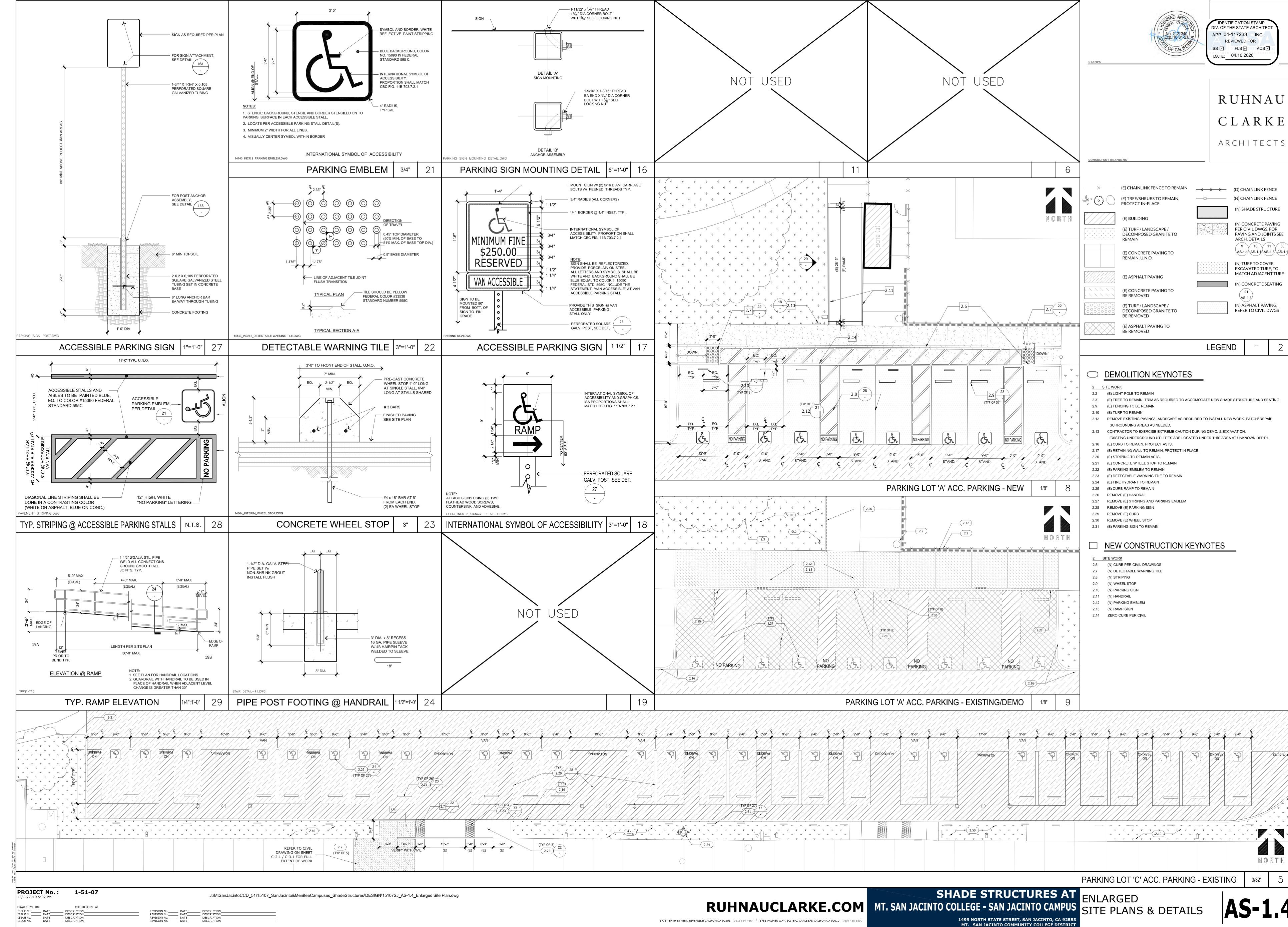
SHADE STRUCTURES AT DETAIL SHEET RUHNAUCLARKE.COM MT. SAN JACINTO COLLEGE - SAN JACINTO CAMPUS

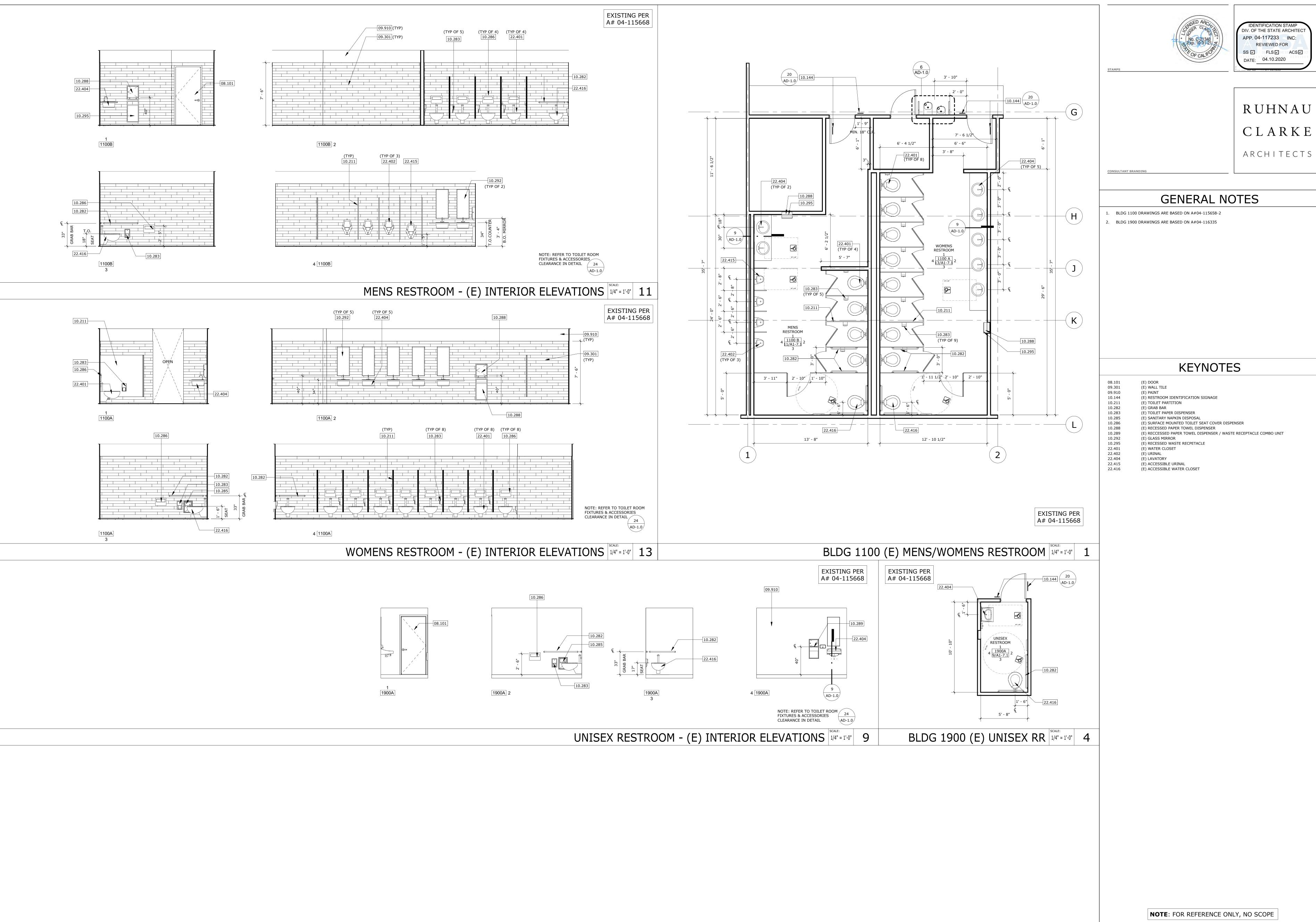
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899











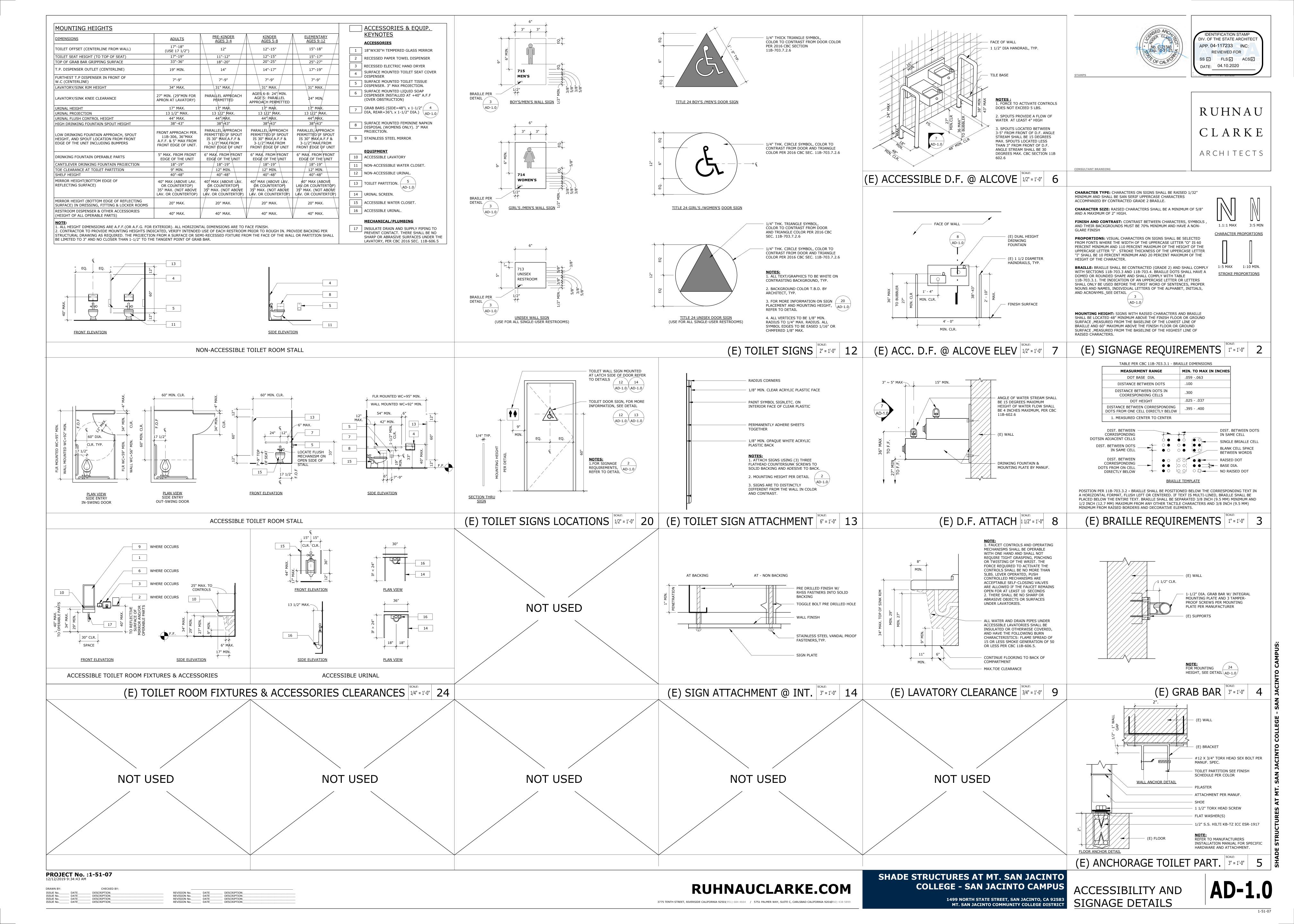
NOTE: FOR REFERENCE ONLY, NO SCOPE

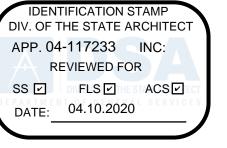
PROJECT No. :1-51-07 12/12/2019 9:34:42 AM

RUHNAUCLARKE.COM 3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501(951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 9201(760) 438 5899

SHADE STRUCTURES AT MT. SAN JACINTO COLLEGE - SAN JACINTO CAMPUS 1499 NORTH STATE STREET, SAN JACINTO, CA 92583 MT. SAN JACINTO COMMUNITY COLLEGE DISTRICT

(E) ENLARGED RESTROOM PLANS / INTERIOR ELEV.







FABRIC SHADE STRUCTURE DSA P.C. 04-117140

SITE SPECIFIC APPLICATION SITE PLAN SHALL INCLUDE:

- ACTUAL DIMENSIONS OF SHADE STRUCTURES.
- DIMENSIONS FROM ADJACENT STRUCTURES AND PROXIMITY OF ASSUMED OR ACTUAL
- PROVIDE CODE ANALYSIS INCLUDING ACTUAL SHADE STRUCTURE AREA (SQ. FT.), OCCUPANCY TYPE (A-3), AND TYPE OF CONSTRUCTION (V-B). INDICATE OCCUPANT LOAD FACTOR per 2016 CBC, SECTION 1004.
- INDICATE LOCATIONS OF FIRE EXTINGUISHER WITHIN 75 FEET
- SHOW LOCATIONS OF AUDIBLE FIRE ALARM.
- INDICATE DIMENSIONS FROM THE ROOF TO THE HIGHER STRUCTURE OR TERRAIN FEATURE. MINIMUM DIMENSION OF 20' FOR SNOW LOAD MODEL (ASCE 7-10).
- ACTUAL SITE ELEVATION (FT.) TO DETERMINE SITE OCCURS AT OR BELOW THE UPPER ELEVATION LIMIT FOR THE GROUND SNOW LOAD SHOWN IN ASCE 7-10 (FOR SNOW LOAD
- FOR RECESSED BASE PLATE (RBP) OPTION: ARCHITECT/ENGINEER OF RECORD TO SPECIFY THE LOWEST ANTICIPATED SERVICE TEMPERATURE (LAST). AS DEFINED IN AISC 341-10 SECTION A.3.4b, A4.1 AND A4.2 PER NOTE ON EACH INDIVIDUAL MODEL ENGINEERING DRAWING WHICH RELATES TO DEMAND CRITICAL WELD AND "L.A.S.T." TEMPERATURE (EITHER STRUCTURAL STEEL NOTE #14).
- COMPLETE SCOPE OF WORK INCLUDING THE SHADE STRUCTURE MODEL NUMBER, P.C. NUMBER, AND SPECIFIC SIZE OF SHADE STRUCTURE.
- . ALL SADDLES, CLAMPS AND FITTINGS SHALL CONFORM TO THE GUIDELINES AS SPECIFIED IN APPENDICES "A, B & C" RESPECTIVELY IN ASCE 19-10, "STRUCTURAL APPLICATIONS OF STEEL CABLES FOR BUILDINGS."
- ARCHITECTS OF RECORD TO DETERMINE IF SPECIFIC SITE IS IN MAPPED GEOLOGIC HAZARD ZONE. GEOHAZARD REPORT REQUIREMENTS PER DSA IR A-4.

THESE PLANS AND SPECIFICATIONS ARE TH PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN



CORPORATE HEADQUARTERS 8505-A CHANCELLOR ROW DALLAS, TX, 75247

800-966-5005

CERTIFICATIONS:

IAS CERTIFICATION No: FA-428 CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

DSA PC APPLICATION STAMP:

IDENTIFICATION STAMP **DIVISION OF THE STATE ARCHITECT**

APP. NO: 04 - 117140 INCR:

DATE <u>08/14/2018</u>

SCALE: AS NOTED

AC <u>DF</u> FLS <u>DS</u> SS <u>VN</u>

CODE UPDATE FOR 04-113245

PRE-CHECK (PC)

GENERAL NOTES

A separate project application for construction is required.

SITE SPECIFIC APPLICATION TITLE SHEET SHALL INCLUDE:

APPLICABLE CODES

- 2016 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R. * 2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R. (2015 INTERNATIONAL BUILDING CODE VOLUMES 1-2 AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R. (2014 NATIONAL ELECTRICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R.
- (2015 UNIFORM MECHANICAL CODE AND 2016 CALIFORNIA AMENDMENTS) 2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R. (2015 UNIFORM PLUMBING CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R. * • 2016 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.
- (2015 INTERNATIONAL FIRE CODE AND 2016 CALIFORNIA AMENDMENTS) 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 C.C.R.
- 2016 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R. TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS 2013 ASME A17.1 SAFETY CODE FOR ELEVATORS AND ESCALATORS

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	AUTOMATIC FIRE SPRINKLER SYSTEMS	2016	EDITION
NFPA 14	STANDPIPE AND HOSE SYSTEMS	2013	EDITION
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS	2013	EDITION
NFPA 17a	WET CHEMICAL EXTINGUISHING SYSTEMS	2013	EDITION
NFPA 20	STATIONARY PUMPS FOR FIRE PROTECTION	2016	EDITION
NFPA 22	WATER TANKS FOR PRIVATE FIRE PROTECTION	2013	EDITION
NFPA 24	PRIVATE FIRE MAINS & THEIR APPURTENANCES	2016	EDITION
NFPA 25	STANDARD FOR INSPECTION, TESTING AND MAINTENANCE	2013	EDITION
	OF WATER-BASED FIRE PROTECTION SYSTEMS		
NFPA 72	NATIONAL FIRE ALARM & SIGNALING CODE	2016	EDITION
NFPA 80	FIRE DOORS AND OTHER OPENING PROTECTIVES	2016	EDITION
NFPA 92	STANDARD FOR SMOKE CONTROL SYSTEMS	2015	EDITION
NFPA 253	CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS	2015	EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2015	EDITION
ICC 300	ICC STANDARDS ON BLEACHERS, FOLDING AND	2012	EDITION
	TELESCOPING SEATING, AND GRAND STANDS		
UL 300	FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS	2005	EDITION
	FOR PROTECTION OF RESTAURANT COOKING AREAS		
UL 464	AUDIBLE SIGNAL APPLIANCES	2003	EDITION
UL521	HEAT DETECTORS FOR FIRE PROTECTIVE	1999	EDITION
	SIGNALING SYSTEMS		

REFERENCE CODE SECTION FOR NFPA STANDARDS-2016 CBC (SFM) CHAPTER 35. SEE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO NFPA STANDARDS.

SEE INDIVIDUAL STRUCTURAL DRAWINGS FOR SPECIFIC DESIGN NOTES AND LOADING.

ALL WORK SHALL CONFORM TO 2016 EDITION TITLE 24, CALIFORNIA CODE OF REGULATIONS (C.C.R.)

DSA 103 - 2 / PC T-2.0 MODEL: DSA4012030-16				XXX
MODEL: DSA4012030-16 STRUCTURE: 20'X30'X12' (MAX.) HIP UNIT MAX. AREA - 600 3Q. FT. MAX. OCCUPANCY = 40 MODEL: DSA4013030-16 STRUCTURE: 30'X30'X12' HIP UNIT MAX. AREA - 900 SQ. FT. MAX. OCCUPANCY = 60 MODEL: DSA4013040-16 STRUCTURE: 30'X40'X15' HIP UNIT MAX. AREA - 1200 SQ. FT.	DSA 103 - 1, PC T-2.0 MODEL: DSA2022030-16 STRUCTURE: 20'X30'X14' FULL CANTI HIP SINGLE MAX. AREA - 600 SQ. FT. MAX. OCCUPANCY = 40	DSA 103 - V PC T-2.0 MODEL: DSA2062030-16 STRUCTURE: 20'X30'X14' TRI TRUSS HIP SINGLE WIDE MAX. AREA - 600 SQ. FT. MAX. OCCUPANCY = 40	DSA 103 - 1 PC T-2.0 MODEL: DSA1031414-16 STRUCTURE: 14'X14'X12' SINGLE POST PYRAMID UNIT MAX. AREA - 196 SQ. FT. MAX. OCCUPANCY = 13	
MAX. OCCUPANCY = 80 MODEL: DSA401S2030-1 STRUCTURE: 20'X30'X12' HIP (20 PSF SNOW LOAD) MAX. AREA - 600 SQ. FT. MAX. OCCUPANCY = 40				
DSA 103 -2 / PC T-2.0 MODEL: DSA4073030-16	DSA 103 - 1 / PC T-2.0 MODEL: DSA3022060-16 STRUCTURE: 20'X60'X14' FULL CANTI HIP JOINED MAX. AREA - 1200 SQ. FT. MAX. OCCUPANCY = 80	DSA 103- 1 / PC T-2.0 MODEL: DSA3052060-16 STRUCTURE: 20'X60'X14' T RI TRUSS HIP JOINED MAX. AREA - 1200 SQ. FT. MAX. OCCUPANCY = 80	DSA 103 - 2 / PC T-2.0 MODEL: DSA4182020-16 STRUCTURE: 20'X20'X14' TENSION SAILS JOINED MAX. AREA/SAIL - 400 SQ. FT./SAIL MAX. OCCUPANCY / SAIL = 26 / SAIL	XX
STRUCTURE: 30'X30'X14' (MAX) MARINER PEAK DNIT MAX. AREA - 900 SQ. FT. MAX. OCCUPANCY = 60	NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL AREA, OCCUPANCY AND SITE CONDITIONS	NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL AREA, OCCUPANCY AND SITE CONDITIONS	NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL REA, OCCUPANCY AND SITE CONDITIONS	
DSA 103 2 / PC T-2.0 MODEL: DSA407Q6060-16 STRUCTURE: 60'X60'X12' MARINER PEAK QUAD MAX. AREA - 3600 SQ. FT. MAX. OCCUPANCY = 120 NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL AREA, OCCUPANCY AND SITE CONDITIONS	DSA 103 2 / PC T-2.0 MODEL: DSA407J3060-16 STRUCTURE: 20'X60'X12' MARINER PEAK JOINED MAX. AREA - 1800 SQ. FT. MAX. OCCUPANCY = 120 NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL AREA, OCCUPANCY AND SITE CONDITIONS	DSA 103 2 / PC T-2.0 MODEL: DSA4183030-16 STRUCTURE: 30'X30'X14' TENSION SAILS JOINED MAX. AREA/SAIL- 900 SQ. FT./SAIL MAX. OCCUPANCY / SAIL = 60 /SAIL NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL AREA, OCCUPANCY AND SITE CONDITIONS	DSA 103 2 / PC T-2.0 MODEL: DSA30730-16 STRUCTURE: 30'X30'X12' TENSION SAILS JOINED MAX. AREA/SAIL - 480 SQ. FT. / SAIL MAX. OCCUPANCY / SAIL = 120 NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL KREA, OCCUPANCY AND SITE CONDITIONS	
	UNIT SELECTION A	AND DESCRIPTION		

	NUMBER			SIZE	NUMBER	DD A VA	NC CIZE	•			
X	P.C. T-1.0	P.C. TITLE SHEET				_ DRAW	NG SIZE:				
X	P.C. T-2.0	DSA 103 FORMS									
	1.1-1000	PRODUCT INFORMATION	HIP	20 X 30	DSA4012030-16	_			1		G
	1.2-2000	REACTIONS	HIP	20 X 30	DSA4012030-16	_			1		ENG
\Box	2.1-1000	PRODUCT INFORMATION	HIP	30 X 30	DSA4013030-16				1	ŀ	
$\overline{}$	2.2-2000	REACTIONS	HIP	30 X 30	DSA4013030-16	_			1		CH K
\exists	3.1-1000	PRODUCT INFORMATION	HIP	30 X 40	DSA4013040-16	-]			1		
+	3.2-2000	REACTIONS	HIP	30 X 40	DSA4013040-16	snawe			1		DRW
\mp	4.1-1000	PRODUCT INFORMATION	HIP (20# SNOW LOAD)	20 X 30	DSA401S2030-16	−	_	さ	1		┌व
\mp	4.2-2000	REACTIONS	HIP (20# SNOW LOAD)	20 X 30	DSA401S2030-16	7 5		t	1		ш
\mp	5.1-1000	PRODUCT INFORMATION	SINGLE POST PYRAMID	14 X 14	DSA1031414-16	\exists		District	1		DATE
7	5.2-2000	REACTIONS	SINGLE POST PYRAMID	14 X 14	DSA1031414-16	-l -			1		
+	6.1-1000	PRODUCT INFORMATION	MARINER	30 X 30	DSA4073030-16	7 2		<u>e</u>	1		
-	6.2-2000	REACTIONS	MARINER	30 X 30	DSA4073030-16	Jacinto		College	1		i
\equiv	7.1-1000	PRODUCT INFORMATION	JOINED MARINER	30 X 200	DSA407J3060-16	_	=		1		ĺ
\mp	7.2-2000	REACTIONS	JOINED MARINER	30 X 200	DSA407J3060-16	7 7	5	\sim	1		i
7	8.1-1000	PRODUCT INFORMATION	QUAD MARINER	60 X 60	DSA407Q6060-16	<u> </u>			1		i
7	8.2-2000	REACTIONS	QUAD MARINER	60 X 60	DSA407Q6060-16	\exists	}	<u>-</u>	1		i
\mp	9.1-1000	PRODUCT INFORMATION	FULL CANTILEVER	20 X 30	DSA2022030-16	-l (í		ommunity	1		7
7	9.2-2000	REACTIONS	FULL CANTILEVER	20 X 30	DSA2022030-16	∃ ш 8		\sqsubset	•••	က	<u> </u>
X	10.1-1000	PRODUCT INFORMATION	FULL CANTILEVER JOINED	20 X 300	DSA3022060-16	$\exists \exists \ 0$		ב	SS	58	DESCRIPTION
X	10.2-2000	REACTIONS	FULL CANTILEVER JOINED	20 X 300	DSA3022060-16	┧┫┋		<u>o</u>	S	\sim	
\perp	11.1-1000	PRODUCT INFORMATION	TRI TRUSS CANTILEVER	20 X 30	DSA2062030-16	ゴヹび		<u>ن</u>	RE t.	တ	SC
1	11.2-2000	REACTIONS	TRI TRUSS CANTILEVER	20 X 30	DSA2062030-16	∃ ⊢ c	NWO/L	0		\preceq	
1	12.1-1000	PRODUCT INFORMATION	TRI TRUSS CANTILEVER JOINED	20 X 300	DSA3052060-16	JECT Cinto		cinto	N/ADD State S	\cup	i
	12.2-2000	REACTIONS	TRI TRUSS CANTILEVER JOINED	20 X 300	DSA3052060-16	1 出 で	Q	Image: Control of the	N/AD tate	o,	i
	13.1-1000	PRODUCT INFORMATION	THREE POINT SAILS	30 X 200	DSA30730-16	<u> </u>		Ja	N S	nto	i
+	13.2-2000	REACTIONS	THREE POINT SAILS	30 X 200	DSA30730-16	<u> </u>	(<u> </u>	ر ا	$\frac{1}{1}$. <u>.</u>	i
1	14.1-1000	PRODUCT INFORMATION	FOUR-POINT SAILS	20 X 300	DSA4182020-16	_ დ		ਕ		<u>a</u>	i
+	14.2-2000	REACTIONS	FOUR-POINT SAILS	20 X 300	DSA4182020-16	二百 穴		က	3 g	ا ئے	ĺ
1	15.1-1000	PRODUCT INFORMATION	FOUR POINT SAILS	30 X 200	DSA4183030-16		DIS	<u>.</u> :	OC/ 499	ਕ	>
\Box	15.2-2000	REACTIONS	FOUR POINT SAILS	30 X 200	DSA4183030-16	∣ თ ≥	: 🗅 🖫	Ĭ.	7 4		REV
\Box						1 _				00/0=	
一	_	OUEET	NIDEV DO DDAVA	INICO		T LE	ig. By :	DW	√H	08/07	/18
1		SHEEL	INDEX - P.C. DRAWI	11/11/11/5/							

SHEET INDEX - P.C. DRAWINGS

STRUCTURE TYPE



(909)375-3030 www.haarchinc.com



Mark Lowe, S.E. Structural Engineer

19471 Misty Ridge Lane Trabuco Canyon, California 923679 949-400-1265 malowe@me.com



NUMBER

Design By: DWH Approved By: DWH DRAWING DESCRIPTION:

P.C. TITLE SHEET

DWG.

P.C. T-1.0

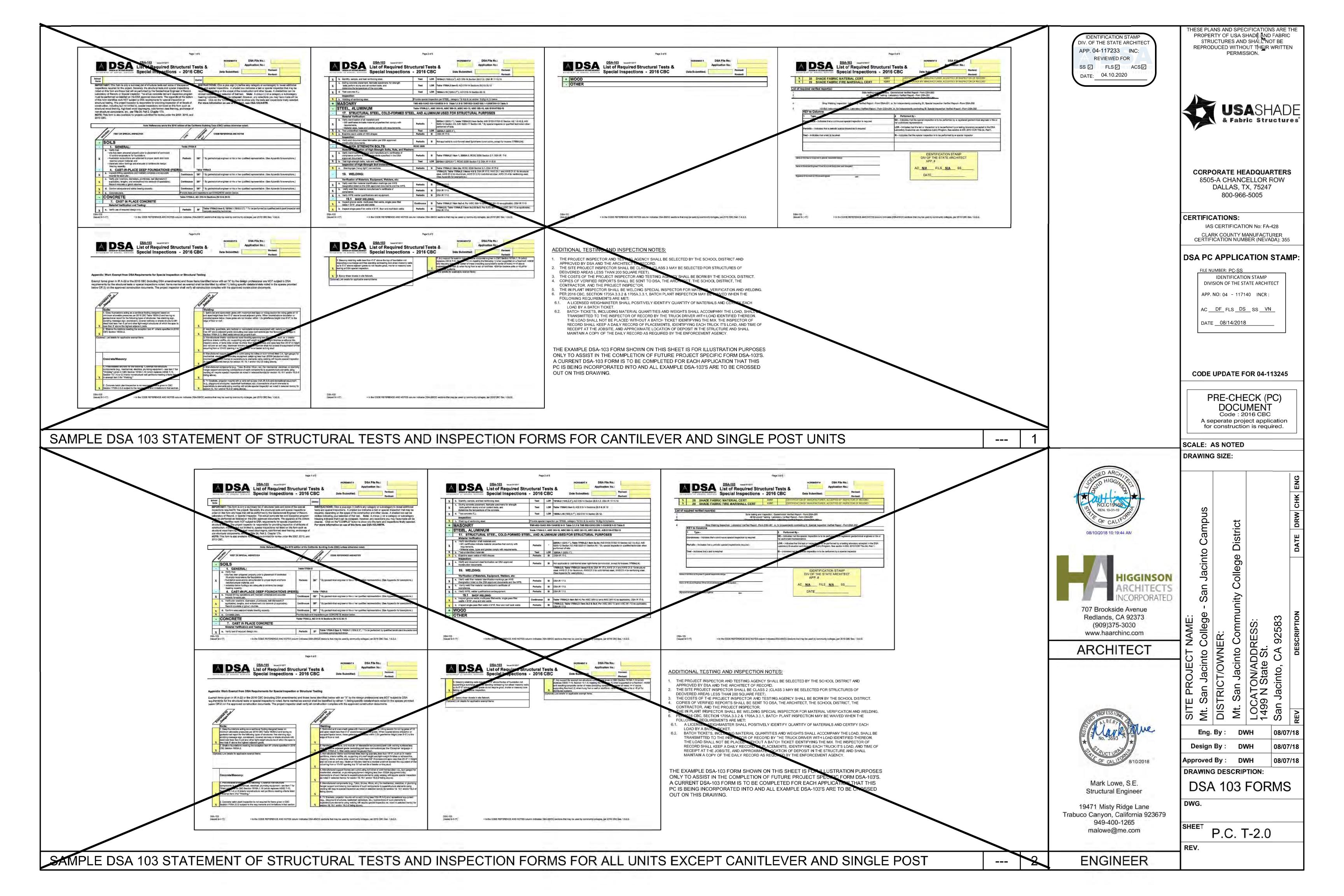
BUILDING CODE DATA

ARCHITECT OF RECORD

DRAWING DESCRIPTION

NUMBER

ENGINEER OF RECORD



DESIGN LOADS

BUILDING CODE CBC 2016 (BASED ON IBC 2015)

LIVE LOADS 5 PSF SNOW LOAD

WIND LOADS 115 MPH (3-Sec. Gust); EXPOSURE C; TOPOGRAPHIC FACTOR, Kzt = 1.0

1.- SPECIAL INSPECTION REQUIREMENTS SHALL FOLLOW THE ATTACHED SAMPLE TEST AND INSPECTION LIST (T & I LIST) APPROVED BY DSA. THE SHOP WELDING INSPECTION SHALL INCLUDE WELDING OF ALL STEEL MEMBERS AND IDENTIFICATION OF STEEL THROUGH MILL CERTIFICATE OR MATERIAL TESTING, UNCERTIFIED STEEL SHALL BE TESTED TO THE REQUIREMENTS OF CBC 2016 CHAPTER 17A. THE FIELD SPECIAL INSPECTION SHALL INCLUDE COMPRESSION CYLINDER TESTS FOR THE CONCRETE FOUNDATION.

2.- STRUCTURE SHALL BE IN THE LOCATION SHOWN ON THE SITE SPECIFIC DSA APPLICATION DRAWING.

3.- FOUNDATION DESIGN BASED ON CBC 2016, TABLE 1806A.2, SOIL CLASS 5 (ALLOWABLE FOUNDATION PRESSURE 1500 PSF)

4.- DESIGN PER FOLLOWING CODES: CBC 2016, ASCE 7-10, AISC 360-10, AISC 341-10, ACI 318-14, ASCE 55-10 & ASCE 19-10

STRUCTURAL STEEL

ROUND PIPE

1.- FABRICATION OF THE STEEL STRUCTURES SHALL BE PERFORMED BY SHADE STRUCTURES OR AN AUTHORIZED LICENSEE. MATERIAL TESTING (OR MILL CERTIFICATES) AND INSPECTION OF WELDING SHALL BE CONDUCTED PER CBC 2016 SECTIONS 1704A, 1705A, 1705A.2, AND TABLE 1705A.2.1

2.- ONLY CALIFORNIA LICENSED CONTRACTORS AUTHORIZED BY SHADE STRUCTURES SHALL INSTALL THE SHADE STRUCTURES.

3.- ALL WORK SHALL CONFORM TO CBC 2016 EDITION, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).

4.- ALL GALVANIZED STEEL TUBE PRODUCTS MANUFACTURED BY ALLIED TUBE & CONDUIT FOR THIS STRUCTURE SHALL BE, AND CONFORM TO ASTM A500-10: GRADE "B", IN ITS' ENTIRETY. TYPICAL MECHANICAL PROPERTIES ARE:

ROUND TUBE 42,000 PSI YIELD STRESS / 58,000 PSI TENSILE STRESS

5.- ALL STRUCTURAL SHAPES SHALL BE COLD FORMED HSS ASTM A500 GRADE B, UNLESS OTHERWISE NOTED. TYPICAL MECHANICAL PROPERTIES ACHIEVED FOR HSS PRODUCTS SQUARE AND RECTANGULAR 46,000 PSI YIELD STRESS / 58,000 PSI TENSILE STRESS

42,000 PSI YIELD STRESS / 58,000 PSI TENSILE STRESS

6.- ALL PLATES PRODUCTS SHALL COMPLY WITH ASTM A572 GRADE 50.

7.- STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS.

8.- ALL WELDING TO CONFORM WITH AMERICAN WELDING SOCIETY STANDARDS AND SHALL BE INSPECTED BY AN AWS/CWI INSPECTOR. AWS D1.1 FOR HOT ROLLED. AWS D1.3 FOR SHEET/COLD FORMED. AWS D1.8 SEISMIC SUPPLEMENT.

