

SAN JUAN UNIFIED SCHOOL DISTRICT

BOOK 1 OF 2: PROJECT MANUAL

UPS INFRASTRUCTURE UPGRADE AT THE FOLLOWING SITES:

Bid #	School Name	Address	City	ST	Zip	Entity #
19-122	Cameron Ranch Elementary	4333 Hackberry Ln.	Carmichael	CA	95608-1329	111244
19-122	Thomas Coleman (Pre-K)	6545 Beech Ave.	Orangevale	CA	95662-4011	111460
19-122	Grand Oaks Elementary	7901 Rosswood Dr.	Citrus Heights	CA	95621-1246	111312
19-122	Green Oaks Fundamental Elementary	7145 Filbert Ave.	Orangevale	CA	95662-2716	111454
19-122	Laurel Ruff Center Transition	5325 Garfield Ave.	Sacramento	CA	95841-3103	111915
19-122	Mariposa Avenue Elementary	7940 Mariposa Ave.	Citrus Heights	CA	95610-1513	111265
19-122	Orangevale Open K-8	5630 Illinois Ave	Fair Oaks	CA	95628-2948	111463
19-122	Thomas Kelly Elementary	6301 Moraga Dr.	Carmichael	CA	95608-1128	111241
19-122	Will Rogers Middle	4924 Dewey Dr.	Fair Oaks	CA	95628-4403	111350

Sacramento County

BID PACKAGE #19-122

SJUSD Project Number 392-9739-P1, Group B1

E Rate Year 22

SAN JUAN UNIFIED SCHOOL DISTRICT, PROCUREMENT SECTION

Submitted to the San Juan Unified School District by:

DISTRICT REPRESENTATIVE:

**KMM Services, Inc.
5433 El Camino Ave., Suite 5
Carmichael, CA 95608**

DESIGNER:

**KMM Services, Inc.
5433 El Camino Ave., Suite 5
Carmichael, CA 95608**

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Section 00 11 13 - NOTICE TO BIDDERS

ARTICLE 1. GENERAL

Section 1.01 Notice is hereby given that the Board of Education of the San Juan Unified School District of Sacramento County, hereinafter referred to as "District," will receive sealed Proposals for

UPS Infrastructure Upgrade Project, BP #19-122, Group B1, E-rate, for the following sites:

Bid #	School Name	Address	City	ST	Zip	Entity #
19-122	Cameron Ranch Elementary	4333 Hackberry Ln.	Carmichael	CA	95608-1329	111244
19-122	Grand Oaks Elementary	7901 Rosswood Dr.	Citrus Heights	CA	95621-1246	111312
19-122	Green Oaks Fundamental Elementary	7145 Filbert Ave.	Orangevale	CA	95662-2716	111454
19-122	Laurel Ruff Center Transition	5325 Garfield Ave.	Sacramento	CA	95841-3103	111915
19-122	Mariposa Avenue Elementary	7940 Mariposa Ave.	Citrus Heights	CA	95610-1513	111265
19-122	Orangevale Open K-8	5630 Illinois Ave	Fair Oaks	CA	95628-2948	111463
19-122	Thomas Coleman (Pre-K)	6545 Beech Ave.	Orangevale	CA	95662-4011	111460
19-122	Thomas Kelly Elementary	6301 Moraga Dr.	Carmichael	CA	95608-1128	111241
19-122	Will Rogers Middle	4924 Dewey Dr.	Fair Oaks	CA	95628-4403	111350

The San Juan Unified School District is soliciting bids from Responders for equipment and installation supporting a contract which is E-rate Eligible.

Notice is hereby given that the Project is a public works project within the requirements of Division 2, Part 7, Chapter 1 of the California Labor Code, and that each bidder and listed subcontractor is required to be registered pursuant to Labor Code section 1725.5 at the time of bidding. **Failure of the bidder to be registered at the time of bidding shall render the bid non-responsive and unavailable for award. Bidder's listing of an unregistered subcontractor may render the bid non-responsive and unavailable for award unless such failure is the result of an inadvertent error and the provisions of Labor Code section 1771.1 apply.**

License required:C-10

Engineer's Estimate: \$170,000.00

Proposals are due:

BID INFORMATION

Location: San Juan Unified School District, **Facilities Business Department**
Contact: 5320 Hemlock Street, Front Office, Sacramento, CA 95841
Contact: Maria Mahon
Date: January 18, 2019
Time: 2:00PM

At this time such proposals will be opened and publicly read.

Section 1.02 Pre-bid conference will be held at:

PRE-BID CONFERENCE INFORMATION

Start Location: Cameron Ranch Elementary, 4333 Hackberry Ln. Carmichael, CA 95608-1329.
Meet at the flag pole at the front of the campus.
Contact: Chris Cluff, KMM Services, Inc.
Date: December 17, 2018
Time: 1:00PM
Continuing Location: N/A:

1
2 **Attendance for duration of meeting is mandatory and each prime contract bidder (hereinafter referred to as**
3 **“Bidder” or “Bidders”)** shall be required to certify, as part of its Proposal Form, that it attended the entirety
4 **of the Pre-Bid conference. Failure to include the certification will render the bid non-responsive.** For all Pre-
5 Bid visits (other than the Pre-bid conference), Bidder must make an appointment with the school prior to visiting the
6 Site.

7
8 Section 1.03 Overall coordination of the Project will be the responsibility of the District Representative. All inquiries
9 regarding the bid are to be directed to **Maria Mahon, Facilities Business Department,**
10 maria.mahon@sanjuan.edu, **916-971-7283.**

11
12 Section 1.04 Contracts for construction will be direct prime contracts with the District. All Project procedures and
13 documents are designed to facilitate delivery of the Project through prime construction contracts. The District's forms
14 shall be used for all documents. Bidders shall read and review the Bidding Documents carefully, and shall familiarize
15 themselves thoroughly with all requirements.

16
17 Section 1.05 Each bid proposal shall conform to the requirements of the Contract Documents. Bid documents will
18 be available on December 14, 2018 for download from the District website at <http://www.sanjuan.edu/purchasing>.

19
20 The District is soliciting qualified contractors to submit plans which should include detailed billing and include
21 hardware, shipping, installation and taxes.

22
23 Bids shall remain firm through SLD approval, execution, and duration of the proposed contract. In the event of a
24 price decrease for labor or material, said decrease shall be passed on to the San Juan Unified School District and
25 documented with a new schedule of values sent to San Juan Unified School District Purchasing Department. Within
26 ten (10) days after notification of the District's Notice of Intent to Award the Contract, the successful Bidder will be
27 required to furnish a Labor and Material Bond and a Faithful Performance Bond. For further information, refer to
28 Sections 006113.13 and 006113.16.

29
30 Section 1.06 No bid will be considered unless it is accompanied by Cashier's Check, Certified Check or Bid Bond
31 from a surety authorized to do business in California for ten percent (10%) of the total amount of the Combined Base
32 Bid Amount, including additive Alternate Bids, made payable to the District. The above-mentioned check or bid bond
33 shall be given as a guarantee that the Bidder shall, if selected by the District, execute the Contracts, in conformance
34 with the Contract Documents. For more information, refer to Section 00 21 13, Article 1, Section 1.06.

35
36 Section 1.07 Bids shall not expire for a period of 90 days after the date set for the bid opening. Within ten (10) days
37 after notification of the District's Notice of Intent to Award the Contracts, the successful Bidder will be required to
38 furnish a Labor and Material Bond and a Faithful Performance Bond for each Contract. For further information, refer
39 to Sections 00 61 13.13 and 00 61 13.16.

40
41 Section 1.08 The District is an equal opportunity employer. Refer to General Conditions Section 00 72 00, Article 7,
42 Section 7.09. The District encourages the participation of DVBE businesses. Refer to Special Provisions Section 00
43 73 00.

44
45 Section 1.09 The successful Bidder shall be required to pay its workers on this Project a sum not less than the
46 general prevailing rate (applicable at time of bid advertisement date) of per diem wages and not less than the
47 general prevailing rate for holiday and overtime work for work of a similar character in the locality in which the
48 Project is performed, as provided under California Labor Code Sections 1726-1861. Copies of the prevailing rate of
49 per diem wages are on file at the San Juan Unified School District, [address], and shall be made available to any
50 interested party upon request. They may also be obtained on the internet at
51 http://www.dir.ca.gov/DIR/S&R/statistics_research.html. Refer to General Conditions Section 00 72 00, Article 7.
52 The Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

53
54 Section 1.10 The governing board of the District reserves the right to reject any and all proposals and to waive any
55 irregularity in any proposals received.

1
2 Section 1.11 At the request and expense of the successful Bidder, eligible securities shall be accepted in lieu of
3 retention payments to insure performance under the Contract, pursuant to California Public Contract Code Section
4 22300. Refer to Exhibit H and General Conditions Section 00 72 00, Article 12, Section 12.05. Said securities shall
5 be deposited prior to the submission of the successful Bidder's first progress payment application.

6
7 Section 1.12 The District participates in all available rebate programs. The successful Bidder agrees to notify the
8 District of any available rebate of which the successful Bidder is aware, and to provide the District with invoices and
9 all other documentation necessary to claim any available rebate. The District will apply for available rebates, and the
10 rebates will be paid directly to the District, not the successful Bidder.

11
12 Section 1.13 The successful Bidder shall have at least one supervising technician on call in the event that the
13 existing fire alarm, security clocks, intercom, telephone and data systems are damaged during the course of
14 construction or the Contract requires relocation of existing devices. The supervising technician is required to be on
15 Site during all aspects of repair, modifications and testing. For fire alarm modifications and repairs the
16 supervising technician is required to have at a minimum NICET LEVEL 2 Certification or equal. The District may
17 consider optional Underwriters Laboratories Certification, factory training or contractor demonstrated equal
18 experience/training with prior approval. The supervising technician must also have a minimum 5 years installation
19 experience.

20
21
22
END OF SECTION

Section 00 21 13 - INSTRUCTIONS TO BIDDERS

ARTICLE 1. GENERAL

Section 1.01 Definitions

A. The Project Team consists of the following:

The District: San Juan Unified School District
 The District Representative: Chris Cluff, KMM Services, Inc.
 The Designer: KMM Services, Inc.
 The Project: UPS Infrastructure upgrade at 9 ea. district sites
 BP#19-122
 The Project Addresses:

Bid #	School Name	Address	City	ST	Zip	Entity #
19-122	Cameron Ranch Elementary	4333 Hackberry Ln.	Carmichael	CA	95608-1329	111244
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19-122	Will Rogers Middle	4924 Dewey Dr.	Fair Oaks	CA	95628-4403	111350

The Contractor(s).

Section 1.02 Bidding Documents

The "Bidding Documents" shall include the Notice to Bidders, Instructions to Bidders, Proposal Forms, Subcontractor Listing Form, Non-collusion Declaration, Agreement for Construction, Bid Security, Performance/Labor & Material Bond Forms, the General Conditions, the Special Provisions, the General Requirements, Exhibits, the Technical Specifications, the Contract Drawings and Plans, the Hazardous Materials Requirements, Addenda, Preliminary Construction Schedule and the Construction Administrative Procedures Manual.

- A. Information regarding cost and location to obtain the Bidding Documents is found in the Notice to Bidders Section 00 11 13, Article 1, Section 1.05.
- B. Bidders shall use complete sets of Bidding Documents in preparing proposals. Bidders are responsible for ascertaining that the Bidding Documents upon which their Proposals are based are complete sets.
- C. Bidding Documents are provided to Bidders for bidding only. No other use is permitted.
- D. Should a Bidder find discrepancies, ambiguities, inconsistencies, errors or omissions in the Bidding Documents, Contract Documents and/or applicable Federal, State, and local regulations or requirements, and/or should Bidder have any doubt about the meaning of any of the Contract Documents, the Bidder shall notify **Maria Mahone, Facilities Business Department, maria.mahon@sanjuan.edu, 916-971-7283** in writing. Bidder's questions shall be submitted no later than ten (10) working days before the bid opening. The District will consult with the Architect, who is solely responsible for clarification and interpretation.

- 1 E. The District will forward written clarifications to all prime contract Bidders in the form of Addenda (faxed
2 and/or mailed).
3
- 4 F. Each Bidder shall ascertain, prior to submitting a proposal, that every Addendum issued prior to the Bid
5 Date has been considered, and shall acknowledge receipt of each Addendum on the Proposal form. Each
6 Addendum will become a part of the Contract for Construction.
7
- 8 G. Bids are sums stipulated in Proposals for which Bidders propose to perform the Work.
9
- 10 H. Base Bids are sums stipulated in Proposals for which Bidders offer to perform the Work, and from which
11 Alternate Bids may be added or deleted. The Total Base Bid Amount is the total of the Base Bid plus the
12 required allowances, if any, stated on the Proposal Form, for each Bid Package. The Combined Base Bid
13 Amount is the total of the Total Base Bid Amount for each Bid Package. The Total Base Bid Amount will be
14 the Contract Amount for the respective Bid Package.
15
- 16 I. Alternate Bids are sums which may be added to or deleted from Base Bids for the performance of Alternate
17 Work, as delineated in the Bidding Documents.
18
- 19 J. Unit Prices are sums included in Proposals as Bids per unit measure of materials and/or services, as
20 required in the Bidding Documents.
21
- 22 K. Proposals are complete, properly executed forms including Base Bids, Alternate Bids, Unit Prices and other
23 information requested by the District.
24
- 25 L. Bidders are qualified contractors who submit Proposals to the District for Work as Prime Contractors on the
26 Project.
27
- 28 M. Subcontractors are those who will perform Work or labor or render service to the Bidder.
29
- 30 **N. 1.03 E-rate Responder Service Provider Participation, Requirements and Acknowledgements:**

31
32 **The Responder must meet or exceed minimum qualification requirements.**
33

- 34 A. Service Providers are required to be in full compliance with all current requirements and future
35 requirements issued by the SLD throughout the contractual period of any contract entered into as a
36 result of this RFP.
- 37 B. Service Providers are responsible for providing a valid SPIN (Service Provider Identification Number).
38 More information about obtaining a SPIN may be found at this website: <http://www.usac.org/sl/service-providers/step01/default.aspx>
39
- 40 C. Service Providers are responsible for providing a valid Federal Communications Commission (FCC)
41 Registration Number (FRN) at the time the bid is submitted. More information about obtaining an FRN
42 may be found at this website: <https://apps.fcc.gov/coresWeb/publicHome.do>
- 43 D. Service Providers are responsible for providing evidence of FCC Green Light Status at the time the bid
44 is submitted. Any potential bidder found to be in Red Light Status will be disqualified from participation in
45 the bidding process and will be considered non-responsive. More information about FCC Red and
46 Green Light Status may be found at this website: http://www.fcc.gov/debt_collection/welcome.html
- 47 E. Products and services must be delivered before billing can commence. At no time may the Service
48 Provider invoice before July 1, of the funding year.
- 49 F. Goods and services provided shall be clearly designated as "E-rate Eligible". Non-eligible goods and
50 services shall be clearly called out as 100% non-eligible or shall be "cost allocated" to show the
51 percentage of eligible costs per SLD guidelines.
- 52 G. Within one (1) week of award, the awarded Service Provider must provide the District a bill of materials
53 using a completed USAC "Item 21 Template". Subsequent schedules of values and invoices for each
54 site must match Item 21 Attachment or subsequent service substitutions. A summary sheet must also
55 be provided to provide the cumulative amount for all sites.

- 1 H. In the event of questions during an E-rate pre-commitment review, post-commitment review and/or audit
2 inquiry, the awarded Service Provider is expected to reply within 3 days to questions associated with its
3 proposal.
4 I. Services providers must comply with the FCC rules for Lowest Corresponding Price ("LCP"). Further
5 details on LCP may be obtained at USAC's website: [https://usac.org/sl/service-providers/step02/lowest-
7 corresponding-price.aspx](https://usac.org/sl/service-providers/step02/lowest-
6 corresponding-price.aspx)

8 **Responder Service Provider Acknowledgements:**
9

- 10 A. The Service Provider acknowledges that no change in the products and/or services specified in this
11 document will be allowed without prior written approval from the district and a USAC service substitution
12 approval with the exception of a Global Service Substitution.
13 B. The Service Provider acknowledges that its offer is considered to be the lowest corresponding price
14 pursuant to § 54.511(b). Should it not be the lowest corresponding price, the service provider must
15 disclose the conditions leading to the applicant being charged in excess of lowest corresponding price.
16 C. This offer is in full compliance with USAC's Free Services Advisory
17 <http://usac.org/sl/applicants/step01/free-services-advisory.aspx>. There are no free services offered that
18 would predicate an artificial discount and preclude the applicant from paying its proportionate non-
19 discounted share of costs. The service provider agrees to provide substantiating documentation to
20 support this assertion should the applicant, USAC, or the FCC request it.
21 D. Starting Services/Advance Installation: The annual E-rate Funding Year begins on July 1 and expires on
22 June 30 of each calendar year. Regardless of the contract "effective date", E-rate eligible goods and/or
23 services requested in this RFP shall be delivered no earlier than the start of the 2019 funding year (July
24 1, 2019). If Category 1 services (Telecommunication Services and Internet access) will begin on or
25 shortly after July 1 of a funding year, the service provider, in some cases, may need to undertake some
26 construction and installation work prior to the beginning of that funding year. Within the limitations
27 indicated below, the infrastructure costs of a service provider can be deemed to be delivered at the
28 same time that the associated Category 1 services begin. That is, if services begin on July 1, then the
29 delivery of service provider infrastructure necessary for those services can be considered as also
30 delivered on July 1.
31 E. The District is participating in the Federal Universal Service Discount program for schools and libraries
32 (E-Rate), offered by the Federal Communications Commissions (FCC), via the Schools and Libraries
33 Division (SLD). The proposal and the contract negotiated implementing this proposal, are conditional
34 and subject to full E-Rate funding by the SLD. The District reserves the right to cancel or in any manner
35 reduce the scope of this procurement in the event the SLD does not completely fund the request for
36 funding submitted referencing this proposal.
37 F. Each vendor providing services to the District as part of the E-Rate program must have a Service
38 Provider Identification Number (SPIN). Vendor is responsible to apply to and receive from the Schools
39 and Libraries Division a valid SPIN. Schools and Libraries Division can be reached online at:
40 <http://www.usac.org/sl>
41

42 Section 1.03 Pre-Bid Conference

43 The date, time and location of the Pre-bid Conference are found in the Notice to Bidders Section 00 11 13, Article 1,
44 Section 1.02.
45

46 Section 1.04 Contract Schedule

47 For information regarding the Contract Schedule and Contractor's scheduling requirements, refer to General
48 Conditions, Section 00 72 00, Article 13, and Special Provisions Section 00 73 00.
49

50 Section 1.05 Liquidated Damages

51 Refer to Special Provisions Section 00 73 00.
52

53 Section 1.06 Bid Security
54

- 1 A. All bids must be valid for the time specified in the Notice to Bidders, Section 00 11 13, Article 1, Section
2 1.07.
3
4 B. Each proposal shall be accompanied by Bid Security, pledging that the Bidder will enter into the Contracts
5 with the District in accordance with the terms stated in the proposal, and will furnish bonds as described in
6 Section 00 61 13.13. The Bid Security for the two lowest responsive responsible Bidders will be returned to
7 Bidders within ten (10) days after construction contracts have been signed. Should the Bidder fail or refuse
8 to enter into such a contract or fail to furnish such Bonds, the Bidder shall be liable for all the cost of
9 securing the supplies or service which exceeds the amount of its bid.
10
11 C. Bid Security shall be in the amount of ten percent (10%) of Combined Base Bid Amount, including additive
12 Alternate Bids. Bid Security for each proposal containing Bids for multiple Bid Packages shall be in the
13 amount of ten percent (10%) of the total Base Bids for all Bid Packages, including additive Alternate Bids,
14 for all Bid Packages included in the proposal.
15
16 D. Bid Security shall be in the form of a Bid Bond from a surety company authorized to do business in
17 California, Cashier's Check or a Certified Check, or Cash. The District shall be listed as obligee on the
18 bond or payee on the check.
19
20 E. If a Bid Bond is submitted, the attorney-in-fact who executes the bond on behalf of the Surety shall attach
21 to the Bond a certified, current copy of its Power of Attorney. The bid bond form supplied by the Surety is
22 adequate.
23

24 Section 1.07 Bid Opening and Contract Awards
25

- 26 A. Bids will be opened publicly and read aloud at the time and date established in the Notice to Bidders,
27 Section 00 11 13. Bid Summaries may be made available to Bidders not sooner than 72 hours after the
28 Bid Date.
29
30 B. Contracts will be awarded to the lowest responsive responsible Bidder based on any combination of the
31 Combined Base Bid Amount and Alternates as determined by the District. This process is conducted by
32 the District in a "blind selection" format, i.e., without knowledge of the identity of any of the Bidders before
33 ranking of all Bidders from lowest to highest has been determined. All awards will be made in the District's
34 best interest. No award will be made to a Bidder which is not pre-qualified if pre-qualification is required,
35 and no award will be made to a Bidder that is not registered in accordance with Labor Code section 1725.5.
36
37 C. The District reserves the right to waive any informality or irregularity in any Proposal.
38
39 D. The District reserves the right to reject any and all proposals. The District also reserves the right to choose
40 to award any portion of the accepted proposal for schools included in this **BP #19-122** based on SLD
41 funding.
42

43 Section 1.08 Bid Protests
44

- 45 A. Any Bidder may file a protest against the award of the Contract to any other Bidder. The protest must be in
46 writing, filed within five (5) calendar days after the opening of bids, and must set forth all grounds for the
47 protest. These requirements are to be strictly construed. Untimely protests and/or grounds not set forth in
48 the protest will not be considered. Further, the failure to comply with these protest requirements will
49 constitute a waiver of the right to challenge and forever bar the Bidder from challenging, whether before the
50 District or any administrative or judicial tribunal, any particular bid(s), the bidding process or any ground not
51 set forth in the protest.
52
53 B. The District will provide a written response to any timely bid protest.
54

55 Section 1.09 Post-Bid Interviews

- 1
2 A. Bidders in contention for contract awards may be asked to attend a Post-Bid interview and submit Post-Bid
3 submittals in rough draft form for review.
4

5 Section 1.10 Post-Bid Submittals
6

- 7 A. The District may elect to issue a Notice of Intent to Award to the successful Bidder prior to the District's
8 execution of the Agreement for Construction.
9
- 10 B. Upon receipt of such a Notice of Intent to Award, the successful Bidder shall review it for completeness and
11 accuracy, execute the Agreement for Construction, and return it to the District Representative for delivery to
12 the District.
13
- 14 C. Should a Notice of Intent to Award be issued, the successful Bidder shall submit all required Post-Bid
15 documents by the tenth (10th) day following the date of issuance of the Notice of Intent to Award. The Post-
16 Bid documents include:
17
- 18 1. Payment Bond
 - 19 2. Performance Bond
 - 20 3. Local contact for Surety
 - 21 4. Insurance Certificates
 - 22 5. Name of the full-time superintendent
 - 23 6. Emergency contact names and numbers
 - 24 7. The name of the safety supervisor
 - 25 8. Copy of Safety Manual
 - 26 9. Name of the person(s) authorized to sign documents for this project
 - 27 10. List of all Subcontractors and suppliers with their contractor license number, contractor registration
28 number (DIR) addresses, telephone and fax numbers (2 copies required)
 - 29 11. Asbestos-Containing Building Material (ACBM) Notification Statement
 - 30 12. Asbestos Documentation per Exhibit C, Section 1, Book 2
 - 31 13. Resume for full time superintendent
 - 32 14. Name and qualifications of supervising technician as required in the Notice to Bidders Section 00 11
33 13
 - 34 15. Prime Contractor's Worker's Compensation Affidavit, and Prime Contractor's Affidavit of Compliance
35 form.
36
- 37 D. Should a Notice of Intent to Award be issued, the successful Bidder also shall submit the following:
38
- 39 1. Scheduling information according to Article 13 of Section 00 72 00 General Conditions
 - 40 2. Schedule of Values information according to Article 12 of Section 00 72 00 General Conditions
 - 41 3. Time and Materials wage sheet (submit within ten (10) days of the date of the Notice of Intent to
42 Award)
 - 43 4. Matrix of all required submittals (submit within ten (10) days of the date of the Notice of Intent to Award)
44