9.- ALL FULL PENETRATION WELD SHALL BE CONTINUOUSLY INSPECTED PER AWS D1.1 & D1.8.

10.- SHOP CONNECTIONS SHALL BE WELDED UNLESS NOTED OTHERWISE. FIELD CONNECTIONS SHALL BE AS INDICATED ON THE DRAWINGS (IF REQUIRED). ALL FILLET WELDS SHALL BE A MINIMUM OF 3/16" ER70SX ELECTRODES UNLESS OTHERWISE NOTED. EITHER SMAW OR GMAW IS ACCEPTABLE.

11.- ALL STAINLESS STEEL BOLTS SHALL COMPLY WITH ASTM F-593, FYS = 60 KSI, FS = 95KSI ,ALLOY GROUP 1 OR 2 ALL NUTS SHALL COMPLY WITH ASTM F-594 ALLOY GROUP 1 OR 2. REFERING TO RCSC, ASTM F-593 IS NOT CONSIDERED AS HIGH STRENGTH BOLTS.

12.- ALL HIGH STRENGTH BOLTS SHALL COMPLY WITH ASTM A325 N. ALL NUTS SHALL COMPLY WITH ASTM A-563 GRADE C. ALL HIGH STRENGTH BOLTS SHALL BE TIGHTENED TO A SNUG TIGHT CONDITION.

13.- ALL STRUCTURAL STEEL (ITEMS FROM NOTE 5) SHALL BE PAINTED WITH ONE SHOP COAT (2.5 TO 3.5 MILS THICK MIN) OF ZINC-RICH PRIMER, UNDERCOAT, AND FINISH COAT, OR EQUIVALENT PAINT SYSTEM. THIS COAT IS A WEATHER RESISTANT POWDER COATING BASED ON POLYESTER TGIC (MANUFACTURED BY SHERWIN WILLIAMS OR TIGER DRYLAC). TO ACHIEVE OPTIMUM ADHESION, IT IS RECOMMENDED THAT THE PROPER TREATMENT AND DRYING TAKE PLACE BEFORE COATING. POLYESTER POWDER (TGIC) SPECIFICATIONS SHALL BE AS FOLLOWS: - PENCIL HARDNESS (ASTM D-3363). - HUMIDITY (ASTM D-2247). - SOLVENT RESISTANCE (PCI METHOD) - 50 DBL RUBS SL. SOFTNESS.

14.- ALL STEEL ROUND TUBING (ITEMS FROM NOTE 4) SHALL BE TRIPLE COATED FOR RUST PROTECTION USING THE IN-LINE ELECTROPLATING COAT PROCESS. TUBING SHALL BE INTERNALLY COATED WITH ZINC AND ORGANIC COATINGS TO PREVENT CORROSION AS MANUFACTURED BY ALLIED TUBE & CONDUIT.

15.- COLD-FORMED STEEL MEMBERS SHALL BE 55% ALUMINUM ZINC ALLOY COATED PER ASTM A792/A792M STANDARD IN ACCORDANCE TO AISI \$200 TABLE A4-1, CP 90 COATING DESIGNATION, ALL EXPOSED STEEL FASTENERS, INCLUDING CAST-IN-PLACE ANCHOR BOLTS/RODS, SHALL BE STAINLESS STEEL (TYPE 304 MINIMUM) HOT DIP GALVANIZED (ASTM A153, CLASS D MINIMUM OR ASTM F2329), OR PROTECTED WITH CORROSION PREVENTIVE COATING THAT DEMONSTRATED NO MORE THAN 2% OF RED RUST IN MINIMUM 1,000 HOURS OF EXPOSURE IN SALT SPRAY TEST PER ASTM B117. ZINC-PLATED FASTENERS DO NOT COMPLY WITH THIS REQUIREMENT.

CONCRETE SPECIFICATION

1.- CONCRETE SHALL BE TESTED PER CBC 2016 SECTION 1903A & SHALL BE INSPECTED PER SECTION 1903A.

2.- CONCRETE TO BE F'c= 4500 PSI. TYPE V CEMENT, WATER/CEMENT RATIO OF 0.45, PER ACI 318-14 CHAPTER 5. REINFORCING STEEL TO BE Fy= 60000 PSI, MIN. GR. 60

3.- ALL ANCHOR BOLTS SET IN NEW CONCRETE (WHEN APPLICABLE) SHALL COMPLY WITH ASTM F-1554 GRADE 55 (GALVANIZED). ANCHOR BOLT'S EMBEDMENT NEEDS TO BE AS FOLLOW: A) ANCHOR BOLT Ø1 1/4" 30 IN (MINIMUM EMBEDMENT)

4.- CERTIFIED MILL TEST REPORTS ARE TO BE PROVIDED FOR EACH SHIPMENT OF REINFORCEMENT.

5.- ALL NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 5000 PSI, AND SHALL COMPLY THE REQUIREMENTS OF ASTM C109, ASTM C939, ASTM C1090, ASTM C1107, WHEN APPLICABLE.

FABRIC SPECIFICATION

1.- FABRIC SHALL BE MANUFACTURED BY MULTIKNIT LTD. OR OTHER COMPANY WHO CAN MANUFACTURE FABRIC, WHICH MEETS THE SPECIFICATIONS LISTED ON PAGE 2000, AND SHALL BE FABRICATED FROM POLYETHYLENE MATERIALS.

2.- THE FABRIC SHALL RETAIN 80% OF ITS TENSILE AND TEARING STRENGTH AFTER ULTRAVIOLET EXPOSURE PER ASTM G53 USING A 313 NM LIGHT SOURCE FOR 500 HOURS WHILE MOISTENED FOR 1 HOUR

3.- PROVIDE CERTIFICATION BY MANUFACTURER AND STATE FIRE MARSHALL TO DSA AT SITE SPECIFIC INSTALLATION.

4.- FABRIC SHALL REQUIRE ANNUAL INSPECTION AND MAINTENANCE BY THE DISTRICT. FABRICS SAMPLES OF THE SAME MATERIAL WHICH ARE MAINTAINED AT THE PROJECTS SITE SHALL BE TESTED TO BE IN COMPLIANCE WITH ASTM D5034 AND D2261. THE ANNUAL TESTING ON THE APPROVED PLANS SHALL BE COMPARED TO THE FABRIC SPECIFICATIONS INDICATED IN NOTE 1 OF "FABRIC SPECIFICATION" ON THE APPROVED PLANS. THE FABRIC SHALL BE REPLACED WHEN THE TEST RESULTS RETURN LESS THAN 50% OF THE ULTIMATE VALUES IN NOTE 1 OF "FABRIC SPECIFICATION".

5.- FABRIC TOP NEEDS TO BE REMOVED IF SNOW EXCEEDING 5 PSF ARE ANTICIPATED, FABRIC TOP NEEDS TO BE REMOVED IF WINDS EXCEEDING 115 MPH ARE ANTICIPATED.

6.- A VISUAL INSPECTION LOOKING FOR TEAR AND ABNORMAL WEAR IN FABRIC MATERIAL AND THREAD IS REQUIRED PRIOR TO RE-INSTALLATION. SHADE STRUCTURE SHALL BE NOTIFIED IF SIGNIFICANT DAMAGE IS PRESENT BEFORE RE-INSTALLATION.

AIRCRAFT CABLE

VISITS AS REQUIRED.

1.- FOR FABRIC ATTACHMENT USE 3/8" 7x19 GALV. CABLE PER ASTM A1023A, ASTM 1023M-02, WITH A BREAKING STRENGTH VALUE OF 14,400 LBS. CABLE SHALL BE TENSIONED TO 250 LBS MINIMUM. THE MAXIMUM CALCULATED CABLE TENSION IS 2726 LB.

2.- CABLES SHALL BE FED THROUGH THE FABRIC SLEEVES AROUND THE PERIMETER OF THE CANOPY AND TENSIONED UNTIL THE FABRIC PANELS (DESIGNED PURPOSELY UNDERSIZED) REACH A TAUT APPEARANCE. ANY LONG TERM CABLE SAG SHALL BE MINIMIZED DURING THE MAINTENANCE RE-TIGHTING

2016 CBC PC DESIGN NOTES

FLOOR LIVE LOAD N/A ROOF LIVE LOAD 5 PSF

ALLOWABLE SOIL PRESSURE DL + LL (CONC FTG)

1500 PSF DL + LL + SEISMIC (CONC FTG) 1500 PSF LATERAL BEARING DESIGN VALUE 100 PSF/FT BELOW NATURAL GRADE, PER TABLE 1806A.2

TWO TIMES THE TABULAR VALUE IS USED (200 PSF/FT) PER CBC SECTION 1806A.3.4. ALLOWABLE PIER FRICTIONAL RESISTANCE 250 PSF MAXIMUM

BASED ON SECTION 1810A.3.3.1.4 (ONE-SIXTH OF THE BEARING VALUE). UPLIFT FRICTIONAL RESISTANCE HAVE A SAFETY FACTOR OF 3.

ROOF SNOW LOAD

FLOOD HAZARD AREA WHEN A SITE SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X, A LETTER STAMPED AND SIGNED FROM A SOILS ENGINEER IS NEEDED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED IN THE PC ARE STILL APPLICABLE.

WIND DESIGN DIRECTIONAL PROCEDURE: ASCE 7-10, SECTION 27.4.3 -ULTIMATE DESIGN WIND SPEED (3 SEC GUST) 115 MPH -WIND EXPOSURE FACTOR -TOPOGRAPHIC FACTOR

-RISK CATEGORY -VELOCITY PRESSURE EXPOSURE COEFFICIENT 0.88 -VELOCITY PRESSURE 25.32 PSF

SEISMIC DESIGN -SITE CLASS 1.389g -SPECTRAL RESPONSE COEFFICIENTS SDS 2.00 SD1 1.39

-LATERAL FORCE RESISTING SYSTEM G.2 ORDINARY CANTILEVERED COLUMN

-SEISMIC IMPORTANCE FACTOR 1.0 -DESIGN BASE SHEAR 26584 LB -SEISMIC RESPONSE COEFFICIENTS Cs 1.6 -RESPONSE MODIFICATION FACTOR 1.25 -ANALYSIS PROCEDURE EQUIVALENT LATERAL FORCE -RISK CATEGORY -SEISMIC DESIGN CATEGORY -SITE COEFFICIENT CATEGORY Fa

GEOHAZARD REPORT IS NOT REQUIRED FOR OPEN FABRIC STRUCTURES 1,600 SQF OR LESS COMPLYING WITH THE REQUIREMENTS OF IR A-4 SECTION 3.1.1. OPEN FABRIC SHADE STRUCTURES GREATER THAN 1,600 SQUARE FEET UP TO A MAXIMUM OF 4,000 SQUARE FEET AND COMPLYING WITH THE REQUIREMENTS NOTED IN IR A-4 SECTION 3.1.1 DO NOT REQUIRE A GEOHAZARD REPORT PROVIDED A GEOTECHNICAL REPORT INDICATES THAT NO LIQUEFACTION POTENTIAL EXISTS.

ARCHITECT OF RECORD TO DETERMINE IF SPECIFIC SITE IS IN GEOLOGIC HAZARD ZONE. GEOHAZARD REPORT REQUIREMENTS PER DSA IR A-4.

PC OPTIONS SHALL NOT INCLUDE LIQUEFIABLE SOIL (EXCEPTION: OPEN FABRIC SHADE STRUCTURES 1,600 SQUARE FEET OR LESS COMPLYING WITH REQUIREMENTS OF IR A-4 SECTION 3.1.1). IF STRUCTURE IS LOCATED IN AN AREA WITH LIQUEFIABLE SOIL OR SITE CLASS F, OVER-THE-COUNTER SUBMITTAL IS NOT ALLOWED AND REGULAR PROJECT SUBMITTAL IS REQUIRED. IF SITE IS NOT IN A MAPPED LIQUEFACTION HAZARD ZONE, IT MAY BE PRESUMED THAT NO LIQUEFACTION HAZARD EXISTS ON THAT SITE UNLESS A SITE-SPECIFIC GEOTECHNICAL REPORT IDENTIFIES SUCH HAZARD.

MINIMUM FOUNDATION SETBACK LIMIT IN ADJACENT SLOPE: THE DEPTH OF REQUIRED PIER EMBEDMENT SHALL START FROM AN ELEVATION THAT CORRESPONDS WITH A HORIZONTAL CLEAR DISTANCE OF 17'-6" THAT INTERSECT WITH THE SLOPE (DAYLIGHTING). IF SETBACK LIMITS ARE SMALLER THAN CBC REQUIRES, A SITE-SPECIFIC SOILS REPORT IS

-PL3/8X10SQ

TOP VIEW

·╒╴═╶╪╶═<u>╎╤╶</u>╪╒╾═╗

2'-6"

DRILLED PIER-PIH

(USE FOR NON-CONSTRAINED CASES)

_COLUMN

(SLRS)

VERTICAL **REBAR 21#5**

-FINISHED

SURFACE

1 1/2 EXTRA

TURNS

TOP AND

BOTTOM

OF SPIRAL

REBAR 21#5

3" CLR.

MINIMUM CLASS 2 PROJECT INSPECTOR REQUIRED.

Ø2'-0" SPIRAL #4

Ø13/16" HOLE —

ALL THREADED

GALVANIZED

ROD ASTM A449

HVY. HEX NUTS (4)

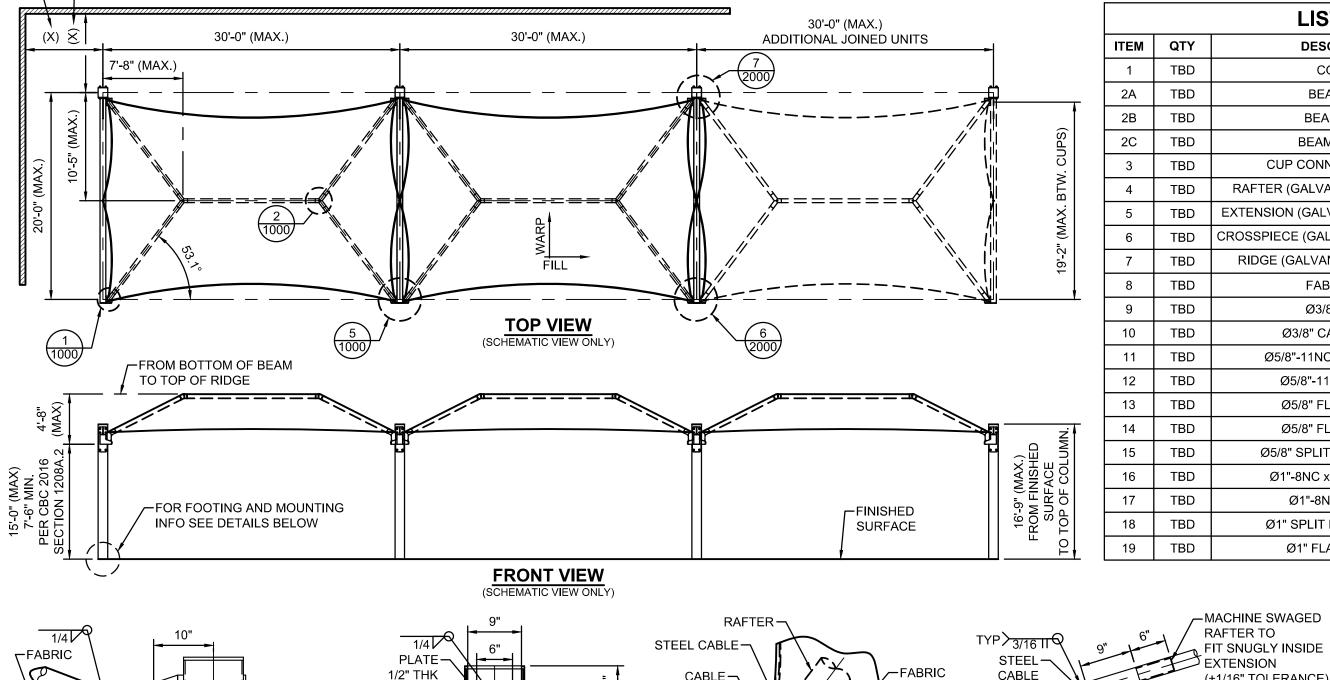
FLAT WASHERS (2)

TROUGH

Ø3/4"X20"

PROVIDE TAPER-

SLOPE 2% MAX.



CABLE-

Ø1/2" x 2" LG 🗕

BUILDING

STRUCTURE

FABRIC PIN (A36)

END "B"

ERMINATION

∽ITEΜ

CENTER

REFER TO TOP DETAIL-3

16.17.18.19

-STRUCTURE SHALL BE INSTALLED A MINIMUM OF 20'-0" AWAY FROM ADJACENT

BUILDING, UNLESS OTHERWISE APPROVED BY D.S.A. ON A JOB SPECIFIC BASIS

PLATE-

PLATE -

5/16

COLUMN-

-VERT**I**ĆAL

PL/1-1/4X18SQ

-PROVIDE TAPER

SLOPE 2% MAX.

1 1/4" GROUT

-1 1/2 EXTRA

TURNS

TOP AND

BOTTOM

OF SPIRAL

REBAR\21#5

3" CLR.

REBAR 21#5

Ø2'-0"

BEAM-

1/2" THK

PLATE

⊕_{3/16} ✓ TYP BTW. RIDGE

TOP VIEW

2'-6"

DRILLED PIER-RBP

ECESSED BASE PLATE, RBP

(USÈ FOR NON-CONSTRAINED CASES)

(OPTIONAL)

(SKRS)

AND EXT. ARMS

DETAIL-3

DETAIL-2

PLATE

1" THK

MACHINE SWAGED-

FIT SNUGLY INSIDE

(±1/16" TOLERANCE)

MACHINE SWAGED -

CROSSPIECE

TO FIT SNUGLY

INSIDE RIDGE

CROSSPIECE-

(±1/16" TOLERANCE)

PJP

1/2

EIGHT Ø1 1/4" x 36"-

HVY. HEX NUTS (3)

FLAT WASHERS (2)

ANCHOR RODS

LOCK WASHER

FINISHED-

SURFACE

CROSSPIECE ARM

EXTENSION TO

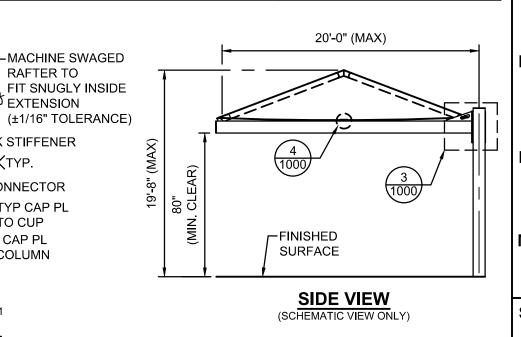
COLUMN-



LIST OF MATERIALS

MATERIAL

DESCRIPTION



MAXIMUM OCCUPANT LOAD (PER CBC 2016 TABLE 1604A.5) -K-12: 250 PERSONS 300 PERSONS -PUBLIC ASSEMBLY -EDUCATIONAL OCCUPANCIES **ABOVE 12TH GRADE:** 500 PERSONS

—CUP CONNECTOR

TO CUP

FLAT WASHERS (2)

(TOP & BOT. OF PIH COLUMNS)

LOCK WASHER

Ŏ_{1/4} ✓ TYP CAP PL

O_{1/4} TYP CAP PL

VIEW-A

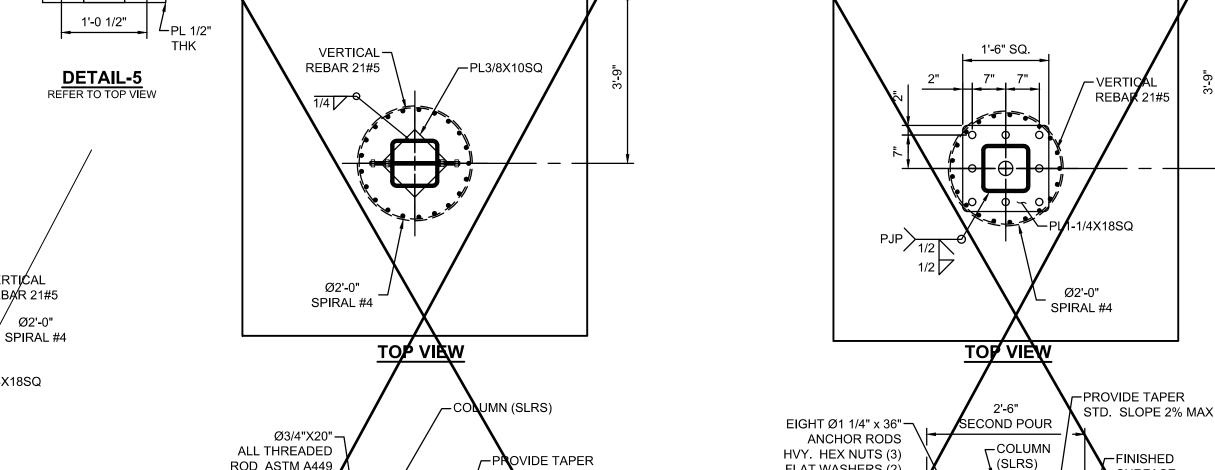
LOAD

REFER TO DETAIL

OCCUPANT OCCUPANT

LOAD FACTOR

7'-6" SQ.



ITEMS-

11,12,13,14,15

3/4" THK PL-

(WELDED TO BEAM)

AREA

(SQ. FT.)

800

(Ø11/16" HOLE)

-CABLE CLAMPS

(2 EACH SIDE)

CABLE TERMINATION

CODE ANALYSIS

TYPE

V-B

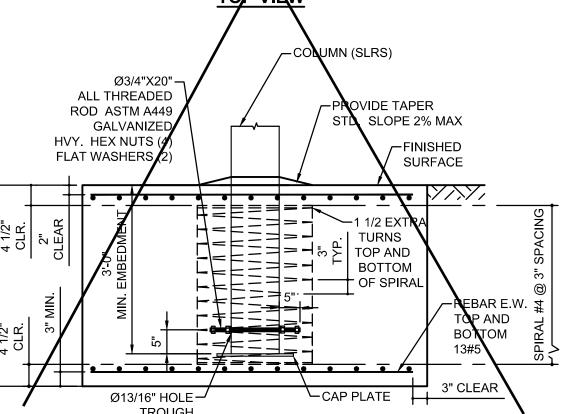
END "A"

OCCUPANCY CONST.

A-3

7'-6" SQ.

DETAIL



1'-8 7/8"

ALTERNATE SPREAD FOOTING (OPTIONAL) **CAP PLATE GUSSET PLATE DETAIL** (TYP. FOR ALL COLUMNS) **DETAIL-4** (TOP OF RBP COLUMNS

REFER TO SIDE VIEV

1/4" GROUT | TURNS воттом ᆖ # ᆿ ──┼ of SPIRAL TOR AND вот****ом 13#5 3" CLEAR ALTERNATE SPREAD FOOTING (RECESSED BASE PLATE, RBP) (OPTIONAL)

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP. 04-117233 INC: REVIEWED FOR SS I FLS I HESTACS I 04.10.2020 DATE:

SURFACE

HESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.



CORPORATE HEADQUARTERS 8505-A CHANCELLOR ROW DALLAS, TX, 75247 800-966-5005

CERTIFICATIONS: IAS CERTIFICATION No: FA-428 CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:

Mt. San Jacinto Community College District

PROJECT NAME:

Mt. San Jacinto College San Jacinto Campus

LOCATION: 1499 N State St. San Jacinto, CA 92583 **MODEL NUMBER:**

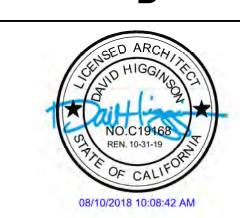
DSA3022060-16

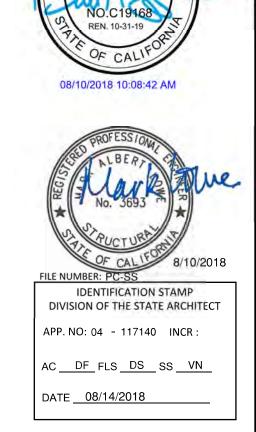
STRUCTURE TYPE:

FULL CANTILEVER HIP JOINED DSA MAXIMUM

20' x 200' x 15'e MAX. **SCALE: NONE**

DRAWING SIZE: 1





PRE-CHECK (PC) DOCUMENT Code : 2016 CBC A separate project application for construction is required.

DRAWING DESC	CRIPTION:	
Approved By :	JO	03/17/1
Design By :	MP	03/17/1
Eng. By :	JO	03/17/1

PRODUCT INFORMATION

DSA3022060-16

10.1-1000 REV.

					Shear res	uitdiil — 4	ASD REACTION			ent resultant =	V 1 1-1						
Node No.		P _{X*}	Support Forces [kip	P _{z'}	Su M _X ,	pport Moments [k	ipft] M _Z		Support Forces [kip] SHEAR RESULTANT	Support Moments [kipft] MOMENT RESULTANT	Support Forces [kip] UPLIFT	Support Forces [kip] AXIAL	Node No.		P _{X'}	Support Forces [ki	p] P _z
				31 8-2-		MAX	IMUM REAC	TIONS	3.924	72.689	1.314	-6.957					
						1417-04			3.324	72.003	1.514	0.557					
Node			Support Forces [kip	177	40.00	pport Moments [k								Max P _z	-0.546	0.970	1.314
No. 86	Max	P _X 3.767	P _V 3.412	P _z 0.118	17.417	Μ _γ 45.805	M _z 5.635							Min P _z	-0.035 -0.423	1.042 -1.842	- 6.95
00	Min	-0.030	-0.786	-4.471	-56.757	0.000	-17.554							Min M _X	-0.069	2.741	-5.072
	Max P _x	3.767	0.529	-0.630	-13.525	45.805	-12.499	CO 24	3.804	47.760		-0.630		Max M _Y	3.677	-0.088	-3.32
j	Min P _X	-0.030	0.088	-2.619	-22.223	0.711	0.747	CO 36	0.093	22.234		-2.619		Min M _Y	-0.652	0.576	1.167
- 3	Max P _Y Min P _Y	0.518 2.138	3.412 -0.786	-0.729 0.094	-45.884 17.417	8.062 31.899	-1.952 -9.524	CO 25 CO 42	3.451 2.278	46.587 36.344	0.094	-0.729		Max M _z	-0.652	0.576	1.167
	Max P _z	1.801	1.094	0.118	-6.063	25.871	-14.711	CO 42	2.107	26.572	0.118		455	Min M _z	3.677 3.052	-0.088 3.413	-3.32 0.129
	Min P _z	0.771	0.702	-4.471	-42.100	14.626	4.692	CO 15	1.043	44.568		-4.471	455	Min	-2.503	-0.752	-4.468
	Max M _x	2.138	-0.786	0.094	17.417	31.899	-9.524	CO 42	2.278	36.344	0.094			Max P _X	3.052	-0.351	-3.01
	Min M _X	0.160	2.592	-3.737	-56.757	3.700	0.674	CO 21	2.597	56.877		-3.737		Min P _X	-2.503	-0.498	-0.074
-	Max M _Y	3.767	0.529	-0.630	-13.525	45.805	-12.499	CO 24	3.804	47.760		-0.630		Max P _Y	-0.525	3.413	-0.728
-	Min M _Y Max M ₂	0.000 1.102	0.000	0.000 -3.032	0.000 -32.581	0.000 19.447	0.000 5.635	CO 38	0.000 1.422	0.000 37.943		-3.032	-	Min P _Y Max P ₇	-2.217 -2.000	-0.752 1.213	-0.017 0.129
	Min M _z	1.997	1.004	0.045	-4.832	28.687	-17.554	CO 6	2.235	29.091	0.045	3.032		Min P _z	-0.695	0.649	-4.46
88	Max	3.766	3.607	1.280	43.963	45.961	0.608							Max M _x	-2.217	-0.752	-0.01
	Min	-0.058	-2.613	-6.943	-69.457	-0.845	-8.830							Min M _x	-0.338	3.397	-2.91
	Max P _x	3.766	-0.170	-3.326	-15.052	45.961	-8.830	CO 22	3.770	48.363		-3.326		Max M _Y	3.052	-0.351	-3.01:
	Min P _x Max P _y	- 0.058 0.000	-1.544 3.607	1.023 -3.321	36.541 -63.669	-0.628 0.000	0.608	CO 7	1.545 3.607	36.546 63.669	1.023	-3.321		Min M _Y	-2.503 -2.218	-0.498	-0.074
	Min P _Y	0.000	-2.613	-4.629	-5.774	0.002	-0.002	CO 39	2.613	5.774		-4.629		Max M _z Min M _z	3.052	1.133 -0.351	-3.01
	Max P _z	0.000	0.766	1.280	15.844	0.003	0.001	CO 41	0.766	15.844	1.280			iviiii iviz	5.052	0.331	-3.01.
	Min P _z	0.000	0.924	-6.943	-66.399	0.002	-0.001	CO 15	0.924	66.399		-6.943	1				
	Max M _x	-0.055	-1.851	1.125	43.963	-0.628	0.496	CO 42	1.852	43.967	1.125		l				
	Min M _X	0.000	2.604	-5.061	-69.457	0.001	0.000	CO 21	2.604	69.457		-5.061	l	BASIC	C LOAD CA	<u>SES</u>	
	Max M _Y	3.766	-0.170	-3.326	-15.052	45.961	-8.830	CO 22	3.770	48.363		-3.326	l	DEAD	LOAD		
	Min M _Y Max M ₂	-0.049 -0.058	-0.768 -1.544	-2.633 1.023	-8.039 36.541	- 0.845 -0.628	-0.465 0.608	CO 19	0.770 1.545	8.083 36.546	1.023	-2.633	ł		R LIVE LOA	7D	
i	Min M _z	3.766	-0.170	-3.326	-15.052	45.961	-8.830	CO 22	3.770	48.363	1.023	-3.326	1		LIVE LOAI		
180	Max	3.058	3.412	0.119	16.442	34.879	17.556						1		SNOW LO		
	Min	-2.367	-0.829	-4.470	-56.757	-35.703	-7.321						l	SUPE	RIMPOSED	LOADS	
	Max P _x	3.058	-0.355	-3.012	-8.053	34.879	-7.321	CO 22	3.079	35.797	_	-3.012	l				
	Min P _x Max P _y	- 2.367 -0.518	-0.574 3.412	-0.080 -0.729	10.507 -45.884	-35.703 -8.062	9.798 1.952	CO 7	2.436 3.451	37.217 46.587	_	-0.080 -0.729	ł		LOAD		DEED (2
	Min P _Y	-2.083	-0.829	-0.725	16.442	-31.254	8.995	CO 42	2.242	35.315		-0.729	ł		CITY PRES	SN WIND SF	PEED (3
	Max P _z	-1.801	1.093	0.119	-6.034	-25.866	14.713	CO 41	2.107	26.560	0.119		i			ND CLADDIN	IG az
2	Min P _z	-0.771	0.702	-4.470	-42.098	-14.623	-4.693	CO 15	1.043	44.565		-4.470	1			ID CABLE H	
9	Max M _x	-2.083	-0.829	-0.025	16.442	-31.254	8.995	CO 42	2.242	35.315		-0.025	l		`		
	Min M _X	-0.160	2.592	-3.737	-56.757	-3.700	-0.674	CO 21	2.597	56.877		-3.737	l		/IC LOAD		
	Max M _y Min M _y	3.058 -2.367	-0.355 -0.574	-3.012 -0.080	-8.053 10.507	34.879 -35.703	-7.321 9.798	CO 22 CO 7	3.079 2.436	35.797 37.217	_	-3.012 -0.080	ł			NSE COEFF	FICIENT
	Max M ₇	-2.367	1.003	0.045	-4.816	-28.684	17.556	CO 6	2.235	29.085	0.045	-0.080	ł	DESIC	SN BASE S	HEAR	
	Min M _z	3.058	-0.355	-3.012	-8.053	34.879	-7.321	CO 22	3.079	35.797	0.0-13	-3.012	1				
270	Max	3.783	3.413	0.129	15.828	46.108	6.255						1				
	Min	-0.063	-0.706	-4.469	-56.457	0.000	-18.556						l				
J.	Max P _X	3.783	0.534	-0.629	-13.626	46.108	-12.514	CO 24	3.821	48.079		-0.629	l				
	Min P _x Max P _y	-0.063 0.525	0.067 3.413	-2.618 -0.728	-21.801 -45.908	0.155 8.205	1.094 -1.904	CO 36	0.092 3.453	21.802 46.635		-2.618 -0.728	ł				
	Min P _Y	2.285	-0.706	0.104	15.828	34.460	-10.271	CO 42	2.392	37.921	0.104	0.720	1				
	Max P _z	2.000	1.214	0.129	-8.424	29.334	-15.643	CO 41	2.340	30.520	0.129		1				
	Min P _z	0.695	0.649	-4.469	-41.017	13.341	5.370	CO 15	0.951	43.132		-4.469	l				
	Max M _x	2.285	-0.706	0.104	15.828	34.460	-10.271	CO 42	2.392	37.921	0.104		l				
	Min M _x Max M _y	0.338 3.783	3.397 0.534	-2.919	-56.457	5.635 46.108	-0.650	CO 23	3.414	56.738		-2.919	1				
	Min M _v	0.000	0.000	-0.629 0.000	-13.626 0.000	0.000	-12.514 0.000	CO 24	3.821 0.000	48.079 0.000		-0.629	ł				
	Max M _z	1.034	0.847	-3.029	-31.496	18.285	6.255	CO 38	1.337	36.419		-3.029	1				
	Min M _z	2.219	1.133	0.056	-7.388	32.571	-18.556	CO 6	2.492	33.398	0.056		1				
272	Max	3.923	3.707	1.314	43.600	48.698	1.754						1				
	Min	0.000	-2.266	-6.957	-72.672	0.000	-8.705						l				
	Max P _x Min P _x	3.923 0.000	-0.096	-0.836	-2.756	48.698	-8.705	CO 24	3.924	48.776		-0.836	ł				
	Max P _v	0.000	0.000 3.707	0.000 -3.326	0.000 -65.887	0.000 1.818	0.000 0.494	CO 23	0.000 3.708	0.000 65.912		-3.326	ł				
-	Min P _Y	0.410	-2.266	-4.696	-14.340	7.495	-1.122	CO 39	2.303	16.181		-4.696	1				
	Max P _z	0.547	0.970	1.314	12.606	9.192	-2.847	CO 41	1.114	15.601	1.314		1				
	Min P _z	0.035	1.042	-6.957	-69.418	1.070	1.754	CO 15	1.043	69.426		-6.957	1				
	Max M _x	0.355	-1.811	1.149	43.600	6.243	-1.694	CO 42	1.845	44.045	1.149		I				
	Min M _x	0.069	2.741	-5.072	-72.672	1.534	1.021	CO 21	2.742	72.688	_	-5.072	1				
	Max M _Y	3.923	-0.096	-0.836	-2.756	48.698	-8.705	CO 24	3.924	48.776		-0.836	ł				
	Min M _Y Max M ₇	0.000	0.000 1.042	0.000 -6.957	0.000 -69.418	0.000 1.070	0.000 1.754	CO 15	0.000 1.043	0.000 69.426		-6.957	l				
	Min M _z	3.923	-0.096	-0.937	-09.418	48.698	-8.705	CO 24	3.924	48.776		-0.836	l				
363	Max	3.677	3.707	1.314	42.492	44.290	3.091						1				
	Min	-0.652	-2.266	-6.957	-72.673	-11.090	-8.878						l				
	Max P _x	3.677	-0.088	-3.327	-16.765	44.290	-8.878	CO 22	3.678	47.357		-3.327	l				
	Min P _X	-0.652	0.576	1.167	19.550	-11.090	3.091	CO 6	0.870	22.476	1.167	3.000	l				
	Max P _Y	-0.093 -0.410	3.707	-3.326 -4.696	-65.887	-1.818 -7.491	-0.494	CO 23	3.708	65.912		-3.326 -4.696	ł				
	Min P _Y	-0.410	-2,266	-4.696	-14.342	-7.491	1.119	CO 39	2.303	16.180		-4.696	J				

							ASD REACTIO	ONS				
Node Support Forces [kip] Support Moments [kipft] Support Forces [kip] Support Moments [kipft] Support Forces [kip] Support Forces [kip									Support Forces [k			
No.		P _{X'}	Pγ	P _{Z'}	M _{X'}	M _{Y'}	M _Z .	Î	SHEAR RESULTANT	MOMENT RESULTANT	UPLIFT	AXIAL
						MAXI	MUM REAC	TIONS	3.924	72.689	1.314	-6.957
2.0	Max P _z	-0.546	0.970	1.314	12.609	-9.185	2.851	CO 41	1.113	15.600	1.314	
10	Min P _z	-0.035	1.042	-6.957	-69.417	-1.066	-1.755	CO 15	1.043	69.425		-6.957
	Max M _x	-0.423	-1.842	1.033	42.492	-7.089	2.301	CO 42	1.890	43.079	1.033	
_	Min M _x	-0.069	2.741	-5.072	-72.673	-1.532	-1.021	CO 21	2.742	72.689		-5.072
	Max M _Y	3.677	-0.088	-3.327	-16.765	44.290	-8.878	CO 22	3.678	47.357		-3.327
	Min M _Y	-0.652	0.576	1.167	19.550	-11.090	3.091	CO 6	0.870	22.476	1.167	
	Max M _z	-0.652	0.576	1.167	19.550	-11.090	3.091	CO 6	0.870	22.476	1.167	
	Min M _z	3.677	-0.088	-3.327	-16.765	44.290	-8.878	CO 22	3.678	47.357		-3.327
455	Max	3.052	3.413	0.129	14.860	34.749	18.557					
	Min	-2.503	-0.752	-4.468	-56.457	-38.101	-7.362					
133	Max P _x	3.052	-0.351	-3.011	-8.134	34.749	-7.362	CO 22	3.072	35.688		-3.011
	Min P _X	-2.503	-0.498	-0.074	8.940	-38.101	10.359	CO 7	2.552	39.136		-0.074
	Max P _Y	-0.525	3.413	-0.728	-45.908	-8.205	1.904	CO 25	3.453	46.635		-0.728
	Min P _Y	-2.217	-0.752	-0.017	14.860	-33.599	9.580	CO 42	2.341	36.738		-0.017
	Max P _z	-2.000	1.213	0.129	-8.397	-29.329	15.645	CO 41	2.339	30.507	0.129	
	Min P _z	-0.695	0.649	-4.468	-41.015	-13.338	-5.371	CO 15	0.951	43.129		-4.468
	Max M _x	-2.217	-0.752	-0.017	14.860	-33.599	9.580	CO 42	2.341	36.738		-0.017
	Min M _x	-0.338	3.397	-2.919	-56.457	-5.635	0.650	CO 23	3.414	56.738		-2.919
	Max M _y	3.052	-0.351	-3.011	-8.134	34.749	-7.362	CO 22	3.072	35.688		-3.011
	Min M _Y	-2.503	-0.498	-0.074	8.940	-38.101	10.359	CO 7	2.552	39.136		-0.074
	Max M _z	-2.218	1.133	0.057	-7.372	-32.569	18.557	CO 6	2.491	33.393	0.057	
	Min M _z	3.052	-0.351	-3.011	-8.134	34.749	-7.362	CO 22	3.072	35.688		-3.011

0.0378 PSF (FABRIC)

5 PSF

5 PSF

26584 LB

SEISMIC RESPONSE COEFFICIENTS Cs

ULTIMATE DESIGN WIND SPEED (3 SEC GUST) 115 MPH

(CABLE AND CABLE HARDWARE ONLY) 25.32 PSF

Forged Single-Saddle Wire Rope Clamps—Not for Lifting

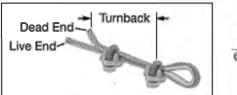


A forged fabrication allows these to be used in critical applications such as tie downs and support lines. They must be oriented with the saddle on the long (live) end and U-bolt on the short (dead) end. Also known as wire rope clips.