45 Section 1.11 Bonds

46 Refer to General Conditions Section 00 72 00, Article 3 for bond descriptions. Refer to Sections 00 61 13.13 and
47 00 61 13.16 for bond forms.
48

49 Section 1.12 Insurance

50 Refer to General Conditions Section 00 72 00, Article 3.
51

52 Section 1.13 Wages

53 Refer to General Conditions Section 00 72 00, Article 7.
54

55 Section 1.14 Contractor's License

1 Refer to General Conditions Section 00 72 00, Article 4, Section 4.01 and to Special Provisions, Section 00 73 00.

2
3 Section 1.15 Subcontractor Listing

4 Pursuant to the provisions of Sections 4100 to 4114, inclusive, of the California Public Contract Code, every Bidder
5 shall in its bid set forth:

- 6
7 A. The name, contractor license number, and location of the place of business of each Subcontractor.
8
9 B. The portion of the Work that will be done by each Subcontractor, including for additive Alternate Bids. If the
10 Bidder fails to specify a Subcontractor for any portion of the Work to be performed under the Contract in
11 excess of one half (1/2) of one percent (1%) of the Bidder's total bid, including additive Alternate Bids, the
12 Bidder agrees that it is fully qualified to perform that portion itself, and that the Bidder shall perform that
13 portion itself. The successful Bidder shall not, without the written consent of the District, either:
14
15 1. Substitute any person as Subcontractor in place of the Subcontractor designated in the original bid.
16 2. Permit any subcontract to be assigned or transferred or allow it to be performed by anyone other than
17 the original Subcontractor listed in the bid.
18 3. Sublet or subcontract any portion of the Work in excess of one half (1/2) of one percent (1%) of the
19 total bid, including additive Alternate Bids, as to which its original bid did not designate a
20 Subcontractor.
21

22 For more details refer to General Conditions Section 00 72 00, Article 6.

23
24 Any subcontractor listed in accordance with Public Contract Code section 4104 shall be registered pursuant to Labor
25 Code section 1725.5 at the time of bidding.
26

27 Section 1.16 Construction Sets of Plans and Specifications

28 The District will provide to the successful Bidder at District expense complete sets of DSA approved plans,
29 specifications and addenda as required in an amount not to exceed five sets. Additional sets may be purchased by
30 the successful Bidder for the cost of reproduction.
31

32 ARTICLE 2. FORMS FOR BIDDING

33 Section 2.01 Proposal Forms

34 Refer to Section 00 21 16.
35

36 ARTICLE 3. PROCEDURES AND CONDITIONS FOR BIDDING

37
38 Section 3.01 Bidders' Representations & Acknowledgments

39 In submitting a Proposal, each Bidder certifies that:

- 40 A. The Bidder has read and understands the Bidding Documents,
41 B. The Proposal is made in accordance with the Bidding Documents,
42 C. The Bidder has visited the Project Site(s) and is familiar with the local conditions under which the Work will
43 be performed. The Bidder also acknowledges that failure to visit the Site(s) will not relieve the Bidder of the
44 responsibility for observing and considering those conditions which a contractor would have observed and
45 considered during a site visit, estimating properly the difficulty and cost of successfully performing the Work
46 or proceeding to perform the Work without additional cost to the District.
47 D. On the basis of the above and any further examinations, investigations and studies which the Bidder has
48 made in connection with the Work, the Bidder represents and agrees that the Plans, Specifications and
49 Reports are adequate to the best of the Bidder's knowledge and that the Work can be performed in strict
50 accordance with the terms of the Contract Documents.
51 E. Destructive testing of school facilities is prohibited.
52 F. Bidder has attended the full duration of the mandatory Pre-Bid Conference.
53

54 END OF SECTION

1 **Section 00 21 16 - PROPOSAL FORM INSTRUCTIONS**

2
3 ARTICLE 1. INSTRUCTIONS

4
5 Section 1.01 Proposal Forms

6 Bidders are required to use the Proposal Form provided in Section 00 42 00. Additional Proposal Forms may be
7 copied from the Project Manual.

8
9 Section 1.02 Bid Package Descriptions

10 N/A.

11
12 Section 1.03 Bid Proposals

13
14 A. A responsive Proposal consists of all the following:

- 15
16 1. Completion of all **14 Pages** sheets of the Proposal Form, Section 00 42 00, as required
17 2. Bid Security (see Section 00 21 13, Article 1.06)

18
19 B. Proposals shall be submitted in a sealed Proposal Envelope. On the face of the envelope clearly write "**Bid**
20 **Proposal - Do Not Open**" and indicate the **Contractor's Name and Address, Bid Package Number and**
21 **Bid Package Description**.

22
23 C. All spaces provided on the Proposal Forms shall be filled in. If any space provided is not utilized by the
24 Bidder, that space shall be filled in with the notation "NA" (Not Applicable).

25
26 D. The Proposal Forms shall be filled in by typewriter or computer or manually printed in ink.

27
28 E. Where indicated, all amounts shall be expressed in words and in figures. In case of discrepancy, the words
29 shall govern. In the case of a discrepancy in the completion of the Proposal Form, the lump sum amount,
30 before allowances, stated on the page for each Bid Package and the actual mathematical total(s) will
31 govern.

32
33 F. Bidders shall not make unsolicited notations or statements on the Proposal Forms. Alteration of the
34 Proposal Forms is not permitted, and will result in proposal being considered non-responsive.

35
36 G. All changes to and erasures or crossing out of the Bidder's entries shall be initialed by the signer of the
37 Proposal.

38
39 H. Each Proposal shall include the legal name of the Bidder and a statement regarding whether the Bidder is
40 a sole proprietor, a partnership, a corporation, or other type of legal entity. Proposals submitted by
41 corporations shall have the state of incorporation noted, and shall have corporate seals affixed. Any Bid
42 submitted by an agent shall have a current Power of Attorney attached, certifying the agent's power to bind
43 the Bidder.

44
45 Section 1.04 Alternates

46 All requested Alternates shall be bid, or the Proposal may be considered incomplete. For further information refer to
47 Special Provisions Section 00 73 00.

48
49 Section 1.05 Proposals for Multiple Bid Packages

50 Not Applicable

51
52 Section 1.06 Completion of Proposal Form

53
54 A. Submit only one Proposal Form for the Combined Bid Packages.

- 1 B. List Contractor's License number, contractor registration number (DIR) and expiration dates. Sign and date
2 this section in the space provided.
3
- 4 C. Fill in the numbers and dates of all Addenda received and considered in the Proposal. Proposals must
5 include acknowledgment of all Addenda issued prior to the Bid Date.
6
- 7 D. Fill in the amount of alternates as applicable.
8
- 9 E. Fill out and sign the Non-Collusion Declaration.
10
- 11 F. Fill in Subcontractors list; if there will not be any Subcontractors, check the appropriate blank and **sign** the
12 form.
13
- 14 G. Type or print the signer's name and title in the spaces provided below the signature.
15
- 16 H. Date the form in the spaces provided.
17
- 18 I. Sign the bottom of each page in the space provided.
19
- 20 J. Affix corporate seal or stamp where indicated.
21

22 Section 1.07 Submission of Proposals
23

- 24 A. Proposals shall be submitted to the District in writing, at the location stated in the Notice to Bidders.
25 Telephone, email or faxed proposals including all required bid documentation will not be accepted.
26
- 27 B. Proposals shall be submitted by the time and date stated in the Notice to Bidders.
28
- 29 C. Bidders shall bear full responsibility for delivering Proposals to the location for receipt of Proposals by the
30 time and date designated for receipt of Proposals.
31
- 32 D. No telephones, fax machines or copy machines will be provided by the District or the District
33 Representative.
34

35 Section 1.08 Modification or Withdrawal of Proposals
36

- 37 A. A Proposal may not be withdrawn by the Bidder following the time and date designated for the receipt of
38 Proposals, except in accordance with Sections 5100 - 5108 of the Public Contract Code.
39
- 40 B. Prior to the time and date designated for receipt of Proposals, Proposals may be modified or withdrawn.
41 Modifications and withdrawals shall be in writing. Telephone, email or fax modifications will not be
42 accepted.
43
- 44 C. Withdrawn Proposals may be resubmitted up to the time and date designated for receipt of Proposals.
45

46 END OF SECTION

Section 00 42 00 - PROPOSAL FORM

PROPOSAL FOR: San Juan Unified School District

TO: San Juan Unified School District
Facilities Business Department
5320 Hemlock Street
Sacramento, CA 95841

Combined Bid Package Proposal Form for:
UPS Infrastructure Upgrade, Project #392-9739-P1, Group B1, BP#19-122:

School Name	Address	City	ST	Zip
Cameron Ranch Elementary	4333 Hackberry Ln.	Carmichael	CA	95608-1329
Grand Oaks Elementary	7901 Rosswood Dr.	Citrus Heights	CA	95621-1246
Green Oaks Fundamental Elementary	7145 Filbert Ave.	Orangevale	CA	95662-2716
Laurel Ruff Center Transition	5325 Garfield Ave.	Sacramento	CA	95841-3103
Mariposa Avenue Elementary	7940 Mariposa Ave.	Citrus Heights	CA	95610-1513
Orangevale Open K-8	5630 Illinois Ave	Fair Oaks	CA	95628-2948
Thomas Coleman (Pre-K)	6545 Beech Ave.	Orangevale	CA	95662-4011
Thomas Kelly Elementary	6301 Moraga Dr.	Carmichael	CA	95608-1128
Will Rogers Middle	4924 Dewey Dr.	Fair Oaks	CA	95628-4403

SUBMITTED BY: _____
 Name of Bidder _____
 Address _____
 Phone #/Fax #: _____
 Responder SPIN _____

Licensed in accordance with the Contractors State License Board Description of Classifications. Registered with the Department of Industrial Relations. A copy of this document may be obtained from the Contractors State License Board, P.O. Box 26000, 9835 Goethe Road, Sacramento, CA 95826.

License number: _____. License type: _____. License expiration date: _____.

Public Works Contractor DIR Registration # _____ Expiration date: _____

Bidder:

On behalf of Bidder, the undersigned represents that Bidder's authorized representative attended the full duration of the Pre-Bid Conference, and that Bidder has carefully examined the Sites, the proposed Contract Documents consisting of the Notice to Bidders, the Instructions for Bidders, the Proposal Form, the Agreement for Construction, the Bid Bond, the Performance Bond, the Payment Bond, the General Conditions, the Special Provisions, the General Requirements, Exhibits, the Technical Specifications, the Contract Drawings and Plans, any and all Addenda prepared by the Architect pertinent to the construction of the above-referenced Project, the Contractor's Guarantee and Bond, the Hazardous Materials Requirements, the Construction Administrative Procedures Manual, and the Preliminary Construction Schedule, and further, being familiar with all other conditions affecting the Work, Bidder hereby proposes and agrees to furnish and provide all labor, materials, supervision, transportation, tools,

1 equipment, services and other facilities necessary and required for the expeditious completion of the Work included
2 in the Bid Packages indicated above, in strict conformity with said conditions and Contract Documents.
3

4 Bidder has reviewed the Work outlined in the Bid Packages and fully understands the Scopes of Work required in
5 this Proposal, and acknowledges that its proposal includes the Work of all trades within the Bid Packages covered in
6 the Proposal and understands that each Bidder who is awarded the Contracts shall be in fact a Prime Contractor to
7 the District and agrees that its proposal, if accepted by the District, will be the basis for the Contracts with the District
8 in accordance with the intent of the Contract Documents.
9

10 Bidder agrees to complete the Work required within the Bid Packages within the time indicated in Special Provisions
11 Section 00 73 00, subject to liquidated damages as specified in Special Provisions Section 00 73 00.
12

13 The undersigned has the authority to so bind Bidder to these representations and agreements.
14

Affix Corporate Seal Here

15 _____
16 Signed

_____ Date

17 _____
18 Print Name

19 _____
20 Title

1 Enclosed is a certified check, cashier's check, or bid bond for ten percent (10%) of the amount of the Combined
2 Base Bid Amount, including additive Alternates, made payable to the District to be left in escrow with the District as a
3 guarantee that Bidder will enter into the Contracts and will furnish specified insurance and bonds. It is understood
4 that refusal to do so will result in the forfeit of this guarantee as liquidated damages. If agreements and bonds are
5 not executed, or if this proposal is not accepted within the time set for submission of bids (refer to Instructions to
6 Bidders Section 00 21 13), or any extension thereof the check or bid bond shall be returned.
7

8 Bidder has notified the District of any discrepancies, ambiguities, inconsistencies, errors or omissions in the Bidding
9 Documents, Contract Documents, applicable Federal, State, and local regulations or requirements, and/or of any
10 doubt about the meaning of any of the Contract Documents, and has contacted the District before bid date to verify
11 the issuing of any clarifying Addenda, in accordance with Instructions to Bidders, Section 00 21 13, Article I, Para D,
12 Section 1.02.
13

14 The undersigned further acknowledges receipt of the following Addenda, which are a part of the Contract
15 Documents:
16

17
18 NO. _____ DATE _____ NO. _____ DATE _____
19 NO. _____ DATE _____ NO. _____ DATE _____
20 NO. _____ DATE _____ NO. _____ DATE _____
21 NO. _____ DATE _____ NO. _____ DATE _____
22

***(Include All Addenda
Received)***

23
24
25 _____
26 Signed

27
28
29 _____
30 Print Name

31
32
33 _____
34 Title

1 **Cameron Ranch ES, UPS Infrastructure Upgrade, BP19-122**
2

BP 19-122
CAMERON RANCH ELEMENTARY

Part Number	Qty.	MFG.	Descripton	Unit Price	Extended Cost
SR-40-32	1	Middle Atlantic	SR series Pivoting rack, 40 RU		
VFD-40	1	Middle Atlantic	Front door, 22% open area		
DWR-RR40	1	Middle Atlantic	Rear rail kit		
DWRSR-ZL	1	Middle Atlantic	Zero clearance latch		
GK-4G	1	Middle Atlantic	Gland grommet		
IPBP-2	1	Middle Atlantic	Blower Panel, 1RU		
SUA5000R5TXFMR	1	APC	APC Smart-UPS		
Inst-01	1		Install per project documents		

Sub total, eligible SLD scope:	
Taxes	
Shipping	
Installation	
Total, eligible SLD scope:	

THE FOLLOWING ITEM IS NOT SLD ELIGIBLE SCOPE OF WORK:

N/A	1		Installation of 208V outlet		
Total, NOT eligible SLD scope:					

CAMERON RANCH ELEMENTARY SITE TOTAL:

3
4
5 **Coleman ES, UPS Infrastructure Upgrade, BP19-122**
6

THOMAS COLEMAN

Part Number	Qty.	MFG.	Descripton	Unit Price	Extended Cost
R412-4524B	1	Middle Atlantic	R4 Series rack		
SPN-R4-4524	1	Middle Atlantic	Side panels, 45RU, 24"D		
R412-RR45	1	Middle Atlantic	Rackrail, 12-24, 45RU		
U1V	1	Middle Atlantic	Utility rackshelf, 1RU, 10.4"D		
SUA5000R5TXFMR	1	APC	APC Smart-UPS		
Inst-01	1		Install per project documents		

Sub total, eligible SLD scope:	
Taxes	
Shipping	
Installation	
Total, eligible SLD scope:	

THE FOLLOWING ITEM IS NOT SLD ELIGIBLE SCOPE OF WORK:

N/A	1		Installation of 208V outlet		
Total, NOT eligible SLD scope:					

THOMAS COLEMAN SITE TOTAL:

1 **Grand Oaks ES, UPS Infrastructure Upgrade, BP19-122**
2

GRAND OAKS ELEMENTARY					
Part Number	Qty.	MFG.	Description	Unit Price	Extended Cost
SR-40-32	1	Middle Atlantic	SR series Pivoting rack, 40 RU		
VFD-40	1	Middle Atlantic	Front door, 22% open area		
DWR-RR40	1	Middle Atlantic	Rear rail kit		
DWRSR-ZL	1	Middle Atlantic	Zero clearance latch		
GK-4G	1	Middle Atlantic	Gland grommet		
IPBP-2	1	Middle Atlantic	Blower Panel, 1RU		
SUA5000R5TXFMR	1	APC	APC Smart-UPS		
Inst-01	1		Install per project documents		
Sub total, eligible SLD scope:					
Taxes					
Shipping					
Installation					
Total, eligible SLD scope:					
THE FOLLOWING ITEM IS NOT SLD ELIGIBLE SCOPE OF WORK:					
N/A	1		Installation of 208V outlet		
Total, NOT eligible SLD scope:					
GRAND OAKS ELEMENTARY SITE TOTAL:					

3
4
5 **Green Oaks ES, UPS Infrastructure Upgrade, BP19-122**
6

BP 19-122 GREEN OAKS FUNDAMENTAL ELEMENTARY					
Part Number	Qty.	MFG.	Description	Unit Price	Extended Cost
SR-24-32	1	Middle Atlantic	SR series Pivoting rack, 24 RU		
VFD-24	1	Middle Atlantic	Front door, 22% open area		
DWR-RR24	1	Middle Atlantic	Rear rail kit		
DWRSR-ZL	1	Middle Atlantic	Zero clearance latch		
GK-4G	1	Middle Atlantic	Gland grommet		
IPBP-2	1	Middle Atlantic	Blower Panel, 1RU		
SUA5000R5TXFMR	1	APC	APC Smart-UPS		
Inst-01	1		Install per project documents		
Sub total, eligible SLD scope:					
Taxes					
Shipping					
Installation					
Total, eligible SLD scope:					
THE FOLLOWING ITEM IS NOT SLD ELIGIBLE SCOPE OF WORK:					
N/A	1		Installation of 208V outlet		
Total, NOT eligible SLD scope:					
GREEN OAKS FUNDAMENTAL ELEMENTARY SITE TOTAL:					

1 **Laurel Ruff campus, UPS Infrastructure Upgrade, BP19-122**
2

BP 19-122					
LAUREL RUFF CENTER TRANSITION					
Part Number	Qty.	MFG.	Description	Unit Price	Extended Cost
SR-40-32	1	Middle Atlantic	SR series Pivoting rack, 40 RU		
VFD-40	1	Middle Atlantic	Front door, 22% open area		
DWR-RR40	1	Middle Atlantic	Rear rail kit		
DWRSR-ZL	1	Middle Atlantic	Zero clearance latch		
GK-4G	1	Middle Atlantic	Gland grommet		
IPBP-2	1	Middle Atlantic	Blower Panel, 1RU		
SUA5000R5TXFMR	1	APC	APC Smart-UPS		
Inst-01	1		Install per project documents		
Sub total, eligible SLD scope:					
Taxes					
Shipping					
Installation					
Total, eligible SLD scope:					
THE FOLLOWING ITEM IS NOT SLD ELIGIBLE SCOPE OF WORK:					
N/A	1		Installation of 208V outlet		
Total, NOT eligible SLD scope:					
LAUREL RUFF CENTER TRANSITION					SITE TOTAL:

3
4
5 **Mariposa ES, UPS Infrastructure Upgrade, BP19-122**
6

BP 19-122					
MARIPOSA AVENUE ELEMENTARY					
Part Number	Qty.	MFG.	Description	Unit Price	Extended Cost
SUA5000R5TXFMR	1	APC	APC Smart-UPS		
Inst-01	1		Install per project documents		
Sub total, eligible SLD scope:					
Taxes					
Shipping					
Installation					
Total, eligible SLD scope:					
THE FOLLOWING ITEM IS NOT SLD ELIGIBLE SCOPE OF WORK:					
N/A	1		Installation of 208V outlet		
Total, NOT eligible SLD scope:					
MARIPOSA AVENUE ELEMENTARY					SITE TOTAL:

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9

1 **Orangevale Open (Roberts) on Illinois Avenue, UPS Infrastructure Upgrade, BP19-122**
2

ORANGEVAL OPEN K-8 (ILLINOIS AVENUE)					
Part Number	Qty.	MFG.	Description	Unit Price	Extended Cost
SUA5000R5TXFMR	1	APC	APC Smart-UPS		
Inst-01	1		Install per project documents		
Sub total, eligible SLD scope:					
Taxes					
Shipping					
Installation					
Total, eligible SLD scope:					
THE FOLLOWING ITEM IS NOT SLD ELIGIBLE SCOPE OF WORK:					
N/A	1		Installation of 208V outlet		
Total, NOT eligible SLD scope:					
ORANGEVAL OPEN K-8 (ILLINOIS AVENUE) SITE TOTAL:					

3
4
5 **Thomas Kelly ES, UPS Infrastructure Upgrade, BP19-122**
6

BP 19-122 THOMAS KELLY ELEMENTARY					
Part Number	Qty.	MFG.	Description	Unit Price	Extended Cost
SR-40-32	1	Middle Atlantic	SR series Pivoting rack, 40 RU		
VFD-40	1	Middle Atlantic	Front door, 22% open area		
DWR-RR40	1	Middle Atlantic	Rear rail kit		
DWRSR-ZL	1	Middle Atlantic	Zero clearance latch		
GK-4G	1	Middle Atlantic	Gland grommet		
IPBP-2	1	Middle Atlantic	Blower Panel, 1RU		
SUA5000R5TXFMR	1	APC	APC Smart-UPS		
Inst-01	1		Install per project documents		
Sub total, eligible SLD scope:					
Taxes					
Shipping					
Installation					
Total, eligible SLD scope:					
THE FOLLOWING ITEM IS NOT SLD ELIGIBLE SCOPE OF WORK:					
N/A	1		Installation of 208V outlet		
Total, NOT eligible SLD scope:					
THOMAS KELLY ELEMENTARY SITE TOTAL:					

7
8

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3

Will Rogers MS, UPS Infrastructure Upgrade, BP19-122

BP 19-122					
WILL ROGERS MIDDLE					
Part Number	Qty.	MFG.	Descripton	Unit Price	Extended Cost
SR-40-32	1	Middle Atlantic	SR series Pivoting rack, 40 RU		
VFD-40	1	Middle Atlantic	Front door, 22% open area		
DWR-RR40	1	Middle Atlantic	Rear rail kit		
DWRSR-ZL	1	Middle Atlantic	Zero clearance latch		
GK-4G	1	Middle Atlantic	Gland grommet		
IPBP-2	1	Middle Atlantic	Blower Panel, 1RU		
SUA5000R5TXFMR	1	APC	APC Smart-UPS		
Inst-01	1		Install per project documents		
Sub total, eligible SLD scope:					
Taxes					
Shipping					
Installation					
Total, eligible SLD scope:					
THE FOLLOWING ITEM IS NOT SLD ELIGIBLE SCOPE OF WORK:					
N/A	1		Installation of 208V outlet		
Total, NOT eligible SLD scope:					
WILL ROGERS MIDDLE					
SITE TOTAL:					

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1 **COMBINED PROPOSAL FORM FOR ALL SITES PART OF BP19-122:**
2

BP 19-122 COMBINED PROPOSAL FOR:

1. CAMERON RANCH ELEMENTARY
2. THOMAS COLEMAN
3. GRAND OAKS ELEMENTARY
4. GREEN OAKS FUNDAMENTAL ELEMENTARY
5. LAUREL RUFF CENTER TRANSITION
6. MARIPOSA AVENUE ELEMENTARY
7. ORANGEVALE OPEN (ROBERTS) K-8
8. THOMAS KELLY ELEMENTARY
9. WILL ROGERS MIDDLE

Part Number	Qty.	MFG.	Description
SR-24-32	1	Middle Atlantic	SR series Pivoting rack, 24 RU
VFD-24	1	Middle Atlantic	Front door, 22% open area
DWR-RR24	1	Middle Atlantic	Rear rail kit
DWRSR-ZL	1	Middle Atlantic	Zero clearance latch
GK-4G	1	Middle Atlantic	Gland grommet
IPBP-2	1	Middle Atlantic	Blower Panel, 1RU
SR-40-32	5	Middle Atlantic	SR series Pivoting rack, 40 RU
VFD-40	5	Middle Atlantic	Front door, 22% open area
DWR-RR40	5	Middle Atlantic	Rear rail kit
DWRSR-ZL	5	Middle Atlantic	Zero clearance latch
GK-4G	5	Middle Atlantic	Gland grommet
IPBP-2	5	Middle Atlantic	Blower Panel, 1RU
R412-4524B	1	Middle Atlantic	R4 Series rack
SPN-R4-4524	1	Middle Atlantic	Side panels, 45RU, 24"D
R412-RR45	1	Middle Atlantic	Rackrail, 12-24, 45RU
U1V	1	Middle Atlantic	Utility rackshelf, 1RU, 10.4"D
SUA5000R5TXFMR	9	APC	APC Smart-UPS
Inst-01	9		Install per project documents

THE FOLLOWING ITEM IS NOT SLD ELIGIBLE SCOPE OF WORK:

N/A	9		Installation of 208V outlet
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Bid Items (show amounts in both words and figures)

A. TOTAL BID FOR ALL SITES, SLD ELIGIBLE ITEMS:

Lump Sum (in words) _____ Dollars

Lump Sum (in figures) \$ _____

B. TOTAL BID FOR ALL SITES, NON-SLD ELIGIBLE ITEMS:

Lump Sum (in words) _____ Dollars

Lump Sum (in figures) \$ _____

C. NON-SLD ELIGIBLE ITEM: Allowance for unforeseen conditions and electrical upgrades required for the sites included in BP19-122

above and beyond that which is shown, in the amount of **\$25,000.00**

COMBINED BASE BID, BP #19-122 AMOUNT (Total of A, B & C)

LUMP SUM (in words) _____ Dollars

LUMP SUM (in figures) \$ _____

Signed (Signature of Bidder)

Name of Firm

1 **AGREEMENT**

2 It is understood and agreed that if written notice of the District's acceptance of this proposal is mailed, telegraphed,
3 or delivered to the undersigned Bidder after the opening of the bid, the final approval and implementation of this
4 proposal are conditional and pending SLD funding by the Federal Universal Service Discount program for schools
5 and libraries (E-Rate). The District reserves the right to cancel or in any manner reduce the scope of this
6 procurement in the event the SLD does not completely fund the request for funding submitted referencing this
7 proposal. Once funding and approval is awarded, the undersigned Bidder will execute and deliver to the District a
8 contract in the form attached hereto in accordance with the bid as accepted, within ten (10) days after receipt of
9 notification of award. The start of the Work under the Contract shall be commenced by the undersigned Bidder, if
10 awarded the Contract, as specified in a Notice to Proceed and shall be completed in the time specified outlined on a
11 finalized Installation Schedule.

12
13 In the event the Bidder to whom an award is made fails or refuses to execute the Contracts within ten (10) days from
14 the date of receiving notification that it is the Bidder to whom the Contracts are awarded, the District may declare the
15 Bidder's bid deposit or bond forfeited as damages caused by the failure of the Bidder to enter into the Contracts.

16
17 Enclosed herewith is a listing of Subcontractors and major materials suppliers in accordance with Sections 4100 to
18 4114 of the California Public Contract Code and the Instructions to Bidders.

19
20 The undersigned Bidder agrees that the information and representations provided herein are made under penalty of
21 perjury.

22
23 NOTE: If Bidder is a corporation, the legal name of the corporation shall be set forth below, together with the
24 signatures of authorized officers or agents and the document shall bear the corporate seal; if Bidder is a partnership,
25 the true name of the firm shall be set forth below together with the signature of the partner or partners authorized to
26 sign contracts on behalf of the partnership; and if Bidder is an individual, his/her signature shall be placed below.

27
28 NAME OF BIDDER:

29
30 _____
31 **Affix Corporate**
32 **Seal Here**

33
34 BY: _____ Title _____
35 Signature

36
37 _____
38 Type/Print Name

39
40 _____ Title _____
41 Signature

42
43 _____
44 Type/Print Name

45
46 _____ Title _____
47 Signature

48
49 _____
Type/Print Name

DATE: _____

Section 00 50 00 – Letter of Agreement

LETTER OF AGREEMENT – BP 19-122

Pursuant to the terms of San Juan Unified School District’s BP #19-122 for **UPS Infrastructure Upgrade, Project #392-9739-P1, Group B1**, (Name of Company) _____’s response to BP #19-122 dated (mm/dd/yyyy) _____, (Name of Company) _____ will provide the equipment and services per BP #19-122 effective the date of issuance of San Juan Unified School District Contract.

(Name of Company) _____ and San Juan Unified School District acknowledge that this agreement is for E-Rate eligible products and services, which are contingent on funding by the School and Libraries Division of USAC/FCC and the San Juan Unified School District for E-Rate Year 2019 (Year 22), and San Juan Unified School District Board of Education approval.

The San Juan Unified School District (District) reserves the right to terminate the referenced BP #19-122 and all documents associated with Bid Package, including but not limited to this Letter of Agreement, in its sole discretion at any time, with or without cause, upon written notice to the other party. In the event of termination, notice shall be deemed served on the date of mailing and shall be effective immediately. The San Juan Unified School District shall not be responsible for any costs to Bidder prior to termination.

San Juan Unified School District _____

(Name of Company)

Authorized Representative Signature

Authorized Representative Signature

Date: _____

Date: _____

Name: Frank Camarda

Name: _____

Title: Director of Facilities, Construction & Modernization

Title: _____

Address: 5320 Hemlock Street
Carmichael, CA 95841

Address: _____

Email: _____

Phone: _____

Section 00 52 00 - FORM OF CONTRACT

ARTICLE 1. AGREEMENT FOR CONSTRUCTION

This contract is contingent upon San Juan Unified School District Board approval and will not be valid unless approved.

THIS AGREEMENT is made and entered into as of this ___ day of _____, 20___, by and between the San Juan Unified School District (hereinafter referred to as "District"), and _____, an independent contractor (hereinafter referred to as "Contractor").

District and Contractor hereby mutually agree as follows:

Section 1 - SCOPE OF WORK.

Contractor agrees to furnish all tools, equipment, apparatus, facilities, labor and materials and transportation necessary to perform and complete in a good and workmanlike manner to the satisfaction of District, all work called for and in the manner designated in, and in strict accordance with, the Contract Documents as defined in Section 2 hereof, the Work for the **UPS Infrastructure Upgrade, Project #392-9739-P1, Group B1, BP#19-122**

Section 2 - CONTRACT DOCUMENTS.

The Contract Documents, sometimes also referred to as "the Contract", consist of the Notice to Bidders, the Instructions for Bidders, the Proposal Form, the Agreement for Construction, the Bid Bond, the Performance Bond, the Payment Bond, these General Conditions, the Special Provisions, the General Requirements, Exhibits, the Technical Specifications, the Contract Drawings and Plans, all duly issued Addenda, Interpretations, Change Orders, supplemental drawings, Architect's Instruction Bulletins, the Contractor's Guarantee and Bond, the Hazardous Materials Requirements, the Construction Administrative Procedures Manual, Preliminary Construction Schedule, and the Contract Schedule.

Section 3 - DEFINITIONS.

Unless otherwise specifically provided herein, all words and phrases defined in the General Conditions shall have the same meaning and intent in this Agreement.

Section 4 - CONTRACT AMOUNT.

District agrees to pay and Contractor agrees to accept, for the full and complete performance of this Agreement in full payment for the Work performed the sum of _____ DOLLARS \$ _____, subject to adjustment as provided in the Contract Documents.

Section 5 - MONTHLY PROGRESS PAYMENTS.

Monthly progress payments shall be made in accordance with Article 12 of the General Conditions of the Contract Documents.

Section 6 - FINAL PAYMENT.

Final payment shall be made in accordance with Article 21 of the General Conditions.

Section 7 - RETENTION OF SUMS CHARGED AGAINST CONTRACTOR.

When, under this provisions of the Contract Documents, District shall charge any sum of money against Contractor, District shall deduct and retain the amount of such charge from the amount of the next succeeding progress payment, or from any other monies due or that may become due to Contractor from District. If, on completion or termination of the Contract, sums due Contractor are insufficient to pay District's charges against Contractor, District shall have the right to recover the balance from Contractor or its sureties.

1 Section 8 - TIME OF COMPLETION.

2 The Work shall be commenced on the date specified in the District's "Notice to Proceed," and shall be fully
3 completed as described in the Contract Documents, including, without limitation, the General Conditions, **{within**
4 **180 calendar days of the date of the Notice to Proceed}** together with such additional time as may be
5 provided by any change order issued pursuant to the Contract Documents.
6

7 Time is of the essence in this Agreement and the Contract Documents. Failure of Contractor to complete the
8 Work by the completion date and in the manner provided for by the Contract Documents shall subject Contractor
9 to liquidated damages as hereinafter provided in this Agreement and the Contract Documents.

10
11 Section 9 - NO WAIVER OF REMEDIES.

12 Neither the inspection by District or its agents, nor any order or certificate for payment of money, nor any payment
13 for, nor acceptance of the whole or any part of the Work by District, nor any extensions of time, nor any position
14 taken by District or its agents shall operate as a waiver of any provision of this Agreement or the Contract
15 Documents or of any power herein reserved to District or any right to damages herein provided, nor shall any
16 waiver of any breach of this Agreement or of the Contract Documents be held to be a waiver of any other or
17 subsequent breach. All remedies provided in this Agreement and in the Contract Documents shall be taken and
18 construed as cumulative; that is, in addition to each and every other remedy provided in this Agreement and/or
19 the Contract Documents, and District shall have any and all equitable and legal remedies, which it would in any
20 case have.
21

22 Section 10 - LIQUIDATED DAMAGES.

23 Liquidated damages may be assessed against Contractor in accordance with Article 14 of the General Conditions
24 and Section 00 73 00, Special Provisions, in the amount of **\$750.00** per calendar day if Contractor fails to
25 complete the Work within the Contract Time. The provision for liquidated damages in the Contract Documents
26 shall not act as a limitation upon District if Contractor abandons the Work. In such event, Contractor shall be
27 liable to District for all losses incurred.
28

29 Section 11 - PERFORMANCE AND PAYMENT BONDS.

30 Contractor, before beginning the Work, shall file a Performance Bond and a Payment Bond with District, each
31 made payable to District. These bonds shall be issued by a surety company authorized to do business in the
32 State of California and shall be maintained during the entire life of the Contract at the expense of Contractor.
33 Each bond shall be in the amount of one hundred percent (100%) of the Contract. The Performance Bond shall
34 guarantee the faithful performance of the Contract. The Payment Bond shall be in accordance with the
35 requirements of Part 6, Title 3, Chapter 5 of the California Civil Code, commencing with section 9550. Any
36 alteration or alterations made in any provision of the Contract shall not operate to release any surety from any
37 liability on any bond required hereunder and the consent to make such alterations is hereby given, and any surety
38 on said bonds hereby waives the provisions of Section 2819 of the Civil Code.
39

40 Section 12 - UNFAIR COMPETITION.

41 The following provision is included in this Agreement pursuant to California Public Contract Code section 7103.5.

42
43 "In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public
44 works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title,
45 and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or
46 under the Cartwright Act (Chapter 2 (commencing with Section 16700 of Part 2 of Division 7 of the Business and
47 Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract
48 or subcontract. This assignment shall be made and become effective at the time the awarding body tenders final
49 payment to the contractor, without further acknowledgment by the parties."
50

51 Section 13 - ASSIGNMENT.

52 Neither this Agreement nor any rights herein of Contractor shall be assigned without the written consent of District
53 first obtained.
54
55

1 Section 14 - NO THIRD PARTY BENEFICIARIES.

2 This Agreement is entered into solely between District and Contractor. There are no third party beneficiaries,
3 intended, unintended, or otherwise to this Agreement.

4
5 Section 15 - AGREEMENT BINDING.

6 This Agreement shall bind and insure to the heirs, devisees, assignees and successors in interest of Contractor
7 and to the successors in interest of District in the same manner as if such parties had been expressly named
8 herein.

9
10 Section 16 - AGREEMENT CONTROLS.

11 In the event of a conflict between the terms and conditions set forth in this Agreement and the terms and
12 conditions set forth in the other Contract Documents, the terms and conditions set forth in this Agreement shall
13 prevail.

14
15 Section 17 - FINGERPRINTING.

16 Education Code sections 45125.1 and 45125.2 apply to this Agreement. Contractor shall, prior to
17 commencement of Work, comply with either of the methods of ensuring safety set forth in Education Code section
18 45125.2(a)(1) (installation of a physical barrier) or 45125.2(a)(2) (continual supervision by an employee of
19 Contractor who has not been convicted of a serious or violent felony). If Contractor elects to provide continual
20 supervision pursuant to Education Code section 45125.2(a)(2), Contractor shall require the person(s) who will
21 provide that continual supervision to be fingerprinted by the Department of Justice ("DOJ"). Upon verification from
22 DOJ that those persons fingerprinted have no record of a serious or violent felony, Contractor will so certify by
23 signing and submitting to District, through the District Representative, the certification form attached as Exhibit A
24 and incorporated by reference. In addition, Contractor shall submit the names of those persons who have
25 received clearance on a form as indicated in Exhibit B. Any person whose name is not on the cleared list may not
26 have such access. In that case, Contractor must make arrangements with District for appropriate access. No
27 person with a violent or serious felony as reported by DOJ may have access to the school campuses.

28
29 Failure to comply with this Section 17 of this Agreement at all times, or permitting unsupervised access by an
30 employee whose name has not been cleared by DOJ as certified by Contractor, shall constitute grounds for
31 termination of this Agreement.

32
33 Section 18 - GOVERNING LAW.

34 This Agreement will be governed by and construed in accordance with the laws of the State of California.
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1 IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

2
3 **Contractors are required by law to be licensed and regulated by the Contractor's State License Board,**
4 **which has jurisdiction to investigate complaints against contractors if a complaint is filed within three**
5 **years of the date of the alleged violation. Any questions concerning a contractor may be referred to the**
6 **Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826.**
7

8
9 District: San Juan Unified School District

10
11
12 By: _____
13 Print Name

14
15 Its: Director of Facilities Construction & Modernization

16
17
18 By: _____
19 Frank Camarda

20
21 Its: Assistant Superintendent of Facilities, Operations
22 & Transportation

23 Contract Amount: \$ _____
24

25
26 Board Approval Date: _____

27
28 (Corporate Seal)

29 Contractor: _____

30 By: _____

31
32 Its: _____

33
34 Business Address: _____

35
36
37 License Number: _____

38
39 Contractor DIR Registration #: _____

40
41 Federal I.D. # _____
42

43 CORPORATE CERTIFICATE

44
45 I, _____, certify that I am the Secretary of the corporation named as Contractor in the
46 foregoing contract; that _____, who signed said contract on behalf of said corporation is
47 authorized to fully bind the corporation to this Agreement; that said contract was duly signed for and on behalf of
48 said corporation by authority of its governing body and is within the scope of its corporate powers.
49

50
51
52 (Corporate Seal)

53 _____
54 Secretary
55

EXHIBIT A TO FORM OF CONTRACT

CERTIFICATION

I, _____, on behalf of _____, certify that, pursuant to Education Code Section 45125.1 and 45125.2 and Section 18 of this Agreement, this business entity has conducted the required criminal background check(s) of all persons who will be providing continual supervision and monitoring of all persons who will be providing services to the San Juan Unified School District on behalf of this business entity, and that none of those persons have been reported by the Department of Justice as having been convicted of a serious or violent felony as specified in Penal Code sections 667.5(c) and/or 1192.7(c). I understand that this Certification is not to be signed and submitted until I have received clearance from DOJ regarding those persons named.

As further required by Education Code 45125.1, submitted herewith as Exhibit B is a list of names of the employees or agents of _____ who will be providing continual supervision and monitoring of all persons who will be providing services to the San Juan Unified School District on behalf of this business entity and who are required to be fingerprinted as provided in the Agreement. I agree to keep this list current and to notify San Juan Unified School District of any addition/deletions as they occur.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this ___ day of _____, 201_, in _____ County, California.

(Seal of business)

By: _____
[Name of Contractor's Authorized Representative]
(Please print)

(Title)

(Signature)



San Juan
Unified School District

Section 00 61 13.13 – PAYMENT BOND FORM

Bond No. _____

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, San Juan Unified School District (the "District") has awarded to

_____ as Principal a contract dated the _____ day of _____, 2___, for the furnishing of all labor, materials, equipment, transportation and services for the construction of **UPS Infrastructure Upgrade, Project #392-9739-P1, Group B1, BP#19-122** Project located in Sacramento County, California (hereinafter referred to as the "Contract");

AND WHEREAS, Principal is required to furnish a bond in connection with the Contract to secure the payment of claims of laborers, mechanics, material suppliers, and other persons as provided by law;

NOW THEREFORE, we the undersigned Principal and

_____ as Surety, are held and firmly bound unto the District in the sum of _____ DOLLARS \$_____ for which payment well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

1. THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal, or its heirs, executors, administrators, successors, or assigns approved by the District or its Subcontractors shall fail to pay any of the persons named in State of California Civil Code Section 9100, or amounts due under the State of California Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the State of California Employment Development Department from the wages of employees of Principal and subcontractors pursuant to Section 13020 of the State of California Unemployment Insurance Code with respect to such work and labor, that Surety will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall become and be null and void.

2. This Bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under California law, including but not limited to the persons named in State of California Civil Code Section 9100 so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

3. Surety, for value received, hereby expressly agrees that no extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Contract, or to the work to be performed thereunder, shall in any way affect the obligation of this bond; and it does hereby waive notice of any such extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Contract, or to the work to be performed thereunder. Surety further waives the provisions of Section 2845 of the State of California Civil Code.

4. Amounts owed by the District to Principal under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under the Performance Bond. By Principal furnishing and the District accepting this Payment Bond, they agree that all funds earned by Principal in the performance of the Contract are dedicated to satisfy obligations of Principal and Surety under this Bond, subject to the District's priority to use the funds for the completion of the Work or the satisfaction of the District's claims, including liquidated damages, under the Contract.

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5. Surety's obligations hereunder are independent of the obligations of any other surety for the payment of claims of laborers, mechanics, material suppliers, and other persons in connection with the Contract; and suit may be brought against Surety and such other sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing the District rights against the other.

6. In the event suit is brought upon this bond, the parties not prevailing in such suit shall pay reasonable attorneys' fees and costs incurred by the prevailing parties in such suit.

7. Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

IN WITNESS WHEREOF, we have hereunto set our hands this _____ day of _____, 20__.

Principal: _____
(Name of Firm)

Surety: _____
(Name of Firm)

By: _____

By: _____

Title: _____

Title: _____

Address for Notices:

Phone # _____

Fax # _____

Note: Notary Acknowledgement for Surety and Surety's Power of Attorney must be attached

13
14
15

Address for Owner Notices:

San Juan Unified School District
Attn: Frank Camarda, Assistant Superintendent of
Facilities, Operations & Transportation
5320 Hemlock Street, Room #1
Sacramento, CA 95841

16
17



Section 00 61 13.16 - PERFORMANCE BOND FORM

Bond No. _____

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, San Juan Unified School District hereinafter referred to as "District" and _____ (hereinafter referred to as "Contractor"), have entered into a written contract for furnishing of all labor, materials, equipment, transportation and services for the construction of **UPS Infrastructure Upgrade, Project #392-9739-P1, Group B1, BP#19-122** Project located in Sacramento County, California (hereinafter referred to as the "Construction Contract"); and

WHEREAS, Contractor is required by the terms of the Construction Contract to furnish a bond for the faithful performance of all terms and conditions of the Construction Contract;

NOW, THEREFORE, Contractor, as principal, and _____ (hereinafter referred to as "Surety"), as Surety, are held and firmly bound unto District and Claimants, as defined herein, in the penal sum of _____ DOLLARS \$ _____, lawful money of the United States, for the payment of which sum well and truly to be made as provided in this Performance Bond.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to District for the performance of the Construction Contract, which is incorporated herein by reference.
2. If Contractor timely performs each and every obligation under the Construction Contract, including all Guarantee and/or warranty obligations, Surety and Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.
3. Surety's obligation under this Performance Bond shall arise after:
 - 3.1 District has declared a Contractor Default and has notified Contractor and Surety at its address described in Paragraph 10 below that District has declared a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than seven days after receipt of such notice to discuss methods of performing all remaining obligations of Contractor pursuant to the Construction Contract; and
 - 3.2 District has agreed to pay any remaining Balance of the Agreement Price, as calculated under the terms of the Construction Contract, to Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the Construction Contract with District.
4. When District has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:
 - 4.1 Arrange for Contractor, with consent of District, to perform and complete the Construction Contract; or
 - 4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or

- 1 4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to District for a contract
2 for performance and completion of the Construction Contract, arrange for a contract to be prepared
3 for execution by District and the contractor selected with District's concurrence, to be secured with
4 performance and payment bonds executed by a qualified surety equivalent to the bonds issued on
5 the Construction Contract, and pay to District the amount of damages as described in Paragraph 6
6 in excess of the Balance of the Agreement Price, as calculated under the terms of the Construction
7 Contract, incurred by District resulting from Contractor's Default; or
8
- 9 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new Contractor and
10 with reasonable promptness under the circumstances:
11
- 12 .1 After investigation, determine the amount for which it may be liable to District and, as soon
13 as practicable after the amount is determined, tender payment thereof to District; or
14
- 15 .2 Deny liability in whole or in part and notify District citing specific reasons therefore.
16
- 17 5. If Surety does not proceed as provided in Paragraph 4 within twenty days from receipt of the notice
18 described in paragraph 3.1 (whether or not a conference has been held pursuant to paragraph 3.1), or
19 such longer period upon which District and Surety may agree in writing, Surety shall be deemed to be in
20 default on this Bond. If Surety proceeds as provided in Subparagraph 4.4, and District refuses the
21 payment tendered or Surety has denied liability, in whole or in part, without further notice District shall be
22 entitled to enforce any remedy available to District.
23
- 24 6. After District has declared a Contractor Default, and if Surety elects to act under Subparagraph 4.1, 4.2, or
25 4.3 above, then the responsibilities of Surety to District shall not be greater than those of Contractor under
26 the Construction Contract, and the responsibilities of District to Surety shall not be greater than those of
27 the District under the Construction Contract. To the limit of the amount of this Performance Bond, but
28 subject to commitment by District of any remaining Balance of the Agreement Price to mitigation of costs
29 and damages on the Construction Contract, Surety is obligated without duplication for:
30
- 31 6.1 The responsibilities of Contractor for correction of defective Work, materials and equipment and
32 completion of the Construction Contract, including all Guarantee and warranty obligations;
33
- 34 6.2 Additional legal, design professional, construction management and delay costs resulting from the
35 Contractor's Default, and resulting from the actions or failure to act of Surety under Paragraph 4;
36 and
37
- 38 6.3 Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual
39 damages caused by delayed performance or non-performance of Contractor.
40
- 41 7. Surety shall not be liable to District or others for obligations of Contractor that are unrelated to the
42 Construction Contract, and the Balance of the Agreement Price shall not be reduced or set off on account
43 of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other
44 than District or its heirs, executors, administrators or successors.
45
- 46 8. Surety, for value received, hereby expressly agrees that no extension of time, change, modification,
47 alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Contract,
48 or to the work to be performed thereunder, shall in any way affect the obligation of this bond; and it does
49 hereby waive notice of any such extension of time, change, modification, alteration, or addition to the
50 undertakings, covenants, terms, conditions, and agreements of the Contract, or to the work to be
51 performed thereunder. Surety further waives the provisions of Section 2845 of the State of California Civil
52 Code.
53
- 54 9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent
55 jurisdiction. The prevailing party in any such action shall be entitled to recover its attorneys' fees, to be
56 taxed as an item of costs.