Galvanized steel clamps have a thick coating for corrosion resistance.

316 stainless steel clamps are the most corrosion resistant fittings we offer. They provide excellent resistance to salt water and

Warning: Test all assemblies for required strength before use. Do not use with coated rope unless the coating is removed.



Galvanized 1/8"		Turnback	Required Torque, ftlbs.	Ht.	Wd.	Thick.	Capacity	Specifications Met
	Steel							
-	2	3 1/4"	4.5	1 1/8"	1"	13/16"	80% of the Rope's Capacity	
3/16"	2	3 3/4"	7.5	1 1/2"	1 3/18"	1"	80% of the Rope's Capacity	
1/4"	2	4 3/4"	15	1 3/4"	1 7/18"	1 1/4"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
5/16"	2	5 1/4"	30	2 1/8"	1 11/18"	1 5/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
3/8"	2	6 1/2"	45	2 7/16"	2"	1 11/18"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
6616	2	T	65	3 1/16	2 5/10	1 15/16	80% of the Rope's Capacity	Fed. Spec. FF-C-450
1/2"	3	11 1/2"	65	3 1/16"	2 5/16"	1 15/18"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
9/16"	3	12°	95	3 5/8"	2 1/2"	2 1/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
5/8"	3	12"	95	3 5/8"	2 1/2"	2 1/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
3/4"	4	18"	130	4 3/16"	2 7/8"	2 1/4"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
7/8"	4	19°	225	4 3/4"	3 3/16"	2 1/2"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
1"	5	26"	225	5 5/16"	3 1/2"	2 11/18"	90% of the Rope's Capacity	Fed. Spec. FF-C-450
1 1/8"	6	34"	225	5 13/16"	3 5/8"	2 13/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-450
1 1/4"	7	44"	360	6 5/8"	4 3/16"	3 3/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-450
1 3/8"	7	44"	360	6 3/4"	4 1/4"	3 3/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-450.
1 1/2"	8	54"	360	7 7/16"	4 1/2"	3 7/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-450

Aircraft Cable

Preformed, made in accordance with commercial specifications military and federal specifica-

Carbon Steel (Aircraft Cable) - Galvanized cable has the highest strength and greatest fatigue life of the materials offered. It has good to fair corrosion resistance in rural to industrial atmosphere environments. This material is most widely used for small diameter cables. Tin over galvanized cable offers greater corrosion resist-

	7 x	19	Galvanized Min.
	Dia. (In)	Approx. Wt 1000 Ft/lbs	Breaking Strengths (lbs)
7 x 19	3/32	17.	1,000
	1/8	29.	2,000
	5/32	45.	2,800
	3/16	65.	4,200
	7/32	86.	5,600
	1/4	110.	7,000
	9/32	139.	8,000
	5/16	173.	9,800
	3/8	243.	14,400

tion rope available.

ance and reduced friction over pulleys.

& Fabric Structures*

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC

STRUCTURES AND SHALL NOT BE

REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

CORPORATE HEADQUARTERS 8505-A CHANCELLOR ROW DALLAS, TX, 75247 800-966-5005

CERTIFICATIONS:

IAS CERTIFICATION No: FA-428 CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:

Mt. San Jacinto Community College District

PROJECT NAME:

Mt. San Jacinto College San Jacinto Campus LOCATION: 1499 N State St.

San Jacinto, CA 92583 MODEL NUMBER:

DSA3022060-16

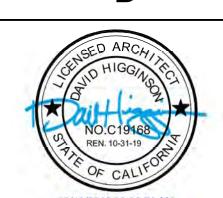
STRUCTURE TYPE:

FULL CANTILEVER HIP JOINED DSA MAXIMUM

20' x 200' x 15'e MAX.

SCALE: NONE

DRAWING SIZE:



08/10/2018 10:08:51 AM

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT APP. NO: 04 - 117140 INCR: AC <u>DF</u> FLS <u>DS</u> SS <u>VN</u>

PRE-CHECK (PC) DOCUMENT
Code: 2016 CBC
A separate project application
for construction is required.

Eng. By :	JO	03/17/18
Design By :	MP	03/17/18
Approved By :	JO	03/17/18

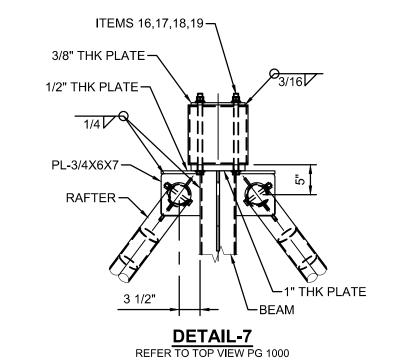
DRAWING DESCRIPTION:

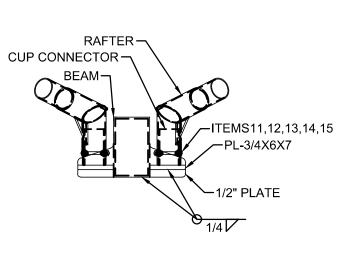
REACTIONS

DSA3022060-16

10.2-2000

ITEMS 11,12,13,14,15 1 SET AT EACH RAFTER TYP. **DETAIL-6**REFER TO TOP VIEW PG 1000





DIV. OF THE STATE ARCHITECT APP. 04-117233 INC: REVIEWED FOR VIEW C
REFER TO DETAIL-6 SS 🗸 FLS 🗸 ACS 🗸 DATE: 04.10.2020

INTER	NATIO	VAL	Standa	rd range		THE	Revision	0	28-Oct-12	
			Average	Average Warp break	Average	Average Weft break	Average Elongation	Average	Average Burst to	CONVERSION TO IMPERIAL UNITS:
Colour	Shade %	UV Block %	GSM	strength kgs	- %	strength kga		Кра	Mass ratio	185 GSM = .0378 psf
Desert Sand	80	92	185	50	40	72	73	256	0.84	50 KGS = 110 Lb
Blue	80	85	185 —	50 -	40-	72	73	156	0.84	72 KGS = 159 Lb
Brown	80	85	185	150	40	72	73	156	-0.84	156 Kpa = 3258 psf
Red	80	86	185	50	40	72	73	156	0.84	
Silver	80	81	185	50	40	72	73	156	0.84	
Terracotta	75	82	185	150	40	72	73	156	0.84	
Yellow	80	89	185	50	40	72	73	156	0.84	- 2
	m (i		no compiled using a	50mm Wide stri				unilatoratora dhi	information provider	is ransidered

GENERAL NOTES

DESIGN LOADS

BUILDING CODE CBC 2016 (BASED ON IBC 2015) LIVE LOADS 5.5 PSF (IMPORTANCE FACTOR OF 1.1) 5.5 PSF (IMPORTANCE FACTOR OF 1.1) SNOW LOAD

WIND LOADS 115 MPH (3-Sec. Gust); RISK CATEGORY III; EXPOSURE C:

TOPOGRAPHIC FACTOR Kzt = 1.00

SEISMIC DESIGN:

SEISMIC IMPORTANCE FACTOR $I_{=} = 1.25$ RISK CATEGORY SITE CLASS

SITE COEFFICIENT CATEGORY Fa = 1.0Fv = 1.5MAPPED SPECTRAL RESPONSE COEFF SS = 2.44 $S_1 = 1.115$ SPECTRAL RESPONSE COEFFICIENTS SDS = 1.627 SD1 = 1.115

SEISMIC DESIGN CATEGORY LATERAL FORCE RESISTING SYSTEM G.2 ORDINARY CANTILEVERED COLUMN SYSTEM TOTAL WEIGHT OF THE BUILDING 15,951 LB

DESIGN BASE SHEAR V = 25,952 LBCs = 1.627RESPONSE MODIFICATION FACTOR R = 1.25

SYSTEM OVER-STRENGHT FACTOR **OMEGA = 1.25** DEFLECTION AMPLIFICATION FACTOR Cd = 1.25 REDUNDANCY FACTOR

ANALYSIS PROCEDURE **EQUIVALENT LATERAL FORCE**

SOIL PARAMETERS FOR FOOTING ANALYSIS:

FOUNDATION DESIGN BASED ON CBC 2016, TABLE 1806A.2, SOIL CLASS 4

A) GEOTECHNICAL REPORT PREPARED BY MTGL, INC. DATED ON NOVEMBER 8, 2019. MTGL PROJECT NO. 8767A21

ALLOWABLE SOIL BEARING PRESSURE:

DL + LL (CONC FTG) ZERO PSF FOR DRILLED PIERS.

2000 PSF FOR ALTERNATE SPREAD FOOTINGS DL + LL + SEISMIC (CONC FTG) ZERO PSF FOR DRILLED PIERS.

2000 PSF FOR ALTERNATE SPREAD FOOTINGS

LATERAL BEARING DESIGN VALUE 300 PSF/F BELOW NATURAL GRADE

SKIN FRICTION OF 250 PSF

SKIN FRICTION OF 150 PSF FOR UPLIFT CAPACITY

DESIGN PER FOLLOWING CODES:

CBC 2016, ASCE 7-10, AISC 360-10 (ASD 14TH EDITION), ACI 318-14, ASCE 55-10, ASCE 19-10

STRUCTURAL STEEL

- 1. FABRICATION OF THE STEEL STRUCTURES SHALL BE PERFORMED BY USA SHADE OR AN AUTHORIZED LICENSEE. MATERIAL TESTING (OR MILL CERTIFICATES) AND INSPECTION OF WELDING SHALL BE CONDUCTED PER CBC 2016 SECTIONS 1704A. 1705A,1705A.2, AND TABLE 1705A.2.1.
- 2. ONLY CALIFORNIA LICENSED CONTRACTORS AUTHORIZED BY USA SHADE SHALL INSTALL THE SHADE STRUCTURES.
- 3. ALL WORK SHALL CONFORM TO CBC 2016 EDITION, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
- 4. ALL STRUCTURAL SHAPES SHALL BE COLD FORMED HSS ASTM A500 GRADE B. UNLESS OTHERWISE NOTED. TYPICAL MECHANICAL PROPERTIES ACHIEVED FOR HSS PRODUCTS:

42.000 PSI YIELD STRESS / 58,000 PSI TENSILE STRESS HSS 16 x 0.500 HSS 10.75 x 0.500 42.000 PSI YIELD STRESS / 58.000 PSI TENSILE STRESS

- 5. ALL PLATES PRODUCTS SHALL COMPLY WITH ASTM A572 GRADE 50.
- 6. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS.
- 7. ALL WELDING TO CONFORM WITH AMERICAN WELDING SOCIETY STANDARDS AND SHALL BE INSPECTED BY AN AWS/CWI INSPECTOR. AWS D1.1 FOR HOT ROLLED. AWS D1.3 FOR SHEET/COLD FORMED. AWS D1.8 SEISMIC SUPPLEMENT FOR COLUMN WELDS.
- 8. SHOP CONNECTIONS SHALL BE WELDED UNLESS NOTED OTHERWISE. FIELD CONNECTIONS SHALL BE AS INDICATED ON THE DRAWINGS (IF REQUIRED). ALL FILLET WELDS SHALL BE A MINIMUM OF 3/16" ER70SX ELECTRODES UNLESS OTHERWISE NOTED. EITHER SMAW OR GMAW IS ACCEPTABLE.
- 9. ALL FULL PENETRATION WELD SHALL BE CONTINUOUSLY INSPECTED PER AWSD1.1 & D1.8.
- 10. ALL STRUCTURAL STEEL SHALL BE PAINTED WITH ONE SHOP COAT (2.5 TO 3.5 MILS THICK MIN). THIS COAT IS A WEATHER RESISTANT POWDER COATING BASED ON POLYESTER TGIC (MANUFACTURED BY SHERWIN WILLIAMS OR TIGER DRYLAC). TO ACHIEVE OPTIMUM ADHESION. IT IS RECOMMENDED THAT THE PROPER TREATMENT AND DRYING TAKE PLACE BEFORE COATING. POLYESTER POWDER (TGIC) SPECIFICATIONS SHALL BE AS FOLLOWS:

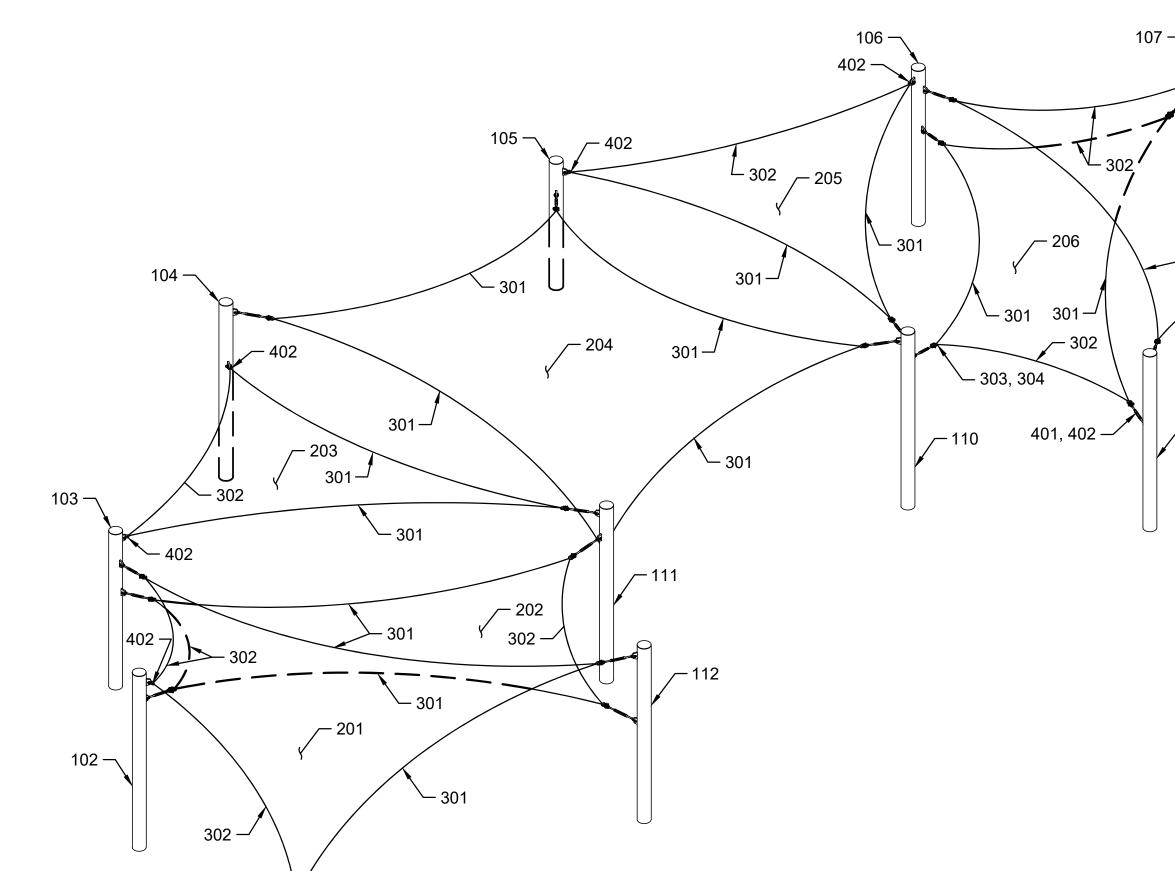
-PENCIL HARDNESS (ASTM D-3363).

-HUMIDITY (ASTM D-2247).

-SOLVENT RESISTANCE (PCI METHOD) - 50 DBL RUBS SL. SOFTNESS

AIRCRAFT CABLE

- 1.- FOR FABRIC ATTACHMENT USE 1/2" 6x19 GALV. CABLE PER ASTM A1023A, ASTM 1023M-02, WITH A BREAKING STRENGTH VALUE OF 20,700 LBS. WIRE ROPE SHALL COMPLY WITH ASCE 19-10. CABLE SHALL BE TENSIONED TO 250 LBS MINIMUM. THE MAXIMUM CALCULATED CABLE TENSION IS 5174 LB.
- 2.- CABLES SHALL BE FED THROUGH THE FABRIC SLEEVES AROUND THE PERIMETER OF THE CANOPY AND TENSIONED UNTIL THE FABRIC PANELS (DESIGNED PURPOSELY UNDERSIZED) REACH A TAUT APPEARANCE. ANY LONG TERM CABLE SAG SHALL BE MINIMIZED DURING THE MAINTENANCE RE-TIGHTENING VISITS AS REQUIRED.
- 3.- THE CABLE CLAMPS SHALL COMPLY WITH SPECIFICATION FF-C-450 TYPE 1 CLASS 1.



CODE ANALYSIS											
BUILDING	OCCUPANC Y	CONSTRUCTION TYPE	AREA (SQF)	OCCUPANT LOAD FACTOR	OCCUPANT LOAD						
SHADE STRUCTURE											
SIZE = SEE PAGE	A-3	V-B	5813	15	388						

REINFORCED CONCRETE NOTES

1. CONCRETE WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE AMERICAN CONCRETE INSTITUTE SPECIFICATION FOR STRUCTURAL CONCRETE ACI 301 AND BUILDING CODE ACI 318. CONCRETE SPECIFICATIONS, SHALL BE AS FOLLOWS:

-28 DAY STRENGTH: 4500 PSI

-SLUMP: 3-5

101

-PORTLAND CEMENT SHALL CONFORM TO C-150

-AGGREGATE SHALL CONFORM TO ASTM C-33

SECTION 1903A, CHAPTER 17A, 1705A, 3, TABLE 1705A, 3,

-MAXIMUM WATER-CEMENTITIOUS MATERIAL RATIO: 0.45

-CONCRETE SHALL CONFORM TO ACI-318-14, TABLE 19.3.2.1 REQUIREMENTS

-CEMENT TYPE: V

2. CONCRETE SHALL BE TESTED PER CBC 2016, SECTION 1903A & SHALL BE INSPECTED PER

3. ALL REINFORCEMENT STEEL SHALL CONFORM TO ASTM A-615 GRADE 60; AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE LATEST SPECIFICATION FOR STRUCTURAL CONCRETE ACI 301, ACI DETAILING MANUAL AND CRSI MANUAL OF

4. ALL ANCHOR BOLTS SET IN NEW CONCRETE (WHEN APPLICABLE) SHALL COMPLY WITH ASTM F-1554 GRADE 55 (GALVANIZED). ANCHOR BOLT'S EMBEDMENT NEEDS TO BE AS FOLLOW:

A) ANCHOR BOLT Ø1 1/4"

STANDARD PRACTICE.

30 IN (MINIMUM EMBEDMENT),

- 5. CERTIFIED MILL TEST REPORTS ARE TO BE PROVIDED FOR EACH SHIPMENT OF REINFORCEMENT.
- 6. ALL NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 5000 PSI, AND SHALL COMPLY THE REQUIREMENTS OF ASTM C109, ASTM C939, ASTM C1090. ASTM C1107, WHEN APPLICABLE.

INDEX OF PAGES						
1000	NOTES/LOM					
2000	VIEWS AND DETAILS					
3000	FOUNDATION LAYOUT					
3001	DRILLED PIERS					
3002	SPREAD FOOTINGS					
4000	MATERIALS SPECS					

NOTICE

FABRIC TOP NEEDS TO BE REMOVED IF SNOW EXCEEDING **5 PSF IS ANTICIPATED**

FABRIC TOP NEEDS TO BE REMOVED IF WINDS EXCEEDING 115 MPH ARE ANTICIPATED. **SEE NOTE 1 OF DESIGN LOADS**

LIST OF MATERIALS											
ITEM	QTY.	DESCRIPTION	MATERIAL / DWG	SMI PART NO.							
STEE	L AND	BOLTS									
101	1	COLUMN (CUSTOM)	HSS 10.75 x 0.500	N/A							
102	1	COLUMN (CUSTOM)	HSS 16 x 0.500	N/A							
103	1	COLUMN (CUSTOM)	HSS 16 x 0.500	N/A							
104	1	COLUMN (CUSTOM)	HSS 16 x 0.500	N/A							
105	1	COLUMN (CUSTOM)	HSS 16 x 0.500	N/A							
106	1	COLUMN (CUSTOM)	HSS 16 x 0.500	N/A							
107	1	COLUMN (CUSTOM)	HSS 16 x 0.500	N/A							
108	1	COLUMN (CUSTOM)	HSS 10.75 x 0.500	N/A							
109	1	COLUMN (CUSTOM)	HSS 16 x 0.500	N/A							
110	1	COLUMN (CUSTOM)	HSS 16 x 0.500	N/A							
111	1	COLUMN (CUSTOM)	HSS 16 x 0.500	N/A							
112	1	COLUMN (CUSTOM)	HSS 16 x 0.500	N/A							
FABR	IC AN	D HARDWARE									
201	1	FABRIC TOP (CUSTOM)	HDPE MESH	AREA: 807 SQF, WEIGHT: 35 LBS							
202	1	FABRIC TOP (CUSTOM)	HDPE MESH	AREA: 605 SQF, WEIGHT: 26 LBS							
203	1	FABRIC TOP (CUSTOM)	HDPE MESH	AREA: 510 SQF, WEIGHT: 22 LBS							
204	1	FABRIC TOP (CUSTOM)	HDPE MESH	AREA: 1196 SQF, WEIGHT: 51 LBS							
205	1	FABRIC TOP (CUSTOM)	HDPE MESH	AREA: 510 SQF, WEIGHT: 22 LBS							
206	1	FABRIC TOP (CUSTOM)	HDPE MESH	AREA: 605 SQF, WEIGHT: 26 LBS							
207	1	FABRIC TOP (CUSTOM)	HDPE MESH	AREA: 807 SQF, WEIGHT: 35 LBS							
301	16	55 FT OF 1/2" STEEL CABLE	GALVANIZED CABLE	307605							
302	10	45 FT OF 1/2" STEEL CABLE	GALVANIZED CABLE	307605							
303	156	Ø1/2" CABLE CLAMP	GALVANIZED	307627							
304	52	Ø5/8" THIMBLE	GALVANIZED	309036							
401	20	1 1/4" x 12" TURNBUCKLE (JAW-JAW)	GALVANIZED	308954							
402	26	1 1/8" ANCHOR SHACKLE	GALVANIZED	308955							

FABRIC SPECIFICATION

302 -

- 1. FABRIC SHALL BE MANUFACTURED BY MULTIKNIT LTD. OR OTHER COMPANY WHO CAN MANUFACTURE FABRIC, WHICH MEETS THE SPECIFICATIONS LISTED ON PAGE 4000, AND SHALL BE FABRICATED FROM POLYETHYLENE MATERIALS.
- 2. THE FABRIC SHALL RETAIN 80% OF ITS TENSILE AND TEARING STRENGTH AFTER ULTRAVIOLET EXPOSURE PER ASTM G154 USING A 313 NM LIGHT SOURCE FOR 500 HOURS WHILE MOISTENED FOR 1 HOUR EVERY 12 HOURS.
- 3. PROVIDE CERTIFICATION BY MANUFACTURER AND STATE FIRE MARSHAL TO DSA AT SITE SPECIFIC INSTALLATION.
- 4. FABRIC SHALL REQUIRE ANNUAL INSPECTION AND MAINTENANCE BY THE DISTRICT. FABRICS SAMPLES OF THE SAME MATERIAL WHICH ARE MAINTAINED AT THE PROJECTS SITE SHALL BE TESTED TO BE IN COMPLIANCE WITH ASTM D5035 AND D2261. THE ANNUAL TESTING ON THE APPROVED PLANS SHALL BE COMPARED TO THE FABRIC SPECIFICATIONS INDICATED IN NOTE 1 OF "FABRIC SPECIFICATION" ON THE APPROVED PLANS. THE FABRIC SHALL BE REPLACED WHEN THE TEST RESULTS RETURN LESS THAN 50% OF THE ULTIMATE VALUES IN NOTE 1 OF "FABRIC SPECIFICATION".
- 5. FABRIC TOP NEEDS TO BE REMOVED IF LIVE LOAD EXCEEDING 5 PSF ARE ANTICIPATED. FABRIC TOP NEEDS TO BE REMOVED IF WINDS EXCEEDING 115 MPH ARE ANTICIPATED.
- 6. A VISUAL INSPECTION LOOKING FOR TEAR AND ABNORMAL WEAR IN FABRIC MATERIAL AND THREAD IS REQUIRED PRIOR TO RE-INSTALLATION. SHADE STRUCTURE SHALL BE NOTIFIED IF SIGNIFICANT DAMAGE IS PRESENT BEFORE RE-INSTALLATION.



THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN



CORPORATE HEADQUARTERS

2580 ESTERS BLVD. SUITE 100

DFW AIRPORT, TX, 75261

800-966-5005 **CERTIFICATIONS:**

IAS CERTIFICATION No: FA-428 CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:

MT. SAN JACINTO **COMMUNITY COLLEGE**

PROJECT NAME:

SAN JACINTO CAMPUS SHADE STRUCTURE

LOCATION:

SAN JACINTO,

MODEL NUMBER:

68653



STRUCTURE TYPE: TENSION SAILS DSA MAXIMUM SIZE: **SEE PAGE 2000**

SCALE: AS NOTED DRAWING SIZE: B

01/23/19 Eng. By: JO JO 01/23/19 Design By: 01/23/19 Approved By: JO

DRAWING DESCRIPTION: NOTES / LOM

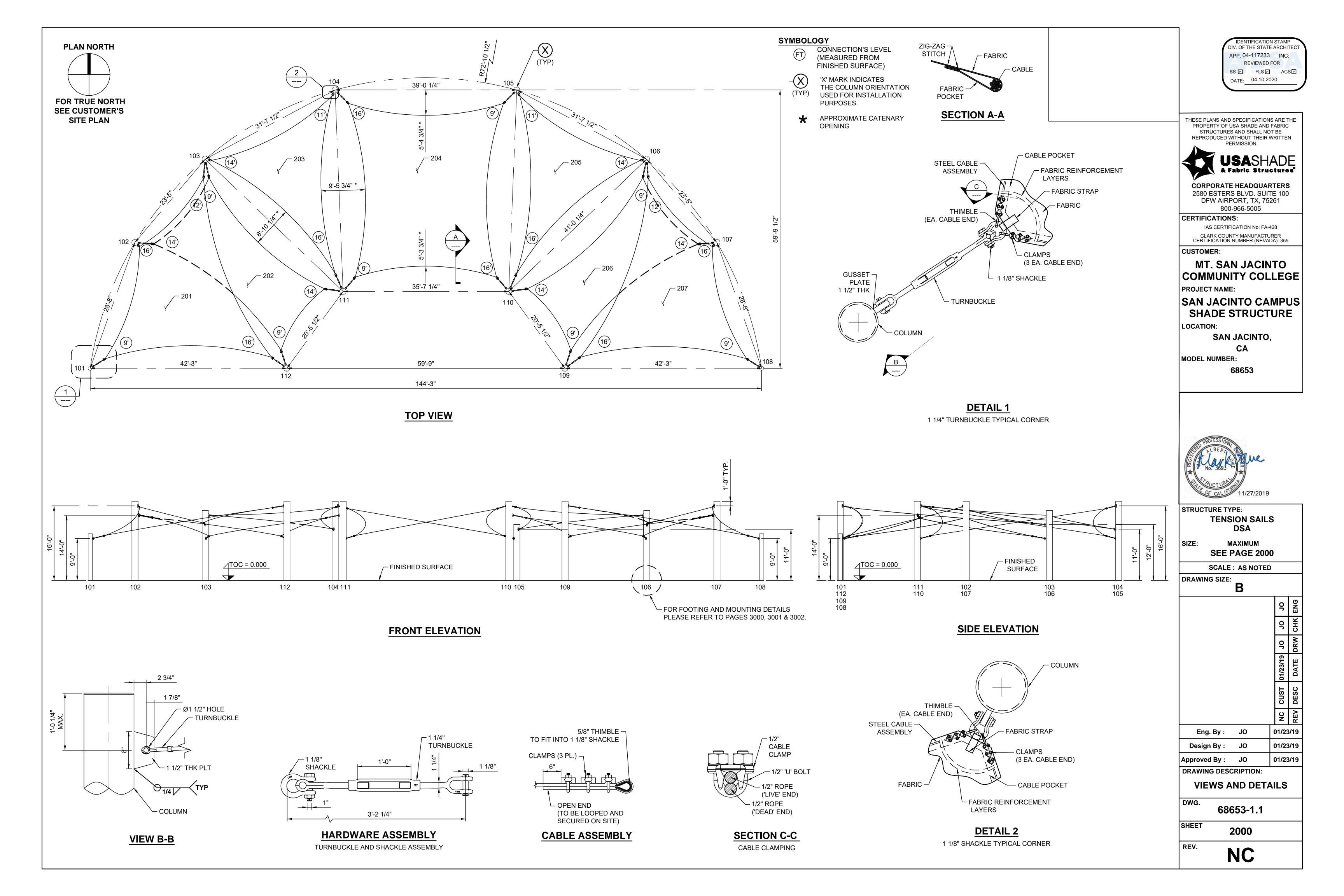
68653-1.1

REV.