10. Notice to Surety, District or Contractor shall be mailed or delivered to the address, or sent via telecopier to the facsimile number, shown on the signature page.

11. DEFINITIONS

11.1 Balance of the Agreement Price: The total amount payable by District to Contractor under the Construction Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by District in settlement of insurance or other claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Construction Contract.

11.2 Construction Contract: The agreement between the District and the Contractor identified on the first page of this bond, including all Contract Documents and changes thereto.

11.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.

CONTRACTOR, as Principal

SURETY

By: _____

By: _____

Its: _____

Its: _____

Address: _____

Address: _____

Phone #: _____

Phone #: _____

Fax #: _____

Fax #: _____

Note: Notary Acknowledgement for Surety and Surety's Power of Attorney must be attached

Address for Owner Notices:

San Juan Unified School District
Attn: Frank Camarda, Assistant Superintendent of Facilities,
Operations & Transportation
5320 Hemlock Street, Room #1
Sacramento, CA 95841

Section 00 65 36 - GUARANTEE FORM

{Print on Contractor/Subcontractor Letterhead}

ARTICLE 1. GUARANTEE FORM

_____ {Contractor's Name} hereby unconditionally guarantees that the Work performed at **UPS Infrastructure Upgrade, Project #392-9739-P1, Group B1, BP#19-122** has been done in accordance with the requirements of the Contract therefor and further guarantees the Work of the Contract to be and remain free of defects in workmanship and materials for a period of two (2) years from and after the recordation of the Notice of Completion of the Project and completion of all Contract obligations by the Contractor, including formal acceptance of the entire Project by the District, unless a longer guarantee period is called for by the Contract Documents, in which case the terms of the longer guarantee shall govern. The Contractor specifically waives any right to claim or rely on the statutory definition of completion set forth in Civil Code section 9200. The Contractor specifically acknowledges and agrees that completion shall mean the Contractor's complete performance of all Work required by the Contract Documents, amendments, change orders, construction change directives and punch lists, and the District's formal acceptance of the entire Project, without regard to prior occupancy, substantial completion doctrine, beneficial occupancy, or otherwise. The Contractor hereby agrees to repair or replace any and all Work, together with any adjacent Work which may have been damaged or displaced in so doing, that may prove to be not in accordance with the requirements of the Contract or that may be defective in its workmanship or materials within the guarantee period specified, without any expense whatsoever to the District, ordinary wear and tear and unusual abuse and neglect only excepted. The Contractor has provided contract bonds, which will remain in full force and effect during the guarantee period.

The Contractor further agrees that within ten (10) calendar days after being notified in writing by the District of any Work not in accordance with the requirements of the contract or any defects in the Work, it will commence and prosecute with due diligence all Work necessary to fulfill the terms of this guarantee, and to complete the Work within a period of time stipulated in writing. In the event it fails to so comply, Contractor does hereby authorize the District to proceed to have such Work done at the Contractor's expense and it will pay the cost thereof upon demand. The District shall be entitled to all costs, including reasonable attorneys' fees, necessarily incurred upon the Contractor's refusal to pay the above costs.

The guarantee period for corrected defective work shall continue for a duration equivalent to the original guarantee period.

Notwithstanding the foregoing paragraph, in the event of an emergency constituting an immediate hazard to the health or safety of the employees of the District, or its property or licensees, the District may undertake at the Contractor's expense without prior notice, all Work necessary to correct such hazardous condition when it was caused by the Work of the Contractor not being in accordance with the requirements of this contract, or being defective, and to charge the same to the Contractor as specified in the preceding paragraph.

The guarantee set forth herein is not intended by the parties, nor shall it be construed, as in any way limiting or reducing the District's rights to enforce all terms of the Contract referenced hereinabove or the time for enforcement thereof. This guarantee is provided in addition to, and not in lieu of, the District's rights on such contract.

Spec Sections: _____

CONTRACTOR'S SIGNATURE

PRINT NAME

Section 00 72 00 - GENERAL CONDITIONS

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1 Section 1.12. Contract Documents.

2 The “Contract Documents” shall include the Notice to Bidders, the Instructions for Bidders, the Proposal Form, the
3 Agreement for Construction, the Bid Bond, the Performance Bond, the Payment Bond, these General Conditions,
4 the Special Provisions, the General Requirements, Exhibits, the Technical Specifications, the Contract Drawings and
5 Plans, all duly issued Addenda, Interpretations, Change Orders, Directives, supplemental drawings, Architect’s
6 Instruction Bulletins, the Contractor’s Guarantee and Bond, the Hazardous Materials Requirements, the
7 Construction Administrative Procedures Manual, Preliminary Construction Schedule, and the Contract Schedule.
8

9 Section 1.13. Contract Drawings or Plans.

10 The “Contract Drawings” (sometimes referred to as “Drawings” or “Plans”) are the graphic and pictorial portions of
11 the Contract Documents, showing the design, location and dimensions of the Work, generally including plans,
12 elevations, sections, details, schedules and diagrams. This information may be developed and stored in a 3D or 4D
13 model of the Project. Once approved, all such drawings are incorporated into and become a part of the Contract
14 Documents.
15

16 Section 1.14. Contract Schedule.

17 The “Contract Schedule” is the schedule produced by the Contractor in response to the requirements of the Contract
18 Documents. See Section 13.02 for specific requirements.
19

20 Section 1.15. Contract Sum.

21 “Contract Sum” is the total amount payable by the District to the Contractor for the performance of the Work under
22 the Contract Documents. The Contract Sum is the amount stated in the Agreement for Construction, including
23 authorized adjustments thereto.
24

25 Section 1.16. Contract Time.

26 “Contract Time” shall mean the period specified for completion of the Work, as set forth in the Agreement for
27 Construction and adjusted by any Change Order issued pursuant to the Contract Documents.
28

29 Section 1.17. Contractor.

30 “The Contractor” shall mean the person or persons, partnership, or corporation, who have entered into the
31 Agreement for Construction of the Work with the District or its legal representatives, or successors, assigns,
32 executors, or heirs. The Contractor is required by law to be licensed and will perform work or render services as a
33 prime contractor in or about the construction of the Work.
34

35 Section 1.18. Date of Commencement.

36 “Date of Commencement” is the date established in the Notice to Proceed. If there is no Notice to Proceed, it shall
37 be the date of the executed Agreement for Construction or such other date as may be established therein.
38

39 Section 1.19. Date of Completion.

40 The “Date of Completion” for the purpose of determining when the Work is complete is the date certified by the
41 District Representative when construction of the Work is 100% complete, including acceptance by the Architect of all
42 punch list corrections. See Article 21 for the meaning of “completion” for the purpose of determining acceptance of
43 the Work and when final payment is due.
44

45 Section 1.20. Day.

46 Unless otherwise expressly defined, a “day” shall mean a calendar day of 24 hours, including each and every day of
47 the year.
48

49 Section 1.21. District.

50 “District” shall mean the San Juan Unified School District, a California school district. The District is sometimes
51 designated “Owner” in the Contract Documents.
52

53 Section 1.22. District Representative.

54 “District Representative” shall mean the District’s designated agent engaged to perform all functions delegated to the
55 District Representative by the Contract Documents. The District Representative may or may not be a construction
56 manager. The District Representative will be the Contractor’s primary contact during construction of the Project.
57

1 Section 1.23. Division of the State Architect.

2 “Division of the State Architect” or “DSA” is the California State agency responsible for checking contract documents
3 for compliance with Title 24, California Code of Regulations, and monitoring compliance on the construction site.
4 The Division of the State Architect also approves inspectors on all public school projects.
5

6 Section 1.24. Equal (as in “or equal”).

7 “Equal” shall mean a system, process, product or material which is similar in all respects to that shown or specified
8 but produced by a manufacturer not listed in the specification. See also: Substitution.
9

10 Section 1.25. First Line Supervision.

11 “First Line Supervision” shall mean a working foreman or lead craft worker other than the project superintendent.
12

13 Section 1.26. Interpretations.

14 “Interpretations” are all clarifications, additional instructions, and explanations issued by the Architect pursuant to
15 Article 5 hereof, after award of the Contract.
16

17 Section 1.27. Materials and Equipment.

18 “Materials” is a generic term which shall include all building materials, articles, supplies, and equipment delivered to
19 the project for incorporation in the Work. “Materials” includes everything incorporated into the Work except labor,
20 unless otherwise noted.
21

22 “Equipment” shall mean all pre-manufactured or partially preassembled products or components, assembled or
23 partially assembled before delivery to the Site.
24

25 Section 1.28. Milestone Completion Date.

26 The “Milestone Completion Date” is the date certified as when construction of the Work of any phase is 100%
27 complete, including acceptance by the Architect of all punch list corrections.
28

29 Section 1.29. Notice of Intent to Award.

30 The “Notice of Intent to Award” is issued following District approval of bids. It authorizes the Contractor to obtain
31 required bonds and insurance and to procure all materials and equipment necessary to fulfill its contract within the
32 time shown in the schedule.
33

34 Section 1.30. Notice to Proceed.

35 “Notice to Proceed” is the notice given to the Contractor following execution of the Agreement for Construction and
36 receipt of all required preconstruction submittals as itemized in the Notice of Intent to Award. The Notice to Proceed
37 establishes the start of the Work and authorizes the Contractor to begin construction.
38

39 Section 1.31. Office of Public School Construction (OPSC).

40 “Office of Public School Construction” or “OPSC” is the California State agency responsible for apportionment,
41 disbursement and monitoring of state-provided school district capital improvement funds.
42

43 Section 1.32. Preliminary Construction Schedule.

44 “Preliminary Construction Schedule” is a schedule that may be included in the bid documents and establishes the
45 milestone dates for completion of each major trade activity as well as the phasing of work by building and the overall
46 duration of the Project.
47

48 Section 1.33. Product Data.

49 “Product Data” shall mean illustrations, standard schedules, performance charts, instructions, brochures, diagrams
50 and other information furnished by the Contractor to illustrate a material, product or system for some portion of the
51 Work.
52

53 Section 1.34. Project.

54 “Project” shall mean the total design and construction of the work of improvement described in the Contract
55 Documents, of which the Work may be the whole or a part and which may include construction by District or by
56 separate contractors.
57

1 Section 1.35. Project Inspector.

2 The "Project Inspector" shall mean the person or persons employed or engaged as (an) independent contractor(s)
3 by the District to inspect the performance of the Work by the Contractor for compliance with the Contract
4 Documents. The Project Inspector is hereby designated as an agent of the District for such purpose and no other.
5 The Project Inspector is supervised by, and reports to, the Architect. The authority of the Project Inspector to
6 monitor the work shall be strictly limited to that authority specified herein and in Title 24, California Code of
7 Regulations, and no additional authority has been granted nor shall be inferred.
8

9 Section 1.36. Proposed Change Order/Work Order.

10 A "Proposed Change Order/Work Order" or "PCO" is the name given to a document issued by the Contractor
11 proposing a change to the Work and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract
12 Time, or both. A PCO shall be used by the Contractor to respond to a Request for Proposal, a Request for
13 Information or an Architect's Instructional Bulletin. A PCO is not effective to authorize the proposed change to the
14 Work, to the Contract Sum or to the Contract Time unless it is accepted in writing by the District.
15

16 Section 1.37. Provide.

17 "Provide" shall mean to furnish, install, and connect complete and ready for use.
18

19 Section 1.38. Reference to Codes.

20 Unless otherwise noted, all references to statutes are to the laws of the State of California and/or of the United
21 States as codified in the various specified codes.
22

23 Section 1.39. Request for Information.

24 "Request for Information" or "RFI" is the name given to a document issued by the Contractor seeking clarification
25 and/or additional information regarding an aspect of the Work. The response to the RFI does not constitute
26 authorization or direction to proceed with any changed or additional work. Changed or additional work must be
27 separately authorized by the District.
28

- 29 1. Should the Contractor require clarification or additional information of the Contract Documents, and
30 after the Contractor has consulted with the Project Inspector, the Contractor will direct the request to
31 the District Representative on a Request for Information (RFI) form. (See appendix.)
32
- 33 2. Each RFI will be submitted to the District Representative un-numbered. The District Representative
34 will number each RFI sequentially and will maintain an RFI log. The Contractor shall describe on the
35 RFI the problem or clarification being requested. The description provided should be complete and
36 adequate to permit a written response without additional communications with the Contractor. The
37 Contractor shall attach any related information or correspondence that may have been received from
38 Subcontractors or vendors on the subject. In instances where the Contractor believes there may be a
39 conflict between elements of the plans and specifications, the Contractor should identify the conflict
40 and indicate the manner in which it interprets the Contract Documents.
41
- 42 3. The District Representative will review the request and take one or more of the following steps:
43 a. Return the request to the Contractor for additional information.
44 b. Forward the request to the A/E for response, copying the Project Inspector.
45 c. Provide response and return to the Contractor with copies to the A/E and Project Inspector.
46
- 47 4. The A/E or other appropriate party receiving the RFI, will attempt to provide a response to the District
48 Representative within seven (7) calendar days of receipt. The District Representative will in turn review
49 the response and forward it to the Contractor. Should the response to an RFI be required by a specific
50 critical date the Contractor shall indicate that date on the RFI.
51
- 52 5. If the A/E's review indicates a change or revision is necessary to the Contract Documents, the A/E will
53 prepare the appropriate drawings and/or specifications required to define the change or revision and
54 obtain DSA approval, if necessary. These documents will be transmitted to the District Representative
55 for review and incorporation into the Contract Documents. The District Representative will transmit the
56 revised documents to the Contractor.
57

- 1
2
3 6. If the Contractor believes the clarification or direction provided by the response to the RFI will impact
4 the cost or schedule of the Project, the Contractor shall provide prompt notification to the District
5 Representative, according to the General Conditions. After consultation with the A/E, the District
6 Representative may prepare a Request for Proposal, PCO/Work Order and/or Change Order (see
7 appendix) that shall be processed as outlined in the Change Order Procedure section of the Manual.
8

9 Section 1.40. Request for Proposal.

10 A “Request for Proposal” or “RFP” is the name given to a document issued by the District Representative requesting
11 pricing information and/or an adjustment in Contract Time for a described scope of work. An RFP is not a Change
12 Order, a Directive or a direction to proceed with the scope of work described in the RFP. The Contractor’s response
13 to the RFP shall be in the form of a Proposed Change Order.
14

15 Section 1.41. Samples.

16 “Samples” shall mean physical examples which illustrate materials, equipment or workmanship and establish
17 standards by which the Work will be judged.
18

19 Section 1.42. Shop Drawings.

20 “Shop Drawings” shall mean drawings, diagrams, schedules and other data specifically prepared by the Contractor
21 or any subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.
22

23 Section 1.43. Site.

24 “Site” is the area within which the Project is to be constructed.
25

26 Section 1.44. Special Inspector.

27 The “Special Inspector” shall mean the person or persons employed or engaged as (an) independent contractor(s)
28 by the District to inspect the performance of specific aspects of the work as required by Title 24, California Code of
29 Regulations.
30

31 Section 1.45. Special Provisions.

32 The “Special Provisions” are specific clauses setting forth conditions or requirements peculiar to the Work, and
33 supplementary to the General Conditions and Technical Specifications.
34

35 Section 1.46. Specifications.

36 “Specifications” include the special provisions, general conditions, general requirements, and technical specifications
37 applicable to the Work, all duly executed and issued addenda and interpretations, and all modifications approved by
38 the District pursuant to a Change Order.
39

40 Section 1.47. Subcontractor.

41 “Subcontractor” shall mean each person or firm who is required by law to be and who is licensed to and will perform
42 work, labor, or render services to the Contractor in or about the construction of the Work, or who, under subcontract
43 to the Contractor, fabricates and installs a portion of the work or improvement.
44

45 “Subcontractor” shall include all persons or firms within the authority of the Subletting and Subcontracting Fair
46 Practices Act, Chapter 2 of Division 5, Title I of the Public Contract Code, commencing with Section 4100.
47

48 Section 1.48. Submittal.

49 “Submittal” shall mean all product data, shop drawings, manufacturers’ instructions, samples, Equals, substitution
50 requests and all other submissions that the Contractor is required to provide to the District and/or the Architect.
51

52 Section 1.49. Substitution.

53 “Substitution” shall mean a system, process, product or material similar in form or function and equal in quality and
54 performance to that shown or specified, but differing in some essential element, e.g., chemical composition,
55 mechanism of action, surface finish, dimensions, durability, electrical or mechanical or plumbing requirements. See
56 also: Equal.
57

1 Section 1.50. Supply.
2 “Supply” shall mean to furnish only, complete and ready for installation, including shipping, delivery, protection, and
3 any assembly required prior to installation.
4

5 Section 1.51. Work.
6 The “Work” shall mean that scope of work defined in Section 00 73 00, Article 1 of these Specifications and includes
7 all labor, materials, equipment and services provided or to be provided by the Contractor to fulfill its obligations. The
8 Work may constitute the whole or a part of the Project.
9

ARTICLE 2. CONTRACT DOCUMENTS

Section 2.01. The Contract.

The Contract Documents form the Contract for Construction. This Contract represents the entire and integrated agreement between the District and the Contractor and supersedes all prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Change Order as defined in Section 1.07. Nothing contained in the Contract Documents shall create any contractual relationship between the District, the District Representative or the Architect and any Subcontractor or sub-subcontractor, or between the District Representative or the Architect and the Contractor.

Section 2.02. General Intent of Contract Documents.

It is the overriding intent of the Contract Documents that the work performed shall result in a complete and operable project in satisfactory condition for occupancy, with all mechanical equipment in functional operating condition and fit for the use for which it is intended, and which complies in all respects with the Contract Documents. No extra compensation will be allowed for anything omitted but fairly implied to be included in the Contract Documents. The prices paid for the various items in the bid shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and doing all items necessary to complete the Work as provided by the Contract Documents.

Section 2.03. Labor and Materials.

Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, light, heat, utilities, transportation and other facilities and services necessary for the execution and completion of the Work in accordance with the Contract Documents and any applicable code or statute, whether or not specifically described herein, as long as same is reasonably inferable there from as being necessary to produce the intended results, whether temporary or permanent, and whether or not incorporated or to be incorporated in the Work.

Section 2.04. Complementary Feature of Various Parts of Contract Documents.

The Contract Documents, including the Specifications and Plans and Drawings, are complementary and what is called for by any one shall be as binding as if called for by all. In case of conflict, large scale (detail) Drawings shall govern over small-scale Drawings, the Specifications shall govern over both the Construction Administrative Procedures Manual and the Contract Drawings except as noted below, special provisions shall govern over both the Contract Drawings and the general conditions, and subsequent addenda, Interpretations, or approved change orders shall govern over the original documents, unless a different order of precedence is noted elsewhere in conjunction with a specific portion of the documents.

In case of conflict between the Drawings and Specifications, the Drawings shall govern in matters of quantity and size, the Specifications in matters of quality. In case of conflict within the Drawings involving quantities or within the Specifications involving quality, the greater quantity and the higher quality shall be provided.

Where on any Drawing a portion of the Work is drawn out and the remainder is indicated in outline, the drawn-out parts shall apply to all other like portions of the Work. Where ornament or other detail is indicated as starting, such detail shall be continued throughout the courses or parts in which it occurs and shall also apply to other similar parts in the Work, unless otherwise indicated.

Scale drawings, full-size details, and specifications are intended to be fully coordinated and to agree. Where not specifically stated otherwise, all work and materials necessary for each unit of construction, even though only briefly mentioned or indicated, shall be furnished and installed fully and completely, including, but not limited to, the manufacturer's instructions and/or recommendations, as part of this Contract.

Any material specified by reference to the number, symbol, or title of a specified standard such as a Commercial Standard, a Federal Specification, a trade association standard, or other similar standards, shall comply with the requirements in the latest approved revision thereof and any amendments or supplements thereto in effect on the date of Notice to Bidders, except as limited to type, class, or grade, or modified in such reference. The standards referred to, except as modified in the Specifications, shall have full force and effect as though printed in these Specifications.

1 Section 2.05. Ownership and Use of Documents.

2 All original Drawings and Specifications prepared by the Architect are and shall remain the property of the District.
3

4 Section 2.06. Successors and Assigns.

5 The District and the Contractor each binds itself, its partners, successors, assigns and legal representatives to the
6 other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect
7 to all covenants, agreements and obligations contained in the Contract Documents. The Contractor shall not assign
8 the Contract or sublet it in whole or part without the written consent of the District nor shall the Contractor assign any
9 moneys due or to become due to it hereunder without the prior written consent of the District.
10

11 Section 2.07. Written Notice.

12 Written notice may be accomplished by personal delivery, United States mail, delivery receipt email, facsimile or
13 any other form of commercially accepted communication. The written notice shall become effective upon delivery.
14 Delivery is complete when the notice is hand delivered to Contractor's home office, job-site office, or to Contractor's
15 superintendent; or when the facsimile transmission is complete; or two days after mailing by U.S. mail; or upon
16 actual delivery as evidenced by a delivery receipt.
17

18 Section 2.08. Rights and Remedies.

19 The duties and obligations of the Contractor imposed by the Contract Documents and the rights and remedies of the
20 District available there under shall be in addition to and not a limitation of any duties, obligations, rights and
21 remedies otherwise imposed or available by law.
22

23 The failure of the District, the District Representative, the Project Inspector or the Architect to insist in any one or
24 more instances upon the strict performance of any one or more of the provisions of this Contract or to exercise any
25 right herein contained or provided by law, shall not be construed as a waiver or relinquishment of the performance of
26 such provision or right(s) or of the right to subsequently demand such strict performance or exercise such right(s)
27 and the rights shall continue unchanged and remain in full force and effect.
28

29 The Contractor agrees that it can be adequately compensated by money damages for any breach of this Contract
30 which may be committed by the District and hereby agrees that no default, act or omission of the District, the District
31 Representative, the Project Inspector or the Architect, shall constitute a material breach of the Contract entitling the
32 Contractor to cancel or rescind the provisions of the Contract or to suspend or abandon performance of all or any
33 part of the Work. The Contractor hereby waives any and all rights and remedies to which it might otherwise be or
34 become entitled, saving only its right to money damages.
35

36 Section 2.09. Unenforceability of any Clause.

37 If any clause or provision of the Contract Documents is held to be unenforceable or invalid, then that provision of the
38 Contract shall be stricken and the remaining portion shall remain in full force and effect.
39

1 independent contractors, or subcontractors or suppliers, and the District, its agents, employees, or independent
2 contractors. Nothing contained in the foregoing indemnity provisions shall be construed to require the Contractor to
3 indemnify the District in contravention of Section 2782 of the Civil Code for the active or sole negligence or willful
4 misconduct of the District.
5

6 To the fullest extent permitted by law, the Contractor's duty to defend shall extend, without limitation, to any suit or
7 action founded upon any losses, claims, demands, damages, costs, expenses, attorney's fees, or liability of every
8 nature arising out of or in any way connected with the performance or attempted performance of the provisions
9 hereof, or in any way arising out of or connected with this Contract.