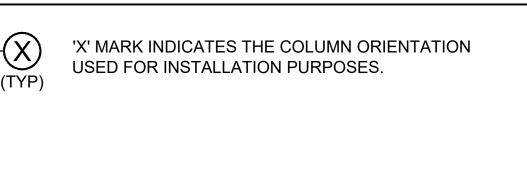
SHEET

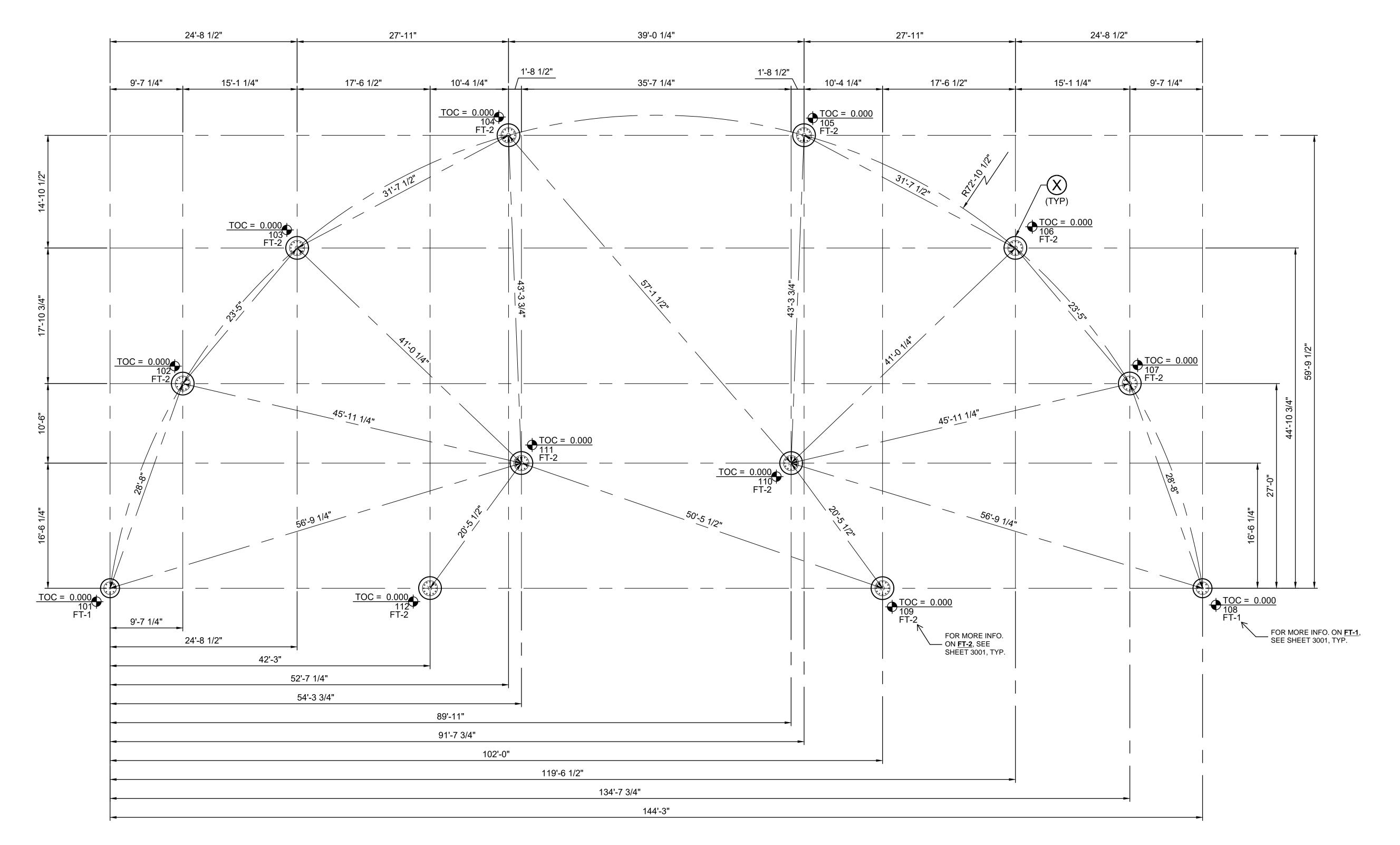
NC

1000









FOUNDATION LOCATION PLAN

(ELEVATIONS ARE IN FEET) (FIELD VERIFY ALL DIMENSIONS AND ÉLEVATIONS)

IDENTIFICATION STAME DIV. OF THE STATE ARCHITECT APP. 04-117233 INC: REVIEWED FOR SS P FLS P ACS P DATE: 04.10.2020

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE
REPRODUCED WITHOUT THEIR WRITTEN
PERMISSION.



CORPORATE HEADQUARTERS 2580 ESTERS BLVD. SUITE 100 DFW AIRPORT, TX, 75261 800-966-5005

CERTIFICATIONS:

IAS CERTIFICATION No: FA-428 CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:

MT. SAN JACINTO COMMUNITY COLLEGE

PROJECT NAME:

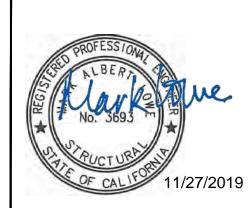
SAN JACINTO CAMPUS SHADE STRUCTURE

LOCATION:

SAN JACINTO, CA

MODEL NUMBER:

68653



STRUCTURE TYPE: **TENSION SAILS** DSA

> **MAXIMUM SEE PAGE 2000**

SCALE: AS NOTED DRAWING SIZE:

 Ĭ
NC CUST 01/23/19
01/23/19
og
9
<u> </u>

01/23/19 Eng. By: Design By: 01/23/19 Approved By: JO 01/23/19

DRAWING DESCRIPTION:

FOUNDATION LAYOUT

68653-1.1

SHEET 3000 REV.

NC

REINFORCED CONCRETE NOTES

1. CONCRETE WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE AMERICAN CONCRETE INSTITUTE SPECIFICATION FOR STRUCTURAL CONCRETE ACI 301 AND BUILDING CODE ACI 318. CONCRETE SPECIFICATIONS, SHALL BE AS FOLLOWS:

-28 DAY STRENGTH: 4500 PSI

-SLUMP: 3-5

-PORTLAND CEMENT SHALL CONFORM TO C-150

-AGGREGATE SHALL CONFORM TO ASTM C-33 -CONCRETE SHALL CONFORM TO ACI-318-14, TABLE 19.3.2.1 REQUIREMENTS

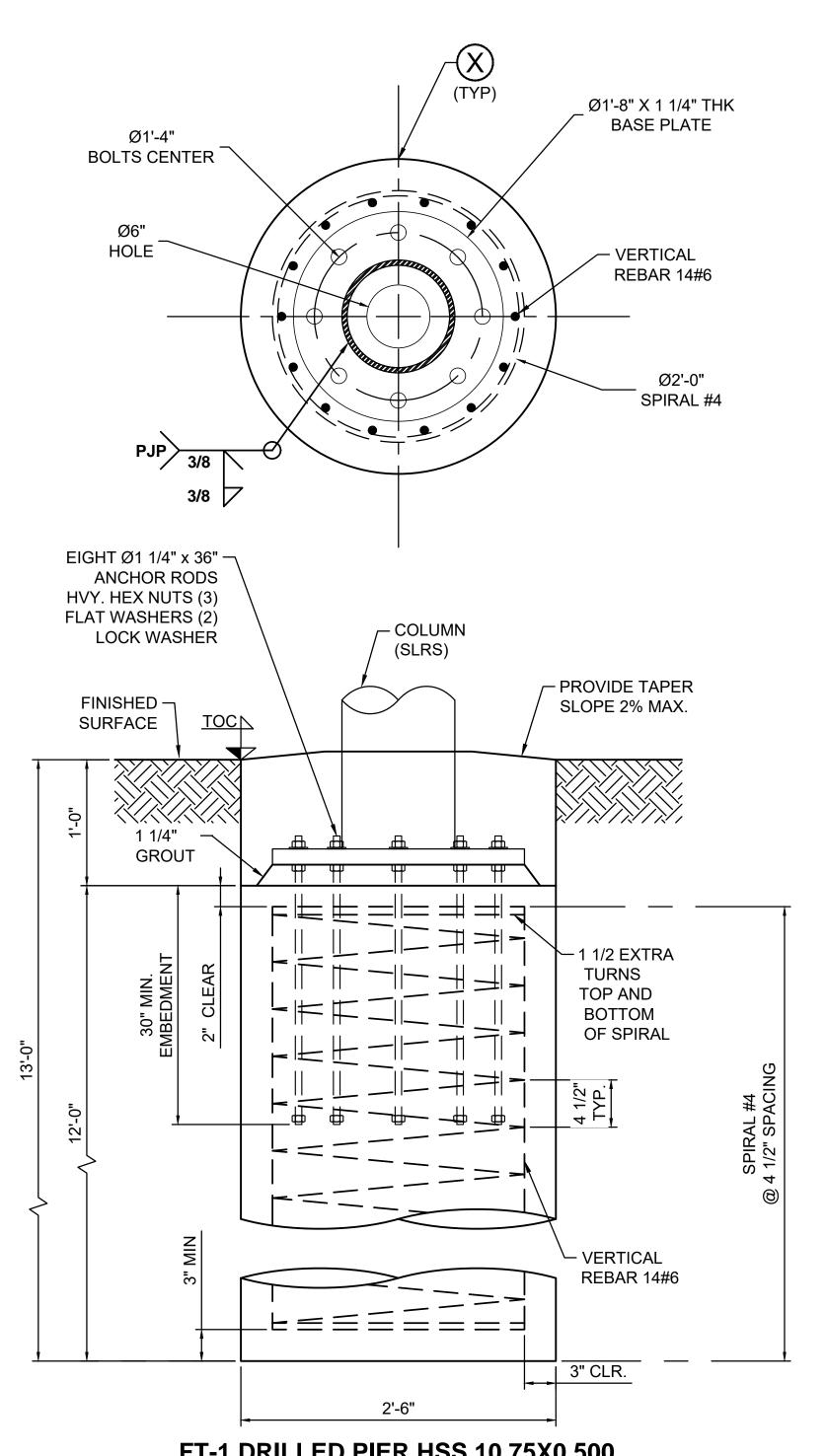
-CEMENT TYPE: V

-MAXIMUM WATER-CEMENTITIOUS MATERIAL RATIO: 0.45

- 2. CONCRETE SHALL BE TESTED PER CBC 2016, SECTION 1903A & SHALL BE INSPECTED PER SECTION 1903A, CHAPTER 17A, 1705A.3, TABLE 1705A.3.
- 3. ALL REINFORCEMENT STEEL SHALL CONFORM TO ASTM A-615 GRADE 60; AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE LATEST SPECIFICATION FOR STRUCTURAL CONCRETE ACI 301, ACI DETAILING MANUAL AND CRSI MANUAL OF STANDARD PRACTICE.
- 4. ALL ANCHOR BOLTS SET IN NEW CONCRETE (WHEN APPLICABLE) SHALL COMPLY WITH ASTM F-1554 GRADE 55 (GALVANIZED). ANCHOR BOLT'S EMBEDMENT NEEDS TO BE AS FOLLOW:

30 IN (MINIMUM EMBEDMENT), A) ANCHOR BOLT Ø1 1/4"

- 5. CERTIFIED MILL TEST REPORTS ARE TO BE PROVIDED FOR EACH SHIPMENT OF REINFORCEMENT.
- 6. ALL NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 5000 PSI, AND SHALL COMPLY THE REQUIREMENTS OF ASTM C109, ASTM C939, ASTM C1090, ASTM C1107, WHEN APPLICABLE.





APPLIES FOR COLUMNS 101 & 108 USE FOR NON-CONSTRAINED CASES (SEE SHEET 3002 FOR ALTERNATE FOOTING OPTION AF-1)



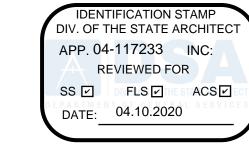
'X' MARK INDICATES THE COLUMN ORIENTATION USED FOR INSTALLATION PURPOSES.

 $/\sqrt{X}$

Ø1'-8"

Ø2'-0" X 1 1/2" THK





THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.



CORPORATE HEADQUARTERS 2580 ESTERS BLVD. SUITE 100 DFW AIRPORT, TX, 75261 800-966-5005

CERTIFICATIONS:

IAS CERTIFICATION No: FA-428 CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:

MT. SAN JACINTO **COMMUNITY COLLEGE**

PROJECT NAME:

SAN JACINTO CAMPUS SHADE STRUCTURE

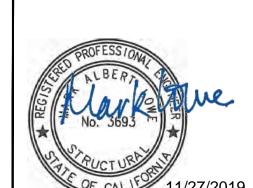
LOCATION:

SAN JACINTO,

CA

MODEL NUMBER:

68653



STRUCTURE TYPE: TENSION SAILS DSA

MAXIMUM SIZE: **SEE PAGE 2000**

SCALE: AS NOTED

DRAWING SIZE:

				3
			JO	CHK
			JO	DRW
			01/23/19	DATE
			CUST	DESC
			NC	REV
ng. By :	JO	()1/23	3/19

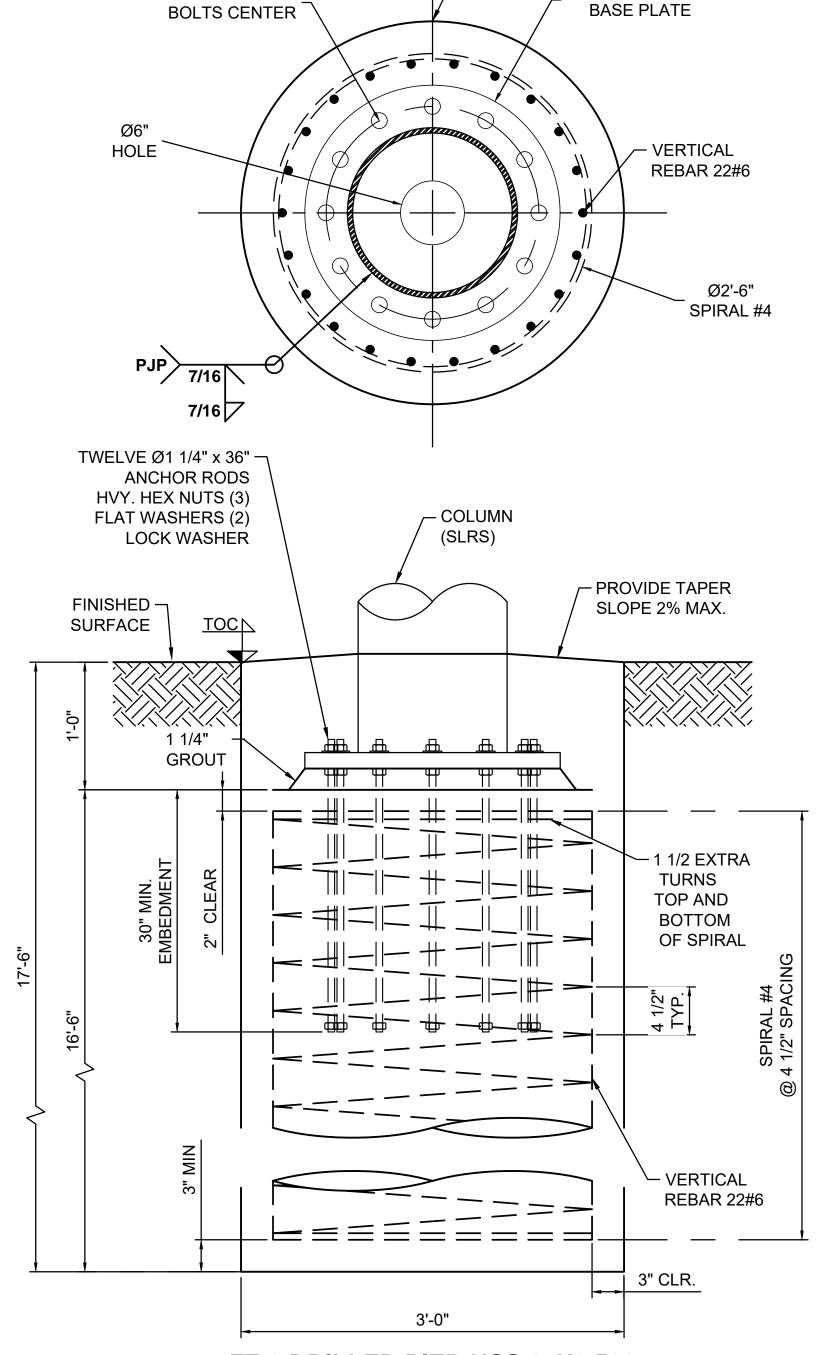
01/23/19 Design By: Approved By: JO 01/23/19

DRAWING DESCRIPTION:

DRILLED PIERS

68653-1.1 SHEET 3001

REV. NC



FT-2 DRILLED PIER HSS 16X0.500

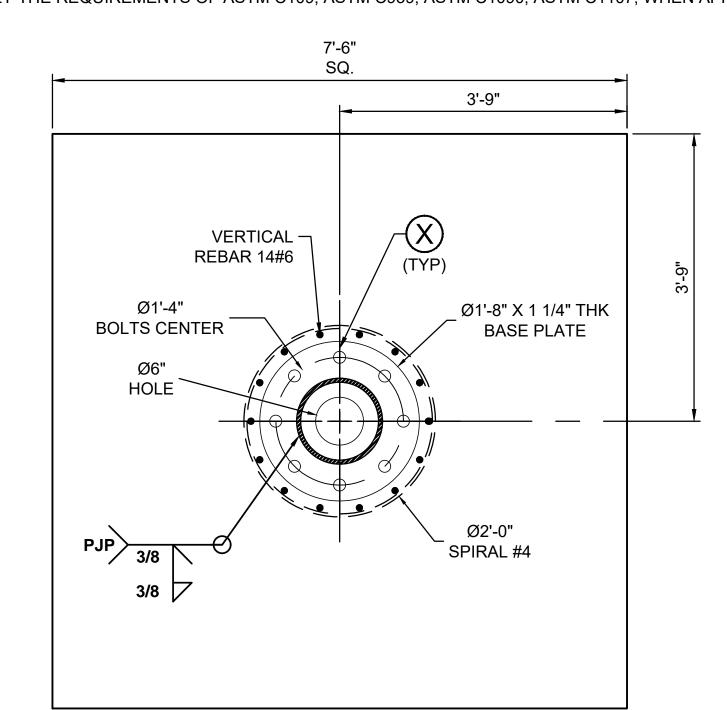
APPLIES FOR COLUMNS 102, 103, 104, 105, 106, 107, 109, 110, 111, 112 USE FOR NON-CONSTRAINED CASES (SEE SHEET 3002 FOR ALTERNATE FOOTING OPTION AF-2)

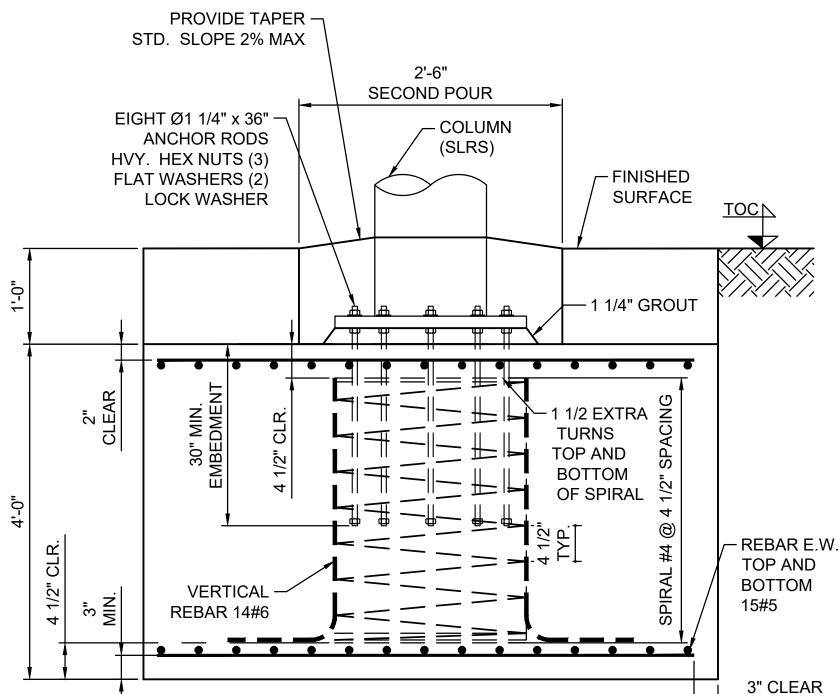
REINFORCED CONCRETE NOTES

- 1. CONCRETE WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE AMERICAN CONCRETE INSTITUTE SPECIFICATION FOR STRUCTURAL CONCRETE ACI 301 AND BUILDING CODE ACI 318. CONCRETE SPECIFICATIONS, SHALL BE AS FOLLOWS:
 - -28 DAY STRENGTH: 4500 PSI
 - -SLUMP: 3-5
 - -PORTLAND CEMENT SHALL CONFORM TO C-150
 - -AGGREGATE SHALL CONFORM TO ASTM C-33 -CONCRETE SHALL CONFORM TO ACI-318-14, TABLE 19.3.2.1 REQUIREMENTS
 - -CEMENT TYPE: V
 - -MAXIMUM WATER-CEMENTITIOUS MATERIAL RATIO: 0.45
- 2. CONCRETE SHALL BE TESTED PER CBC 2016, SECTION 1903A & SHALL BE INSPECTED PER SECTION 1903A, CHAPTER 17A, 1705A.3, TABLE 1705A.3.
- 3. ALL REINFORCEMENT STEEL SHALL CONFORM TO ASTM A-615 GRADE 60; AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE LATEST SPECIFICATION FOR STRUCTURAL CONCRETE ACI 301, ACI DETAILING MANUAL AND CRSI MANUAL OF STANDARD PRACTICE.
- 4. ALL ANCHOR BOLTS SET IN NEW CONCRETE (WHEN APPLICABLE) SHALL COMPLY WITH ASTM F-1554 GRADE 55 (GALVANIZED). ANCHOR BOLT'S EMBEDMENT NEEDS TO BE AS FOLLOW:
 - A) ANCHOR BOLT Ø1 1/4" 30 IN (MINIMUM EMBEDMENT),

5. CERTIFIED MILL TEST REPORTS ARE TO BE PROVIDED FOR EACH SHIPMENT OF REINFORCEMENT.

6. ALL NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 5000 PSI. AND SHALL COMPLY THE REQUIREMENTS OF ASTM C109. ASTM C939. ASTM C1090. ASTM C1107. WHEN APPLICABLE.



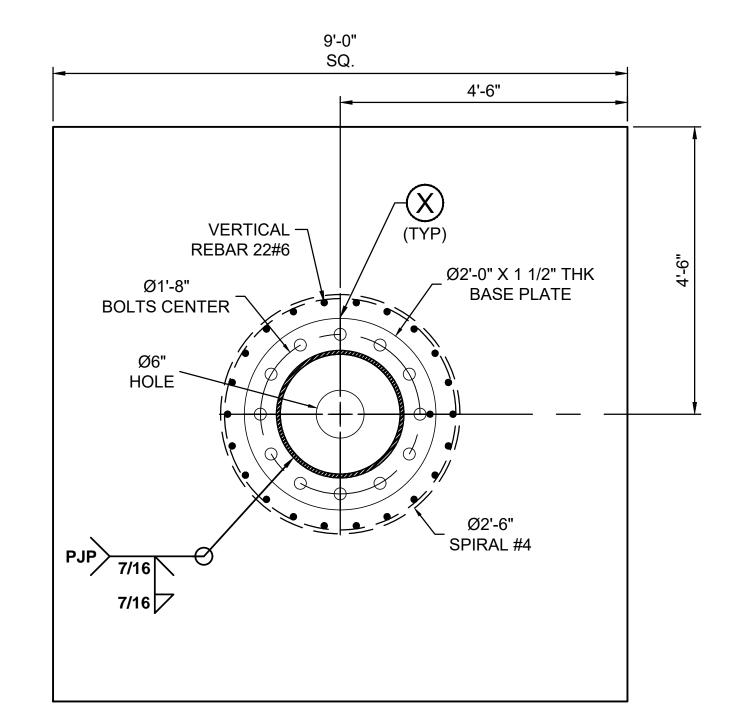


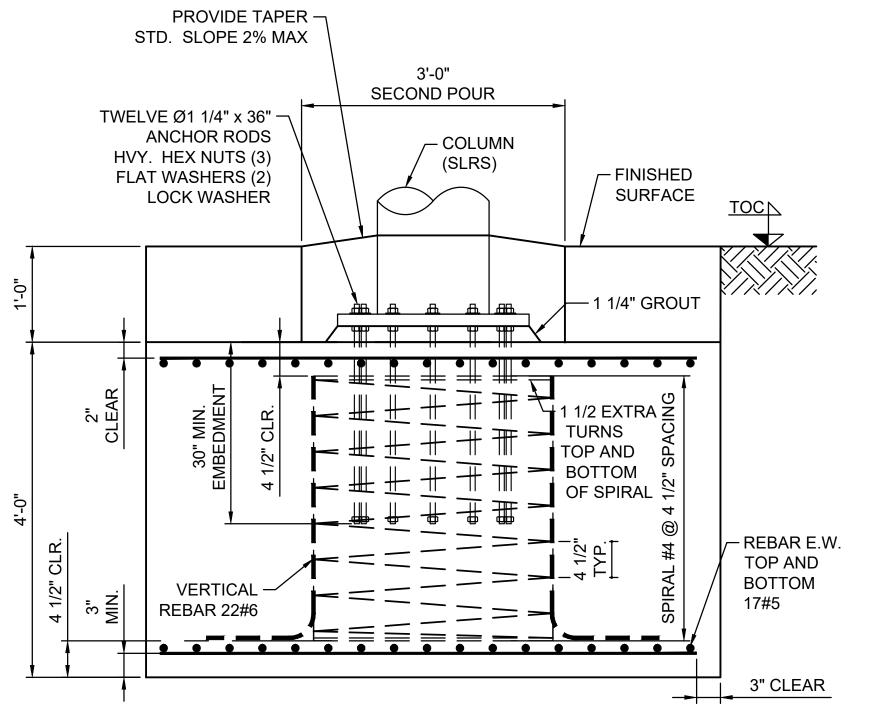


AF-1 ALTERNATE FOOTING HSS 10.75X0.500

APPLIES FOR COLUMNS 101 & 108







AF-2 ALTERNATE FOOTING HSS 16X0.500

APPLIES FOR COLUMNS 102, 103, 104, 105, 106, 107, 109, 110, 111, 112





THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.



CORPORATE HEADQUARTERS 2580 ESTERS BLVD. SUITE 100 DFW AIRPORT, TX, 75261 800-966-5005

CERTIFICATIONS:

IAS CERTIFICATION No: FA-428 CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:

MT. SAN JACINTO **COMMUNITY COLLEGE**

PROJECT NAME:

SAN JACINTO CAMPUS SHADE STRUCTURE

LOCATION:

SAN JACINTO,

CA

MODEL NUMBER:

68653



STRUCTURE TYPE: **TENSION SAILS** DSA

MAXIMUM SEE PAGE 2000

SCALE: AS NOTED

DRAWING SIZE:

Eng. By: JO 01/23/19 Approved By: JO 01/23/19

DRAWING DESCRIPTION:

SPREAD FOOTINGS

68653-1.1

SHEET 3002

REV.

NC

BASIC LOAD CASES

DEAD LOAD 0.0378 PSF (FABRIC) FLOOR LIVE LOAD 5.5 PSF ROOF LIVE LOAD

5.5 PSF **ROOF SNOW LOAD** SUPERIMPOSED LOADS N/A

WIND LOAD ULTIMATE DESIGN WIND SPEED (3 SEC GUST) 115 MPH VELOCITY PRESSURE qz 25.32 PSF

COMPONENT AND CLADDING qz (CABLE AND CABLE HARDWARE ONLY) 25.32 PSF

SEISMIC LOAD SEISMIC RESPONSE COEFFICIENTS Cs 1.627 25952 LB DESIGN BASE SHEAR

Wire Rope Thimbles Hot Dip galvanized steel. The standard choice for light duty applications and loading **Standard Wire Rope Thimbles** Weight Per 100 Stock No



CALIFORNIA DEPARTMENT OF FORESTRY and FIRE PROTECTION OFFICE OF THE STATE FIRE MARSHAL

REGISTERED FLAME RESISTANT PRODUCT

Product:		93		©	Registration	No.
COLOURSHADE	190/F5	臣	@ 	#	F-52001	
£8	85		0	87 26		
Product Marketo MULTIKNIT ()	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, THE PERSON NAMED IN COLUMN TWO IS NAMED IN C				7990:	

BOX 798 WHITE RIVER 1240 MPUMALANGA SOUTH AFRICA

MICHAEL@SUGIMURA.COM

This product meets the minimum requirements of flame resistance established by the California State Fire Marshal for products identified in Section 13115, California Health and Safety Code.

The scope of the approved use of this product is provided in the current edition of the CALIFORNIA APPROVED LIST OF FLAME RETARDANT CHEMICALS AND FABRICS, GENERAL AND LIMITED APPLICATIONS CONCERNS published by the California State Fire Marshal,



USA SHADE & Fabric Structures Page: 44/53 USASHADE Dallas, TX **RESULTS** & Fabric Structures, Model: 68653-STRUCTURAL CALCS V2 ■ 4.1 NODES - SUPPORT FORCES Result Combinations Support Forces [kip] Support Moments [kipft] 0.002 | Foundation Loads 62 0.000 9.609 1.530 2.190 11.921 -0.001 Foundation Loads 0.001 Foundation Loads -7.595 0.479 -118.740 1.981 37.736 0.854 -0.983 2.913 -0.001 Foundation Loads 0.006 Foundation Loads -5.309 -53.127 1.619 12.370 -0.001 Foundation Loads 0.002 Foundation Loads -4.792 5.080 0.000 -4.561 1.806 -146.249 -74.718 115.841 85.501 -0.002 Foundation Loads 0.003 Foundation Loads -9.708 140.782 0.000 -4.636 0.000 2.421 86.655

-7.677

1.031

-7.151

-11.002

1.067

3.749

-2.923 1.826

-5.046 2.927

-3.704

-7.196

1.879

-1.031

0.000

-19.393

-161.412

153.795

-5.846 0.000

-120.970

119.758

-20.128

-1.507

Turnbuckles

Revision 0 28-Oct-12

0.000

16.916

-60.323

38.988

-58.130

51.241

-9.124

11.602

-90.560 74.321

-7.317

125.230

0.000

59.679

0.000

-0.003 Foundation Loads 0.003 Foundation Loads

-0.004 Foundation Loads 0.002 Foundation Loads

-0.011 Foundation Loads 0.003 Foundation Loads

-0.001 Foundation Loads 0.001 Foundation Loads

-0.001 Foundation Loads 0.002 Foundation Loads

-0.007 Foundation Loads 0.001 Foundation Loads

-0.002 Foundation Loads 0.001 Foundation Loads

-0.001 Foundation Loads

Clevis-to-Clevis Turnbuckles—For Lifting

Min

Max

-0.051

2.118

-3.191

1.977

-3.761 5.298

-0.226 1.700

-5.101 4.767

-0.846

8.053

0.000

0.000

-10.406

11.157

0.000

1.374

-8.770

11.035

0.000

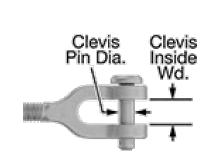
-9.354 12.590

0.000

-0.873 0.544

-4.305

Made of galvanized steel, these turnbuckles have a thick coating for mild corrosion resistance.



8							
				Cle	evis Pin—		
Capacity,	Retracted	Max.	Extended		Closure	Clevis	Thread
lbs.	Lg.	Adjustment	Lg.	Dia.	Type	Inside Wd.	Size
Forged Ga	Ivanized St	teel Body wit	th Forged (Salvani	zed Steel Fi	ttings	
500	8 1/4"	4"	12 1/4"	1/4"	Cotter Pin	7/16"	1/4"-20
800	9 1/2"	4 1/2"	14"	1/4"	Cotter Pin	1./2"	5/16"-18
2,200	14 1/4"	6"	20 1/4"	3/8"	Cotter Pin	5/8"	1/2"-13
2,200	17 1/2"	9"	26 1/2"	3/8"	Cotter Pin	5/8"	1/2"-13
2,200	20 1/2"	12"	32 1/2"	3/8"	Cotter Pin	5/8"	1/2"-13
3,500	15 3/4"	6"	21 3/4"	1/2"	Cotter Pin	13/16"	5/8"-11
3,500	19 1/4"	9"	28 1/4"	1/2"	Cotter Pin	13/16"	5/8"-11
3,500	22 1/4"	12"	34 1/4"	1/2"	Cotter Pin	13/16"	5/8"-11
5,200	17 3/4"	6"	23 3/4"	5/8"	Cotter Pin	1"	3/4"-10
5,200	21"	9"	30"	5/8"	Cotter Pin	1"	3/4"-10
5,200	24"	12"	36"	5/8"	Cotter Pin	1"	3/4"-10
5,200	30"	18"	48"	5/8"	Cotter Pin	1"	3/4"-10
10,000	39 3/4"	24"	63 3/4"	7/8"	Cotter Pin	1 3/8"	1"-8
15,200	31 3/4"	12"	43 3/4"	1 1/8"	Cotter Pin	1 3/4"	1 1/4"-7
15,200	38 1/4"	18"	56 1/4"	1 1/8"	Cotter Pin	1 3/4"	1 1/4"-7
15,200	44 1/4"	24"	68 1/4"	1 1/8"	Cotter Pin	1 3/4"	1 1/4"-7

190/F5 Fire rated specifications

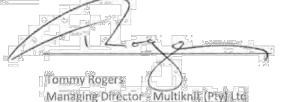
				110 LB		159 LB		3258 PSF	
Yellow	- 80 = /	;= 89 ≥	185	50=	<u></u>	72	73	156	0.84 등
Terracotta	75	82	185	50	40	72	73	156	0.84
Silver	80	81	185	50 ===	40	72	73	156	0.84
Red	<i>.</i> 80	86=	185	50	40.	j==72 ==	73=:	156	₩ 0.84 등
Green	80	85	185	50	40!	72	73	£156	0.84
Brown	85		185	50	40	72	73	156	0.84
Blue	80 -	85	185	· 50 ¯—	40		73	156	0.84
esert Sand	80	92]	185	50	40	72		156	0.84
Colour	Shade %	UV Block %	GSM	strength kgs	%	strength kgs		Kpa	Mass ratio
			Average	Warp break	Elongation	Weft break	Elengation	Burst	BUISTEE
		201		Average	Average	Average	Average	Average	Average
			E						

Standard range

190/F5 conforms to The California State Fire Marshal Title 19 Test for Small scale Fabrics Tear tests are done using a 50mm wide strip and a cross head speed of 500mm/min.

This report has been compiled using the mean results from all tells conducted on the given sample by our Quality Control Liberatory. The information provided is considered to be a good reflection of the relevant properties of the fabric tested. These results must only be used as an indication of the quality and characteristics of the fabric tested. Company cannot be held responsible or hable in any way what soever should this information differ some all the register of testing institution





CONVERSION TO IMPERIAL UNITS: 185 GSM = .0378 psf

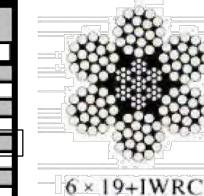
50 KGS = 110 Lb 72 KGS = 159 Lb

156 Kpa = 3258 psf

GALVANIZED IWRC 6 X 19 IWRC

IMPROVED PLOW STEEL / EXTRA IMPROVED PLOW STEEL

NOMINAL	MIN. BREAK	ING STRENGTH	WEIGHT	STOCK	
DIAMETER	IPS	EIPS*	WEIGHT	NUMBER	
INCH	LBS	LBS	LBS/FT	6X19	
1/4"	5,300	6,120	0.105	J42	
5/16"	8,240	9,480	0.164	K42	
3/8"	11,800	13,600	0.236	L42	
7//16"	16,000	18,360	0.320	M 4 2	
1/2"	20,700	24,000	0.420	N42	
9/16"	26,100	30,200	0.530	042	
5/8"	32,200	37,000	0.660	A42	
3/4"	46,000	53,000	0.950	Q42	
7/8"	62,200	71,600	1.290	R42	
1"	80,800	93,000	1.680	S42	
1 1/8"	101,800	117,000	2.130	T42	
1 1/4"	125,000	143,800	2.630	U42	
1 3/8"	150,400	172,800	3.180	V42	
1 1/2"	178,000	206,000	3.780	W 42	





A bolt fastened with a nut and cotter pin makes these shackles more secure than screw-pin shackles. Also known as anchor and STRUCTURE TYPE: bow shackles, the wide body provides room to attach multiple connectors. Black-oxide steel shackles have a dark surface color. Galvanized steel shackles have a thick coating for corrosion resistance. Thick. --

316 stainless steel shackles have excellent resistance to salt water and chemicals. Note: Capacities listed are for vertical lifting only. As the lift angle changes from vertical, the amount of weight the shackle can lift is

	Opening)	Inside	Inside	Capacity,		Pin	
Thick.	Wd.	Pin Dia.	Lg.	Wd.	lbs.	Fabrication	Type	Specifications Met
Galvaniz	ed Steel							
3/16"	13/32"	1/4"	29/32"	5/8"	700	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
184	1/2"	5/16"	1 5/32"	25/32	1,100	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
5/16"	17/32"	13/32"	1 1/4"	27/32	1,600	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
3/8	11/18"	15/32"	1 15/32"	1 1/32"	2,200	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
7/16"	3/4"	1/2"	1 23/32"	1 3/16"	3,300	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
1/2"	13/16"	21/32"	1 29/32"	1 5/16"	4,400	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
5/8	1 1/16"	25/32"	2 13/32"	1 23/32"	7,100	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
3/4	1 1/4"	29/32	2 13/16"	2"	10,400	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
7/8"	1 15/32"	1 1/32"	3 5/16"	2 9/32"	14,300	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
1"	1 23/32"	1 5/32"	3 3/4"	2 23/32"	18,700	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
1 1/8"	1 13/16"	1 194"	4 1/4"	2 15/16"	20,900	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
1 194"	2 1/32"	1 13/32"	4 21/32"	2 29/32"	24,000	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
1 3/8"	2 1/4"	1 1/2"	5 7/32"	3 14"	27,000	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
1 1/2"	2 7/16"	1 21/32"	5 21/32"	3 1/2"	34,000	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
1 3/4"	2 31/32"	2"	I°	4 3/4"	50,000	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271
2"	3 @/32"	2 1/4"	7 15/32"	5 1/2"	70,000	Forged	Safety	ASME B30.26, Fed. Spec. RR-C-271

Forged Single-Saddle Wire Rope Clamps—Not for Lifting

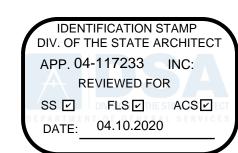


A forged fabrication allows these to be used in critical applications such as tie downs and support lines. They must be oriented with the saddle on the long (live) end and U-bolt on the short (dead) end. Also known as wire rope clips. Galvanized steel clamps have a thick coating for corrosion resistance.