10
11 The defense and indemnity obligations expressly extend to and include any and all claims, demands, damages,
12 costs, expenses, or liability occasioned as a result of damages to adjacent property caused by the conduct of the
13 Work.
14

15 The defense and indemnity obligations expressly extend to and include any and all claims, demands, damages,
16 costs, expenses, or liability occasioned as a result of the violation by the Contractor, the Contractor's agents,
17 employees, or independent contractors, subcontractors or suppliers of any provisions of federal, state or local law,
18 including applicable administrative regulations.
19

20 The defense and indemnity obligations also expressly extend to and include any claims, demands, damages, costs,
21 expenses, or liability occasioned by injury to or death of any person, or any property damage to property owned by
22 any person while on or about the Site or as a result of the Work, whether such persons are on or about the Site by
23 right or not, whenever the Work is alleged to have been a contributing cause in any degree whatsoever.
24

25 In claims against any person or entity herein indemnified that are made by an employee of the Contractor or an
26 employee of any of the Contractor's agents, independent contractors, subcontractors or suppliers, a person
27 indirectly employed by the Contractor or by any of the Contractor's agents, independent contractors, subcontractors
28 or suppliers, or anyone for whose acts the Contractor or any of the Contractor's agents, independent contractors,
29 subcontractors or suppliers may be liable, the defense and/or indemnification obligation herein shall not be limited by
30 any limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or the
31 Contractor's agents, independent contractors, subcontractors or suppliers under workers' compensation acts,
32 disability acts, or other employee benefit acts.
33

34 The defense and indemnification obligations herein shall not be limited by any assertion or finding that the person or
35 entity indemnified is liable by reason of a non-delegable duty.
36

37 The defense and indemnities set forth herein shall not be limited by the insurance requirements set forth in the
38 Contract Documents.
39

40 The defense and indemnification requirements herein set forth shall extend to claims occurring after this Contract is
41 terminated as well as while it is in force.
42

43 Section 3.09. Indemnification of Adjacent Property Owners.

44 In the event the Contractor enters any agreement with the owners of any adjacent property to enter upon or adjacent
45 to such property for the purpose of performing this Contract, the Contractor shall fully indemnify, defend and save
46 harmless such person, firm, or corporation, state or other governmental agency which owns or has any interest in
47 the adjacent property. The form and content of the indemnification agreement shall be approved by the District prior
48 to commencement of any work on or about such property. The Contractor also shall indemnify the District as
49 provided in Article 10. These provisions shall be in addition to any other requirements of the owners of adjacent
50 property.
51

52 Section 3.10. Insurance.

53 The Contractor shall obtain, and maintain during the entire Contract Time, at its sole cost and expense, all insurance
54 required by Sections 3.13 and 3.14. Certificates of such insurance and copies of the insurance policies and
55 endorsements shall be delivered to the District within ten (10) days after being notified of the intent to award the
56 Contract, and before execution of the Agreement for Construction by the District. Insurance Certificates must
57 indicate Bid Package number and school name.

1 Every policy shall be endorsed to state that it shall not be assigned, canceled, or reduced in coverage without thirty
2 (30) days' prior written notice to District. Every policy shall also be endorsed to state that the District shall be given
3 notice of nonrenewal at least thirty (30) days prior to the nonrenewal date.
4

5 The Contractor shall not commence work until all required insurance documentation has been submitted to and
6 accepted by the District.
7

8 Failure of Contractor to maintain all required insurance during the entire Contract Time shall constitute a default
9 entitling the District to all rights and remedies that exist in the Contract Documents and/or by law.
10

11 The requirements as to the types and limits of insurance coverage, and any approval of said insurance by the
12 District, is not intended and shall not in any manner limit or qualify the liabilities and obligations pursuant to this
13 Agreement.
14

15 Any failure to comply with one or more of the requirements of this section by contractor shall not be deemed to be a
16 waiver by the District of the requirements.
17

18 Section 3.11. Subcontractor's Insurance.

19 The Contractor shall not allow any Subcontractor to commence work on its subcontract until the Subcontractor has
20 provided the insurance specified below. The Contractor shall require each of its Subcontractors to procure and to
21 maintain, during the life of the subcontract, bodily and personal injury liability and property damage insurance, and
22 workers' compensation insurance, of the type and in the same amount as specified herein, including, without
23 limitation, the requirement that the Subcontractor's policy shall be endorsed (1) to include by name the District,
24 Architect, District Representative, Low voltage consultant, Hazardous Materials Consultant, and any other consultant
25 retained by the District, and their officers and employees as additional insured's and shall provide that they are
26 primary with any insurance maintained by District as non-contributory and will have severability of interest
27 endorsement, and (2) to waive all rights of subrogation against the District, District Representative, Architect, Low
28 Voltage Consultant, Hazardous Materials Consultant, and any other consultant retained by the District, or any of
29 their respective officials, employees and volunteers for losses arising from work performed by the Contractor for the
30 District .
31

32 It shall be the responsibility of the Contractor to ensure that all Subcontractors comply with this provision, and to
33 verify their compliance when requested by the District.
34

35 If requested by the District, the Contractor shall deliver certificates of insurance or copies of the insurance policies
36 and endorsements of all Subcontractors; provided, however, that this authority shall not relieve the Contractor of its
37 obligation to ascertain the existence of such insurance.
38

39 Section 3.12. Effective Date of Policies.

40 The insurance required by this article shall be maintained by the Contractor in full force and effect at all times during
41 prosecution of the Work and until two (2) years after the final completion and acceptance thereof by District.
42

43 Section 3.13. Workers' Compensation and Employers' Liability Insurance.

44 In accordance with the provisions of Section 3700 of the Labor Code, the Contractor, and each subcontractor, shall
45 secure the payment of compensation to its employees. The Contractor and each subcontractor shall provide
46 workers' compensation insurance and occupational disease insurance as required by law and employers liability
47 insurance with minimum limits of \$1,000,000 covering all workplaces involved in the Contract Documents.
48

49 The Contractor shall sign and file with the District the following certificate on the form provided by the District:
50

51 I am aware of the provisions of Section 3700 of the Labor Code which require every
52 employer to be insured against liability for workers' compensation or to undertake self-
53 insurance in accordance with the provisions of that Code, and I will comply with such
54 provisions before commencing the performance of the work of this Contract.
55

56 The Contractor shall require each subcontractor to file such statement prior to allowing that subcontractor to
57 commence work.

1
2 The Contractor shall furnish a certificate of insurance or a certificate of permission to self-insure under the Workers'
3 Compensation and Employers' Liability Insurance statutes of the State of California. The certificate shall provide
4 that at least thirty (30) days' prior written notice shall be served on District prior to the cancellation or change of such
5 insurance or self-insurance. Said certificate shall also provide that the insurer shall waive all rights of subrogation
6 against the District, District Representative, Architect, Low Voltage Consultant, Hazardous Materials Consultant, and
7 any other consultant retained by the District, and each of their respective officials, employees and volunteers for
8 losses arising from work performed by the Contractor for the District. Such insurance shall be delivered to the
9 District Representative within ten (10) days of being notified of the intent to award the Contract, and before the
10 District will execute the Agreement for Construction.

11
12 Section 3.14. Liability Insurance.

13 Insurance is to be placed with insurers approved by the State of California Department of Insurance and with a
14 Bests' rating of no less than (A-) Level VII.

15 A. The Contractor and its Subcontractors shall procure and maintain insurance on all of their operations during
16 the progress of the Work, with reliable insurance companies, on forms acceptable to District, for the
17 following minimum insurance coverage's:

- 18
19 1. Comprehensive general liability insurance, including but not limited to, Owner's contingent coverage,
20 and protection for claims of bodily injury and property damage liability, personal and advertising injury
21 liability, and products completed operations liability. Coverage shall be with limits of not less than
22 \$1,000,000 per occurrence and \$2,000,000 general aggregate.

23
24 The insurance shall cover all operations of the Contractor and its Subcontractors, including but not
25 limited to the following: (1) premises, operations and mobile equipment liability; (2) completed
26 operations and products liability; (3) contractual liability insuring the obligations assumed by the
27 Contractor and its Subcontractors under the Contract Documents; (4) independent contractor's
28 contingent coverage; (5) explosion, collapse, and underground property damage; (6) broad form
29 property damage liability endorsement; (7) personal injury liability endorsement.

- 30
31 2. Automobile bodily injury and property damage insurance, including all owned, hired and non-owned
32 equipment with combined bodily injury and property damage liability of \$1,000,000.
33
34 3. Additional coverage's and/or limits may be required in the Special Provisions, Section 00 73 00. If the
35 Special Provisions require limits of general liability and automobile liability insurance exceeding those
36 stated above, the Contractor shall carry excess or umbrella liability insurance providing excess
37 coverage at least as broad as the underlying coverage with a limit equal to the amount stated in the
38 Special Provisions per occurrence and aggregate.
39
40 4. Any excess liability coverage used to supplement the general and automobile liability must either (1) be
41 from the same carrier as the primary insurance, or (2) include the policy statement wherein it describes
42 what the underlying primary coverage must be before the excess liability coverage takes effect.

43
44 B. The following terms shall be included in the liability insurance, either within the policy or by endorsement:

- 45
46 1. All policies shall be endorsed to include by name the District, Architect, District Representative, Low
47 Voltage Consultant, Hazardous Materials Consultant, and any other consultant retained by the District,
48 and their officers and employees as additional insured's and shall provide that they are primary with any
49 insurance maintained by District as non-contributory. Such policies will have severability of interest
50 endorsement.
51
52 2. The limits established under Section 3.14 shall apply separately to the Contractor's Work under this
53 agreement. All liability insurance shall be written on an occurrence basis.
54
55 3. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the
56 District, District Representative, Architect, Low Voltage Consultant, Hazardous Materials Consultant, or
57 any other consultant retained by the District, or any of their respective officials, employees or volunteers.

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4. Coverage shall state that the Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. The insurer shall by separate endorsement agree to waive all rights of subrogation against the District, District Representative, Architect, Low Voltage Consultant, Hazardous Materials Consultant, and any other consultant retained by the District, or any of their respective officials, employees and volunteers for losses arising from work performed by the Contractor for the District.
6. The policy shall state that it is primary insurance and that any insurance or self-insurance fund maintained by or available to the District, District Representative, Architect, Low Voltage Consultant, Hazardous Materials Consultant, or any other consultant retained by the District, and each of their respective officers, agents, employees or volunteers shall be in excess of the Contractor's insurance and shall not be called upon to contribute to a loss covered by the policy.
7. The policy must provide that it shall not be canceled, suspended, voided or changed nor may the "retroactive date" of the policy or any renewal or replacement policy be changed without thirty (30) days' prior written notice to the District. The standard cancellation clause on the certificate shall read:

Should any of the above described policies be canceled before the expiration date thereof, the issuing company will mail 30 days written notice to the certificate holder.

8. A cross liability endorsement must be included to the effect that each insured is covered as if separate policies had been issued to each insured.
9. The liability coverage may be either on a blanket basis or a policy which specifically identifies this agreement with a contractual liability endorsement.
10. Any deductibles or self-insured retentions must be declared to and approved by the District. Any and all deductibles or self-insurance retentions in the above described insurance policies shall be assumed by and be for the account of, and at the sole risk of the Contractor.

Section 3.15. Builder's Risk Insurance.

The Contractor shall, at its sole expense, purchase, maintain and keep in force at all times during the term of the Contract and until the date of transfer of the insurable interest to and acceptance by the District, insurance as to protect the District, the District Representative and the District's agents and employees, the Architect, Low Voltage Consultant, Hazardous Materials Consultant, or any other consultant retained by the District, and each of their respective officers, agents, employees or volunteers, the Contractor, Subcontractors and sub-subcontractors from loss or damage to work in the course of construction. This insurance shall be in the form of "Builders All-risk", "All-risk Installation Floater" or the equivalent, and the limits of liability shall be equal to one hundred-fifty percent (150%) of the contract value.

A. The following terms shall apply to such coverage:

1. Coverage shall be written on a completed value, non-reporting form, on a replacement cost basis, and shall cover the property against all risks of physical loss or damage, including:
 - a. Loss or damage that ensues damage from design error (only if the contractor or subcontractors are designing any portion of the project), defective materials, faulty workmanship, mechanical breakdown or electrical damage. Loss from electrical damage will include any loss or damage arising out of testing, magnetic disturbance and changes in temperature or humidity.
2. The property covered shall include the Work, including any materials, equipment or other items to be incorporated therein while the same are located at the construction site, stored offsite, while in transit or at the place of manufacture. The policy shall contain a provision that both the interests of the District and the Contractor are covered and that any loss shall be payable to the District and the Contractor as their interests may appear.

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3. When stated in the Special Provisions (Section 00 73 00), Builder's Risk insurance shall include Delay in Opening coverage with limits of liability, and for the period of time, as set forth in the Special Provisions. Coverage shall include interest and/or principal payments that become due and payable by the District upon completion of construction or other date as set forth in the Special Provisions, debt service, expense, loss of earnings or rental income or other loss incurred by the District, without deduction, due to the failure of the Project being completed on schedule.

4. The policy shall be endorsed to name the District as an additional payee.

B. If not covered by Builder's Risk insurance or any other property or equipment insurance required by the Contract Documents, the Contractor shall, at its sole expense, purchase, maintain and keep in force at all times during the term of the Contract property insurance (equal to one hundred-fifty percent (150%) of the contract value) for portions of the Contractor's work and/or equipment to be incorporated therein stored offsite or in transit.

1 Section 5.06. Architect's Instruction Bulletins and Drawings.

2 In addition to the Drawings incorporated in the Contract Documents, the Architect, through the District
3 Representative, may furnish such supplemental drawings or instructions from time to time as may be necessary to
4 make clear or to define in greater detail the intent of the Contract Drawings and Specifications. In furnishing
5 additional drawings or instructions, the Architect shall have the authority to make minor changes in the Work, not
6 involving any extra cost, and not inconsistent with the overall design of the Project. If extra cost is known to be
7 involved, these instructions will be accompanied by an RFP. These supplemental drawings and instructions shall
8 become a part of the Contract Documents; the Contractor shall make its work conform to them.
9

10 Section 5.07. Notification of Disagreement Regarding Scope of Work.

11 If agreement cannot be reached as to cost, and the Contractor does not agree that work due to an interpretation or
12 supplemental drawing or instruction is within the scope of the Contract Documents, the Contractor shall, within
13 seven (7) days after receipt of the interpretation or instruction, submit a Proposed Change Order to the District
14 Representative specifying in detail in what particulars the contract requirements were exceeded and the change in
15 cost resulting there from. The District Representative shall then determine whether a Change Order shall be issued
16 in accordance with Article 15 of these General Conditions. The Contractor shall nevertheless perform such work
17 without delay.
18

19 The time during which the protest is pending shall not affect the Contract Time.
20

21 Section 5.08. As-Built Drawings and Specifications.

22 The Contractor shall maintain a hard copy or PDF master set of red line Drawings and Specifications at the Site
23 which shall be updated weekly to reflect current as-built conditions of the Work as the Work progresses. The
24 information to be recorded by the Contractor will be determined by the Architect, who will be responsible for
25 preparing the final, reproducible as-built drawings based upon the information submitted by the Contractor. The
26 Contractor's as-built information shall be clear and legible, and at a minimum, the following information shall be
27 inserted and dimensioned on those Drawings and Specifications, in RED, by the Contractor: the exact horizontal
28 and vertical location of all installations in their finished condition, including all electrical, plumbing and mechanical
29 installations; all changes in construction, materials and installed equipment; posting of all issued addenda,
30 Request for Information (RFI) signed by the Architect and Architect's Instruction Bulletins with back-up to the bid
31 documents in all applicable locations along with adequate dimensional data, both horizontal and vertical, to allow
32 location of covered installations; the identification of each change authorized by Directive, and the number of that
33 Directive. The updated drawings and specifications shall be available for review by the District Representative
34 and the Inspector. If as-builts are marked up in PDF format, the file shall be made available remotely in a manner
35 acceptable to the District Representative and Inspector.
36

37 Written confirmation from the District Representative that the as-builts have been properly updated weekly shall be
38 submitted with each pay application request, and the existence of such properly updated as-builts shall be a
39 condition precedent to payment. Failure to comply with the preparation and submission of as-builts may result in the
40 District withholding the current progress payment.
41

42 As a condition to certification of final completion, the Contractor shall provide signed and dated original as-built
43 drawings and specifications in a PDF color format, with a resolution of 600 DPI and each plan sheet and
44 specification section bookmarked by name, number or title, together with all additional information requested by the
45 Architect to enable the Architect to prepare a set of final, reproducible as-built drawings and specifications. Timely
46 submission of complete as-built documents shall be a condition precedent to certification of final completion and to
47 final payment. Delays in the submission of complete as-built documents may subject the Contractor to liquidated
48 damages.
49

1 Section 6.04. Subcontractor List for Labor Compliance.

2 The Contractor shall provide the District with a list of all subcontractors performing work on the Project, regardless of
3 subcontract amount and regardless of whether the subcontractor is under contract with the Contractor or under
4 contract with a Subcontractor, for the purpose of labor compliance monitoring. It shall be the Contractor's
5 responsibility to notify the District of any additions or deletions to this subcontractor list from the commencement of
6 the Work through final payment.
7

8 Section 6.05. Termination of Unsatisfactory Subcontractors.

9 When any portion of the Work that has been subcontracted by the Contractor is not being prosecuted in a
10 satisfactory manner, or when materials supplied do not conform to the Contract Documents and these deficiencies
11 form the basis of a default notice issued pursuant to Article 16, the District may direct the Contractor to discharge the
12 subcontractor or supplier.
13

14 Any subcontractor or supplier which is discharged shall not again be employed on this Project.

15
16 Any termination of a Subcontractor pursuant to this Section shall be in strict conformity with the requirements of the
17 Subletting and Subcontracting Fair Practices Act, Part 1 of Division 2 of the Public Contract Code, commencing with
18 Section 4100.
19

20 Section 6.06. Payment of Subcontractors and Suppliers.

21 The Contractor shall make all payments to Subcontractors and suppliers as expeditiously and timely as possible,
22 consistent with any applicable law so as to prevent any stop notices, liens or claims from being filed against the
23 District or the Site.
24

1 ARTICLE 7. STATE REQUIREMENTS REGARDING WAGES, HOURS, AND EQUAL OPPORTUNITY

2
3 Section 7.01. Prevailing Wage Rate; Notice.

4 As provided under Labor Code Sections 1726-1861, the Director of the Department of Industrial Relations (DIR) of
5 the State of California has determined the prevailing rate of wages in the locality in which the work on the project is
6 to be performed for each craft, classification, or type of worker needed to execute this Contract. The prevailing rates
7 so determined are on file with the District, and they are available for public inspection. They may also be obtained
8 on the internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Those prevailing wage rates
9 hereby are incorporated in this agreement and made a part hereof.

10
11 The Contractor shall obtain and post copies of these prevailing wage rates in a prominent place at the job site, in
12 accordance with the regulations of the Department of Industrial Relations.

13
14 The Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

15
16 The Contractor shall post on the jobsite a Notice containing the following language:

17
18 This public works project is subject to monitoring and investigative activities by the
19 Department of Industrial Relations (“DIR”), State of California. This Notice is intended to
20 provide information to all workers employed in the execution of the contract for public work
21 and to all contractors and other persons having access to the job site to enable the DIR to
22 ensure compliance with and enforcement of prevailing wage laws on public works projects.

23
24 The prevailing wage laws require that all workers be paid at least the minimum hourly wage
25 as determined by the Director of Industrial Relations for the specific classification (or type of
26 work) performed by workers on the project. These rates are listed on a separate job site
27 posting of minimum prevailing rates required to be maintained by the public entity which
28 awarded the public works contract. Complaints concerning nonpayment of the required
29 minimum wage rates to workers on this project may be filed with the DIR at any office of the
30 Division of Labor Standards Enforcement (“DLSE”).

31 Local Office Telephone Number: _____

32
33 Complaints should be filed in writing immediately upon discovery of any violations of the
34 prevailing wage laws due to the short period of time following the completion of the Project
35 that the DIR may take legal action against those responsible.

36
37 Complaints should contain details about the violations alleged (for example, wrong rate
38 paid, not all hours paid, overtime rate not paid for hours worked in excess of 8 per day or
39 40 per week, etc) as well as the name of the employer, the public entity which awarded the
40 public works contract, and the location and name of the project.

41
42 For general information concerning the prevailing wage laws and how to file a complaint
43 concerning any violation of these prevailing wage laws, you may contact any DLSE office.
44 Complaint forms are also available at the DIR website found at:
45 www.dir.ca.gov/dlse/PublicWorks.html.

46
47 Section 7.02. Payment of Prevailing Wage Rates.

48 Pursuant to Labor Code Section 1772, workers employed by contractors or subcontractors in the execution of any
49 contract for public work are deemed to be employed upon public work as defined in Labor Code Sections 1720-
50 1725. Therefore, the Contractor shall pay, and shall cause all subcontractors, whether under contract with the
51 Contractor or under contract with any Subcontractor, to pay not less than the specified prevailing wage rates to all
52 workers employed in the execution of this Contract.

53
54 In accordance with Labor Code Section 1775, the Contractor shall monitor the payment of the specified general
55 prevailing rate of per diem wages by subcontractors to employees by periodic review of the certified payrolls of the
56 subcontractors.