316 stainless steel clamps are the most corrosion resistant fittings we offer. They provide excellent resistance to salt water and

Warning: Test all assemblies for required strength before use. Do not use with coated rope unless the coating is removed.

						- Clamp -			
	For Rope Dia.	No. of Clamps Required	Rope Turnback	Required Torque, ftlbs.	Ht.	Wd.	Thick.	Capacity	Specifications Met
Ī	Galvanized	l Steel							
	1/8"	2	3 1/4"	4.5	1 1/8"	1"	13/16"	80% of the Rope's Capacity	_
	3/16"	2	3 3/4"	7.5	1 1/2"	1 3/16"	1"	80% of the Rope's Capacity	_
	1/4"	2	4 3/4"	15	1 3/4"	1 7/16"	1 1/4"	80% of the Rope's Capacity	Fed. Spec. FF-C-45
	5/16"	2	5 1/4"	30	2 1/8"	1 11/18"	1 5/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-45
	3/8"	2	6 1/2"	45	2 7/16"	2"	1 11/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-45
	7/16"	2	7"	65	3 1/16"	2.5/16"	1 15/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-45
	1/2"	3	11 1/2"	65	3 1/16"	2 5/16"	1 15/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-45
	9/16"	3	12"	95	3 5/8"	2 1/2"	2 1/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-45
	5/8"	3	12"	95	3 5/8"	2 1/2"	2 1/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-45
	3/4"	4	18"	130	4 3/16"	2 7/8"	2 1/4"	80% of the Rope's Capacity	Fed. Spec. FF-C-45
	7/8"	4	19"	225	4 3/4"	3 3/16"	2 1/2"	80% of the Rope's Capacity	Fed. Spec. FF-C-45
	1"	5	26"	225	5 5/16"	3 1/2"	2 11/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-45
	1 1/8"	6	34"	225	5 13/16"	3 5/8"	2 13/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-45
	1 1/4"	7	44"	360	6 5/8"	4 3/16"	3 3/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-45
	1 3/8"	7	44"	360	6 3/4"	4 1/4"	3 3/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-45
	1 1/2"	8	54"	360	7 7/16"	4 1/2"	3 7/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-45



THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.



CORPORATE HEADQUARTERS 2580 ESTERS BLVD. SUITE 100 DFW AIRPORT, TX, 75261 800-966-5005

CERTIFICATIONS:

IAS CERTIFICATION No: FA-428 CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:

MT. SAN JACINTO COMMUNITY COLLEGE

PROJECT NAME:

SAN JACINTO CAMPUS SHADE STRUCTURE

LOCATION:

SAN JACINTO,

MODEL NUMBER:

68653



TENSION SAILS DSA

MAXIMUM SEE PAGE 2000

SCALE: AS NOTED **DRAWING SIZE:**

ဝ	ENG
	N E
ရှ	당
ος	DRW CHK
01/23/19	DATE
CUST	DESC
 SC	REV
01/23	3/19

Eng. By: JO Design By: JO 01/23/19 Approved By: JO 01/23/19

DRAWING DESCRIPTION:

MATERIALS SPECS

68653-1.1 SHEET

4000 REV.

UNDERGROUND UTILITY MAP

WITHIN THE CITY OF SAN JACINTO, COUNTY OF RIVERSIDE, CALIFORNIA PREPARED FOR:

MT. SAN JACINTO COMMUNITY COLLEGE DISTRICT

VICINITY MAP NOT TO SCALE

UTILITY QUALITY LEVELS NOTES

INFORMATION PROVIDED FROM AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) CI/ASCE 38-02 MANUAL.

<u>utility quality level a</u>

PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATION OF PREVIOUSLY EXPOSED AND SURVEYED UTILITIES) AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT. MINIMALLY INTRUSIVE EXCAVATION EQUIPMENT IS TYPICALLY USED TO MINIMIZE THE POTENTIAL FOR UTILITY DAMAGE. A PRECISE HORIZONTAL AND VERTICAL LOCATION, AS WELL AS OTHER UTILITY ATTRIBUTES, IS SHOWN ON PLAN DOCUMENTS. ACCURACY IS TYPICALLY SET TO 15-MM VERTICAL AND TO APPLICABLE HORIZONTAL SURVEY AND MAPPING ACCURACY AS DEFINED OR EXPECTED BY THE PROJECT OWNER.

<u>utility quality level b</u>

INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES. QUALITY LEVEL B DATA SHOULD BE REPRODUCIBLE BY SURFACE GEOPHYSICS AT ANY POINT OF THEIR DEPICTION. THIS INFORMATION IS SURVEYED TO APPLICABLE TOLERANCES DEFINED BY THE PROJECT AND REDUCED ONTO PLAN DOCUMENTS.

UTILITY QUALITY LEVEL C

INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION.

UTILITY QUALITY LEVEL D

INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS.

UTILITY NOTES

- (1) FACILITIES (UTILITY LINES) SHALL BE LOCATED AND MARKÈD PRIOR TO ÉXCAVATION. CALL (800) 90-BELOW.
- (2) CONTRACTOR SHALL HAND-EXPOSE TO A POINT OF NO CONFLICT 24" ON EITHER SIDE OF THE UNDERGROUND FACILITY, REGARDLESS OF THE ESTIMATED DEPTH.
- (3) DEPTHS SHOWN ARE APPROXIMATE. ESTIMATED DEPTHS ARE FROM THE GROUND SURFACE TO THE CENTER OF THE FACILITY, INVERT OF WASTE LINES, OR TO THE FACILITY TRACER WIRE. DEPTH ESTIMATES SHOULD BE USED WITH CAUTION AND MAY VARY ALONG THE LENGTH OF THE FACILITY.
- (4) UTILITY BRACKETS ARE SHOWN TO DEMONSTRATE MULTIPLE LINES TRAVELING TOGETHER IN EITHER A DUCTBANK OR BUNDLE.
- (5) THE SCOPE OF THIS SURVEY DOES NOT INCLUDE FACILITY SIZE OR NUMBER OF CONDUIT IN MULTIPLE CONDUIT RUNS. IRRIGATION LINES ARE NOT INCLUDED IN THIS SURVEY.
- (6) THE BACKGROUND SITE PLAN USED IN PREPARING THIS MAP WAS PREPARED BY OTHERS AND PROVIDED TO C BELOW BY THE CLIENT. C BELOW MAKES NO REPRESENTATION AS TO THE ACCURACY OF THE PLAN.
- (7) IN THE EVENT THE INFORMATION SHOWN IN THIS PLAN VARIES FROM THE ACTUAL SITE CONDITIONS, C BELOW SHALL BE NOTIFIED WITHIN 24 HOURS AFTER DISCOVERY OF THE CONFLICT.

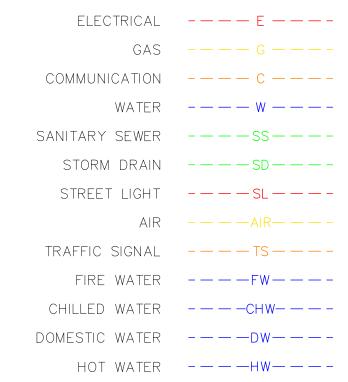
F: 909-606-6555

www.cbelow.com

UNDERGROUND LINE LEGEND

UTILITY QUALITY	LEVEL B:
ELECTRICAL	——Е——
GAS	
COMMUNICATION	C
WATER	
SANITARY SEWER	SS
STORM DRAIN	SD
POSSIBLE LINE LOCATION, BASED ON GPR DETECTION	u
STREET LIGHT	SL
AIR	AIR
TRAFFIC SIGNAL	TS
FIRE WATER	FW
CHILLED WATER	CHW
DOMESTIC WATER	DW
HOT WATER	———НW———

UTILITY QUALITY LEVEL C:



UTILITY QUALITY LEVEL D:

112111 00712111	LL VLL D.
ELECTRICAL	———Е——
GAS	G
COMMUNICATION	C
WATER	
SANITARY SEWER	SS
STORM DRAIN	SD
STREET LIGHT	SL
AIR	AIR
TRAFFIC SIGNAL	TS
FIRE WATER	FW
CHILLED WATER	CHW
DOMESTIC WATER	DW
HOT WATER	HW

ABBREVIATIONS

CAB

CABINET

BACKFLOW PREVENTER

CHW	CHILLED WATER
СО	CLEAN OUT
(C)	COMMUNICATION
DI	DRAIN INLET
(E)	ELECTRIC
FDC	FIRE DEPARTMENT CONNECTION
FH	FIRE HYDRANT
GRN	GROUND PULL BOX
ICV	IRRIGATION CONTROL VALVE
LAT	LATERAL
МН	MANHOLE
MH PB	MANHOLE PULL BOX
PB	PULL BOX
PB PIV	PULL BOX POST INDICATOR VALVE
PB PIV (SD)	PULL BOX POST INDICATOR VALVE STORM DRAIN
PB PIV (SD) (SL)	PULL BOX POST INDICATOR VALVE STORM DRAIN STREET LIGHT
PB PIV (SD) (SL) (SS)	PULL BOX POST INDICATOR VALVE STORM DRAIN STREET LIGHT SANITARY SEWER
PB PIV (SD) (SL) (SS) TRN	PULL BOX POST INDICATOR VALVE STORM DRAIN STREET LIGHT SANITARY SEWER TRANSFORMER
PB PIV (SD) (SL) (SS) TRN (U)	PULL BOX POST INDICATOR VALVE STORM DRAIN STREET LIGHT SANITARY SEWER TRANSFORMER UNKNOWN

LEGEND/SYMBOL

	<u>/</u>
	BACKFLOW PREVENTER
0	CLEAN OUT
1'-6"	DEPTH FROM SURFACE
INVERT 1'-6"	INVERT DEPTH FROM TOP OF RIM OR GRATE
٩	FIRE HYDRANT
₩	LIGHT POLE
	MANHOLE
	PULL BOX
\otimes	VALVE

VAULT



	BACKFLOW PREVENTER
0	CLEAN OUT
√ 1'−6"	DEPTH FROM SURFACE
INVERT 1'-6"	INVERT DEPTH FROM TOP OF RIM OR GRATE
٩	FIRE HYDRANT
₩	LIGHT POLE
	MANHOLE
	PULL BOX
\otimes	VALVE

KEY NOTES

- NON-CONDUCTIVE, UNABLE TO LOCATE PAST THIS POINT.
- CANNOT OPEN, UNABLE TO LOCATE PAST THIS POINT.
- NO ACCESS, UNABLE TO LOCATE PAST THIS POINT.
- CANNOT PUSH FURTHER PAST THIS POINT.
- 5 BLOCKED
- 6 AT BUILDING
- $\langle 7 \rangle$ AT DROP
- 8 AT RISER

BACKGROUND IMAGE IS FROM GOOGLE EARTH AND IS FOR REFERENCE ONLY.

NO BACKGROUND HAS BEEN PROVIDED BY CLIENT. ONCE BACKGROUND IS PROVIDED UTILITY MAP WILL BE UPDATED

DUE TO TIME CONSTRAINTS UTILITIES INVESTIGATION IS NOT COMPLETED.

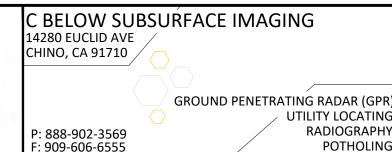
UTILITY DEPICTION

UNDERGROUND UTILITY DEPICTION SHOWN HEREON IS BASED ON LOCAL CONTROL AND/OR ON THE SMARTNET RTK NETWORK, UNLESS STATED OTHERWISE.

DRAWING SHEETS		
SHEET NO.	SHEET TITLE	
1	COVER SHEET	
2-13	UTILITY MAP	

KEY MAP NOT TO SCALE





MAPPING

NOTES: The services provided by C Below, Inc. do not relieve the Client and/or property owner of the responsibility of having to comply with California Government Code §§4216-4216.9. It is expressly understood by the Client and/or owner that CBSI services are not a substitute for compliance with California Code §§4216-4216.9.

PROJECT:

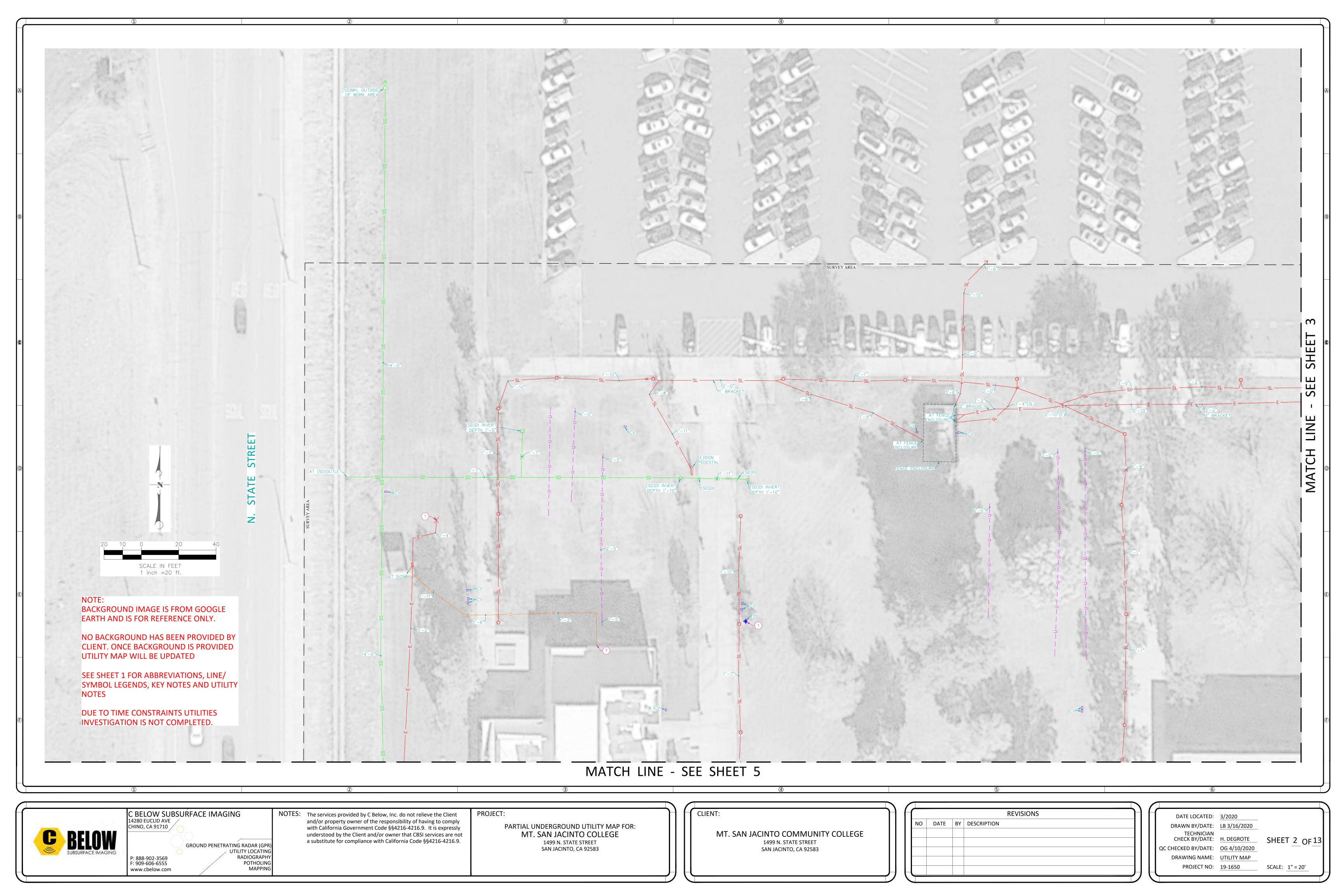
PARTIAL UNDERGROUND UTILITY MAP FOR: MT. SAN JACINTO COLLEGE 1499 N. STATE STREET SAN JACINTO, CA 92583

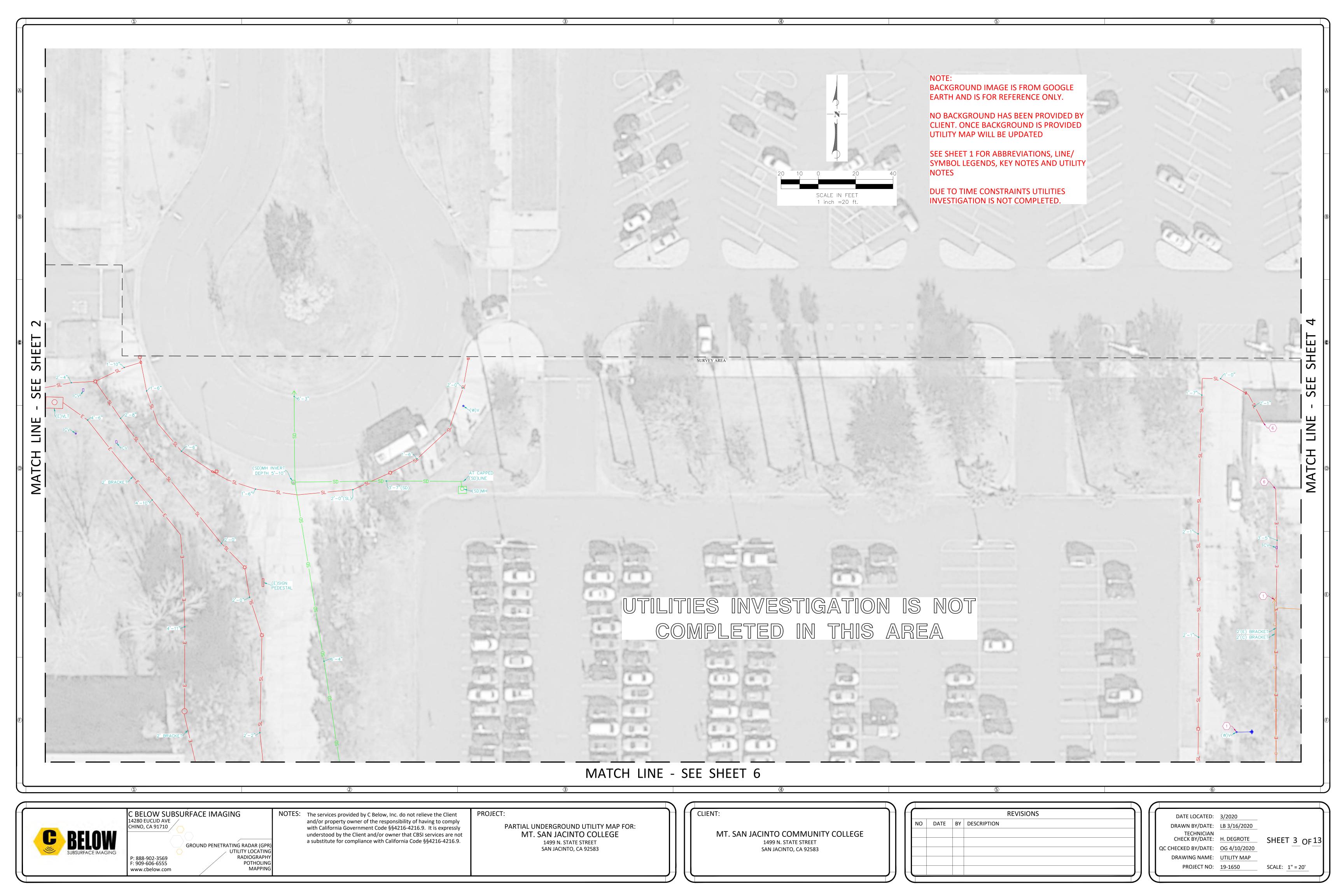
CLIENT:

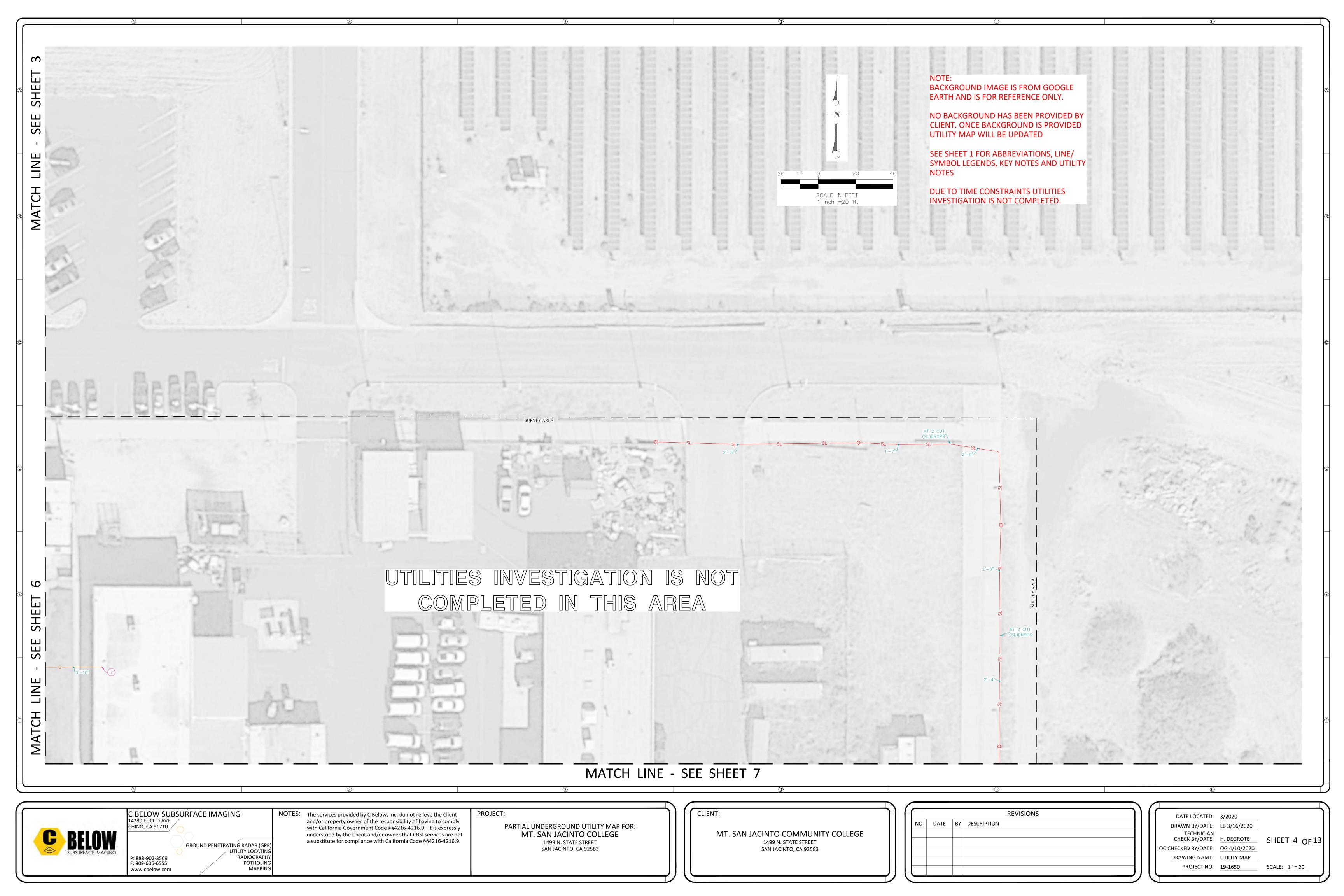
MT. SAN JACINTO COMMUNITY COLLEGE 1499 N. STATE STREET SAN JACINTO, CA 92583

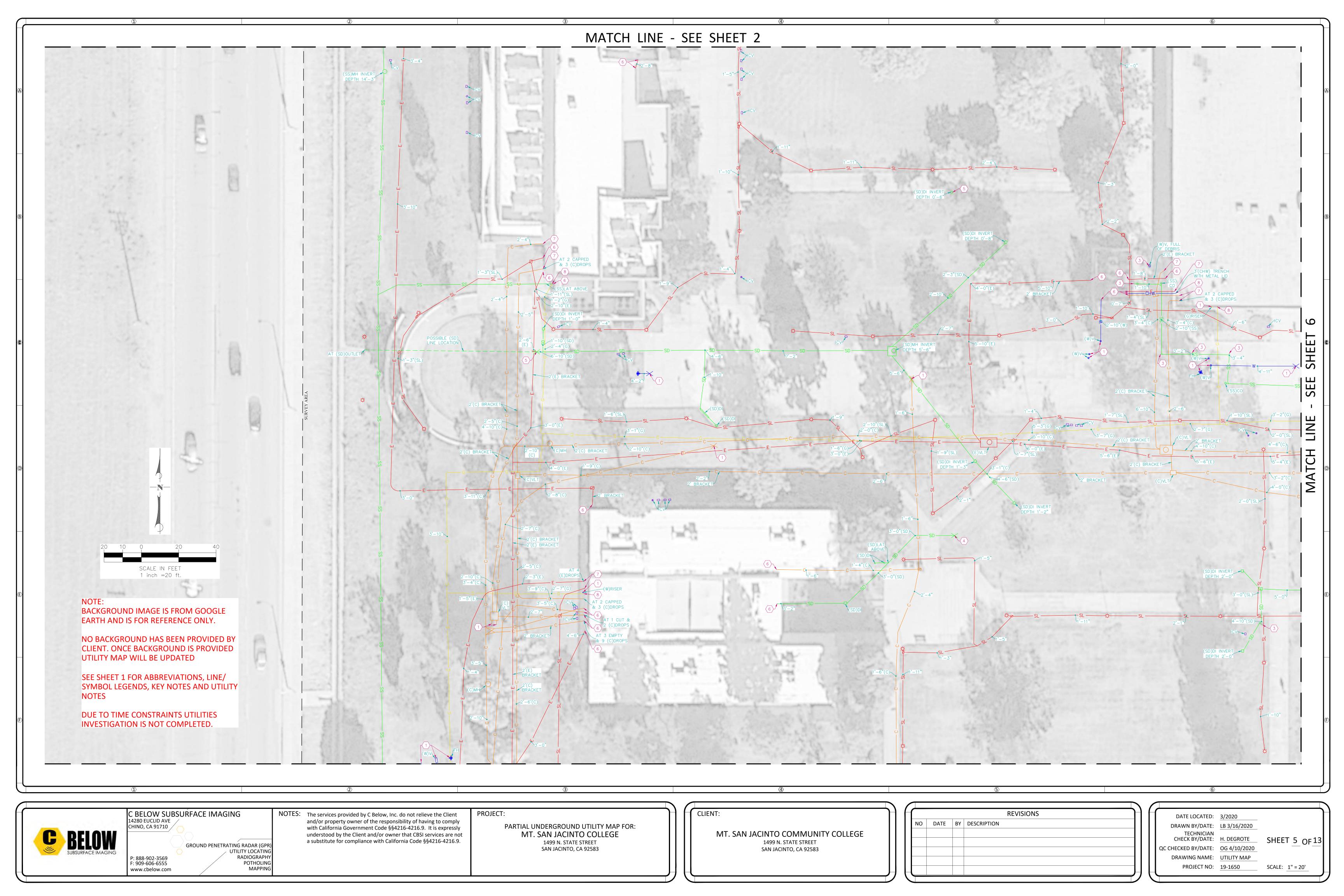
			REVISIONS	H
NO	DATE	BY	DESCRIPTION	

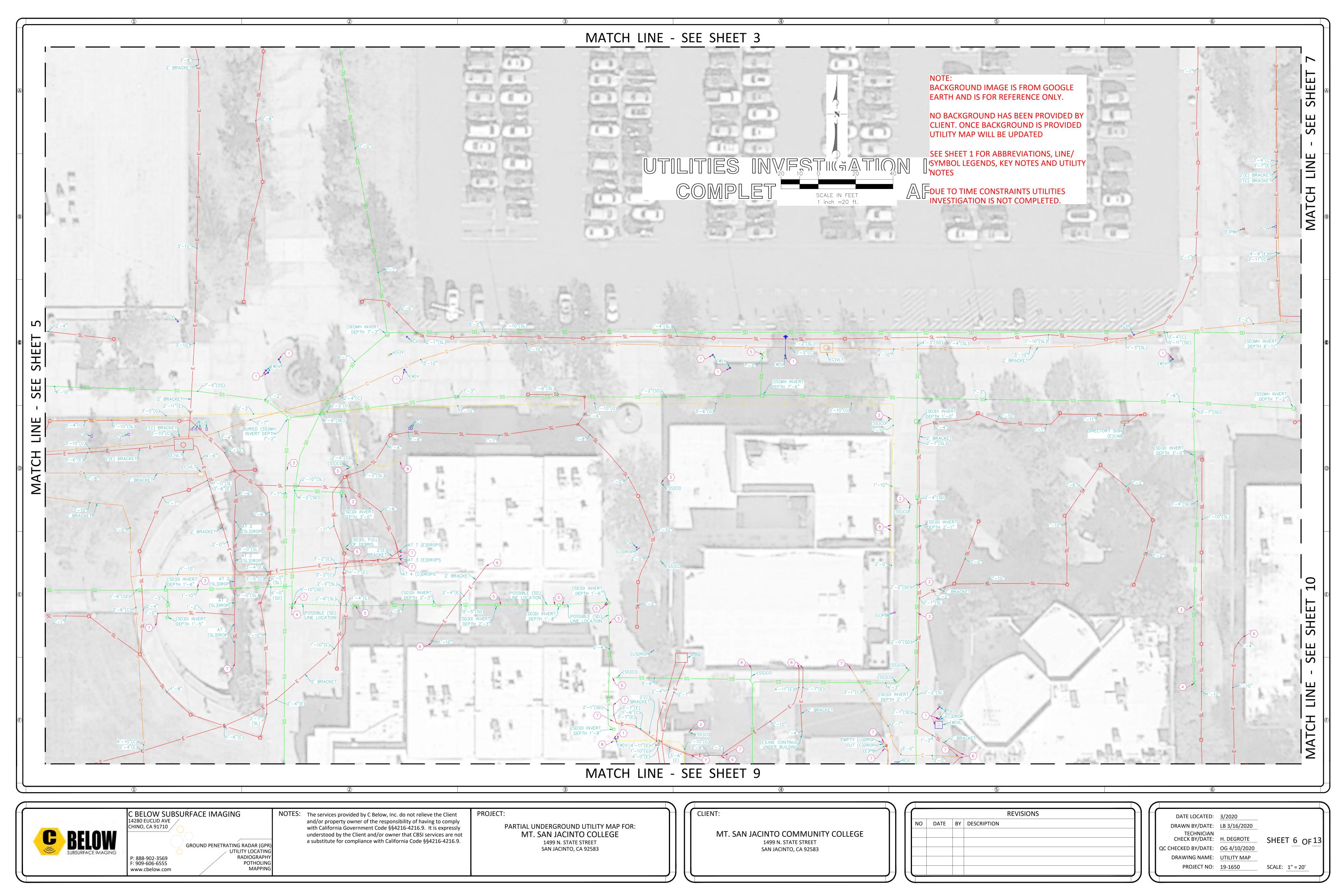
DATE LOCATED:	3/2020		
DRAWN BY/DATE:	LB 3/16/2020		
TECHNICIAN CHECK BY/DATE:	H. DEGROTE	SHEET 1 OF 13	
CHECKED BY/DATE:	OG 4/10/2020	01	
DRAWING NAME:	COVER SHEET		
PROJECT NO:	19-1650	SCALE: N.T.S.	

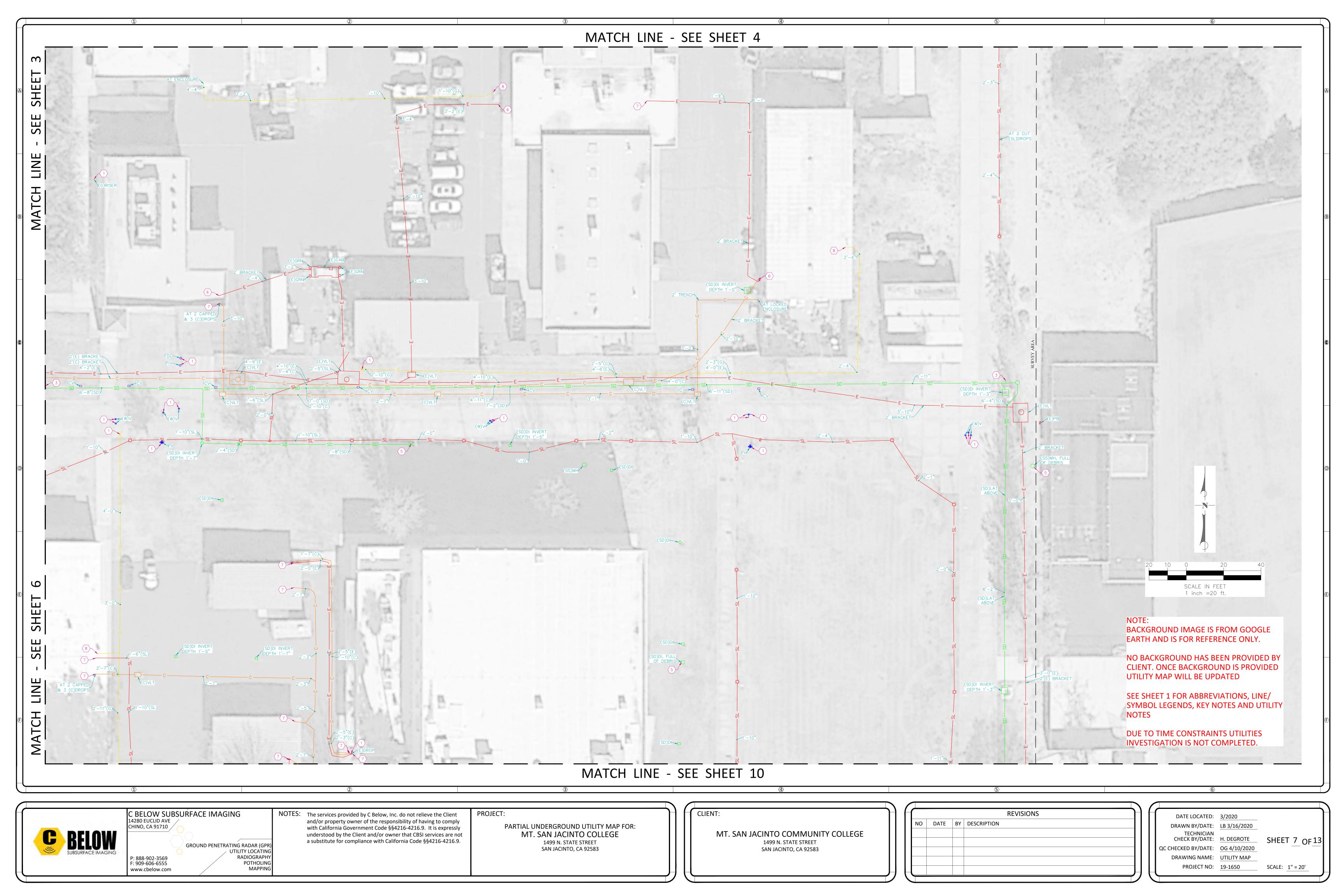


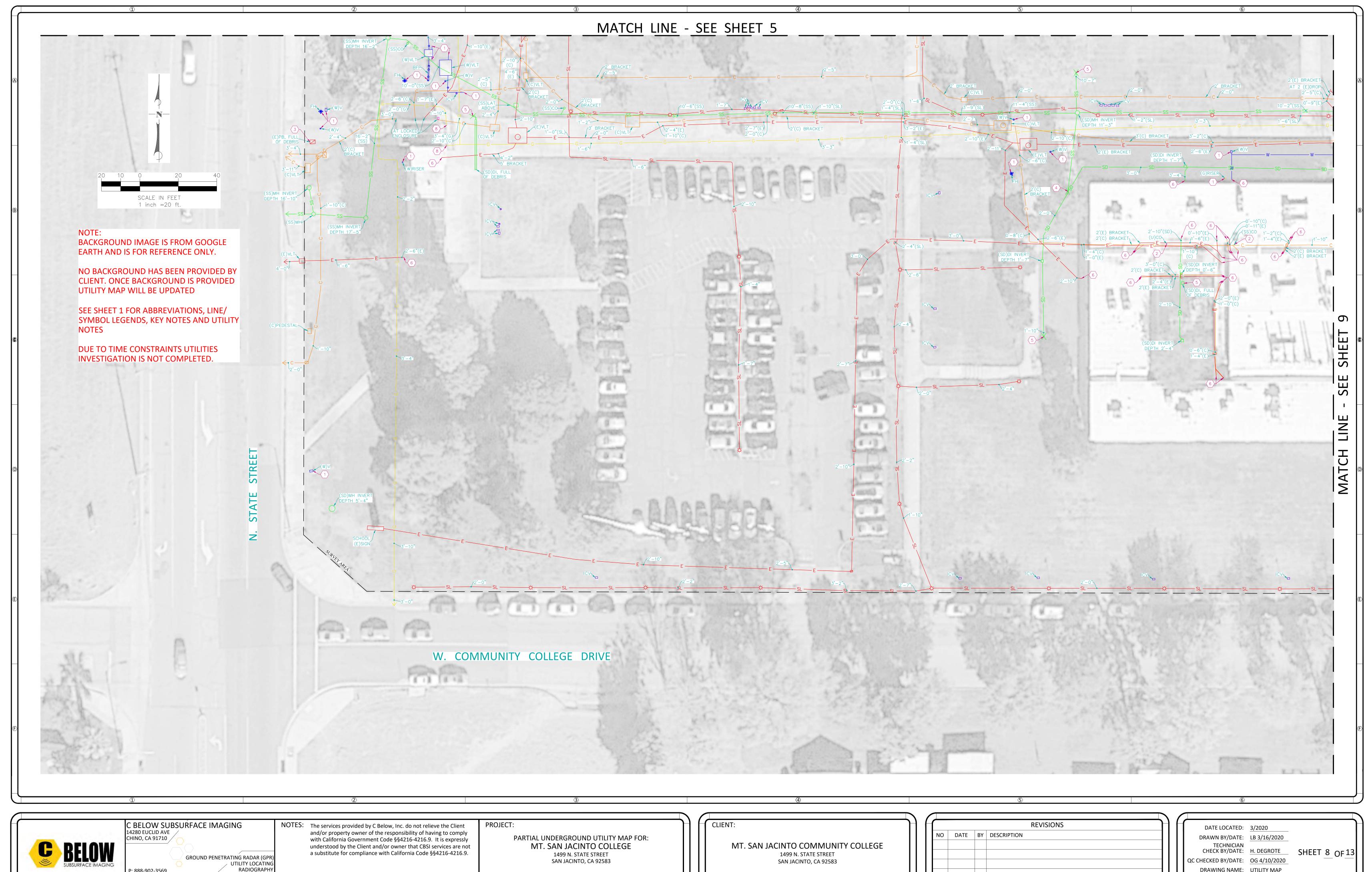








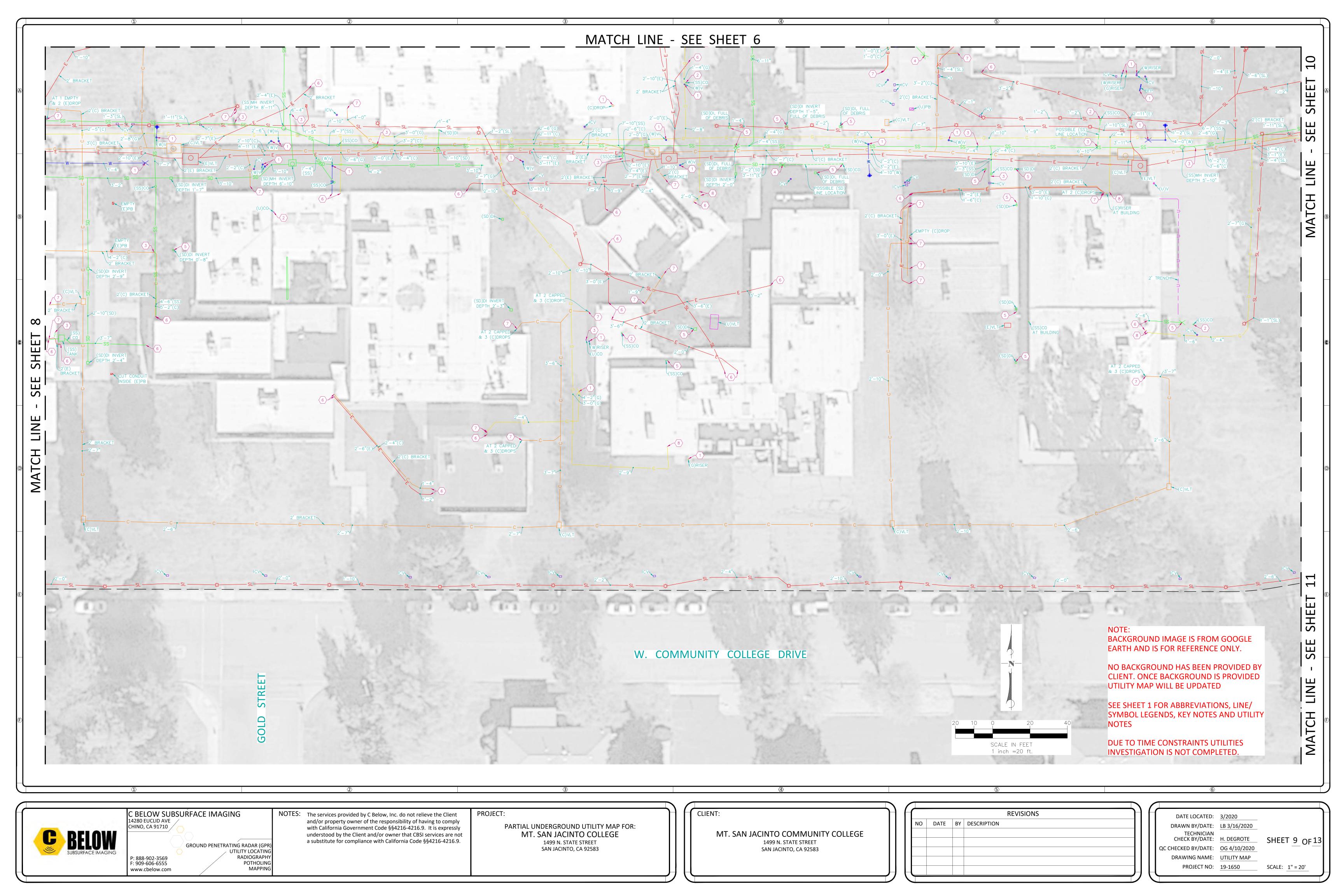


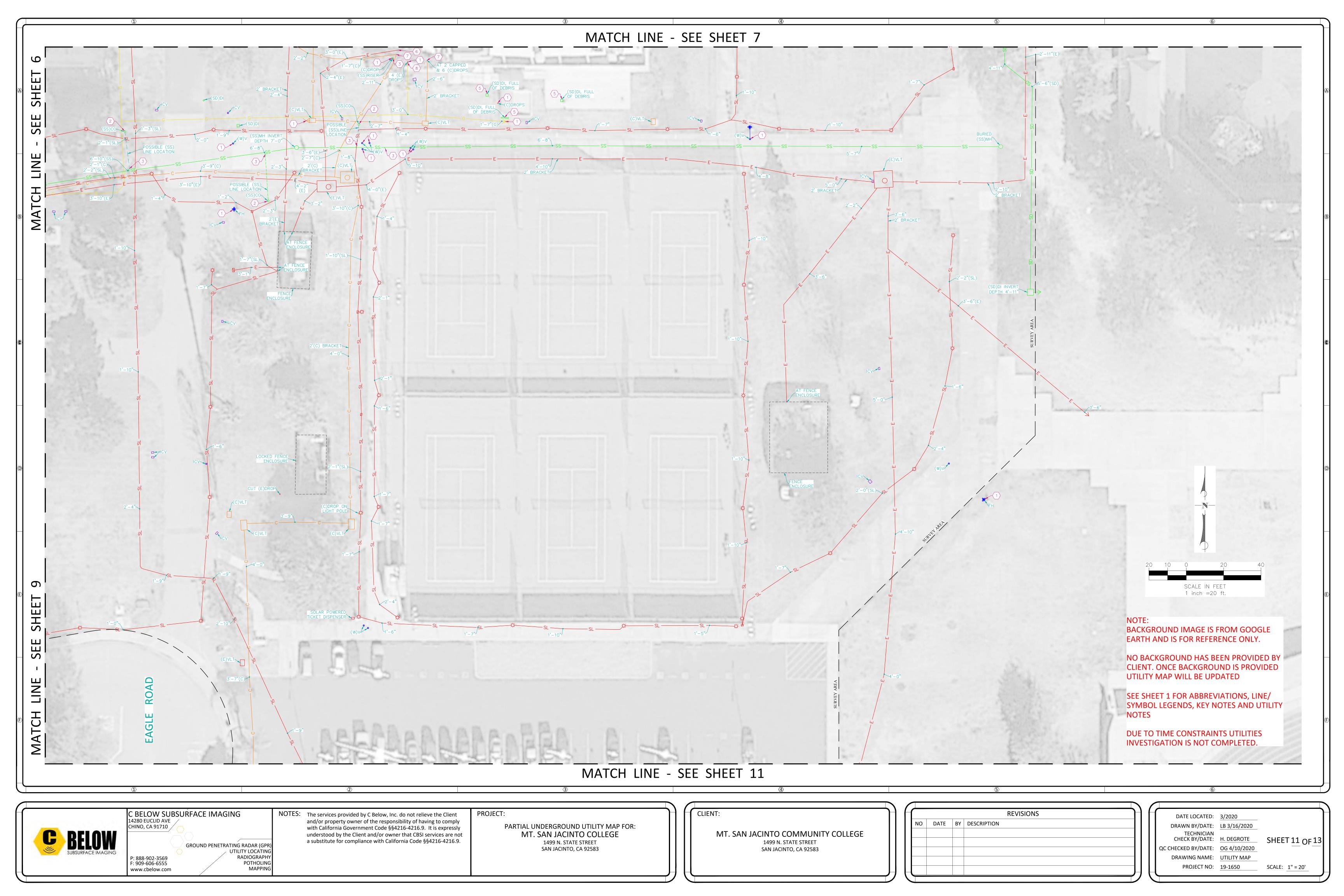


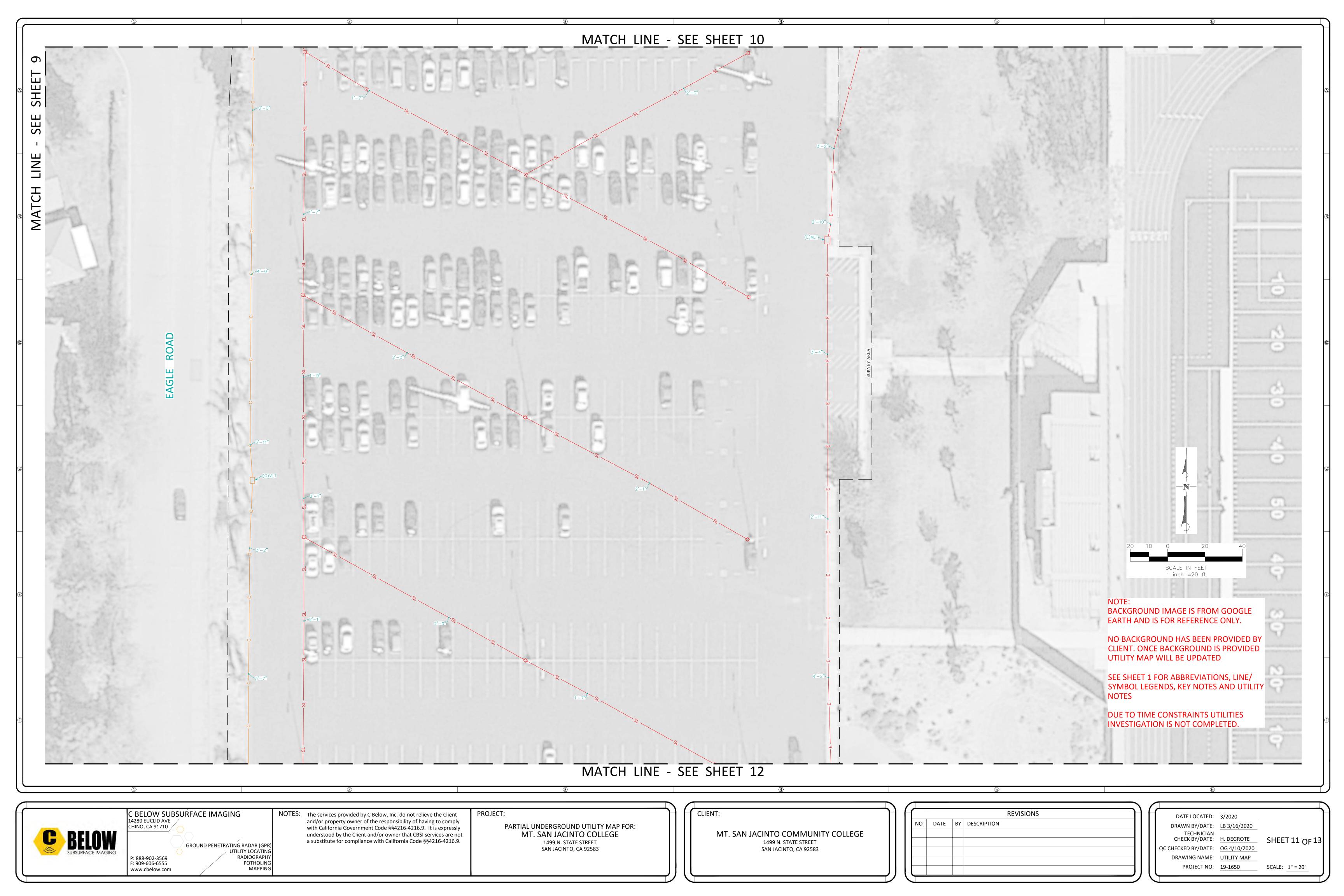
GROUND PENETRATING RADAR (GPR)
UTILITY LOCATING
RADIOGRAPHY
POTHOLING
MAPPING P: 888-902-3569 F: 909-606-6555 www.cbelow.com

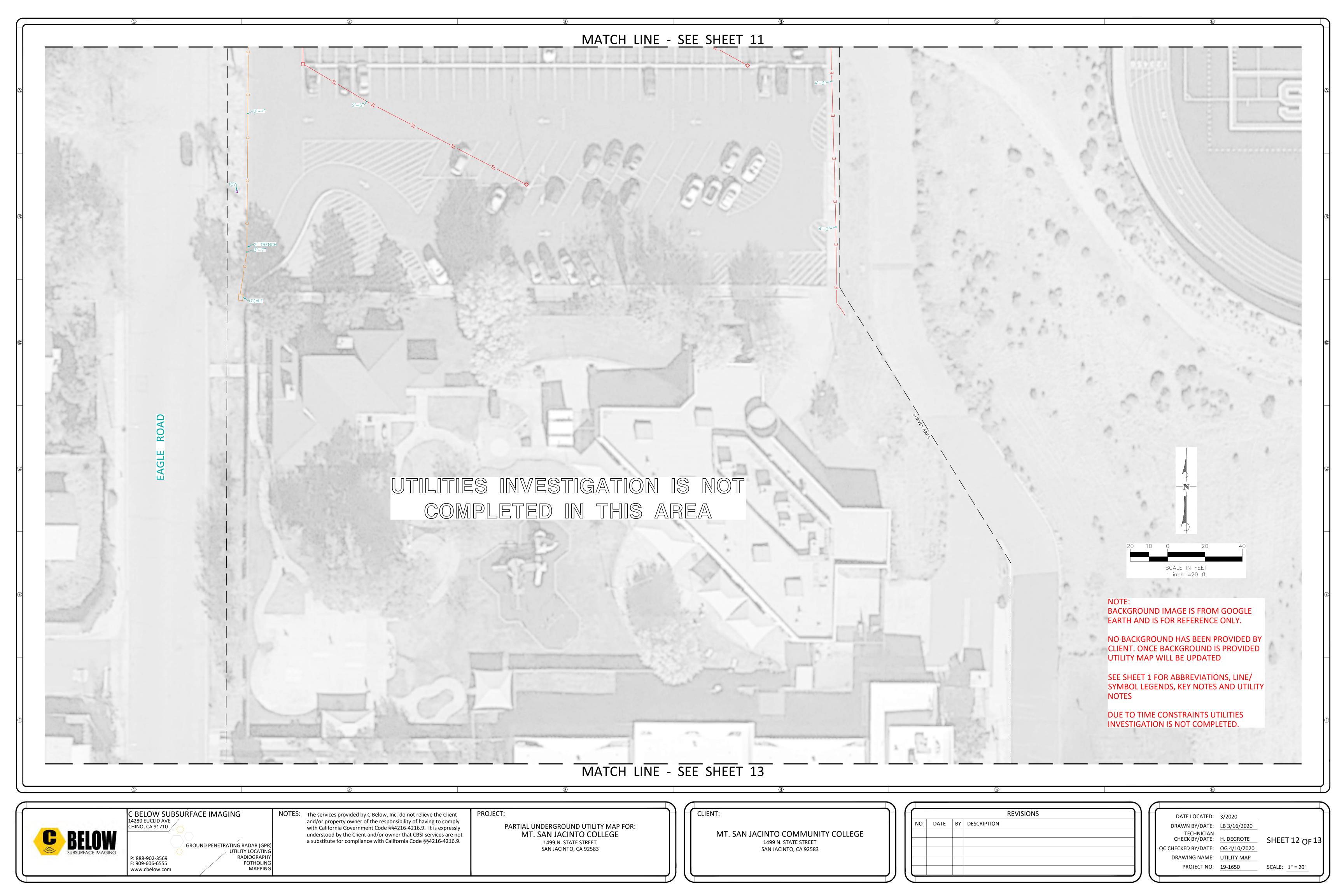
			REVISIONS	\exists	Н
NO	DATE	BY	DESCRIPTION		Н
				Щ	Ц
		•			Ι,

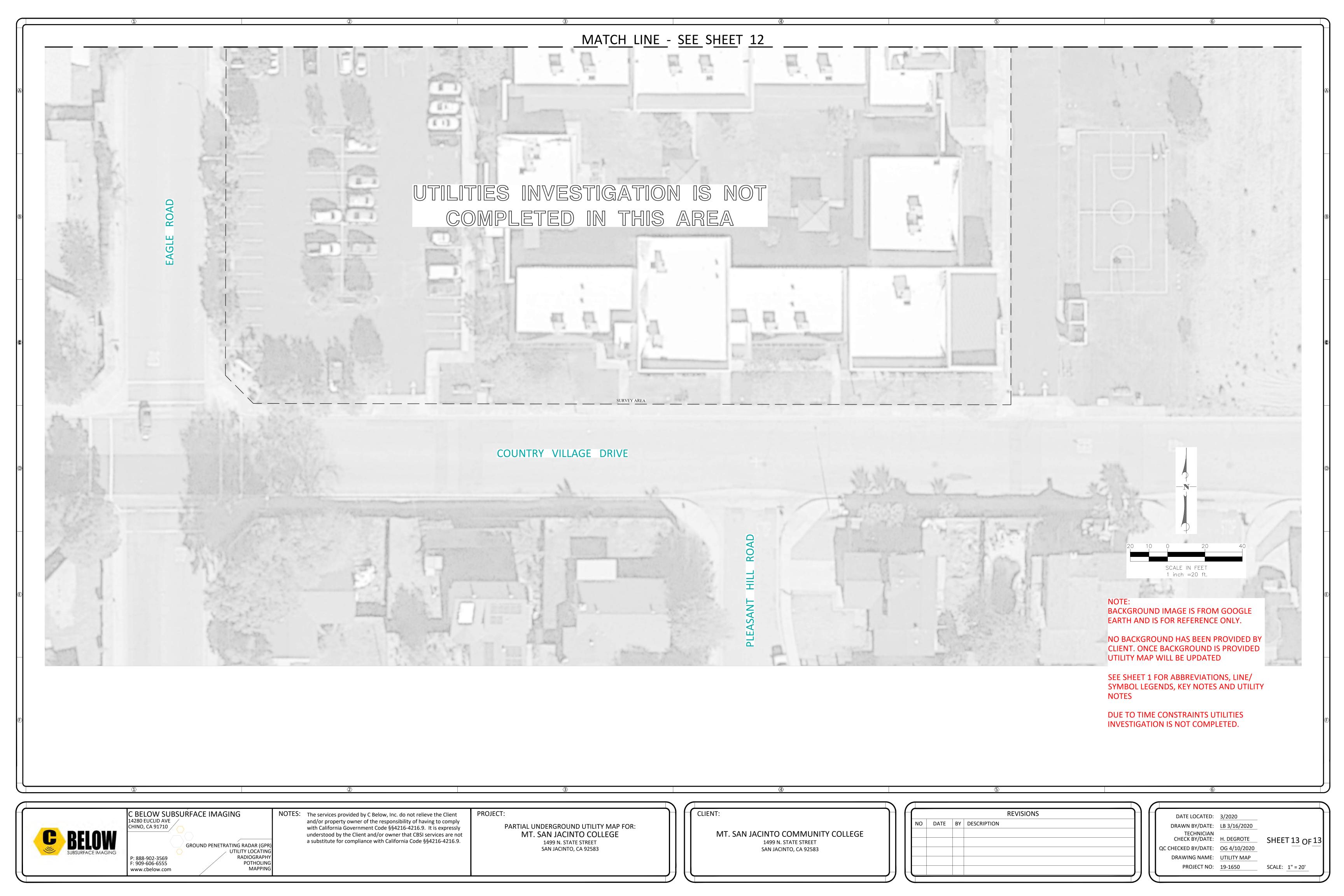
DRAWING NAME: UTILITY MAP PROJECT NO: <u>19-1650</u> SCALE: 1" = 20'













OFFICE LOCATIONS

ORANGE COUNTY CORPORATE BRANCH

2992 E. La Palma Avenue Suite A Anaheim, CA 92806

Tel: 714.632.2999 Fax: 714.632.2974

SAN DIEGO IMPERIAL COUNTY

6295 Ferris Square Suite C San Diego, CA 92121

Tel: 858.537.3999 Fax: 858.537.3990

INLAND EMPIRE

14467 Meridian Parkway Building 2A Riverside, CA 92518

Tel: 951,653,4999 Fax: 951,653,4666

INDIO

44917 Golf Center Pkwy Suite I Indio, CA 92201

Tel: 760.342.4677 Fax: 760.342.4525

OC/LA/INLAND EMPIRE DISPATCH

800.491.2990

SAN DIEGO DISPATCH

888.844.5060

www.mtglinc.com

Geotechnical Engineering Construction Inspection Materials Testing Environmental

GEOTECHNICAL INVESTIGATION

Mt. San Jacinto College
New Shade Structures at
San Jacinto Campus
1499 North State Street
San Jacinto, Riverside County, California

Prepared For:

Mt. San Jacinto Community College District 1499 North State Street San Jacinto, California 92583

Prepared By:
MTGL, Inc.
14467 Meridian Parkway, Building 2A
Riverside, California 92518

November 8, 2019

MTG_L Project No. 8767A21 MTG_L Log No. 19-2643



Geotechnical Engineering Construction Inspection Materials Testing Environmental

OFFICE LOCATIONS

ORANGE COUNTY CORPORATE BRANCH

2992 E. La Palma Avenue Suite A Anaheim, CA 92806

Tel: 714.632.2999 Fax: 714.632.2974

SAN DIEGO IMPERIAL COUNTY

6295 Ferris Square Suite C San Diego, CA 92121

Tel: 858.537.3999 Fax: 858.537.3990

INLAND EMPIRE

14467 Meridian Parkway Building 2A Riverside, CA 92518

Tel: 951.653.4999 Fax: 951.653.4666

INDIO

44917 Golf Center Pkwy Suite 1 Indio, CA 92201

Tel: 760,342,4677 Fax: 760,342,4525

OC/LA/INLAND EMPIRE DISPATCH

800.491.2990

SAN DIEGO DISPATCH

888.844.5060

www.mtglinc.com

November 8, 2019

MTG_L Project No. 8767A21 MTG_L Log No. 19-2643

Mt. San Jacinto Community College District 1499 North State Street San Jacinto, California 92583

Subject:

GEOTECHNICAL INVESTIGATION

Mt. San Jacinto College

New Shade Structures at San Jacinto Campus

1499 North State Street

San Jacinto, Riverside County, California

In accordance with your request and authorization, MTG_L, Inc. has completed a Geotechnical Investigation for the subject site. MTG_L, Inc. is pleased to present the following report which addresses both engineering geologic and geotechnical conditions of the subject site, including a description of the site conditions, results of MTG_L, Inc.'s field exploration and laboratory testing, and MTG_L, Inc.'s conclusions and recommendations for site grading and foundations design.

The San Jacinto campus of Mt. San Jacinto College is located at 1499 North State Street, in the City of San Jacinto, Riverside County, California. The project will consist of constructing two (2) new shade structures, along with various site pavement improvements, in the south-central and southeastern portions of the existing school campus.

Based on MTG_L, Inc.'s investigation, the site will be suitable for construction, provided the recommendations presented herein are incorporated into the plans and specifications for the proposed construction. Details related to geologic conditions, seismicity, site preparation, foundation and pavement design, and construction considerations are also included in the subsequent sections of this report.

MTG_L, Inc. appreciates this opportunity to be of continued service and look forward to providing additional consulting services during the planning and construction of the project. Should you have any questions regarding this report, please do not hesitate to contact us at your convenience.

Respectfully submitted,

MTGL, Inc.

Bruce A. Hick, P.E., G.E.

Vice President | Engineering Manager

TABLE OF CONTENTS

1.00 I	INTRODUCTION	1
1.01	PLANNED CONSTRUCTION	1
	SCOPE OF WORK	
	SITE DESCRIPTION	
	FIELD INVESTIGATION	
	LABORATORY TESTING	
2.00 F	FINDINGS	3
2.01	REGIONAL AND LOCAL GEOLOGIC CONDITIONS	3
2.02	SITE SOIL CONDITIONS	3
	FLOODING POTENTIAL	
	SURFACE AND GROUNDWATER CONDITIONS	
	FAULTING AND SEISMICTY	
	LIQUEFACTION POTENTIAL AND DYNAMIC SOIL SETTLEMENT POTENTIAL	
	LANDSLIDES	
	TSUNAMI AND SEICHE HAZARD	
3.00 C	CONCLUSIONS	6
3.01	GENERAL CONCLUSIONS	6
3.02	SEISMIC DESIGN PARAMETERS	6
4 00 E	RECOMMENDATIONS	7
4.01	EXCAVATION CHARACTERISTICS/SHRINKAGE	
	SETTLEMENT CONSIDERATIONS	
	SITE CLEARING RECOMMENDATIONS	
	SITE GRADING RECOMMENDATIONS	
	SITE OVEREXCAVATION	
	FILL MATERIALS	
	FOUNDATIONS	
(1)(1)(1)(1)	CONCRETE SLABS ON GRADE AND MISCELLANEOUS FLATWORK	
23.5	PREWETTING RECOMMENDATION	
	SOIL CORROSION POTENTIAL	
	RETAINING WALLS	
	SEISMICALLY INDUCED LATERAL EARTH PRESSURES	
	PAVEMENT RECOMMENDATIONS	
4.14	CONSTRUCTION CONSIDERATIONS	
	4.14.1 MOISTURE SENSITIVE SOILS/WEATHER RELATED CONCERNS	
	4.14.2 Drainage and Groundwater Considerations	
	4 14 3 TEMPORARY EXCAVATIONS AND SHORING	6

4.14.4 UTILITY TRENCHES	18
4.14.5 SITE DRAINAGE	19
4.15 GEOTECHNICAL OBSERVATION/TESTING OF EARTHWORK OPERATIONS	19
5.00 LIMITATIONS	20

ATTACHMENTS:

Figure 1 – Site Location Map

Figure 2 – Boring Location Map

Figure 3 – Retaining Wall Drainage Detail

Appendix A – References

Appendix B - Field Investigation

Appendix C – Laboratory Testing Procedures

Appendix D – Standard Grading Specifications

1.00 INTRODUCTION

In accordance with your request and authorization, MTGL, Inc. has completed a Geotechnical Investigation for the subject project located on the campus of the Mt. San Jacinto College San Jacinto campus at 1499 North State Street, in the City of Menifee, Riverside County, California. The following report presents as summary of MTGL, Inc.'s findings, conclusions and recommendations based on the field investigation, laboratory testing, and engineering analysis.

1.01 PLANNED CONSTRUCTION

Based upon information provided, MTG_L understands that plans are to construct two (2) new shade structures in the south-central and southeastern portions of the campus (see Boring Location Map, Figure 2). It is anticipated that the proposed shade structures will be supported by drilled pier foundations. Maximum foundation loads of 50 kips for drilled pier foundations are anticipated. Due to the relatively flat site topography, maximum slope heights of 10 feet are anticipated. No new sewage disposal is anticipated to be required.

1.02 Scope of Work

The scope of MTGL, Inc.'s geotechnical services included the following:

- Review of geologic, seismic, ground water and geotechnical literature.
- Logging, sampling and backfilling of four (4) exploratory borings drilled with an 8" hollow stem auger drill rig to a maximum depth of 31 feet below existing grades.
- Laboratory testing of representative samples (See Appendix C).
- Geotechnical engineering review of data and engineering recommendations.
- Preparation of this report summarizing MTGL, Inc.'s findings and presenting MTGL, Inc.'s conclusions and recommendations for the proposed construction.

1.03 SITE DESCRIPTION

The San Jacinto campus of Mt. San Jacinto College is located at 1499 North State Street, in the City of San Jacinto, Riverside County, California (see Site Location Map, Figure 1). The school site is located at approximate 33.8066° North Longitude and -116.9699° West Latitude. The campus is bounded to the north by a campus driveway (Cam Los Vientos), on the south by Community College Drive and on the west by State Street (California Highway 79), all paved improved streets. Vacant land is situated adjacent to the eastern boundary of the campus.

The proposed new shade structures are to be constructed in the south-central and southeastern portions of the school campus (see Boring Location Map, Figure 2). The shade structure in the south-central portion of the campus is situated in a PCC concrete paved courtyard just west of the Student Center building complex. The shade structure in the southeastern portion of the campus is situated in a grass covered field just west of the existing tennis courts. Access to the proposed construction areas is via PCC and asphalt concrete pavements within the college campus.

Topographically, the proposed development areas are essentially planar, gently sloping to the north/northwest at less than a 2 percent gradient. Elevation at the proposed shade structure locations is approximately 1,520 feet above mean sea level (south-central area) and approximately 1,529 feet above mean sea level (southeastern area). Drainage across the campus is by sheet flow to the north/northeast.

1.04 FIELD INVESTIGATION

Prior to the field investigation, a site reconnaissance was performed by an engineer from MTGL, Inc. to evaluate the anticipated boring locations with respect to obvious subsurface structures and access for the drilling rig. The subsurface investigation consisted of drilling and sampling four (4) test borings, two (2) at each proposed structure location, utilizing a truckmounted drill rig equipped with an 8" diameter hollow stem auger (see Boring Location Map, Figure 2). See Appendix B for further discussion of the field exploration including Logs of Test Borings.

Borings were logged and sampled using Modified California Ring (Ring) and Standard Penetration Test (SPT) samplers at selected depth intervals. Samplers were driven into the bottom of the boring with successive drops of a 140-pound weight falling 30 inches. Blows required to drive the last 12 inches of the 18-inch Ring and SPT samplers are shown on the boring logs in the "blows/foot" column (Appendix B). SPT was performed in the borings in general accordance with the American Standard Testing Method (ASTM) D1586 Standard Test Method. Representative bulk soil samples were also obtained from the borings.

Each soil sample collected was inspected and described in general conformance with the Unified Soil Classification System (USCS). The soil descriptions were entered on the boring logs (see Appendix B). All samples were sealed and packaged for transportation to MTGL, Inc.'s laboratory. After completion of drilling, borings were backfilled with the soil cuttings, and covered with rapid-set concrete (Borings B1 and B2).

1.05 LABORATORY TESTING

Laboratory tests were performed on representative samples to verify the field classification of the recovered samples and to determine the geotechnical properties of the subsurface materials. All laboratory tests were performed in general conformance with ASTM or State of California Standard Methods. The results of our laboratory tests are presented in Appendix C of this report.

2.00 FINDINGS

2.01 REGIONAL AND LOCAL GEOLOGIC CONDITIONS

The project site is regionally located within the northern Peninsular Ranges Geomorphic Province of Southern California, near the intersection of the east-central boundary of the Transverse Range Provence and southern boundary of the Mojave Desert Provence. Locally, the site is situated within the San Jacinto Valley, along the northeastern-most portion of the Perris Block. The Perris Block is bounded on the west by the Elsinore-Chino fault zones, on the east by the San Jacinto fault zone, and on the north by the Cucamonga fault zone. On the south, the Perris Block is bounded by a series of sedimentary basins that lie between Temecula and Anza.

Locally, the existing college campus is within a sub-structural unit of the Perris Block know as the San Jacinto Valley. This valley is a deep alluvial filed graben formed by the San Jacinto fault zone, bounded by faults to the northeast (Claremont) and the southwest (Casa Loma). It has been estimated that up to $8,000\pm$ feet of sediments overlie the basement floor of the San Jacinto Valley graben. Alluvium in the upper 300 feet of the valley is composed predominately of sand and sandy silt, while the surface and near surface alluvium is of low relative density.