1 Section 7.03. Wage Rate for Crafts Not Listed.

2 The responsibility to check prevailing wage rates is the Contractor's. Pursuant to Labor Code Section 1773, the
3 Contractor may file with the Director of DIR or the Chief of the Division of Labor Standards Enforcement ("DLSE") a
4 petition to review a determination of any rate or rates made by the Director of DIR. The Contractor may also petition
5 the Director of DIR to make a determination for a particular craft, classification or type of work not covered by a
6 general determination. Pending the review or determination, the wages may be assumed to be those in the
7 applicable collective bargaining agreement, but no adjustment in the bid or Contract Price shall be made if such
8 assumption is incorrect.
9

10 Section 7.04. Records of Hours Worked and Wages.

11 The Contractor shall keep, and shall cause all subcontractors on the Project to keep, certified payroll records of the
12 hours and wages of all employees employed on the Project, and those records shall be open at all times for
13 inspection by the District and/or the Division of Labor Statistics and Enforcement, in accordance with Sections 1776
14 and 1812 of the Labor Code. The certified payroll records shall contain at least the following information: the name,
15 address, social security number, work classification, dates of payroll period, straight time, and overtime hours
16 worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other
17 employee employed by the Contractor and/or each subcontractor in connection with the Work.
18

19 In the event that the Contractor and/or any subcontractor fails to submit certified payroll records to the District within
20 ten (10) calendar days of a request from the District for the records, the Contractor and/or the subcontractor shall, as
21 a penalty, forfeit one hundred dollars (\$100) per calendar day, per worker, until strict compliance is effectuated.
22 These penalties shall be withheld from progress payments then due and/or to become due. The Contractor is not
23 subject to this penalty assessment due to the failure of a subcontractor to comply with these requirements if the
24 Contractor can demonstrate that it has fully complied with the provisions of Labor Code Section 1776.
25

26 The Contractor shall not carry on its payrolls any person not actually employed by the Contractor, nor shall it carry
27 on its payrolls employees of any subcontractor. The Contractor shall show on its payrolls all persons actually
28 employed by the Contractor on the Project, in any capacity. The Contractor shall cause all subcontractors on the
29 Project, whether under contract with the Contractor or under contract with any Subcontractor, to comply with this
30 Section.
31

32 In accordance with Government Code Section 8546.7, or any amendments thereto, all books, records, and files of
33 the Contractor, or any subcontractor connected with the performance of this Contract, shall be subject to
34 examination and audit by the Auditor General for a period of three (3) years after final payment. Contractor shall
35 preserve and cause all subcontractors to preserve such books, records and files for the audit period.
36

37 Section 7.05. Additional Requirements for Labor Compliance.

38 The Contractor shall comply with the following additional requirements and shall cause all subcontractors on the
39 Project, whether under contract with the Contractor or under contract with any Subcontractor, to comply. The
40 records kept by the Contractor and all subcontractors of the hours and wages of all employees employed on Project
41 also shall be open at all times for inspection by the DIR and DLSE, in accordance with Sections 1776 and 1812 of
42 the Labor Code. Such records shall be furnished electronically to the Labor Commissioner of the DIR monthly,
43 unless more frequent submission is required herein, and shall be furnished within 10 days of any separate request
44 by the DIR or DLSE. Payroll records shall be furnished in a format prescribed by the DIR and uploaded into the
45 electronic certified payroll reporting (eCPR) system.
46

47 On a random basis and at such other times as it deems appropriate, the DIR also may confirm the accuracy of
48 payroll reports, including by corroboration of information in payroll reports through independent sources, including
49 without limitation worker interviews, examination of any time and pay records found within the definition of "Payroll
50 Records" in section 16000 of Title 8 of the California Code of Regulations, direct verification of "Employer Payments"
51 (as defined at section 16000 of Title 8 of the California Code of Regulations) through third-party recipients of those
52 payments, or any other legal and reasonable method of corroboration. As part of its confirmation process, the DIR
53 may require Contractor and any of its subcontractors to furnish for inspection itemized statements prepared in
54 accordance with Labor Code Section 226. The DIR may conduct random confirmation based on a recognized
55 statistical sampling of the records submitted.
56

1 The DIR may conduct in-person inspection(s) at the site or sites at which the Work of the Project is being performed
2 (“On-Site Visits”). On-Site Visits may include visual inspection of required job site notices, including but not limited to
3 (1) the determination(s) of the Director of DIR of the prevailing wage rate of per diem wages required to be posted at
4 each job site in compliance with Labor Code Section 1773.2; (2) the Notice of pay days and time and place of
5 payment required by Labor Code Section 207; and (3) any other notices prescribed by law. On-Site Visits may also
6 include inspections of records, inspections of the work site and observation of work activities, interviews of workers
7 and others involved with the Project, and any other activities deemed necessary by the DIR to ensure compliance
8 with prevailing wage requirements. In accordance with Labor Code Section 90, the Labor Commissioner and his
9 deputies and agents shall have free access to any construction site or other place of labor and may obtain any
10 information or statistics pertaining to the lawful duties of the Labor Commissioner, including but not limited to
11 evidence of compliance with Labor Code Section 226 (itemized wage statements for employees) and any other laws
12 enforced by the Labor Commissioner.
13

14 In accordance with Section 16463 of Title 8 of the California Code of Regulations (“8 CCR Section 16463”), the
15 District may, on its own or if required by the Labor Commissioner, withhold funds due to the Contractor when payroll
16 records are delinquent or inadequate. The amount withheld shall be those payments due or estimated to be due to
17 the Contractor or subcontractor whose payroll records are delinquent or inadequate, plus any additional amount that
18 the Labor Commissioner has reasonable cause to believe may be needed to cover a back wage and penalty
19 assessment against the Contractor or subcontractor whose payroll records are delinquent or inadequate. The
20 Contractor shall cease all payments to a subcontractor whose payroll records are delinquent or inadequate until the
21 Labor Commissioner provides notice that the subcontractor has cured the delinquency or deficiency. When
22 payments are withheld under 8 CCR Section 16463, the Labor Commissioner will provide the Contractor and
23 subcontractor, if applicable, with immediate written notice that includes all of the following: (1) a statement that
24 payments are being withheld due to delinquent or inadequate payroll records, and that identifies what records are
25 missing or states why records that have been submitted are deemed inadequate; (2) specifies what amounts the
26 District has been directed to withhold; and (3) informs the Contractor or subcontractor of the right to request an
27 expedited hearing to review the withholding of payments under Labor Code Section 1742, limited to the issue of
28 whether the records are delinquent or inadequate or the Labor Commissioner has exceeded his or her authority
29 under 8 CCR Section 16463. Where the violation is by a subcontractor, the Contractor shall be notified of the nature
30 of the violation and reference shall be made to Contractor’s rights to withhold or recover payments from the
31 subcontractor under Labor Code Section 1729. The withholdings under 8 CCR Section 16463 do not preclude
32 assessment of penalties under Labor Code Section 1776(g) for failure to timely comply with a written request for
33 certified payroll records, as set forth below.
34

35 Section 7.06. Underpayment of Wages.

36 The Contractor agrees that in the event of underpayment of wages to any employee on the Project, whether by the
37 Contractor or any subcontractor on the Project, the District may retain from payments due to the Contractor, an
38 amount sufficient to pay such worker the difference between the wages required to be paid by the DIR, and the
39 wages actually paid such worker for the total number of hours worked, plus any penalties and forfeitures. The
40 District may disburse such retention to such employees.
41

42 Section 7.07. Apprentices.

43 Attention is directed to the provisions of Sections 1777.5, 1777.6 and 1777.7 of the Labor Code concerning the
44 employment of apprentices by the Contractor or any subcontractor.
45

46 The Contractor and all subcontractors on the Project shall comply with the requirements of Sections 1777.5 and
47 Section 1777.6 of the Labor Code in the employment of apprentices. Violation of these requirements shall subject
48 the Contractor and/or subcontractor to the penalties set forth in Section 1777.7 of the Labor Code and/or otherwise
49 provided by law or Contract.
50

51 Information relative to apprentice standards, wage schedules, and other requirements may be obtained from the
52 Director of Industrial Relations, ex-officio the Administrator of Apprenticeship, San Francisco, California, from the
53 Division of Apprenticeship Standards or its branch offices, and/or on the DLSR website at
54 www.dir.ca.gov/DLSR/PWD. Apprentices employed on the Project must at all times work with or be under the direct
55 supervision of a journeyman or journeymen.
56

57 Section 7.08. Penalties.

1 In accordance with Articles 2 and 3, Chapter 1, Part 7, Division 2 of the Labor Code, particularly Sections 1775,
2 1776, 1777.7 and 1813, the Contractor shall forfeit to District as a penalty the sum specified below, over and above
3 any retention or withholds otherwise authorized by the agreement, as follows:
4

- 5 A. Up to two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than
6 the applicable prevailing wages for any work done by him/her under this Contract or under any subcontract
7 on the Project, with the amount to be determined by the Labor Commissioner in accordance with the
8 considerations set forth in Labor Code section 1775. If a worker employed by a subcontractor on the
9 Project is paid less than the prevailing wages by the subcontractor, the Contractor is not subject to this
10 penalty assessment if the Contractor can demonstrate that it did not have knowledge of that failure of the
11 subcontractor to pay the prevailing wages and that it strictly complied with the requirements of Labor Code
12 Section 1775(b).
13
- 14 B. Twenty-five dollars (\$25) for each worker employed in the execution of this agreement by the Contractor or
15 by any subcontractor on the Project for each calendar day during which such worker is required or permitted
16 to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in
17 violation of the provisions of Article 3.
18
- 19 C. Failure to provide certified payroll records to the District or to the Labor Commissioner within ten (10)
20 calendar days of a request, shall, in addition to resulting in a withholding of payments due or estimated to be
21 due, result in a penalty in the amount of one hundred dollars (\$100) for each calendar day, or portion
22 thereof, for each worker until strict compliance is effectuated. The Contractor is not subject to this penalty
23 assessment due to the failure of a subcontractor to comply with these requirements if the Contractor can
24 demonstrate that it has fully complied with the provisions of Labor Code Section 1776.
25
- 26 D. Knowing violation of Labor Code Section 1777.5 shall yield a penalty in an amount not exceeding one
27 hundred dollars (\$100) for each full calendar day of non-compliance. A Contractor or subcontractor who
28 knowingly commits a second or subsequent violation of Section 1777.5 within a three-year period, where
29 noncompliance results in apprenticeship training not being provided as required, shall forfeit as a civil
30 penalty the sum of no more than three hundred dollars (\$300) for each full calendar day of noncompliance.
31

32 Section 7.09. Hours of Work; Approval of Schedules.

33 Eight (8) hours of labor constitutes a legal day's work, and forty (40) hours constitutes a legal work week. No worker
34 employed at any time by the Contractor, or by any subcontractor upon the Project, shall be required or permitted to
35 work more than eight (8) hours in any one calendar day or forty (40) hours in any one week, except as provided in
36 Labor Code Sections 1810 through 1815.
37

38 Overtime shall be paid at the rate of not less than one and one-half (1-1/2) times the basic rate of pay, or at such
39 other rate as stated on the applicable Determination issued by the DIR, or as may be required by applicable statutes
40 or collective bargaining agreements.
41

42 The District reserves the right to approve or disapprove the days scheduled for work, and the hours during which
43 work is in progress.
44

45 Section 7.10. Compliance with State Anti-Discrimination Laws.

46 The Contractor shall comply with Section 1735 of the Labor Code, which provides as follows:
47

48 "A contractor shall not discriminate in the employment of persons upon public works on any
49 basis listed in subdivision (a) of Section 12940 of the Government Code, as those bases are
50 defined in Sections 12926 and 12926.1 of the Government Code, except as otherwise
51 provided in Section 12940 of the Government Code. Every contractor for public works who
52 violates this section is subject to all the penalties imposed for a violation of this chapter."
53

1 everything is in proper condition to receive such work. The Contractor shall notify the District Representative in
2 writing prior to starting work of any discrepancies or conditions which deviate from the Contract Documents or are
3 otherwise unacceptable. Failure on the part of the Contractor to so notify the District Representative shall constitute
4 an acceptance by the Contractor and all subcontractors of all construction in place as being suitable in all respects to
5 receive further work by the Contractor or subcontractors.
6

7 Section 8.07. Contractor's Coordination of Work.

8 The District reserves the right to do other work in connection with the Project by separate contract or otherwise. The
9 Contractor shall at all times conduct its work so as to impose no hardship on the District or others engaged in the
10 Work. The Contractor shall adjust, correct and coordinate its work with the work of others so that no delays or
11 discrepancies shall result in the whole Project.
12

13 Section 8.08. Daily Reports.

14 No less than on a weekly basis, the Contractor's superintendent shall submit to the District Representative daily
15 reports on the District's furnished form (via Constructware), which daily reports shall include, without limitation, the
16 identity of subcontractors on the Site; an accurate headcount of workers on the Site; materials and equipment
17 delivered to the Site; visitors to the Site; work performed; and any problems encountered.
18

19 Section 8.09. Fingerprinting.

20 Education Code section 45125.1 and 45125.2 apply to this Agreement. The Contractor shall, prior to
21 commencement of Work, comply with either of the methods of ensuring safety set forth in Education Code section
22 45125.2(a)(1) (installation of a physical barrier) or 45125.2(a)(2) (continual supervision by an employee of
23 Contractor who has not been convicted of a serious or violent felony). If the Contractor elects to provide continual
24 supervision pursuant to Education Code section 45125.2(a)(2), Contractor shall require any person affiliated with
25 Contractor (or, in appropriate cases, himself or herself) to be fingerprinted by the Department of Justice ("DOJ") if
26 that person will have unsupervised access to school campuses. Upon verification from DOJ that those persons
27 fingerprinted have no record of a serious or violent felony, the Contractor will so certify by signing and submitting
28 to the Governing Board of District the certification form attached as Exhibit A to the Agreement for Construction.
29 In addition, Contractor shall submit the names of those persons who have received clearance and are authorized
30 to have unsupervised access to school campuses on a form as indicated in Exhibit B to the Agreement for
31 Construction. Any person whose name is not on the cleared list may not have such access. In that case,
32 Contractor must make arrangements with District for appropriate access. No person with a violent or serious
33 felony as reported by DOJ may have access to the school campuses.
34

35 Failure to comply with these terms, or permitting unsupervised access by an employee whose name has not been
36 cleared by DOJ as certified by the Contractor shall constitute grounds for termination of this Agreement.
37

ARTICLE 9. INSPECTION AND TESTING

Section 9.01. Inspection.

Inspection shall be provided as required under CCR Title 24, current edition. All inspection costs will be paid for by the District, including special inspection required by Title 24, except as noted otherwise below. A list of required inspections for the Project is included in the Contract Documents.

The Inspector shall be approved by the District, DSA and the Architect. The Inspector will be employed by the District and will perform all inspections in accordance with Title 24, parts 1-5.

Section 9.02. Authority of Project Inspector; Stop Work Notices.

The designated Project Inspector shall be considered to be a representative of the District. It is the inspector's duty to inspect the Work.

The Project Inspector shall have the authority to order the work designated for inspection stopped if a determination is made that work is proceeding in violation of the Contract Documents or any orders issued by the District, its representatives, or the Architect. The failure of the Project Inspector to order the work stopped does not excuse the Contractor from complying with the Contract Documents for that work.

Upon issuing a stop work notice, the Project Inspector shall notify the Architect, who shall inspect the work in question and determine whether it does or does not comply with the Contract Documents. The decision of the Architect shall be final, subject to the disputes procedures in Article 23. The Contractor shall thereafter comply with the instructions of the Architect regarding corrections needed to cure the defect. The suspended work shall be resumed only when the Architect's instructions are fulfilled. The Contractor shall not be entitled to an extension of time in the event of such suspension of work, provided the stop work notice is determined to be supported by the facts.

Section 9.03. Effect of Inspections.

Neither the final inspection and payment, nor any interim inspection or progress payment shall relieve the Contractor of its obligation to fulfill the Contract as required by the Contract Documents.

Any work, materials or equipment not meeting the requirements and intent of the Contract Documents may be rejected, and unsuitable work or materials shall be made good, notwithstanding the fact that such work or materials may previously have been inspected and/or payment therefore may have been made.

Section 9.04. Notice to District of Inspection.

Where the Contract Documents, instructions by the Project Inspector, District Representative or the Architect, laws, ordinances, or any public authority having jurisdiction require work to be inspected, tested or approved before the work proceeds, such work shall not proceed, nor shall it be covered up without inspection. If any part of the Work is covered prior to inspection, the District may order the work to be uncovered so that inspection may be accomplished. The Contractor shall bear all expenses of such examination and satisfactory reconstruction.

The Contractor shall provide written notice to the Project Inspector at least twenty-four (24) hours in advance of the readiness for inspection.

All work shall be available for inspection and the Project Inspector shall have full access to review all work during all working times. The Contractor shall provide all necessary means of safe access (e.g. ladders) for the Project Inspector to perform his/her duties. The Contractor shall furnish the Project Inspector with any information necessary to fully inform him/her of conditions. Inspection does not relieve the Contractor from fulfilling the requirements of the Contract Documents.

Section 9.05. Inspection of Completed Work.

Should the District Representative or the Architect determine that it is necessary or advisable to make an inspection of work already completed at any time before final inspection and acceptance of the Work, by removing or exposing any work, the Contractor shall, upon instruction of the District Representative, promptly furnish all necessary facilities, labor, and materials to do so. If the work is found to be defective in any respect due to the fault of the Contractor or any subcontractor, the Contractor shall bear all expenses of such examination and satisfactory

1 reconstruction. If, however, the work is found to meet the requirements of the Contract Documents, the additional
2 cost of labor and material necessarily involved in the examination and replacement shall be allowed the Contractor
3 and a change order shall be issued for such cost and any time extension justified by delays to the critical path.
4

5 Section 9.06. DSA Field Representative.

6 For contracts requiring DSA approval, the Division of the State Architect will designate a field representative who will
7 visit the Site periodically to review with the Project Inspector compliance of the Project with CCR Title 24
8 requirements. The DSA field representative may require certain modifications to the Project as constructed. In the
9 event the Contractor believes they are outside the scope of this Contract, it shall proceed as in Section 5.06.
10

11 Section 9.07. Overtime work.

12 Whenever the Contractor arranges to work at night or any time when work is conducted other than the normal
13 40-hour week, or to vary the period during which work is carried on each day, it shall give the District Representative
14 and the Project Inspector a minimum of 48-hours notice so that inspection may be provided. Additional inspection
15 costs incurred because of overtime or shift work shall be paid by the District. If this overtime work is necessitated by
16 the Contractor's error or failure to perform, the cost of inspection will be borne by the Contractor.
17

18 Section 9.08. Materials Which May be Tested.

19 The District reserves the right to require the Contractor to provide samples, and to perform tests on any materials,
20 articles, equipment, installations, or construction performed by the Contractor in addition to those specified in the
21 Contract Documents. The District shall assume the cost of sampling and testing materials only when the Contract
22 Documents do not require the Contractor to do so.
23

24 Section 9.09. Testing.

25 All tests shall be performed under the supervision of the testing laboratory or consultant employed by the District,
26 and listed on the DSA-approved list, and at such times as are convenient to the District. The Contractor shall
27 provide written notice to the District Representative at least 24 hours prior to the need for off-site tests or inspections,
28 and the District Representative will arrange such tests or inspections. The Contractor shall bear all expenses of
29 tests performed where the Contractor failed to provide this minimum notice.
30

31 Section 9.10. Selection of Samples.

32 All samples and specimens for testing shall be selected by the Project Inspector or by the testing laboratory, but not
33 by the Contractor.
34

35 Section 9.11. Delivery of Samples.

36 The Contractor shall, at the Contractor's sole cost and expense, furnish, package, mark, and deliver all samples to
37 be tested at locations other than the Site. Samples shall be delivered either to the Project Inspector or to the testing
38 laboratory or such other address specified in the Contract Documents.
39

40 Delivery of all samples to the testing laboratory shall be made in ample time to allow the test to be made without
41 delaying construction. No extra time will be allowed for the completion of the Work by reason of delay in testing
42 samples required by the Contract Documents or due to the Contractor's request for substitution.
43

44 The Contractor shall allow free access at all times to the representatives of the testing laboratory to the Work, and
45 shall point out the sources from which samples are taken.
46

47 All test reports shall be sent to all parties specified in the Contract Documents.
48

49 Section 9.12. Approval of Samples.

50 No materials or work of which samples and/or tests are required shall be used or covered until the District
51 Representative or the Project Inspector informs the Contractor that such samples and/or tests have been approved.
52 If the Contractor installs, uses, or covers any such material, article, or work prior to testing and approval, such shall
53 be at the Contractor's sole risk and expense, and it shall bear all costs of uncovering, repair, and replacement
54 thereof.
55

56 The approval of any samples shall be for the characteristics thereof, or for the uses named in such approval, and no
57 other. No approval of any samples shall be deemed a change or modification in any requirement of the Contract

1 Documents. Upon testing of any sample of material or work, no additional sample shall be considered. All material
2 or work installed after the sampling and testing is performed and approved shall be equal to or better than the
3 approved sample in all respects and shall be accompanied by documentary proof that the material and work
4 sampled is actually representative of that installed.
5

6 Section 9.13. Damage Due to Testing.

7 The Contractor shall, at its sole cost and expense, repair all damage resulting from testing specified in the Contract
8 Documents. The District shall issue a Change Order for repair of damage due to sampling or testing other than
9 specified in the Contract Documents.

10
11 The Contractor shall not make any tests upon portions of the Project already completed, except with the prior written
12 consent and under the direction and supervision of the District Representative.
13

14 Section 9.14. Retesting.

15 If as a result of any test, whether originally specified or not, any material or work is found to be unacceptable, it shall
16 be rejected, and all further sampling and testing required by the District or District Representative shall be at the
17 Contractor's expense.
18

19 Section 9.15. Effect of Sampling and Testing.

20 The District assumes no obligation, and the Contractor shall be relieved of no obligation undertaken pursuant to the
21 Contract Documents by virtue of sampling and testing specified in this article.
22

23 The responsibility for incorporating satisfactory materials and workmanship which meet the Contract Documents in
24 the work rest entirely with the Contractor, notwithstanding any prior samples or tests.
25

1 The responsibility for maintaining a safe working site shall be the Contractor's, and the District and District
2 Representative undertake no obligation to suspend the work or notify the Contractor of any hazardous conditions or
3 noncompliance with safety laws. See hazardous materials exhibit for further information.
4

5 In no case shall the District, the District Representative, the Architect, the Inspector, or their agents, employees or
6 representatives, have either direct or indirect responsibility for maintaining any safety or health conditions, or for
7 ensuring against or correcting any hazardous conditions on the Site.
8

9 Section 10.05. Working Limits and Regulations.

10 The Contractor shall confine its apparatus, storage and materials, and construction operations within the limits
11 established by the District Representative, and shall not unreasonably encumber the Site or adjacent areas with its
12 materials and/or equipment.
13

14 The Contractor shall enforce any instructions from the District Representative or District regarding fires, placement of
15 signs, danger signals, barricades, radios, noise and smoking.
16

17 Section 10.06. Protection of Existing Improvements.

18 The Contractor shall clean the portions of existing improvements and facilities which are used by, traversed or dirtied
19 by the workers on the Work, normal maintenance due to use by District employees or the public excepted.
20

21 The Contractor shall take all necessary precautions to protect all existing improvements and facilities from any
22 damage resulting from the operations, equipment or workers of the Contractor during the course of the construction,
23 and Contractor shall be strictly liable for failure to adequately protect any existing improvements and/or facilities.
24

25 The Contractor shall take all necessary precautions to protect existing facilities against the effects of the elements
26 and Contractor shall be strictly liable for failure to adequately protect any facility.
27

28 All damaged improvements and facilities shall be replaced, repaired, and restored to their original condition without
29 additional cost to the District and without an extension of the Contract Time.
30

31 Section 10.07. Traffic Signals and Traffic Control.

32 Existing signs, lights, traffic signals, control boxes, hydrants, meters, and other similar items occurring within the
33 street or sidewalk areas shall be kept free of obstructions and accessible at all times. All such items shall be
34 protected from the Contractor's operations and shall not be obliterated or obscured by its equipment or materials.
35

36 Should it be necessary to cover up, move, or alter such items, this shall be done only with permission of the
37 authorities having jurisdiction over the items involved.
38

39 Should it be necessary to block a street or sidewalk, the Contractor shall first notify the District Representative and
40 the police and fire departments and other agencies with jurisdiction, and shall comply with their instructions,
41 including scheduling limitations.
42

43 Section 10.08. Security of the Site.

44 The Contractor's attention is directed to Specifications Section 01500 regarding requirements for fencing the Site,
45 gates, and screening. The Contractor's attention is further directed to the security requirements in the Construction
46 Administrative Procedures Manual.
47

48 Section 10.09. Removal of Barricades.

49 Upon completion of the work, the Contractor shall remove from the Site all materials used for barricades, temporary
50 scaffolding, or any other temporary uses.
51

52 Section 10.10. Protection of Adjacent Property; Notices.

53 In addition to any requirements imposed by law, the Contractor shall shore up, brace, underpin, and protect as may
54 be necessary all foundations and other parts of all existing structures on the Site or adjacent to the Site which are in
55 any way affected by the excavations or other operations connected with the completion of the Work.
56

1 Prior to excavation, the Contractor shall notify all public utilities and governmental agencies of the work proposed,
2 and shall ascertain from them the exact location of their utilities.
3

4 Prior to commencing any work which in any way affects adjoining or adjacent land or buildings thereon, or public
5 utilities, the Contractor shall notify the District Representative, who will send the District and occupants thereof a
6 notice, which specifies the type of work to be done, the schedule of the work, the impacts expected from the work
7 and the protective measures being taken by the Contractor. The notice shall also specify that any person receiving
8 notice who has questions regarding it may contact the District Representative.
9

10 Whenever any notice is required to be given to any adjoining or adjacent landowner, utility, governmental agency or
11 other party before commencement of any work, the notice shall be given by the Contractor at least seven days in
12 advance of the work, or longer if required by law or regulation, with a copy delivered to the District Representative.
13

14 The Contractor shall, at the written instruction of the District Representative, meet with any recipient of such notice to
15 explain and discuss the proposed work.
16

17 Section 10.11. Fire Protection.

18 The Contractor shall take all steps necessary to protect all structures from fires and sparks originating from the
19 Work, shall comply with all laws and regulations regarding fire protection, and shall comply with all instructions of the
20 fire department with jurisdiction.
21

22 The Contractor shall notify the District Representative and the fire department in writing at least 72 hours prior to
23 disconnection of either water or electrical service to the Site, and shall comply with the fire department's instructions
24 regarding fire safety.
25

26 The Contractor must keep the fire and intrusion detection systems operational throughout the duration and scope of
27 its work.
28

29 Section 10.12. Repairs or Replacement.

30 Any damage to existing conditions, or to any other improvement or property above or below the surface of the
31 ground, whether private or public, arising from performance of this Contract shall be repaired within 48 hours by the
32 Contractor without expense to the District, unless disruption of school operation or creation of a safety hazard has
33 occurred, in which case damage will be corrected immediately.
34

35 If, in the opinion of the Architect, the best interest of the District requires that repairs be made prior to the execution
36 of any further work, the District Representative will so notify the Contractor who shall delay or discontinue that part of
37 the Work until the necessary repair has been made. Such delay shall be considered non-compensable, and no
38 extension of the Contract Time will be granted therefore.
39

40 Upon the failure of the Contractor to comply with any such order, or upon the Contractor's failure to make immediate
41 emergency repairs which are necessary to protect the Work, the District shall do that work itself as is necessary to
42 protect life and property, in its sole discretion, and deduct the total cost of such work from the next progress
43 payment. No prior notice to the Contractor shall be necessary for the District to take this action.
44

45 Section 10.13. Emergency Safety Actions.

46 In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without previous
47 instructions or authorizations from the District, is authorized and shall act at its discretion and risk to prevent such
48 threatened loss or injury, and the Contractor shall bear all costs of that action. The Contractor shall immediately
49 notify the District Representative of such actions, and thereafter shall comply with any instructions issued by the
50 District Representative.
51

ARTICLE 11. SUBMITTALS

Section 11.01. Submittals.