2.02 SITE SOIL CONDITIONS

The proposed shade structure development area is located on generally planar terrain in the south-central and southeastern portions of the college campus at an average elevation of approximately 1,520 feet above sea level. The existing college campus is surrounded by paved, improved streets (north, south, and west) and vacant, undeveloped land (east).

Four (4) 8-inch diameter hollow stem auger soil borings were advanced to characterize near-surface geologic conditions and to obtain soil samples for analyses. Boring locations and pertinent data for each boring are presented in the table below.

Boring No.	Depth (ft.)	Latitude	Longitude	Approx. Fill Thickness (ft)	Groundwater Depth (ft. bgs)
B1	31.0	33.8066°	-116.9699°	0	31.0
B2	16.0	33.8068°	-116.9699°	0	No GW
В3	31.0	33.8062°	-116.9674°	0	No GW
B4	16.0	33.8059°	-116.9674°	0	No GW

Portland Cement Concrete (PCC, approximately six inches thick) was located at the surface of Borings B1 and B2. Grass was located at the surface of Borings B3 and B4. As shown on the attached boring logs, the site is underlain by alluvium. The site soils consist of interbedded silty sands, clayey sands, and relatively clean sands (SM, SC and SP) soil types based upon the Unified Soil Classification System. Ground water was encountered at a depth of approximately 31 feet in boring B1 at the time of drilling. Ground water was not encountered in any of the other borings at the time of drilling.

2.03 FLOODING POTENTIAL

The site is included within a FEMA Zone "X" (FEMA Map #06065C1490G, 8/28/2008. Flood Zone "X" is described as "Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% chance flood". The 1% annual flood (100-year flood) is the flood that has a 1% chance of being equaled or exceeded in any given year.

2.04 SURFACE AND GROUNDWATER CONDITIONS

No areas of ponding or standing water were present at the time of the field exploration. Further, no springs or areas of natural seepage were observed at the time of the field exploration.

Ground water was encountered at a depth of approximately 31 feet in Boring B1 at the time of drilling. Ground water was not encountered in any of the borings at the time of drilling.

The college campus is located within the San Jacinto Ground Water Basin in western Riverside County, California. Groundwater data compiled by the Western Municipal Water District by the Western Municipal (WMWD) indicates that several monitored wells exist in the vicinity of the project. These monitor records indicate that groundwater in the monitored wells were all in excess of 200 feet below the existing ground surface. Water encountered in the borings probably consist of a shallow perched water condition.

2.05 FAULTING AND SEISMICITY

Numerous active or potentially active faults are within a 100-kilometer radius of the site. However, no know active or potentially faults are known to traverse the campus site. The site is not located within a State of California Alquist-Priolo Earthquake Fault Zone for fault rupture hazard or within a mapped County of Riverside fault zone.

2.06 LIQUEFACTION POTENTIAL AND DYNAMIC SOIL SETTLEMENT

Liquefaction is a phenomenon where earthquake-induced ground vibrations increase the pore pressure in saturated, granular soils until it is equal to the confining, overburden pressure. When this occurs, the soil can completely loose its shear strength and enter a liquefied state. The possibility of liquefaction is dependent upon grain size, relative density, confining pressure, saturation of the soils, strength of the ground motion and duration of ground shaking. In order for liquefaction to occur three criteria must be met: underlying loose, coarse-grained (sandy) soils, a groundwater depth of less than about 50 feet and a nearby large magnitude earthquake.

The site is not within a Seismic Special Studies Zone as currently mapped by the California Division of Mines and Geology. Based on the high relative density/consistency of the subsurface soils at or below groundwater, the potential for liquefaction is very low. Based upon review State of California Seismic Hazards maps, the project site is not indicated as having a liquefaction susceptibility. Due to the dense/high consistency nature of the subsurface soils, estimated dynamic settlement ("dry sand") settlement of the site soils are anticipated to be negligible.

2.07 LANDSLIDES

The site is not located in a hillside area of the county where earthquake induced landslides would cause permanent ground displacements. No reported occurrences of landslides or mudflows are known to have recently affected the site. Therefore, the potential for landslides and mudflows is considered to be very low at the site.

2.08 TSUNAMI AND SEICHE HAZARD

Given the inland location of the site at an elevation of approximately 1,520 feet MSL, the inundation hazard posed by tsunami is considered to be very low. Seiches are not considered a hazard due to the absence of above-ground tanks or reservoirs located immediately up gradient from the site.

3.00 CONCLUSIONS

3.01 GENERAL CONCLUSIONS

Based on our Geotechnical review of the planned construction, it is our opinion that the site is suitable for the proposed construction provided our conclusions are taken into consideration during design, and our recommendations are incorporated into the construction plans and specifications and implemented during grading and construction.

Given the findings of the investigation, it appears that the site geology is suitable for the proposed construction. Based on the investigation, it is our opinion that the proposed development is safe against landslides and settlement provided the recommendations presented in our report are incorporated into the design and construction of the project. Grading and construction of the proposed project will not adversely affect the geologic stability of adjacent properties. The nature and extent of the investigation conducted for the purposes of this declaration are, in our opinion, in conformance with generally accepted practice in this area. Therefore, the proposed project appears to be feasible from a geotechnical standpoint.

3.02 SEISMIC DESIGN PARAMETERS

The USGS Seismic Design Maps application, was used to calculate the CBC site specific design parameters as required by the 2016 California Building Code. Based upon the subsurface data, the site can be classified as Site Class D. The spectral acceleration values for 0.2 second and 1 second periods obtained from the computer program and in accordance with the 2016 California Building Code are tabulated below.

Ground Motion Parameter	Design Value	
S_{S}	2.44 g	
S_1	1.115 g	
Site Class	D	
Fa	1.0	
F _v	1.5	
S _{DS}	1.627 g	
S_{D1}	1.115 g	
MCE _R	0.90 g	

4.00 RECOMMENDATIONS

MTGL, Inc.'s recommendations are considered minimum and may be superseded by more conservative requirements of the architect, structural engineer, building code, or governing agencies. The foundation recommendations are based on review and engineering evaluation of the field exploration and laboratory test results. Import soils, if necessary should have a "very low" expansion index potential and should be approved by the Geotechnical Engineer prior to importing to the site. In addition to the recommendations in this section, additional general earthwork and grading specifications are included in Appendix D.

4.01 EXCAVATION CHARACTERISTICS/SHRINKAGE

The exploratory borings were advanced with little difficulty and no oversize materials were encountered in the subsurface investigation. Accordingly, it is expected that all earth materials will be rippable with conventional heavy duty grading equipment and oversized materials are not expected.

Shrinkage is the decrease in volume of soil upon removal and recompaction expressed as a percentage of the original in-place volume, which will account for changes in earth volumes that will occur during grading. MTGL, Inc.'s estimate for shrinkage of the on-site fill and native soils are expected to range from 15 to 20 percent.

4.02 SETTLEMENT CONSIDERATIONS

Based upon discussions with project parties, the proposed shade structures may be supported by cast-in-drilled hole (CIDH) pier foundations. Foundations should be designed to resist the anticipated settlements. Maximum settlement of pier foundations designed and constructed in accordance with the recommendations presented in this report are estimated to be on the order of ½ inch. Differential settlement between similarly loaded and adjacent foundations are expected to be a maximum of approximately ¼ inch across 40 feet, provided footings are founded on similar materials, and designed and constructed in accordance with the recommendations of this report. Settlement of all foundations is expected to occur rapidly and should be essentially complete shortly after initial application of the loads.

4.03 SITE CLEARING RECOMMENDATIONS

All surface vegetation, existing improvements, hardscaping, landscaping, trash, debris, asphalt concrete, Portland cement concrete and underground utilities should be cleared and removed from the proposed construction sites. Underground facilities such as utilities, pipes or underground storage tanks may exist at the site. Removal of underground tanks is subject to state law as regulated by the County, City and/or Fire Department. If storage tanks containing hazardous or unknown substances are encountered, the proper authorities must be notified prior to any attempts at removing such objects.

Any water wells, if encountered during construction, should be exposed and capped in accordance with the requirements of the regulating agencies.

Depressions resulting from the removal of foundations of existing buildings, underground tanks and pipes, buried obstructions and/or tree roots should be backfilled with properly compacted material.

4.04 SITE GRADING RECOMMENDATIONS

All fill materials should be compacted to at least 90 percent of maximum dry density as determined by ASTM Test Method D1557. Fill materials should be placed in loose lifts, no greater than 8 inches prior to applying compactive effort. All engineered fill materials should be moisture-conditioned and processed as necessary to achieve a uniform moisture content that is near optimum moisture content and within moisture limits required to achieve adequate bonding between lifts.

4.05 SITE OVEREXCAVATION

Building plans, grading plans and foundation elevations were not available at the time of MTGL, Inc.'s investigation. Therefore, once formal plans are prepared and available for review, this office should review these plans from a geotechnical viewpoint, comment on any changes, and revise the recommendations of this report as necessary.

All artificial fills, organics, debris, trash and topsoil should be removed from the grading area and hauled offsite. Recommendations for site grading to prepare hardscape areas for the support of pavements are as follows.

Hardscape areas which include all paved areas will require a minimum depth of 2 feet of removal and recompaction. Processing for hardscape areas should extend a minimum distance of 2 feet outside the hardscape limits, where obtainable.

4.06 FILL MATERIALS

Removed and/or overexcavated soils may be moisture-conditioned to near optimum moisture content and recompacted as engineered fill, except for soils containing detrimental amounts of organic material. Our subsurface investigation indicates that the near surface materials are generally at or below its optimum moisture content. The fill materials should be compacted to a minimum of 90% of the maximum dry density per ASTM D-1557.

Imported materials shall be coarse grained, non-expansive, and non-plastic in nature. The materials should be free from vegetable matter and other deleterious substances, shall not contain rocks or lumps of a greater dimension than 3 inches, and shall be approved by the geotechnical consultant. Soils of poor gradation, expansion, or strength properties shall be placed in areas designated by the geotechnical consultant or shall be mixed with other soils providing satisfactory fill material.

4.07 FOUNDATIONS

The proposed shade structures may be supported by CIDH pier foundations. MTGL, Inc.'s recommendations are considered minimum and may be superseded by more conservative requirements of the architect, structural engineer, building code, or governing agencies.

The piers should be a minimum of 12 inches in diameter and be embedded a minimum of six feet below the lowest adjacent soil grade. Allowable end bearing capacity for the pier foundation is 5,000 psf at a depth of six feet below the lowest adjacent soil grade, which may be increased by 250 psf for each additional foot of embedment up to a maximum value of 8,000 psf.

Alternatively, the piers may be designed utilizing an allowable frictional resistance along the sidewalls of the concrete pier of 250 psf. The upper two feet of the drilled pier foundation should be ignored for calculation of skin friction capacity. **End bearing capacity and frictional resistance cannot be combined.**

Lateral passive resistance may be considered 300 psf per foot of embedment up to a maximum value of 2,500 psf. The upper two feet of the drilled pier foundation should be ignored for calculation of passive resistance. The design coefficient of friction between concrete foundation and subsurface soils is 0.35.

Uplift capacity of the pier foundation may be considered equal to 60 percent of the allowable frictional capacity between the pier and the surrounding soils (limited to two feet below the lowest soil grade), plus the weight of the pier foundation.

The allowable bearing capacity and the allowable resistance of the horizontal forces may be increased by 1/3 for wind, seismic, or other short-term loading.

Provided the piers are spaced a minimum of three diameters apart (measured from the butt), there is no reduction for pier group interaction. All piers shall be adequately reinforced and tied into foundations.

The indicated pier capacities are based upon the strength of the soils. The structural capacity of the pier itself should be verified by the structural engineer. Pier foundation reinforcement should be in accordance with applicable sections of the governing building code and/or requirements of the structural engineer.

4.08 CONCRETE SLABS ON GRADE AND MISCELLANEOUS FLATWORK

Concrete slabs on grade and miscellaneous flatwork that are not subjected to vehicular loads may be designed with a minimum thickness of 4.0 inches for normal loading conditions. However, if heavier loads are anticipated, a modulus of subgrade reaction of 300 pounds per cubic inch may be used when the slabs are supported by compacted fill.

All slabs and flatwork should be reinforced with a minimum #4 bars, 18 inches on center, each direction, placed at the mid-height of the slab. The structural engineer may require heavier reinforcement. Special care should be taken so that reinforcement is placed at the slab mid-height.

Control joints should be constructed on all slabs on grade to create squares or rectangles with a maximum spacing of 12 feet on large slab areas. Where flatwork is adjacent to curbs, reinforcing bars should be placed between the flatwork and the curbs. Expansion joint material should be used between flatwork and curbs, and flatwork and buildings.

Special precautions must be taken during the placement and curing of all concrete slabs. Excessive slump (high water-cement ratio) of the concrete and/or improper curing procedures used during either hot or cold weather conditions could lead to excessive shrinkage, cracking, or curling of the slabs. High water-cement ratio and/or improper curing also greatly increase the water vapor permeability of concrete. It is recommended that all concrete placement and curing operations be performed in accordance with the American Concrete Institute (ACI) manual.

The subgrade soils beneath all concrete flatwork should be compacted to a minimum of 90% relative compaction for a minimum depth of 24 inches. The geotechnical engineer should monitor the compaction of the subgrade soils and perform testing to verify that proper compaction has been obtained.

4.09 PREWETTING RECOMMENDATION

Prior to placing concrete slabs and flatwork, the underlying soils should be brought to near optimum moisture content for a depth of six inches prior to the placement of concrete. The geotechnical consultant should perform in-situ moisture tests to verify that the appropriate moisture content has been achieved a maximum of 24 hours prior to the placement of concrete or moisture barriers.

Once the slab subgrade soil has been pre-wetted and compacted, the soil should not be allowed to dry prior to concrete placement. If the subgrade soil is dry, the moisture content of the soil should be restored prior to placement of concrete and re-tested.

Proper moisture conditioning and compaction of subgrade soils prior to placement is very important prior to concrete placement. Even with proper site preparation, some soil moisture changes of the subgrade soils supporting the concrete flatwork due to edge effects (shrink/swell) may occur. Drying and/or wetting of subgrade soils adjacent to landscaped areas or open fields may increase the potential of shrink/swell effects beneath concrete flatwork areas. To help reduce edge effects, lateral cutoffs, such as inverted curbs are recommended. Control joints should be used to reduce the potential for flatwork panel cracks as a result of minor soil shrink/swell.

4.10 SOIL CORROSION POTENTIAL

Soluble sulfate tests indicate that concrete at the subject site will have a "negligible" (Class S0) exposure to water soluble sulfate in the soil. Recommendations for concrete exposed to sulfate-containing soils are presented below.

RECOMMENDATIONS FOR CONCRETE EXPOSED TO SULFATE CONTAINING SOILS

Sulfate Exposure Severity	Class	Water soluble sulfate (SO ₄) in soil (% by wgt)	Sulfate (SO ₄) in water (ppm)	Max Water to Cement Ratio by Weight	Minimum Compressive Strength (psi)	Cement Type	Calcium Chloride Admixture
Negligible	S0	0.00 - 0.10	0-150	1	2,500		No Restriction
Moderate	S1	0.10 - 0.20	150-1,500	0.50	4,000	II/V	No Restriction
Severe	S2	0,20 - 2.00	1,500-10,000	0.45	4,500	V	Not Permitted
Very Severe	S3	Over 2.00	Over 10,000	0.45	4,500	V Plus Pozzolan	Not Permitted

Corrositivity testing consisting of soils reactivity (pH) and resistivity (ohms-cm) were also tested on representative soils. The test results indicate that the soils have a soil reactivity (pH) of 7.93, and a resistivity 8,500 ohms-cm. A neutral or non-corrosive soil has a reactivity value ranging from 5.5 to 8.4. Generally, soils that could be considered corrosive to metal have resistivities less than 3,000 ohms. Those soils with resistivity values of less than 1,000 ohms-cm can be considered extremely corrosive.

Based on our test results, near surfaces are anticipated to have a low to moderate corrosion potential. Protection of buried metal with sand bedding and protective coatings may be used to further reduce corrosion potential. A qualified corrosion engineer should be consulted to further assess the corrosion potential, as necessary.

4.11 RETAINING WALLS

Embedded structural walls should be designed for lateral earth pressures exerted on the walls. The magnitude of these earth pressures will depend on the amount of deformation that the wall can yield under the load. If the wall can yield sufficiently to mobilize the full shear strength of the soils, it may be designed for the "active" condition. If the wall cannot yield under the applied load, then the shear strength of the soil cannot be mobilized and the earth pressures will be higher. These walls such as basement walls and swimming pools should be designed for the "at-rest" condition. If a

structure moves towards the retained soils, the resulting resistance developed by the soil will be the "passive" resistance.

For design purposes, the recommended equivalent fluid pressure for each case for walls constructed above the static groundwater table and backfilled with non-expansive soils is provided below. Retaining wall backfill should be compacted to at least 90% relative compaction based on the maximum density defined by ASTM D1557. Retaining structures may be designed to resist the following lateral earth pressures.

- Allowable Bearing Pressure 2,500 psf
- Coefficient of Friction (Soil to Footing) 0.35
- Passive Earth Pressure equivalent fluid weight of 350 pcf (Maximum of 2,500 psf)
- At rest lateral earth pressure 60 pcf
- Active Earth Pressures equivalent fluid weights:

Slope of Retained Material	Equivalent Fluid Weight (pcf)
Level	40
2:1 (H:V)	65

It is recommended that all retaining wall footings be embedded at least 18 inches below the lowest adjacent finish grade, or a minimum of 12 inches below adjacent soil grade. In addition, the wall footings should be designed and reinforced as required for structural considerations. The wall areas should be over-excavated to a minimum depth of 2 feet below the bottom of the proposed footings. The required horizontal limits of the over excavated area shall be defined as the area extending from the edge of the footing for a minimum distance of 2 feet.

Lateral resistance parameters provided above are ultimate values. Therefore, a suitable factor of safety should be applied to these values for design purposes. The appropriate factor of safety will depend on the design condition and should be determined by the project Structural Engineer. If any super-imposed loads are anticipated, this office should be notified so that appropriate recommendations for earth pressures may be provided.

Retaining structures should be drained to prevent the accumulation of subsurface water behind the walls. Back drains should be installed behind all retaining walls exceeding 3.0 feet in height. A typical detail for retaining wall back drains is presented as Figure 3. Alternatively, a premanufactured drainage product (i.e. Mira-DrainTM or equivalent) may be utilized instead of an aggregate drain. All back drains should be outlet to suitable drainage devices. Walls and portions thereof that retain soil and enclose interior spaces and floors below grade should be waterproofed and damp-proofed accordingly. Any pre-manufactured product should be installed in strict conformance with the manufacturer's requirements.

4.12 SEISMICALLY INDUCED LATERAL EARTH PRESSURES

A seismic lateral increment of 30 pcf (equivalent fluid weight) may be applied as an incremental force which should be applied to the back of the wall in the upper 1/3 of the wall and also applied as a reduction of force to the front of the wall in the upper 1/3 of the footing.

4.13 PAVEMENT RECOMMENDATIONS

Recommended pavement structural sections are based on the procedures outlined in "Design Procedures for Flexible Pavements" of the Highway Design Manual, California Transportation Department. This procedure uses the principal that the pavement structural section must be of adequate thickness to distribute the load from the design traffic (TI) to the subgrade soils in such a manner that the stresses from the applied loads do not exceed the strength of the soil (R value).

All asphalt concrete pavement sections should be supported by a minimum twenty-four (24) inch thickness of subgrade compacted to at least 90 percent relative compaction. Compaction should be verified by testing.

Pavement sections were designed based on an R-Value of 60 and assumed Traffic Index of 4.0 for light auto parking and drive lanes, 5.0 for commercial vehicles/access lanes, and 7.0 for truck access/fire lanes. The recommend structural sections are as follows:

ASPHALT PAVEMENT STRUCTURAL SECTION

Pavement Area	Traffic Index	Asphalt Thickness	Aggregate Base Thickness	
Light Auto Parking / Drive Lanes	4.0	3.5"	4.0"	
Commercial Vehicles / Access Lanes	5.0	4.0"	4.0"	
Truck Access/Fire Lanes (Heavy Truck Traffic)	7.0	4.0"	6.0"	

Portland cement concrete (PCC) pavements for areas which are subject to traffic loads may be designed with a minimum thickness of 6.0 inches of Portland cement concrete on 4.0 inches of compacted aggregate base. Project Portland cement concrete should have a minimum compressive strength of 4,000 psi.

Prior to paving, the exposed subgrade soils should be scarified, adjusted to within 2% of optimum moisture and compacted to a minimum of 90% relative compaction for a minimum depth of 12 inches. All aggregate base courses should be compacted to a minimum of 95% relative compaction. Compaction should be confirmed by testing.

4.14 CONSTRUCTION CONSIDERATIONS

4.14.1 MOISTURE SENSITIVE SOILS/WEATHER RELATED CONCERNS

The upper soils encountered at this site may be sensitive to disturbances caused by construction traffic and to changes in moisture content. During wet weather periods, increases in the moisture content of the soil can cause significant reduction in the soil strength and its support capabilities. In addition, soils that become excessively wet may be slow to dry and thus significantly delay the progress of the grading operations. Therefore, it will be advantageous to perform earthwork and foundation construction activities during the dry season. Much of the on-site soils may be susceptible to erosion during periods of inclement weather. As a result, the project Civil Engineer/Architect and Grading Contractor should take appropriate precautions to reduce the potential for erosion during and after construction.

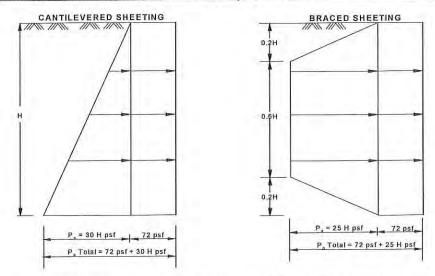
4.14.2 Drainage and Groundwater Considerations

Historic high groundwater levels in the immediate site vicinity are approximately 100 feet below grade. Since this is below the anticipated depths of grading, the installation of subdrains is not expected to be necessary. However, variations in the ground water table may result from fluctuation in the ground surface topography, subsurface stratification, precipitation, irrigation, and other factors such as impermeable and/or cemented formational materials overlain by fill soils. In addition, during retaining wall excavations, seepage may be encountered. Therefore, it is recommended that a representative of MTG_L, Inc. be present during grading operations to evaluate areas of seepage. Drainage devices for reduction of water accumulation can be recommended should these conditions occur.

Water should not be allowed to collect in the foundation excavation, on floor slab areas, or on prepared subgrades of the construction area either during or after construction. Undercut or excavated areas should be sloped to facilitate removal of any collected rainwater, groundwater, or surface runoff. Positive site drainage should be provided to reduce infiltration of surface water around the perimeter of the building and beneath the floor slabs. The grades should be sloped away from the building and surface drainage should be collected and discharged such that water is not permitted to infiltrate the backfill and floor slab areas of the building.

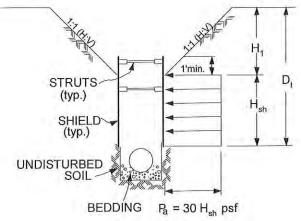
4.14.3 TEMPORARY EXCAVATIONS AND SHORING

Short term temporary excavations in existing soils may be safely made at an inclination of 1:1 (horizontal to vertical) or flatter. If vertical sidewalls are required in excavations greater than 5 feet in depth, the use of cantilevered or braced shoring is recommended. Excavations less than 5 feet in depth may be constructed with vertical sidewalls without shoring or shielding. Our recommendations for lateral earth pressures to be used in the design of cantilevered and/or braced shoring are presented below. These values incorporate a uniform lateral pressure of 72 psf to provide for the normal construction loads imposed by vehicles, equipment, materials, and workmen on the surface adjacent to the trench excavation. However, if vehicles, equipment, materials, etc. are kept a minimum distance equal to the height of the excavation away from the edge of the excavation, this surcharge load need not be applied.



SHORING DESIGN: LATERAL SHORING PRESSURES

Design of the shield struts should be based on a value of 0.65 times the indicated pressure, Pa, for the approximate trench depth. The wales and sheeting can be designed for a value of 2/3 the design strut value.



HEIGHT OF SHIELD, $H_{\rm sh}$ = DEPTH OF TRENCH, $D_{\rm t}$, MINUS DEPTH OF SLOPE, $H_{\rm 1}$ TYPICAL SHORING

DETAIL

Placement of the shield may be made after the excavation is completed or driven down as the material is excavated from inside of the shield. If placed after the excavation, some overexcavation may be required to allow for the shield width and advancement of the shield. The shield may be placed at either the top or the bottom of the pipe zone. Due to the anticipated thinness of the shield walls, removal of the shield after construction should have negligible effects on the load factor of pipes. Shields may be successively placed with conventional trenching equipment.

Vehicles, equipment, materials, etc. should be set back away from the edge of temporary excavations a minimum distance of 15 feet from the top edge of the excavation. Surface waters should be diverted away from temporary excavations and prevented from draining over the top of the excavation and down the slope face. During periods of heavy rain, the slope face should be protected with sandbags to prevent drainage over the edge of the slope, and a visqueen liner placed on the slope face to prevent erosion of the slope face.

Periodic observations of the excavations should be made by the geotechnical consultant to verify that the soil conditions have not varied from those anticipated and to monitor the overall condition of the temporary excavations over time. If at any time during construction conditions are encountered which differ from those anticipated, the geotechnical consultant should be contacted and allowed to analyze the field conditions prior to commencing work within the excavation. All Cal/OSHA construction safety orders should be observed during all underground work.

4.14.4 UTILITY TRENCHES

All Cal/OSHA construction safety orders should be observed during all underground work. All utility trench backfill within street right of way, utility easements, under or adjacent to sidewalks, driveways, or building pads should be observed and tested by the geotechnical consultant to verify proper compaction. Trenches excavated adjacent to foundations should not extend within the footing influence zone defined as the area within a line projected at a 1:1 (horizontal to vertical) drawn from the bottom edge of the footing. Trenches crossing perpendicular to foundations should be excavated and backfilled prior to the construction of the foundations. The excavations should be backfilled in the presence of the geotechnical engineer and tested to verify adequate compaction beneath the proposed footing.

Utilities should be bedded and backfilled with clean sand or approved granular soil to a depth of at least 1-foot over the pipe. The bedding materials shall consist of sand, gravel, crushed aggregates, or native soils that are free draining with a sand equivalence of not less than 30. The bedding should be uniformly watered and compacted to a firm condition for pipe support.

The remainder of the backfill shall be typical on-site soil or imported soil which should be placed in lifts not exceeding 8 inches in thickness, watered or aerated to near optimum moisture content, and mechanically compacted to at least 90% of maximum dry density (ASTM D1557).

The bedding and backfill materials and placement shall conform to the requirements of the latest Standard Specifications for Public Works Construction (Greenbook).

4.14.5 SITE DRAINAGE

The site should be drained to provide for positive drainage away from structures in accordance with the building code and applicable local requirements. Unpaved areas should slope no less than 2% away from structure. Paved areas should slope no less than 1% away from structures. Concentrated roof and surface drainage from the site should be collected in engineered, non-erosive drainage devices and conducted to a safe point of discharge. The site drainage should be designed by a civil engineer.

4.15 GEOTECHNICAL OBSERVATION/TESTING OF EARTHWORK OPERATIONS

The recommendations provided in this report are based on preliminary design information and subsurface conditions as interpreted from the investigation. Our preliminary conclusion and recommendations should be reviewed and verified during site grading, and revised accordingly if exposed Geotechnical conditions vary from our preliminary findings and interpretations. The Geotechnical consultant should perform Geotechnical observation and testing during the following phases of grading and construction:

- During site grading and overexcavation.
- During foundation excavations and placement.
- During drilled pier (CIDH) foundation construction.
- Upon completion of retaining wall footing excavation prior to placing concrete.
- During excavation and backfilling of all utility trenches
- During processing and compaction of the subgrade for the access and parking areas and prior to construction of pavement sections.
- When any unusual or unexpected Geotechnical conditions are encountered during any phase of construction.

5.00 LIMITATIONS

The findings, conclusions, and recommendations contained in this report are based on the site conditions as they existed at the time of MTG_L, Inc.'s investigation, and further assume that the subsurface conditions encountered during MTG_L, Inc.'s investigation are representative of conditions throughout the site. Should subsurface conditions be encountered during construction that are different from those described in this report, this office should be notified immediately so that our recommendations may be re-evaluated.

This report was prepared for the exclusive use and benefit of the owner, architect, and engineer for evaluating the design of the facilities as it relates to geotechnical aspects. It should be made available to prospective contractors for information on factual data only, and not as a warranty of subsurface conditions included in this report.

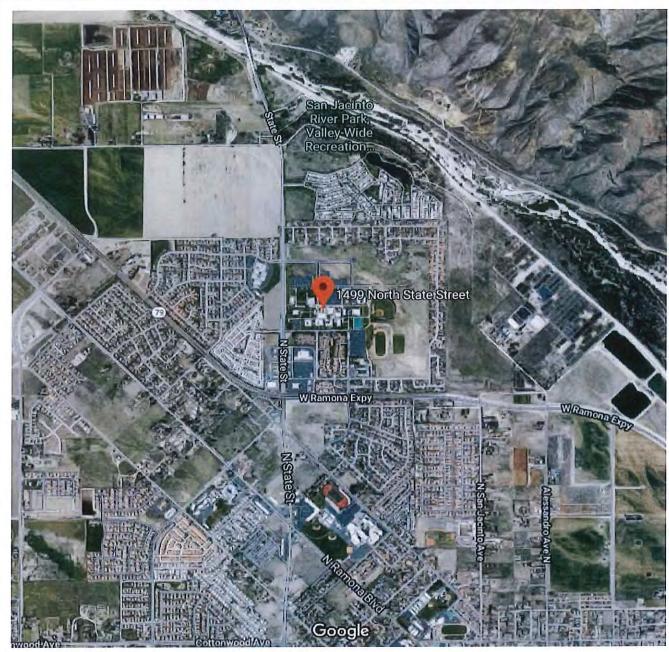
MTG_L, Inc.'s investigation was performed using the standard of care and level of skill ordinarily exercised under similar circumstances by reputable soil engineers and geologists currently practicing in this or similar localities. No other warranty, express or implied, is made as to the conclusions and professional advice included in this report.

This firm does not practice or consult in the field of safety engineering. MTG_L, Inc.'s does not direct the Contractor's operations, and are not responsible for their actions. The contractor will be solely and completely responsible for working conditions on the job site, including the safety of all persons and property during performance of the work. This responsibility will apply continuously and will not be limited to MTG_L, Inc.'s normal hours of operation.

The findings of this report are considered valid as of the present date. However, changes in the conditions of a site can occur with the passage of time, whether they are due to natural events or to human activities on this or adjacent sites. In addition, changes in applicable or appropriate codes and standards may occur, whether they result from legislation or the broadening of knowledge.

Accordingly, this report may become invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and revision as changed conditions are identified.

FIGURES



Source: Google Maps

SITE LOCATION MAP



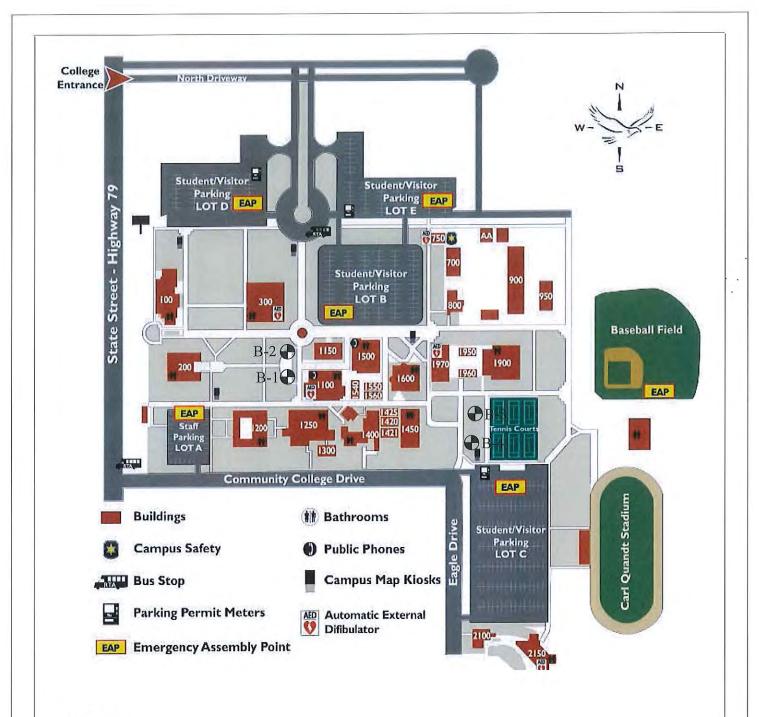
Mount San Jacinto College Shade Structures 1499 N. State St. San Jacinto, CA 92583 Project Number: 8767A21

Scale: Not to Scale

Date: 10/22/19

Figure No. 1





LEGEND

→B-4 Boring Location

BORING LOCATION MAP

Mt. San Jacinto College Campus Shade Structure

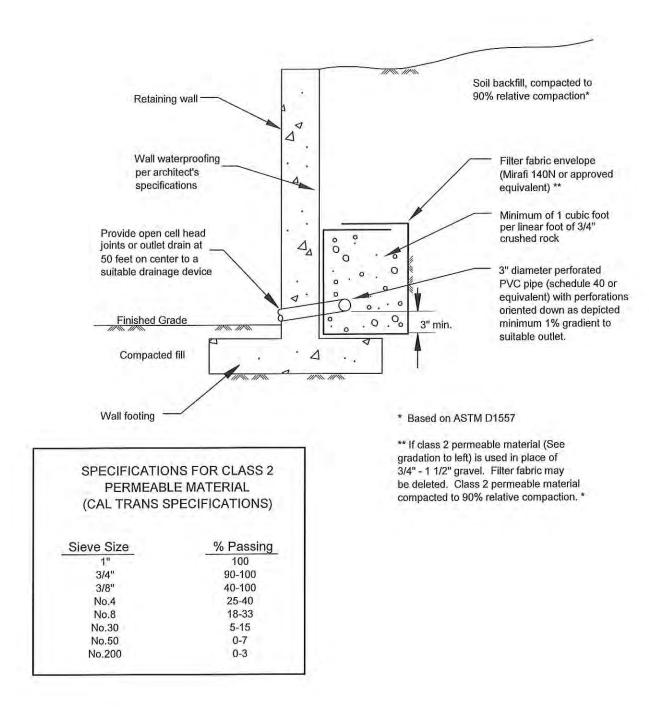
MIG

1499 N. State St. San Jacinto, CA 92583 Project Number: 8767A21

Scale: Not to Scale

Date: 10/22/19

Figure No. 2



RETAINING WALL DRAINAGE DETAIL

APPENDIX A

REFERENCES

APPENDIX A

REFERENCES

Federal Emergency Management Agency, Revised August 18, 2004, Flood Insurance Rate Map, Riverside County, FEMA Map 06065C1490G.

Inland Foundation Engineering, Inc., LLC, 2016, Geotechnical Investigation/Geoseismic Evaluation, Athletic Facilities Improvements, Mt. San Jacinto College, 1499 North State Street, San Jacinto, California, Project No. M218-029, dated October 20, 2016 City of Menifee General Plan, 2010.

Western Municipal Water District, personal conversation, November 5, 2019.

APPENDIX B FIELD EXPLORATION PROGRAM

APPENDIX B

FIELD EXPLORATION PROGRAM

The subsurface conditions for this Geotechnical Investigation were explored by excavating exploratory borings with an 8-inch hollow-stem-auger to a maximum depth of 31 feet below existing grade. All drive samples were obtained by California Tube or SPT Samplers. The approximate locations of the borings are shown on the Boring Location Map (Figure 2). The field exploration was performed under the supervision of a Geotechnical Engineer who maintained a continuous log of the subsurface soils encountered and obtained samples for laboratory testing.

Subsurface conditions are summarized on the accompanying Logs of Borings. The logs contain factual information and interpretation of subsurface conditions between samples. The stratum indicated on these logs represents the approximate boundary between earth units and the transition may be gradual. The logs show subsurface conditions at the dates and locations indicated, and may not be representative of subsurface conditions at other locations and times.

Identification of the soils encountered during the subsurface exploration was made using the field identification procedure of the Unified Soils Classification System (ASTM D2488). A legend indicating the symbols and definitions used in this classification system and a legend defining the terms used in describing the relative compaction, consistency or firmness of the soil are attached in this appendix. Bag samples of the major earth units were obtained for laboratory inspection and testing, and the in-place density of the various strata encountered in the exploration was determined

The exploratory borings were located in the field by using cultural features depicted on a preliminary site plan provided by the client. Each location should be considered accurate only to the scale and detail of the plan utilized.

The exploratory borings were backfilled with native soil cuttings, compacted, and patched with rapid-set concrete at Boring locations B1 and B2.

	ils is eve	GRAVELS are more than half of	Clean Gravels (less than 5% fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
	Coarse-grained soils >1/2 of materials is larger than #200 sieve	coarse fraction larger than #4 sieve	Gravels with fines	GP	Poorly-graded gravels, gravel-sand mixtures little or no fines
	rse-gra 2 of ma r than	SANDS are more than half of	Clean Sands (less than 5% fines)	GM	Silty Gravels, poorly-graded gravel- sand-silt mixtures
4	Coa >1// large	coarse fraction larger than #4 sieve	Sands with fines	GC	Clayey Gravels, poorly-graded gravel- sand-clay mixtures
				sw	Well-graded sands, gravelly sands, little or no fines
	11	an ma lave	or Avia	SP	Poorly-graded sands, gravelly sands, little or no fines
	srials	SILTS AND CLAYS Liquid Limit Less than 50		SM	Silty Sands, poorly-graded sands- gravel-clay mixtures
	Fine-grained Soils > 1/2 of materials is smaller than #200 sieve	Less tha	in 50	SC	Clayey Sands, poorly-graded sand- gravel-silt mixtures
	>1/2 c n #200			ML	Inorganic clays of low to med plasticity, gravelly, sandy, silty, or lean clays
	l Soils ler tha			CL	Inorganic clays of low to med plasticity, gravelly, sandy, silty, or lean clays
	grainec s smal	200 000 0000	COLUMN CO	OL	Organic silts and clays of low plasticity
	Fine-g	SILTS AND	Limit	МН	Inorganic silts, micaceous or diatomaceous fine sands or silts
		Greater than 50		СН	Inorganic clays of high plasticity, fat clays
				ОН	Organic silts and clays of medium to high plasticity
		Highly Organic Soils		PT	Peat, humus swamp soils with high organic content

			GRAIN SIZE		SIZE PROPORTION
Des	cription	Sieve Size	Sieve Size Grain Size Approximate Size		Trace – Less than 5%
Boulders		>12"	>12"	Larger than basketball-sized	Few – 5% to 10%
Cobbles		3"- 12"	3"- 12"	Fist-sized to basketball-sized	Little – 15% to 20%
	Coarse	3/4"- 3"	3/4"- 3"	Thumb-sized	Some – 30% to 45%
Gravel	Fine	#4 - 3/4"	0.19" - 0.75"	Peat-sized to thumb-sized	Mostly – 50% to 100%
	Coarse	#10 - #4	0.079" - 0.19"	Rock salt-sized to pea-sized	MOISTURE CONTENT
Sand	Medium #40 - #10 0.017" - 0.079" S		Sugar-sized to rock salt-sized	Dry - Absence of moisture	
	Fine	#200 - #40	0.0029" - 0.017"	Flour-sized to sugar-sized	Moist - Damp but not visible
Fines		Passing #200	<0.0029"	Flour-sized or smaller	Wet - Visible free water

CONSIST	ENCY FINE GRAI	NED SOILS	RELATIVE DENSITY COARSE GRAINED SOILS			
Apparent Density	SPT (Blows/Foot)	Mod CA Sampler (Blows/Foot)	Apparent Density	SPT (Blows/Foot)	Mod CA Sampler (Blows/Foot)	
Very Soft	<2	<3	Very Loose	<4	<5	
Soft	2-4	3-6	Loose	4-10	5-12	
Firm	5-8	7-12	Medium Dense	11-30	13-35	
Stiff	9-15	13-25	Dense	31-50	36-60	
Very Stiff	16-30	26-50	Very Dense	>50	>60	
Hard	>30	>50				

BORING NO. 1

Logged by: JR Method of Drilling: 8-inch diameter hollw-stem auger - CME 75 Date Drilled: 10/17/2019

Elevation:

BLOWS PER FT	DRIVE SAMPLE	BULK SAMPLE	DENSITY (PCF)	MOISTURE (%)	DESCRIPTION	LAB TESTS
-					Surface: PCC	
13	CAL		96	8	Silty Sand (SM), Brown, Slightly Moist, Medium Dense	% Fines = 23.8
14	CAL		85	6	Silty Sand (SM), Dark Brown, Slightly Moist, Medium Dense	
13	CAL		102	3	Coarse Sand (SP), Brown, Slightly Moist, Medium Dense	
13	CAL		118	13	Clayey Sand (SC), Dark Brown, Slightly Moist, Medium Dense	
22	CAL				Fine to Coarse Grained Sand (SW), Light Brown, Slightly Moist, Medium Dense	
21	CAL		107	6	Fine to Coarse Grained Sand (SW), Light Brown, Slightly Moist, Medium Dense	
44	CAL				Fine to Coarse Grained Sand (SW), Light Brown, Slightly Moist, Dense	

BORING NO. 1 (Continued)

Date Drilled: 10/17/2019 Logged by: JR

Method of Drilling: 8-inch diameter hollw-stem auger - CME 75

Elevation:

DEPTH (FT)	BLOWS PER FT DRIVE SAMPLE BULK SAMPLE DENSITY (PCF) MOISTURE (%)		MOISTURE (%)	DESCRIPTION	LAB TESTS	
31	46	CAL	120	9	(Continued) Fine to Coarse Grained Sand (SW), grayish brown, Wet, Medium Dense	
32 33 34					End of Boring at 31' as Planned Groundwater encountered at 31' Backfilled with Tailings on 10/17/19	
35						
36						
37						
38						
39						
40						
41			,			N.
42						ľ
43						
45						
46						
47						
48						
49				١		
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						

BORING NO. 2 Date Drilled: 10/17/2017 Logged by: JR Elevation: 8-inch diameter hollow-stem auger - CME 75 Method of Drilling: DRIVE SAMPLE **BULK SAMPLE** BLOWS PER FT DENSITY (PCF) MOISTURE (%) DEPTH (FT) LAB TESTS DESCRIPTION Surface: PCC 1 2 Fine to Coarse Grained Sand (SW), Light Brown, Slightly Moist, Medium Dense 15 3 4 5 Sand/Silty Sand (SM), Brown, Slightly Moist, Medium Dense 15 99 3 CAL 6 7 8 9 Silty Sand (SM), Dark Brown, Slightly Moist, Medium Dense 30 CAL 91 9 10 Silty Sand (SM), Brown, Medium Dense 18 CAL 118 6 11 12 13 14 15 Fine to Coarse Grained Sand (SW), Light Brown, Slightly Moist, Medium Dense CAL 114 16 End of Boring at 16' as Planned 17 No Groundwater Encountered Backfilled with Tailings on 10/17/19 18 19 20 21 22 23 24 25 26 27 28 29 30

BORING NO. 3 Date Drilled: 10/17/2017 Logged by: JR Elevation: 8-inch diameter hollow-stem auger - CME 75 Method of Drilling: DRIVE SAMPLE **BULK SAMPLE BLOWS PER FT** DENSITY (PCF) MOISTURE (%) DEPTH (FT) LAB TESTS DESCRIPTION Surface: Lawn 1 % Fines = 29 2 Silty Sand (SM), Brown, Medium Dense 108 8 25 3 4 5 Silty Sand (SM), Dark Brown, Slightly Moist, Medium Dense 20 CAL 112 6 6 7 8 Fine Silty Sand (SM), Dark Brown, Slightly Moist, Loose 12 CAL 115 9 10 CAL 113 Fine Silty Sand (SM), Dark Brown, Slightly Moist, Loose 10 8 11 12 13 14 15 Fine to Coarse Grained Sand (SW), Light Brown, Slightly Moist, Medium Dense 121 19 CAL 16 17 18 19 20 Fine to Coarse Grained Sand (SW), Light Brown, Slightly Moist, Dense 39 CAL 21 22 23 24 25 CAL 121 Silty Sand (SM), Light Brown, Slightly Moist, Medium Dense 41 26 27 28 29 30

	ged by nod of		JR ng:		8-ind	BORING NO. 3	Date Drilled: 10/17/2017 Elevation:
ОЕРТН (FT)	BLOWS PER FT	DRIVE SAMPLE	BULK SAMPLE	DENSITY (PCF)	MOISTURE (%)	DESCRIPTION	LAB TESTS
- 31	46	CAL				Fine to Coarse Grained Sand (SW), Light Brown, Slightly Mois	st, Dense
- 32 - 33						End of Boring at 31' as Planned No Groundwater Encountered Backfilled with Tailings on 10/17/19	
- 34							
- 35 - 36							
- 36 - 37							
- 38							
- 39							
- 40							
- 41							
- 42							
- 43							
- 44							
- 45							
- 46							
- 47							1
- 48							
- 49							<u> </u>
- 50							
- 51							
- 52							
- 53 - 54							
- 55 - 55							
- 56						8	
- 57							
- 58							
- 59							
- 60							

BORING NO. 4 Date Drilled: 10/17/2017 Logged by: JR Elevation: 8-inch diameter hollow-stem auger - CME 75 Method of Drilling: DRIVE SAMPLE BULK SAMPLE **BLOWS PER FT** DENSITY (PCF) MOISTURE (%) DEPTH (FT) LAB TESTS DESCRIPTION Surface: Lawn 1 2 Silty Sand (SM), Brown, Medium Dense 24 CAL 3 4 5 Sand/Silty Sand (SP/SM), Light Brown, Slightly Moist, Medium Dense 108 3 18 CAL 6 7 8 Fine Silty Sand (SM), Brown, Slightly Moist, Medium Dense 15 CAL 116 9 9 10 Fine Silty Sand (SM), Light Brown, Slightly Moist, Loose 114 CAL 10 12 11 12 13 14 15 Sand/Silty Sand (SW/SM), Light Brown, Slightly Moist, Medium Dense 16 CAL 118 16 End of Boring at 16' as Planned 17 No Groundwater Encountered Backfilled with Tailings on 10/17/19 18 19 20 21 22 23 24 25 26 27 28 29 30

APPENDIX C LABORATORY TESTING PROCEDURES

APPENDIX C

LABORATORY TESTING PROCEDURES

1. Classification

Soils were classified visually, generally according to the Unified Soil Classification System. Classification tests were also completed on representative samples in accordance with ASTM D1140 ("200 Wash") and ASTM D422 (Particle-Size Analysis of Soils). The 200 Wash test results are included on the Log of Borings while the Particle-Size Analysis test results are presented in this Appendix.

2. Maximum Density

Maximum density tests were performed on a representative bag sample of the near surface soils in accordance with ASTM D1557. Graphical plots of the tests are included in this Appendix.

3. Direct Shear

Direct Shear Tests were performed on in-place samples of site soils in accordance with ASTM D3080. Graphical plots of the tests are included in this Appendix.

4. Consolidation

Consolidation tests were performed on representative, relatively undisturbed samples of the underlying soils to determine compressibility characteristics in accordance with ASTM D2435. Test results are presented in this Appendix.

5. R-Value Testing

R-Value testing was completed in substantial compliance with California Test Method 301. Graphical plots of the tests are included in this Appendix.

6. Expansion Index

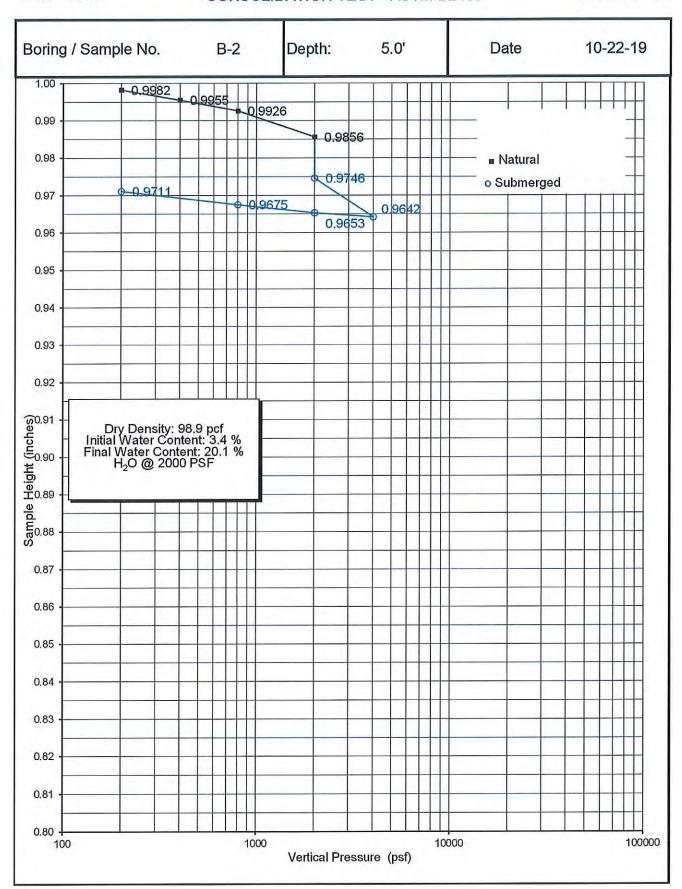
Expansion Index testing was completed in accordance with the standard test method ASTM D4829. Test results are presented below.

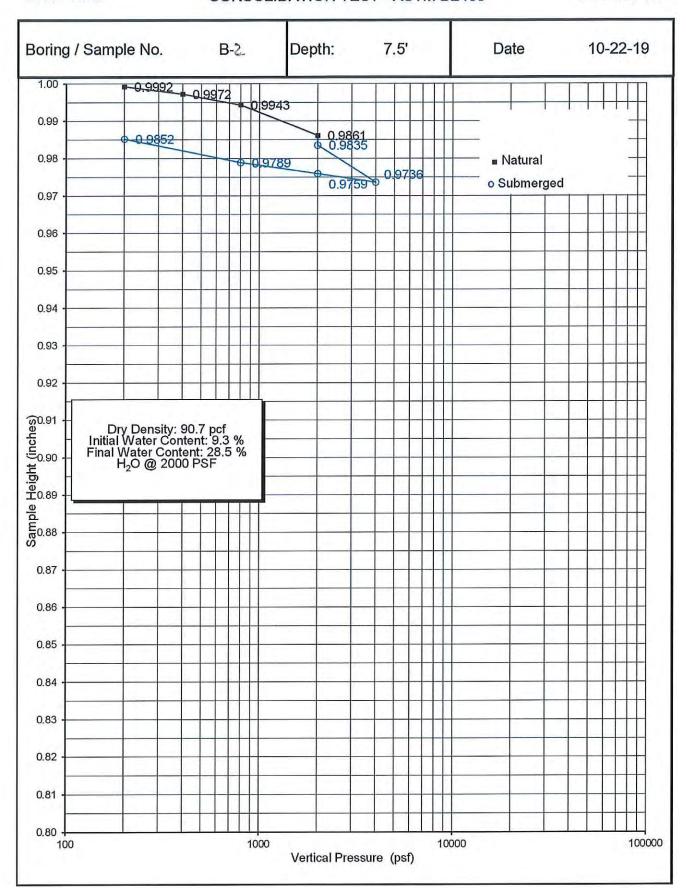
Sample	Expansion	Expansion
Location	Index	Classification
B-1 @ 0-5 ft	0	Very Low

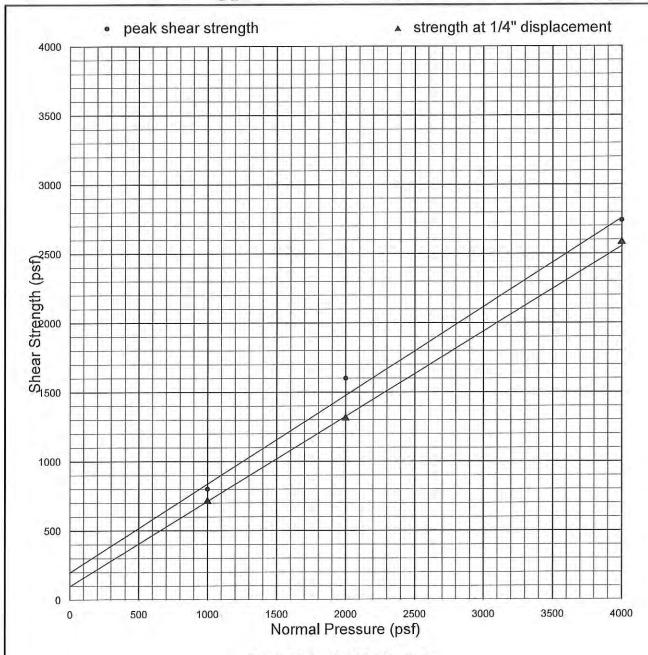
7. Corrosion

Chemical testing was performed on representative samples to determine the corrosion potential of the onsite soils. Testing consisted of pH, chlorides (CTM 422), soluble sulfates (CTM 417), and resistivity (CTM 643). Test results are as follows:

Sample Location	рН	Chlorides (ppm)	Sulfates (ppm)	Resistivity (ohm-cm
B-1 @ 0-5 ft	7.9	7	131	8,500



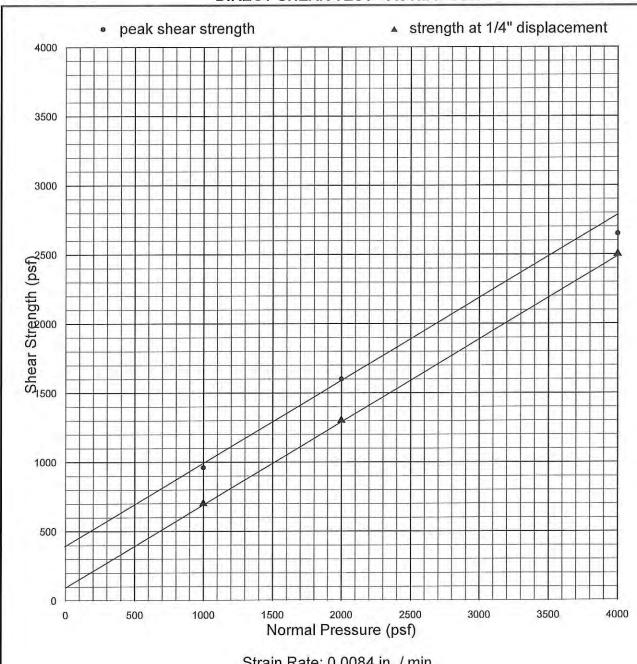




Strain Rate: 0.0084 in. / min.

Sample Type B-1 @ 7.5' Undisturbed & Saturated	<u>Description</u> Clayey Sand	Dry Density (pcf) 102.3	Initial W.C. (%) 3.0	Final W.C. (%) 25.3	
Normal Pressure (psf)	Peak Shear	Strength (psf)	JItimate Shear Stre	ength (psf)	
1000 2000 4000	160 27 ² C :	00 @ 0.1005" 00 @ 0.1105" 40 @ 0.1505" = 200 psf = 32.5 deg.	710 1310 2580 C = 100 psf ϕ = 31.5 deg.		

Date: 10-30-19

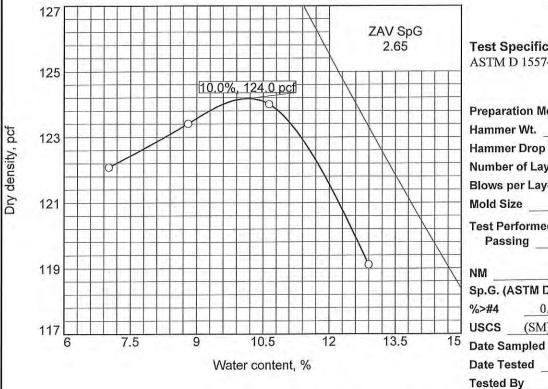


Strain Rate: 0.0084 in. / min.

Sample Type B-4 @ 7.5' Undistu & Satur		Dry Density (pcf) 116.2	Initial W.C. (%) 9.3	Final W.C. (%) 18.3	
Normal Pressure (ps	<u>f)</u> <u>Peak Shear</u>	Strength (psf)	Iltimate Shear Stre	ength (psf)	
1000 2000 4000	160 265 C	60 @ 0.0950" 00 @ 0.0950" 50 @ 0.1250" = 400 psf = 31 deg.	700 1300 2500 C = 100 psf $\phi = 31 \text{ deg.}$		

Date: 10-30-19

COMPACTION TEST REPORT



Curve No. 784

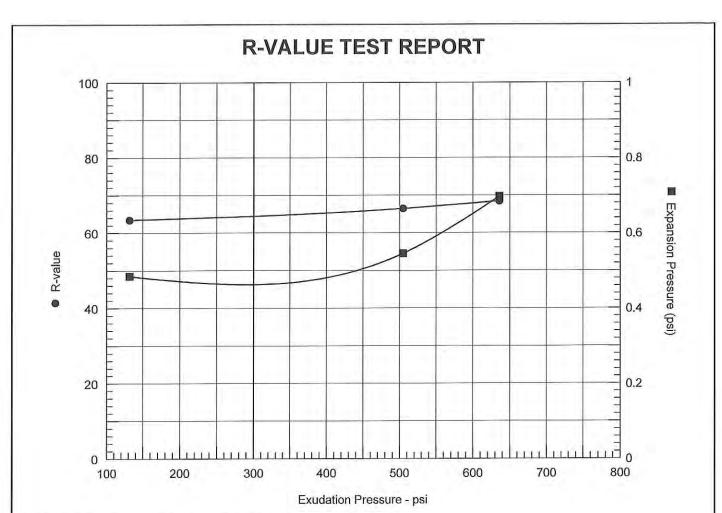
Test Specification: ASTM D 1557-12 Method A Modified

Prepara	tion Metho	d M	IOIST		
Hamme	r Wt.	10 lb.			
Hamme	r Drop	18 i	n.		
Number	of Layers	f	ive		
Blows p	er Layer	2	5		
Mold Si	ze	0.03333 ст	ı. ft.		
	ing LL		Sieve		
Sp.G. (A	STM D 854	4)	2.65		
%>#4	0.8	% <no.200< td=""><td>23.8</td></no.200<>	23.8		
uscs	(SM)	AASHTO			
Date Sa	mpled	10/17/19			
Date Te	sted	10/24/19			

TESTING DATA

_						
	1	2	3	4	5	6
WM + WS	6156.0	6200.0	6159.0	6101.0		
WM	4126.0	4126.0	4126.0	4126.0		
WW + T #1	268.2	261.2	284.6	306.9	1	
WD + T #1	246.5	236.1	252.1	286.8		
TARE #1	0.0	0.0	0.0	0.0		
WW + T #2						
WD + T #2						4
TARE #2						
MOISTURE	8.8	10.6	12.9	7.0		
DRY DENSITY	123.4	124.0	119.1	122.1		

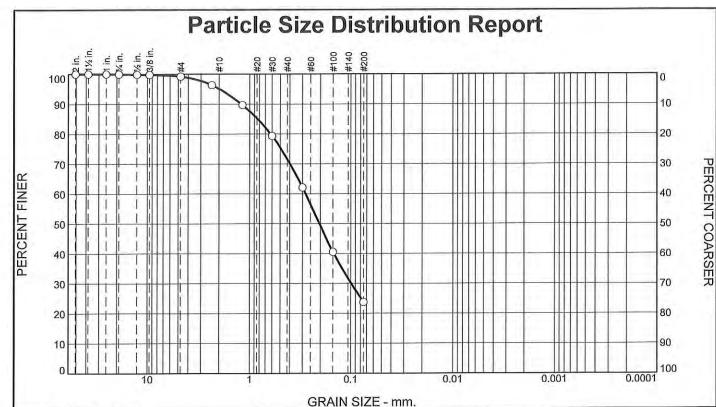
TEST RESULTS	Material Description
Maximum dry density = 124.0 pcf	MD BRN SILTY SAND W TRACE PEA GRAVEL
Optimum moisture = 10.0 %	Remarks:
Project No. 8767A21 Client:	SAMPLED BY: JR
Project: SHADE STRUCTURE	
O Location: BI @ 0-5' BULK Sample Number: 784	Checked by: CF
MTGL, Inc.	Title: LAB SUPER
Anaheim, CA	Figure



Resistance R-Value and Expansion Pressure - ASTM D2844

No.	Compact. Pressure psi	Density pcf	Moist.	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	350	113.9	11.5	0.48	36	2.61	132	60.8	63.5
2	350	120.9	10.5	0.55	32	2.60	505	64.1	66.5
3	350	121.0	9.7	0.70	29	2.58	636	66.7	68.5
	330	12110	3.17						Ī

Test Results	Material Description
R-value at 300 psi exudation pressure = 64.5 Exp. pressure at 300 psi exudation pressure = 0.46 psi	BRN SILTY SAND W TRACE PEA GRAVEL
Project No.: 8767A21 Project: SHADE STRUCTURE Location: B3 @ 0-5' BULK Sample Number: 784 Date: 10/30/2019	Tested by: RS Checked by: CF Remarks:
R-VALUE TEST REPORT MTGL, Inc.	Figure



0/ .011	% Gr	avel		% Sand			% Fines
% +3"	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.1	0.7	4.1	23.5	47.8		23.8

Size	Finer	Spec.* (Percent)	Pass? (X=Fail)
2.0	100.0		
1.5	100.0		
1	100.0		
3/4	99.9		
1/2	99.9		
3/8	99.8	1	
#4	99.2		
#8	96.3		
#16	89.6		
#30	79,3		
#50	62,1		
#100	40.6		
#200	23.8		

	Material	Description	on	
MD BRN SILTY	SAND W T	RACE PEA	GRAV	EL.
Atte	rberg Limi LL=	ts (ASTM	D 4318 PI=	9)
	Class	ification		
USCS (D 2487)=	Jidoc	AASHTO (I	M 145)=	
		ficients		
D ₉₀ = 1.2171 D ₅₀ = 0.2044 D ₁₀ =	D ₃₀ = 0.0989		D ₆₀ = D ₁₅ = C _c =	0,2803
	Re	marks		
SAMPLED BY: J F.M.=1.33	ROWERD.	INK		
Date Received: Tested By: 1	RS	Date To	ested:	10/21/19
Checked By:	3.0			
	LAB SUPEI	?		

(no specification provided)

Location: B1 @ 0-5' BULK Sample Number: 784

Date Sampled: 10/17/19

MTGL, Inc.

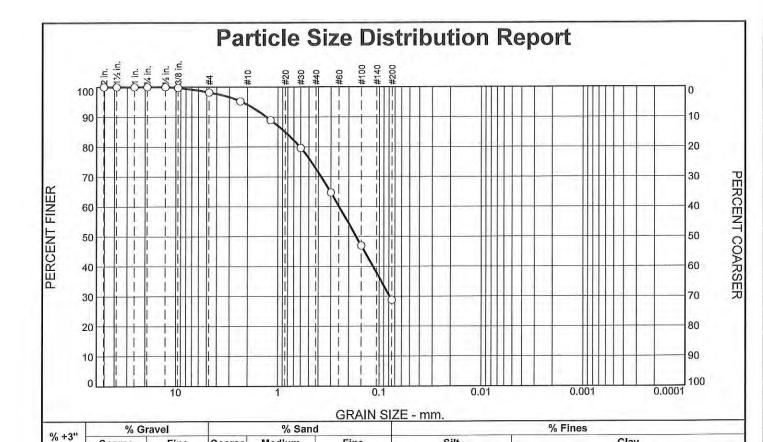
Client: Project:

SHADE STRUCTURE

Anaheim, CA

Project No: 8767A21

Figure



Fine

44.0

Silt

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail
2.0	100.0		
1.5	100.0		
1	100.0		
3/4	100.0		
1/2	100.0		
3/8	99.7		
#4	98.2	į.	
#8	95.3		
#16	88.9		
#30	79.6		
#50	64.7		
#100	46.9		
#200	28.8		

Fine

1.8

Coarse

4.1

Medium

21.3

	Material D	escription	
BRN SILTY SAN	D W TRACE	E PEA GRAVI	EL
Atte	rberg Limits	(ASTM D 4	318) I=
PL=	LL=		1-
	Classif	ication	
USCS (D 2487)=	(SM) A	ASHTO (M 14	5)=
	Coeffi	cients	
D ₉₀ = 1.3002 D ₅₀ = 0.1686 D ₁₀ =	D ₈₅ = 0.85 D ₃₀ = 0.07 C _u =	20 D ₆ 85 D ₁ C _c	•
	Rem	arks	
SAMPLED BY: J	R		
F.M.=1.27			
Date Received:		Date Teste	d: 10/21/19
Tested By: I	RS		
Checked By:	CF		
Title: I	AB SUPER		
Title. I	TATION OUT DIX		

28.8

Location: B3 @ 0-5' BULK Sample Number: 784

Coarse

0.0

0.0

Client:

Project:

SHADE STRUCTURE

Anaheim, CA

MTGL, Inc.

Project No: 8767A21

Figure

Date Sampled: 10/17/19

Clay

APPENDIX D

STANDARD GRADING SPECIFICATIONS

APPENDIX D

GENERAL EARTHWORK AND GRADING SPECIFICATIONS

GENERAL

These specifications present general procedures and requirements for grading and earthwork as shown on the approved grading plans, including preparation of areas to be filled, placement of fill, installation of subdrains, and excavations. The recommendations contained in the attached geotechnical report are a part of the earthwork and grading specifications and shall supersede the provisions contained herein in the case of conflict. Evaluations performed by the Consultant during the course of grading may result in new recommendations, which could supersede these specifications, or the recommendations of the geotechnical report.

EARTHWORK OBSERVATION AND TESTING

Prior to the start of grading, a qualified Geotechnical Consultant (Geotechnical Engineer and Engineering Geologist) shall be employed for the purpose of observing earthwork procedures and testing the fills for conformance with the recommendations of the geotechnical report and these specifications. It will be necessary that the Consultant provide adequate testing and observation so that he may determine that the work was accomplished as specified. It shall be the responsibility of the Contractor to assist the Consultant and keep them apprised of work schedules and changes so that he may schedule his personnel accordingly.

It shall be the sole responsibility of the Contractor to provide adequate equipment and methods to accomplish the work in accordance with applicable grading codes or agency ordinances, these specifications and the approved grading plans.

Maximum dry density tests used to determine the degree of compaction will be performed in accordance with the American Society for Testing and Materials Test Method (ASTM) D1557.

PREPARATION OF AREAS TO BE FILLED

<u>Clearing and Grubbing:</u> All brush, vegetation and debris shall be removed or piled and otherwise disposed of.

<u>Processing:</u> The existing ground which is determined to be satisfactory for support of fill shall be scarified to a minimum depth of 6 inches. Existing ground, which is not satisfactory, shall be overexcavated as specified in the following section.

Overexcavation: Soft, dry, spongy, highly fractured or otherwise unsuitable ground, extending to such a depth that surface processing cannot adequately improve the condition, shall be overexcavated down to firm ground, approved by the Consultant.

<u>Moisture conditioning:</u> Overexcavated and processed soils shall be watered, dried-back, blended, and mixed as required to have a relatively uniform moisture content near the optimum moisture content as determined by ASTM D1557.

<u>Recompaction:</u> Overexcavated and processed soils, which have been mixed, and moisture conditioned uniformly shall be recompacted to a minimum relative compaction of 90 percent of ASTM D1557.

<u>Benching:</u> Where soils are placed on ground with slopes steeper than 5:1 (horizontal to vertical), the ground shall be stepped or benched. Benches shall be excavated in firm material for a minimum width of 4 feet.

FILL MATERIAL

General: Material to be placed as fill shall be free of organic matter and other deleterious substances, and shall be approved by the Consultant.

Oversize: Oversized material defined as rock, or other irreducible material with a maximum dimension greater than 12 inches, shall not be buried or placed in fill, unless the location, material, and disposal methods are specifically approved by the Consultant. Oversize disposal operations shall be such that nesting of oversized material does not occur, and such that the oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 feet vertically of finish grade or within the range of future utilities or underground construction, unless specifically approved by the Consultant.

<u>Import:</u> If importing of fill material is required for grading, the import material shall meet the general requirements.

FILL PLACEMENT AND COMPACTION

<u>Fill Lifts:</u> Approved fill material shall be placed in areas prepared to receive fill in near-horizontal layers not exceeding 6 inches in compacted thickness. The Consultant may approve thicker lifts if testing indicates the grading procedures are such that adequate compaction is being achieved with lifts of greater thickness. Each layer shall be spread evenly and shall be thoroughly mixed during spreading to attain uniformity of material and moisture in each layer.

<u>Fill Moisture</u>: Fill layers at a moisture content less than optimum shall be watered and mixed, and wet fill layers shall be aerated by scarification or shall be blended with drier material. Moisture conditioning and mixing of fill layers shall continue until the fill material is at uniform moisture content at or near optimum.

<u>Compaction of Fill:</u> After each layer has been evenly spread, moisture conditioned, and mixed, it shall be uniformly compacted to not less than 90 percent of maximum dry density in accordance with ASTM D1557. Compaction equipment shall be adequately sized and shall be either specifically designed for soil compaction or of proven reliability, to efficiently achieve the specified degree of compaction.

<u>Fill Slopes:</u> Compacting on slopes shall be accomplished, in addition to normal compacting procedures, by backrolling of slopes with sheepsfoot rollers at frequent increments of 2 to 3 feet as the fill is placed, or by other methods producing satisfactory results. At the completion of grading, the relative compaction of the slope out to the slope face shall be at least 90 percent in accordance with ASTM D1557.

Compaction Testing: Field tests to check the fill moisture and degree of compaction will be performed by the consultant. The location and frequency of tests shall be at the consultant's discretion. In general, these tests will be taken at an interval not exceeding 2 feet in vertical rise, and/or 1,000 cubic yards of fill placed. In addition, on slope faces, at least one test shall be taken for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope.

SUBDRAIN INSTALLATION

Subdrain systems, if required, shall be installed in approved ground to conform to the approximate alignment and details shown on the plans or herein. The subdrain location or materials shall not be changed or modified without the approval of the Consultant. The Consultant, however, may recommend and, upon approval, direct changes in subdrain line, grade or materials. All subdrains should be surveyed for line and grade after installation and sufficient time shall be allowed for the surveys, prior to commencement of fill over the subdrain.

EXCAVATION

Excavations and cut slopes will be examined during grading. If directed by the Consultant, further excavation or overexcavation and refilling of cut areas, and/or remedial grading of cut slopes shall be performed. Where fill over cut slopes are to be graded, unless otherwise approved, the cut portion of the slope shall be made and approved by the Consultant prior to placement of materials for construction of the fill portion of the slope.