The Contractor, at its sole cost and expense, shall furnish to the District Representative all Submittals and other descriptive material as are required by the Specifications or requested by the Architect.

Shop drawings shall be done with sufficient detail to adequately describe items proposed to be furnished or methods of installation to enable the District and Architect to determine compliance with the Specifications and with the design and arrangement shown on the working drawings.

The Contractor shall check and coordinate all Submittals with the work of all trades involved before they are submitted. The Contractor shall review each Submittal for conformance with the requirements of the Contract Documents.

All Submittals for the Project shall be made within thirty-five (35) days of the Notice of Intent to Award; however, the Contractor shall have the additional responsibility to coordinate the schedule of its Submittals with the requirements of the Contract Schedule so as not to delay the Project. No delay claims related to Submittals will be entertained on the Project for any Submittal originally received after the thirty-five (35) day submittal period. The District shall not accept limitations in materials, colors, quality, or any other aspect of products or materials due to the Contractor's failure to provide Submittals as required. At the District's discretion, the Contractor may be directed to furnish and install temporary materials until the District selected material is available. Further, the District may require the Contractor to install the District selected materials during non-school hours/days without an increase in the Contract Sum and without an extension of the Contract Time.

Contractor shall submit a schedule of Submittals organized by Specification section required for the Project. It shall delineate whether product data, installation instructions, shop drawings, samples, extra stock or mock-ups are required. The schedule of Submittals shall indicate whether the Submittal will be in electronic format, as set forth below. In general, other than items requiring color selections, samples and shop drawings, Submittals will be in electronic format. This schedule of Submittals shall be submitted using the approved Constructware Excel Template within ten (10) calendar days of the issuance of the Notice of Intent to Award. Any omissions or inaccuracies shall not relieve the Contractor of the obligation for conforming to the requirements in the Contract Documents. The Contractor's Submittal schedule shall provide sufficient time for delivering the Submittal to the Architect, the Architect's review of each Submittal, delivering the Submittal to the Contractor and re-submittal as necessary. In no case shall the Contractor allow fewer than fourteen (14) days, exclusive of delivery time, for the District Representative and the Architect to review each Submittal.

Section 11.02. Submission of Submittals.

Most Submittals shall be submitted electronically. Electronic Submittals which are submitted together shall be compiled into a single, bookmarked PDF file, containing links to enable navigation to each item within the Submittal package. The Contractor shall name the electronic Submittal file with a consistent project identifier, composed of the project name, bid package number, and specification section number. Electronic Submittals shall be transmitted via the District Representative's Collaboration Site address. Submittals shall be submitted The District Representative will not review the Submittals for technical compliance, but may reject any Submittal found, in the District Representative's judgment, to be incomplete. The District Representative will maintain a Submittal log, and weekly meeting minutes shall note if Submittals have been accepted. Submittals requiring color selections, samples, or shop drawings will be logged into Constructware.

For shop drawings, color selections and samples, the Contractor shall submit no less than three (3) originals. All Submittals of shop drawings, color selections and samples shall be marked with the project name, the Contractor's name, and the specification section number, and shall be accompanied by a letter of transmittal to the District Representative. The letter of transmittal for shop drawings shall list the identifying number of the drawings submitted and cross-reference them to the page or sheet in the specifications and/or working drawings to which they are related.

By approving and submitting shop drawings, product data, manufacturers' instructions, and samples, the Contractor represents that it has determined and verified all materials, field measurements and field construction criteria related thereto and that it has checked and coordinated the information contained within those Submittals with the

1 requirements of the Work and to the Contract Documents. The Contractor shall adhere to any supplementary
2 processing and scheduling instructions pertaining to Submittals as may be issued by the District Representative.
3

4 The District Representative will not accept shop drawings, product data or manufacturers' instructions which are not
5 sufficiently dimensioned and detailed to demonstrate compliance with the Contract Documents.
6

7 The Submittals shall be submitted promptly, so as to cause no delay in the work. The Submittals shall be submitted
8 so as to allow the District Representative and the Architect a review period of no less than fourteen (14) days, and in
9 accordance with the schedule of Submittals provided by the Contractor.
10

11 Section 11.03. Review of Submittals.

12 Following submission, the Submittals will be reviewed and returned with one or more of five possible responses by
13 the District Representative or Architect. These possible responses are as follows:
14

- 15 A. Unreviewed: If the Submittal is not required, or if it is not complete, or if it does not meet the form, format,
16 and number requirements specified, it may be returned unreviewed. If the Submittal is not required, work
17 may commence; if the Submittal was returned due to form requirements, it shall be resubmitted and
18 approval obtained prior to commencement of the work.
19
- 20 B. Approved, Reviewed, or No exceptions taken: In the event the Submittal is acceptable as submitted, it will
21 be returned with this status. Work may proceed upon receipt of approved Submittal.
22
- 23 C. Make Corrections Noted: If the Submittal is acceptable except for certain items which have been noted by
24 the Architect, it will be so designated. Work may proceed with the corrections made, and no resubmittal is
25 necessary.
26
- 27 D. Revise and Resubmit: This status indicates that revisions are noted on the Submittal, and an additional
28 Submittal is required to reflect those revisions and/or additional information. Work may not commence until
29 the resubmittal is approved.
30
- 31 E. Rejected: A Submittal may be rejected if it is not in compliance with the Contract Documents, or if it
32 proposes an "or equal" or substitution which is not acceptable to the Architect. A superseding Submittal
33 shall be submitted and approved prior to commencement of the work.
34

35 Should the Contractor proceed with the work shown on a Submittal before approval is received, it shall remove and
36 replace or adjust any work which is not in accordance with the Submittal as ultimately approved, and it shall be
37 responsible for any resultant damage, defect, or added cost. The District shall be under no obligation to pay for work
38 installed prior to approval of Submittals, until the Submittals are approved and the work in place is found to be in
39 compliance with the Contract Documents.
40

41 The Contractor shall resubmit Submittals in categories "D" and "E" above after making any changes required so that
42 Submittals will comply with the Contract Documents. When resubmitting, the Contractor shall direct specific
43 attention to deficient areas. Resubmittals shall be made within ten (10) days of return of the previous Submittal, and
44 in any event in sufficient time so as to avoid delay to the Work. No delay claims related to resubmittals will be
45 entertained on the Project for any resubmittal originally received after the ten (10) days.
46

47 The Architect shall determine the adequacy and completeness of all Submittals. Where the Architect deems a
48 Submittal to be inadequate, incomplete, or otherwise unsuitable for proper review, the Contractor shall submit all
49 additional information requested by the Architect. There shall be no change to the Contract Time or the Contract
50 Sum when such additional information is required.
51

52 Section 11.04. Submittals Showing Variation from Contract.

53 It shall be the responsibility of the Contractor to specifically point out any variation or discrepancy between the
54 Submittals submitted and the Contract Documents.
55

56 The Contractor shall make specific mention of all variations, along with an explanation of why they are requested, in
57 its letter of transmittal.

1 Failure by the contractor to identify in its letter of transmittal any variation, discrepancy, or conflict with the contract
2 documents shall render the approval null and void, and the contractor shall bear all risk of loss and reconstruction
3 costs or delays.
4

5 If any architectural, plumbing, mechanical, electrical, or structural modifications are required as a result of the
6 approval of Submittals which deviate from or do not comply with the Contract Documents, those modifications shall
7 be made without extra cost to the District, and without extension of the Contract Time. Any other resultant costs,
8 including but not limited to design fees, construction management fees, costs incurred by other contractors, or
9 inspection fees, shall be at the expense of the Contractor.

10
11 Section 11.05. Effect of Approval of Submittals.

12 The approval of Submittals shall not relieve the Contractor of the obligation for accuracy of dimensions and details;
13 for conforming the work to the requirements of the Contract Documents; or from responsibility to fulfill the Contract at
14 no extra cost to the District, within the Contract Time.
15

16 Section 11.06. Equal Materials.

17 Unless otherwise provided in the technical specifications, whenever in the Contract Documents any systems,
18 processes, products, or materials are indicated or specified by the name brand of the manufacturer, or by patent or
19 proprietary names, those specifications shall be deemed to be a measure of quality and utility or a standard, and
20 shall be deemed to be followed by the words, “or equal.” It is the intent of this article to comply with Public Contract
21 Code Section 3400.
22

23 If the Contractor desires to use any other brand or manufacturer of equal quality and utility to that specified, it shall
24 make application to the District Representative in writing, within ten (10) business days after Notice of Intent to
25 Award, and shall submit samples and all other information necessary to substantiate its claim of “or equal”. Such
26 application constitutes a certification that the Contractor:
27

- 28 A. Has investigated the proposed Equal and determined that it meets or exceeds, in all respects, the specified
29 system, process, product, or material.
- 30
- 31 B. Will provide the same warranty for the proposed Equal as for the specified system, process, product or
32 material.
- 33
- 34 C. Will coordinate installation and make other changes which may be required for work to be complete in all
35 respects and at no additional cost to the District.
- 36
- 37 D. Waives claims for additional costs and/or Contract Time which may subsequently become apparent.
38

39 The Architect then will determine whether or not the proposed system, process, product or material is equal in
40 quality and utility to that specified, and its decision shall be final. The Architect will render its decision within twenty
41 one (21) business days after submission of all required information for the application. If the request is not accepted,
42 the Contractor shall provide the specified system, process, product or material without an increase in the Contract
43 Sum and/or Contract Time.
44

45 Neither the submission of a request for an Equal, nor the Architect’s review of the application, will extend the time for
46 submission of any required Submittals.
47

48 Requests for Equal systems, process, products or materials will be considered only when offered by the Contractor
49 as required by this article.
50

51 Section 11.07. Substitutions.

52 Unless otherwise provided in the technical specifications, the Contractor may make proposals for Substitutions to
53 systems, process, products or materials shown or specified only under one or more of the following conditions:
54

- 55 A. Unavailability: If the specified system, process, product, or material, or an Equal, is no longer available in
56 the marketplace.
57

- 1 B. Delay: If obtaining the specified system, product, process or material, or an Equal, will delay completion of
2 the Work through no fault of the Contractor.
- 3
- 4 C. Better system, process, product or material: If a better system, product, process or material is available at
5 no additional cost.
- 6
- 7 D. Savings: If a system, process, product or material which meets all of the performance requirements of that
8 specified is available at a savings to the District.
- 9

10 A proposal for Substitution shall include all information required by the Architect to evaluate the substitute system,
11 process, product or material. All Substitutions shall be submitted with an approved "Substitution Request Form".
12 Reference Exhibits in Construction Administrative Procedures Manual. Such proposal constitutes a certification that
13 the Contractor:

- 14 A. Has investigated the proposed Substitution and determined that it meets or exceeds the performance
15 requirements of the specified system, process product or material.
- 16
- 17 B. Will provide the same or better warranty for the proposed Substitution as for specified system, process,
18 product or material.
- 19
- 20 C. Will coordinate installation and make other changes which may be required for the work to be complete in all
21 respects at no additional cost to the District.
- 22
- 23
- 24 D. Waives claims for additional costs and/or Contract Time, which may subsequently become apparent.
- 25

26 The District Representative and the Architect shall evaluate a timely Substitution request, and shall approve, deny,
27 approve with conditions, or initiate the procedure for a change order in response to the Contractor's request. This
28 decision shall be final. This decision will be rendered within twenty one (21) business days after submission of all
29 required information for the proposal. If the request is not accepted, the Contractor shall provide the specified
30 system, process, product or material without an increase in the Contract Sum and/or Contract Time.

31 Failure by the Contractor to identify all deviations from the Contract Documents in its request for substitution shall
32 render any District action taken thereon null and void. The Contractor shall bear all costs resulting from any error in
33 the request for Substitution.

34 Only one request for Substitution will be considered for each product.

35 Substitutions may be subject to DSA approval, in which case the time to review will be extended by the duration of
36 the DSA approval process.

37 Neither the submission of a request for substituted systems, processes, products or materials, nor the District
38 Representative's and/or Architect's review of the application, will extend the time for submission of any required
39 Submittals.

40 Section 11.08. Time for Proposing Substitution.

41 Substitution proposals will not be considered prior to bidding. All requests for Substitutions shall be made within the
42 same time requirement for initial submittals. Failure to timely submit a Substitution request shall constitute a waiver
43 by the Contractor and an acceptance of the specified systems, processes, products and materials. Late submittals
44 may be considered only when the District Representative consents in writing, and the District's best interests so
45 require.

46 Section 11.09. Samples and Testing of Proposed Substitutions; Costs of Adapting to Work.

47 When the District Representative or Architect determines that samples and testing are required to evaluate a
48 request for a Substitution, the District Representative shall so advise the Contractor, and specify the systems,
49 processes, products, materials or work to be sampled. The Contractor shall, at no cost to the District, provide
50 samples as required by these General Conditions dealing with samples and testing, or the Technical Specifications.

1 The Contractor shall bear all costs of sampling and testing required to decide a request for Substitution, and if a
2 Substitution is accepted, the Contractor shall bear all costs associated therewith, including the cost of the District
3 Representative's, Architect's and/or engineer's services required to adapt the Substitution to the design to the
4 complete satisfaction of the District, and all costs of mechanical, electrical, structural, or other changes needed to
5 adapt the Substitution to the Work.
6

7 Section 11.10. Effect of Approval of Equal Materials or Substitution Request.

8 If an application for an Equal or Substitution request is approved, the Contractor shall be solely and directly
9 responsible for setting approved Equal or Substitution systems, processes, products, materials and/or equipment
10 into the available space, and for the proper operation of the Equal or Substitution systems, process, products,
11 materials and/or equipment with all other systems, processes, products, materials and/or equipment with which it
12 may be associated, all in a manner acceptable to the District.
13

14 No time extensions nor any increases in the Contract Sum shall be granted on account of an Equal or Substitution.
15 In the event of a savings, the Contract Sum shall be adjusted by the price difference between the approved Equal or
16 Substitution and the originally specified item.
17

18 Section 11.11. Quality of Materials and Products.

19 The Contractor shall, if required by the Architect, Project Inspector, or District Representative, furnish satisfactory
20 evidence as to the kind and quality of materials provided.
21

22 The District Representative may require, and the Contractor shall submit if required, a list designating the source of
23 supply of each item of materials incorporated into the Work, and in such event, those materials or products shall not
24 be delivered to the Work nor installed therein until after the District Representative has approved the list.
25

26 Contractor shall certify that the materials and equipment installed comply with the Contract Documents and to the
27 best of the Contractor's knowledge, no installed materials or equipment contain asbestos.
28

29 Section 11.12. Better Material or Process.

30 In the event that the Contractor furnishes a material, product, process, or article better than that specified in the
31 Contract Documents, the difference in cost of that material, product, process, or article shall be borne by the
32 Contractor.
33

34 Section 11.13. Industry Standards.

- 35
- 36 A. Any material specified by reference to the number, symbol, or title of a specified standard such as a
37 Commercial Standard, a Federal Specification, a Trade Association Standard, or other similar standard,
38 shall comply with the requirements in the latest revision thereof, including any amendments or supplements
39 thereto, in effect on the date of the Bid, except as limited to type, class, or grade, or modified in that
40 reference.
41
 - 42 B. The standard referred to, except as modified in the specifications, shall have full force and effect as though
43 printed in these specifications. These standards are not furnished to the bidder for the reason that the
44 manufacturers and trades involved are assumed to be familiar with their requirements.
45
- 46 1. Where Federal Specifications are referred to as a measure of quality and standard, they refer to Federal
47 Specifications established by the Procurement Division of the United States Government and are
48 available from the Superintendent of Documents, U.S. Government Printing Office.
49
 - 50 2. Where Federal Specification numbers are used, they refer to the latest edition including amendments
51 thereto.
52
 - 53 3. Where Commercial Standards (CS) or Product Standards (PS) are referred to as a measure of quality,
54 standard, and method of fabrication, they refer to Commercial Standards and Product Standards issued
55 by the U.S. Department of Commerce.
56

- 1 4. Where ASTM serial numbers are used, they refer to the latest tentative specifications, standard
2 specifications, standard method or standard methods of testing, issued by the American Society for
3 Testing Materials, unless specifically noted.
4

5 Section 11.14. Materials and Products Storage.

6 The Contractor shall confine the storage of all materials, products, and equipment required in the performance of
7 this contract to the areas specified by the District. The Contractor shall obtain prior approval from the District
8 Representative regarding areas for storage and methods of protection. All material, products, and equipment shall
9 be brought and used upon the premises in such manner as to leave driveways and parking areas clear for the
10 regular use of the public and District employees.
11

12 Section 11.15. Original Packages or Containers; Labels.

13 All materials delivered to the Site shall be new, unless otherwise specified, of the type, capacity, and quality
14 specified, and free from defects. All materials shall remain in their original packages or containers until ready for
15 use. The labels of all packages or containers shall remain affixed, and kept legible. No product shall be stored in
16 any container, the label of which does not accurately describe the contents of the container.
17

18 Section 11.16. Protection of Materials and Equipment.

19 The Contractor shall protect the work, materials, and equipment from damage due to the action of the elements,
20 trespassers, or other causes. The Contractor shall properly store materials and equipment and, when necessary,
21 erect temporary structures to protect them from damage. The Contractor shall replace any items damaged as a
22 result of improper protection at no expense to the District.
23

24 Section 11.17. Providing and Paying for Materials.

25 Except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all
26 materials, products, articles, processes, labor, tools, equipment, and installation, and all associated superintendence
27 of every nature whatsoever necessary to execute and complete the Work within the Contract Time.
28

29 Section 11.18. Warranty of Title.

30 No material, article, product, supplies, or equipment for the Work shall be subject to any chattel mortgage, or a
31 conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or
32 supplier.
33

34 The Contractor warrants good and sufficient title to all material, supplies, and equipment installed or incorporated in
35 the Work, and agrees upon completion of the Work to deliver the premises, together with all improvements and
36 appurtenances, constructed or placed thereon by the Contractor, to District, free from any claims, liens, or charges.
37

38 The Contractor agrees that neither it nor any person, firm, or corporation furnishing any materials or labor for any
39 work covered by this Contract shall have any right to a lien upon the premises or any improvement or appurtenances
40 thereon; provided, however, that nothing contained in this Section shall defeat or impair the rights of persons
41 furnishing materials or labor under the payment bond given by the Contractor, nor any rights under any law
42 permitting such persons to look to funds due to the Contractor but retained by District.
43

44 The Contractor shall cause the provisions of this Section to be inserted in all subcontracts and material contracts
45 executed by the Contractor and notice of this provision shall be given to all persons furnishing materials for the
46 Work.
47

48 This Section shall not disallow the Contractor's installing any devices or equipment of utility companies or of
49 governmental agencies, the title to which is commonly retained by the utility company or the agency.
50

51 Section 11.19. Patents and Royalties.

52 All fees, claims, or royalties for any patented or copyrighted invention, article, arrangement, or plan that may be used
53 upon or in any manner connected with the doing of the work or any part thereof shall be included in the price bid for
54 doing the work. The Contractor and its sureties shall protect, defend, indemnify and hold harmless the District,
55 District Representative, the Project Inspector, the Architect and its consultants, and each of their respective officers,
56 agents, and employees against any and all demands made for such fees or claims and against any and all suits,

1 demands, claims or causes of action brought or made by the holder of any invention, patent, copyright, or
2 trademark, or arising from any alleged infringement of any invention, patent, copyright, or trademark.
3

4 Before final payment is made on account of this Contract, the Contractor shall furnish acceptable proof to District of
5 proper release from all such fees or claims.
6

7 Section 11.20. Payment of Federal or State Taxes.

8 Any federal, state or local tax, specifically including sales and use taxes, payable on materials furnished by the
9 Contractor pursuant to the Contract, shall be included in the Contract Sum and paid by the Contractor.
10

ARTICLE 12. PROGRESS PAYMENTS

Section 12.01. Schedule of Values.

As part of required post bid submittals, and at least fourteen (14) days prior to the first payment application, the Contractor shall submit to the District Representative a schedule of values broken down by phase, and within each phase by building, in sufficient detail to evaluate progress at any point in the Work. In no event shall an individual line item on a schedule of values exceed five (5) percent of the Contract Sum unless so approved in advance by the District Representative. Costs shall be segregated by phase, and within each phase by building. Labor, material, and subcontract costs shall be shown separately. Cost of Contract closeout shall be shown as individual line items, including, but not limited to, closeout documents, punchlist, and as-built documentation. Each of these line items shall be no less than three (3) percent of the total Contract Sum.

All other General Conditions items should be prorated among the actual construction values. The schedule of values must be prepared in sufficient detail and supported by such data to substantiate its accuracy as the District Representative and the District may require. This schedule, when approved, shall be used as a basis for the Contractor's applications for payment, and the approved schedule of values is an express condition precedent to processing the Contractor's payment application(s).

Section 12.02. Application for Payment.

- A. Prior to the date for each progress payment review established in the Preconstruction Meeting, the Contractor shall submit to the District Representative a copy of the schedule of values, marked in pencil to show the percentage of completion proposed by the Contractor for each line item. No extension of dollar amounts is required.
- B. At a meeting held on or before the assigned billing date of each month, the District Representative, Architect, Project Inspector, and the Contractor will review the Contractor's proposed percentages of completion and agree on a final percentage to be paid for that month. The progress payment will be based on the estimated percentage complete. No progress payment will be made unless all general conditions items demonstrate satisfactory progress. Upon agreement of the amount due, the Contractor will prepare a hard copy of the Application of Payment Summary and transmit it to the District Representative for processing by the assigned day of each month.
- C. Release of Liens: For each monthly application for payment, following agreement on percentages of completion, the Contractor shall submit a conditional lien release in the form provided in the Contract Documents warranting that title to all work, labor, materials and equipment covered by the application is free and clear of all liens, claims, security interests or encumbrances. Additionally, the Contractor shall submit unconditional lien releases for all work through the prior progress payment. For final payment, the Contractor and all of its Subcontractors and material suppliers shall submit final conditional and final unconditional lien releases.

Contractor shall submit a list of all Subcontractors and material suppliers including company name, address, business and emergency telephone numbers, and contact person. This Subcontractor and material supplier list shall be submitted prior to the issuance of the Notice to Proceed.
- D. The signing of a certificate of payment will constitute a representation by the District Representative, Project Inspector and the Architect to the District that, based on their observations at the Site, and the data comprising the application for payment, the Work has progressed to the point indicated and that, to the best of their knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to any specific qualifications stated in the certificate for payment); and that the contractors are entitled to payment in the amount certified. However, by signing a certificate for payment, the District Representative and the Architect shall not thereby be deemed to represent that either has made exhaustive or continuous on-site inspections to check the quality or quantity of the work, that either has reviewed the construction means, methods, techniques, sequences or procedures, or that either has made an examination to ascertain how or for what purpose the contractors have used the monies previously paid on account of the Contract Sum.

- 1 E. No progress payment will be released until District Representative has received all of the following items in
2 acceptable form: as-built updates, schedule updates, certified payroll and other pay records if requested by
3 the District, and lien releases.
4

5 Section 12.03. Payment for Stored Materials.

6 Payments may be made by the District, at its discretion, on account of materials or equipment not incorporated in
7 the Work but delivered to the Site and suitably stored by the Contractor. Payments for materials or equipment
8 stored shall only be considered upon submission by the Contractor of satisfactory evidence demonstrating that it has
9 acquired title to such material, that the material will be used in the Work, that it is satisfactorily stored, protected and
10 insured, and that the Contractor has undertaken such other procedures satisfactory to the District Representative,
11 Project Inspector, and Architect, to protect the District's interests. Materials stored off-site, to be considered for
12 payment, shall, in addition to the above requirements, be stored in a bonded warehouse, fully insured, and available
13 to the Architect and District Representative for inspection. The District Representative shall have complete
14 discretion as to the amount of material and equipment that may be stored on the Site at any given time.
15

16 Section 12.04. Payment; Retention.

17 There shall be reserved from the monies earned by the Contractor on estimates a sum equal to five percent of such
18 estimates. It is understood that, if payment requests are made in accordance with established time schedule,
19 payment requests received and approved by District will be processed within thirty (30) days following approval.
20 Payment for Change Orders, if any, under this Contract shall be made in like manner.
21

22 Section 12.05. Posting Securities in Lieu of Withholds.

23 Pursuant to Public Contract Code Section 22300, at the request and expense of the Contractor, securities equivalent
24 to the amount withheld pursuant to Section 12.04 shall be deposited with the District, State Treasurer or with a state
25 or federally chartered bank in California as the escrow agent, who shall then pay the retainage to the Contractor.
26 Upon satisfactory completion of the Contract, the securities shall be returned to the Contractor.
27

28 Alternatively the Contractor may request, pursuant to Public Contract Code Section 22300, and the District shall
29 make payment of retentions under Section 12.04 directly to the escrow agent. The Contractor shall receive the
30 interest earned on the investments upon the same terms provided for in Section 22300 for securities deposited by
31 the Contractor. Upon satisfactory completion of the Contract, the Contractor shall receive from the escrow agent all
32 securities, interest and payments received by the escrow agent from the District.
33

34 Either alternative under this Section may be exercised only if requested in writing by the Contractor within five (5)
35 days after receipt of Notice of Intent to Award. The Contractor shall notify its Subcontractors in writing within fifteen
36 (15) days of exercising this option.
37

38 Securities eligible for investment under this Section shall include those listed in Government Code Section 16430 or
39 bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, stand-by letters of credit,
40 or any other security mutually agreed to by the Contractor and the District.
41

42 The Contractor shall be the beneficial owner of any securities substituted for monies withheld and shall receive any
43 interest thereon.
44

45 Section 12.06. Withholding Additional Amounts; Grounds.

46 In addition to the amounts which the District may retain as provided in Section 12.04, the District may withhold a
47 sufficient amount from any payment or payments otherwise due to the Contractor as in the District's sole discretion
48 may be necessary to protect the District in the event of the following:
49

- 50 A. Third party claims filed or reasonable evidence indicating probable filing of such claims;
51
52 B. Defective work not remedied;
53
54 C. Failure of the Contractor to make proper payments to any of its Subcontractors or for labor, materials or
55 equipment;
56

- 1 D. The occurrence of reasonable doubt that the Contract can be completed for the balance of payments then
2 unpaid to the Contractor, or in the time remaining until expiration of the Contract Time;
3
4 E. Failure of the Contractor to comply with any lawful or proper direction concerning the Work given by any
5 District representative authorized to have given such instruction;
6
7 F. Claims and/or penalties which state law assesses against the Contractor for violation of such law;
8
9 G. Any claim or penalty asserted against the District by virtue of the Contractor's failure to comply with the
10 provisions of all governing laws, ordinances, regulations, rules, and orders;
11
12 H. Any liquidated damages which may accrue as a result of the Contractor's progress failing to meet the
13 schedule milestones or failing to achieve completion within the Contract Time.
14
15 I. Any reason specified elsewhere in the Contract Documents as grounds for a retention or that would legally
16 entitle the District to a set-off.
17

18 In order to adequately protect the District, the Contractor agrees that the basic standard to determine the amount to
19 be withheld pursuant to this Section shall be one hundred fifty percent (150%) of the amounts claimed or the value
20 of the work not done or defectively done; provided, however, that District reserves the authority to retain greater
21 sums should such sums be necessary in the District's discretion to adequately protect it.
22

23 Section 12.07. Disbursement of Withheld Amounts.

24 The District, in its sole discretion, may apply any withheld amount or amounts to the payment of any claim resulting
25 in a withhold. The Contractor agrees and hereby designates the District as its agent for such purposes, and any
26 payment so made by the District shall be considered as a payment made under this Contract by the District to the
27 Contractor. The District shall not be liable to the Contractor for any payments made in good faith. Such payments
28 may be made without a prior judicial determination of the claim or claims. The District shall render to the Contractor
29 a proper accounting of any funds disbursed on behalf of the Contractor.
30

31 Prior to disbursing any amounts, District shall afford the Contractor an opportunity to present good cause, if any it
32 has, why the claim or claims in issue are not valid or just claims against the Contractor. The District reserves the
33 right then to take such further steps as are appropriate, in its sole discretion, including, but not limited to, seeking a
34 judicial resolution of the controversy.
35

36 Section 12.08. Correction of Statement and Withholding of Payment.

37 No inaccuracy or error in any statement provided by the Contractor shall operate to release the Contractor or any
38 surety from the error, or from damages arising from such work, or from any obligation imposed by the Contract
39 Documents. The District shall retain the right subsequently to correct any error made in any previously issued claim
40 for the progress or other payment, or payment of any kind issued, by adjustments to subsequent payments.
41

42 Section 12.09. Effect of Progress Payments.

43 Neither the payment, the withholding, nor the retention of all or any portion of any progress payment claimed to be
44 due and owing to the Contractor shall operate in any way to relieve the Contractor from its obligations under this
45 agreement. The Contractor shall continue diligently to prosecute the Work without reference to the payment,
46 withhold, or retention of any progress payment. The payment, withhold, or retention of any progress payment shall
47 not be grounds for an extension of the Contract Time.
48

ARTICLE 13. TIME OF WORK

1
2
3 Section 13.01. Not applicable.
4

5 Section 13.02. Contract Schedule Development.

6 Within ten (10) days after receiving the Notice to Proceed, the Contractor shall submit a detailed proposed
7 Contract Schedule presenting an orderly and realistic plan for completion of the Work, in conformance with the
8 requirements of this Article. The proposed Contract Schedule shall be in hard copy and on a CD in electronic
9 format other than pdf.

10
11 The Contract Schedule shall furnish or comply with the following requirements:

- 12
13 A. A time scaled CPM type schedule prepared in Microsoft Project software.
14
15 B. No activity on the schedule shall have a duration longer than fourteen (14) days, with the exception of
16 fabrication and procurement activities, unless otherwise approved by the District Representative.
17 Activity durations shall be the total number of actual days required to perform that activity including
18 consideration of weather impact on completion of that activity.
19
20 C. Procurement of major equipment, through receipt and inspection at the job site, identified as a
21 separate activity.
22
23 D. Owner furnished materials and equipment if any, identified as separate activities.
24
25 E. Dependencies (or relationships) between activities.
26
27 F. Processing/approval of submittals and shop drawings for major equipment. Activities that are
28 dependent on submittal acceptance and/or material delivery shall not be scheduled to start earlier
29 than the expected acceptance or delivery dates.
30
31 G. Separate buildings and other independent project elements shall be individually identified in the
32 network.
33
34 H. Fourteen (14) days for developing punch list(s), completion of punch list items, and final clean up for
35 the work or any designated portion thereof. No other activities shall be scheduled during this period.
36
37 I. Interface with the work of other Contractors (or entities).
38

39 The District Representative will review the proposed Contract Schedule for conformance with the requirements of
40 the Contract. Within ten (10) days after receipt, the District Representative will accept the proposed Contract
41 Schedule or will return it with comments. If the proposed Contract Schedule is not accepted, the Contractor shall
42 revise the schedule to incorporate comments and resubmit the schedule for acceptance within seven (7) days
43 after receiving it. The accepted schedule shall become the Contract Schedule.
44

45 The Contract Schedule shall be the basis for evaluating job progress, payment requests, and time extension
46 requests. The responsibility for developing the Contract Schedule and monitoring actual progress as compared to
47 the schedule rests with the Contractor.
48

49 Failure of the Contract Schedule to include any element of the work or any inaccuracy in the Contract Schedule
50 will not relieve Contractor from responsibility for accomplishing all the Work in accordance with the Contract.
51

52 Acceptance of the Contract Schedule will not relieve the Contractor of the responsibility for accomplishing the
53 Work in accordance with the Contract.
54

55 Failure to obtain the accepted Contract Schedule within forty (40) calendar days of the Notice to Proceed may
56 result in the District withholding ten percent (10%) of each progress payment, or \$1000, whichever is greater,
57 until an accepted Contract Schedule is obtained.
58

1 Section 13.03. Monthly Updates.

2 Contractor shall submit to the District Representative each month an up-to-date status report of the Work. The
3 status report shall be in hard copy and on a CD in electronic format other than pdf and shall include:

- 4
5 A. Contractor's estimated percentage complete and remaining duration for each activity not yet
6 complete.
7
8 B. Actual start/finish dates for activities as appropriate.
9
10 C. Identification of processing errors, if any on the previous update reports.
11
12 D. Revisions, if any, to the assumed activity durations including revisions for weather impact for any
13 activities due to the effect of the previous update on the schedule.
14
15 E. Identification of activities that are affected by requested or proposed changes to the Work.
16
17 F. Resolution of conflict between actual work progress and schedule logic. When out of sequence
18 activities develop in the Contract Schedule because of actual construction progress, the Contractor
19 shall submit revision to schedule logic to conform to current status and direction.
20

21 The District Representative will review the updated information and meet with Contractor each month at the Site
22 to determine the status of the Work. If agreement cannot be reached on any issue, the Contractor will use the
23 District Representative's determination in the processing of the update.
24

25 Progress payments pursuant to the Contract will be based on the update of the Contract Schedule. No progress
26 payments will be made without the required monthly update of the Contract Schedule.
27

28 Section 13.04. Schedule Revisions.

29 If the sequence of construction differs significantly, as determined by the District Representative, from the
30 Contract Schedule, Contractor shall submit within fifteen (15) days a revised schedule to the District
31 Representative for approval.
32

33 When a requested or proposed change to the Work will have an impact on the critical path, the Contractor shall
34 submit a schedule fragnet or Network Window showing this impact. If the requested or proposed change is
35 accepted by the District, the schedule fragnet or Network Window shall be incorporated into the Contract Schedule.
36 Time extensions will be considered only to the extent there is insufficient remaining float to accommodate these
37 changes, and pursuant to Article 14 of these General Conditions. No additional cost beyond that provided in Article
38 15 will be allowed for the incorporation of approved changes into the Contract Schedule.
39

40 Should the Contractor, after acceptance of the Contract Schedule, intend to change its plan of construction, it
41 shall submit its requested revisions to the District Representative, along with a written statement of the revision,
42 including a description of the logic for rescheduling the work, methods of maintaining adherence to Intermediate
43 milestones and other specific dates and the reasons for the revisions. If the requested changes are acceptable to
44 the District Representative, they will be incorporated into the Contract Schedule in the next reporting period.
45

46 Schedule revisions shall be submitted at least seven (7) days prior to the date of submission of update
47 information. The District will have seven (7) days to review the revisions.
48

49 Section 13.05. Short Interval Schedules.

50 Contractor shall prepare a Short Interval Schedule (SIS) to be used throughout the duration of Work. The SIS shall
51 include all current activities and projected activities for the succeeding two (2) weeks. The SIS shall include actual
52 start/finish dates for the preceding one (1) week. The SIS shall be submitted in hard copy and electronic PDF format
53 to the District Representative prior to the weekly construction meeting. The Contractor shall participate in short
54 interval scheduling coordination during the weekly construction meetings.
55

1 Section 13.06. Owner's Right to Revise Schedule.

2 In the event of a delay affecting the occupancy date of the Project and not the fault of the Contractor, the District
3 Representative may elect to resequence work or otherwise modify the schedule in an attempt to maintain the Date
4 of Completion. It shall be the responsibility of the Contractor to cooperate in this effort. It is not the District's
5 responsibility to ensure the Contractor the ability to use "optimal" crew size throughout the Project and no adjustment
6 of the Contract Sum will be made for minor variations in crew size or claimed loss of efficiency or disruption that
7 result from schedule adjustments. However, overtime work or weekend work required by the District Representative
8 to meet schedule objectives other than those of the individual contractor will be reimbursed per the provisions of
9 Article 15, provided that Contractor has not contributed to the delay which the District Representative is seeking to
10 overcome. If the Contractor contends that a schedule adjustment will cause a significant disruption of its work
11 sequence or ability to perform work efficiently, it shall notify the District Representative within forty-eight (48) hours of
12 receipt of the adjustment. Failure to provide timely notice constitutes a waiver by Contractor of any claim for
13 compensation arising out of the schedule adjustment.

14 Section 13.07. Commencement of Work.

15 The Contractor shall commence procurement of long lead materials and equipment after receipt of Notice of
16 Intent to Award and appropriate Submittals have been approved.

17 Section 13.08. Time of Essence.

18 Time is of the essence of this agreement. The Contractor shall, to the fullest extent possible, carry on the various
19 classes or parts of the Work concurrently, and shall not defer construction of any portion of the Work in favor of any
20 other portion of the Work, without the express approval of the District Representative.

21 Section 13.09. Date of Completion.

22 The Contractor shall fully and satisfactorily complete the Work within the Contract Time. The Date of Completion is
23 defined in Article I.

24 Section 13.10. Responsibility for Completion.

25 The Contractor shall furnish sufficient manpower, materials, facilities and equipment and shall work sufficient hours,
26 including night shifts, overtime operations, Sundays and holidays as may be necessary to insure the prosecution
27 and completion of the Work in accordance with the Contract Time. If work on the critical path is seven (7) days or
28 more behind the currently updated Contract Schedule and it becomes apparent that the Work will not be completed
29 within the Contract Time, the Contractor will implement whatever steps it deems necessary to make up all lost time.
30 If the Contractor's solution is not successful, it will make further attempts using the following sequence of events:

- 31 A. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.
- 32 B. If the above cannot be achieved then;
 - 33 1. The Contractor shall increase manpower in such quantities and crafts as will substantially eliminate, in
34 the judgment of the District Representative, the backlog of work; or increase the number of working
35 hours, shifts per working day, working days per week or the amount of equipment or any combination of
36 the foregoing sufficiently to substantially eliminate in the judgment of the District Representative the
37 backlog of work.
 - 38 2. In addition, the District Representative may require the Contractor to submit a recovery schedule
39 demonstrating its program and proposed plan to make up a lag in scheduled progress and to ensure
40 completion of the Work within the Contract Time. If the District Representative finds the proposed
41 recovery schedule unacceptable, it may require the Contractor to submit a new plan. If the actions
42 taken by the Contractor or the second plan proposed are unsatisfactory, the District Representative may
43 require the Contractor to take any of the actions set forth in the previous paragraph without additional
44 cost to the District to make up the lag in scheduled progress.

45 Failure of the Contractor to comply with the requirements of this Section 13.09 shall be considered grounds for a
46 determination by the District, pursuant to Article 12, Section 12.06D, that the Contractor is failing to prosecute the
47 Work with such diligence as will ensure its completion within the time specified.

1 Section 13.11. Payments Withheld.
2 Progress Payments may be withheld in whole or in part should the Contractor fail to comply with the requirements
3 of this Article.
4

ARTICLE 14. DELAYS AND EXTENSIONS OF TIME

Section 14.01. Extensions of Time; Unavoidable Delays.

The Contractor shall not be granted an extension of time except on the issuance of a Change Order by the District, upon a finding of good cause for such extension.

A. As used herein, the following terms shall have the following meanings:

1. “Excusable Delay” means any delay in completion of the Work beyond the expiration of the Contract Time caused by conditions beyond the control and without the fault or negligence of the Contractor. These events may include strikes, embargoes, fire, unavoidable casualties, national emergency, and stormy and inclement weather conditions in which the District Representative and Project Inspector agree that work on the critical path cannot continue. The financial inability of the Contractor or any Subcontractor or supplier and any default of any Subcontractor, without limitation, shall not be deemed conditions beyond the Contractor’s control. An Excusable Delay may entitle the Contractor to an extension of the Contract Time, in accordance with this Section of the general conditions, but shall not entitle the Contractor to any adjustment of the Contract Sum.
2. “Compensable Delay” means any delay in the completion of the Work beyond the expiration date of the Contract Time caused solely by the wrongful acts of the District and which delay is unreasonable under the circumstances and not within the contemplation of the parties. A Compensable Delay may entitle the Contractor to an extension of the Contract Time, in accordance with this Section of the General Conditions and/or an adjustment of the Contract Sum, in accordance with Article 15. Except as provided herein, the Contractor shall have no claim for damage or compensation for any delay, interruption, hindrance, or disruption.
3. “Inexcusable Delay” means any delay in completion of the Work beyond the expiration of the Contract Time resulting from causes other than those listed in Subparagraphs A1 and A2, above. An Inexcusable Delay will not entitle the Contractor to an extension of the Contract Time or an adjustment of the Contract Sum.

B. The Contractor may make a claim for an extension of the Contract Time, for an Excusable Delay or a Compensable Delay, subject to the following:

1. If an Excusable Delay and a Compensable Delay occur concurrently, the maximum extension of the Contract Time shall be the number of days from the commencement of the first delay to the cessation of the delay which ends last. Any adjustment of the Contract Sum shall be in accordance with Article 15 and shall be based only on the non-concurrent portion of any Compensable Delay.
2. If an Inexcusable Delay occurs concurrently with either an Excusable Delay and/or a Compensable Delay, the maximum extension of the Contract Time shall be the number of days, if any, by which the duration of the Excusable Delay and/or the Compensable Delay calculated in accordance with subparagraph B1, if applicable, exceeds the Inexcusable Delay. The duration of the concurrence is non-compensable.

Delays in the prosecution of parts or classes of the Work which do not prevent or delay the completion of the whole Work within the Contract Time are not to be considered Excusable or Compensable.

Section 14.02. Notice of Delays; Requests for Time Extensions.

Whenever the Contractor foresees any delay in the prosecution of the Work, and in any event immediately upon the occurrence of any delay which the Contractor regards as good cause for an extension, the Contractor shall notify the District Representative in writing of the delay. The notice shall specify with detail the cause asserted by the Contractor to constitute good cause for an extension together with a detailed schedule analysis showing the effect of the delay on the critical path of the Contract Schedule and a quantification of the length of the requested extension of time. Failure of the Contractor to submit such a notice within ten (10) days after the initial occurrence of the event giving rise to the delay shall constitute a waiver by the Contractor of any entitlement to a time extension, as well as to any associated additional compensation, and no extension shall be granted as a consequence of such delay.

1 The District shall have no obligation to consider any time extension request unless the requirements of the Contract
2 Documents are complied with. The District shall not be responsible or liable to the Contractor for any constructive
3 acceleration due to failure of the District to grant time extensions under the Contract Documents, should the
4 Contractor fail to comply with the submission and justification requirements of the Contract Documents for time
5 extension requests. The Contractor's failure to perform in accordance with the Contract Schedule shall not be
6 excused because the Contractor has submitted time extension requests, unless and until such requests are
7 approved by the District.
8

9 Section 14.03. Investigation; Procedure.

10 Upon receipt of a request for extension, the District Representative shall conduct an investigation of the facts
11 asserted by the Contractor to constitute good cause for an extension. The District Representative shall report the
12 results of this investigation, as well as the propriety of the time extension requested, to the Contractor in writing
13 within ten (10) days of receipt of the request and shall indicate whether it will recommend for or against the
14 extension.
15

16 Upon receiving the District Representative's recommendation, the Contractor may either concur in the
17 recommendation, or reject the recommendation and proceed with a claim as provided for in Articles 21 and 23.
18

19 Section 14.04. Discretionary Time Extensions for Best Interest of District.

20 The District reserves the right to extend the time for completion of the Work if the District determines that such
21 extension is in the best interest of the District. In the event that a discretionary extension is granted at the request of
22 the Contractor, the District shall have the right to charge to the Contractor all or any part, as the District may deem
23 proper, of the actual cost of construction management, engineering, inspection, supervision, incidental and other
24 overhead expenses that accrue during the period of the extension, and to deduct all or any portion of that amount
25 from the final payment for the Work.
26

27 In the event a discretionary time extension is ordered over the objection of the Contractor, and the decision rests
28 solely with the District and is not legally compelled for any cause, the Contractor shall be entitled to a contract
29 change pursuant to Article 15 adjusting the price paid to reflect the actual costs incurred by the Contractor as a
30 direct result of the delay, upon its written application therefore, accompanied with such verification of costs as the
31 District Representative requires. The decision of the District on any discretionary time extension and the costs
32 thereof shall be final and binding on the District and the Contractor.
33

34 Section 14.05. Liquidated Damages.

35 If the Work is not completed by the Contractor in the time specified in Section 00 73 00, Special Provisions, or within
36 any period of extension authorized pursuant to this Article, the Contractor acknowledges and admits that the District
37 will suffer damage, and that it is impracticable and infeasible to fix the amount of actual damages. Therefore, it is
38 agreed by and between the Contractor and the District that the Contractor shall pay to the District as fixed and
39 liquidated damages, and not as a penalty, the sum specified in the Agreement for Construction for each calendar
40 day of delay until the Date of Completion, and that both the Contractor and the Contractor's surety shall be liable for
41 the total amount thereof, and that District may deduct Liquidated Damages from any monies due or that may
42 become due to the Contractor. If it appears during the course of construction that the Contractor is behind schedule
43 and the imposition of liquidated damages is likely, or if liquidated damages begin to accrue prior to the time for final
44 payment, the amount accrued shall be withheld from any progress payment that would otherwise be due. This right
45 to withhold funds is intended to complement the District's rights under Section 12.06.
46

47 This liquidated damages provision shall apply to all delays of any nature whatsoever, save and except only delays
48 found to be excusable or compensable pursuant to Section 14.01, or time extensions granted by the District
49 pursuant to Section 14.04.
50

51 Pursuant to Government Code Section 4215, the Contractor shall not pay fixed and liquidated damages for delay in
52 completing the project caused by the failure of the District or the owner of utility facilities located on the Project Site
53 to provide for removal or relocation of such facilities.
54

55 Payment by the District of any progress payments after expiration of the Contract Time shall not constitute a waiver
56 by the District of its right to claim liquidated damages in accordance with this Section.
57

1 If the Contract is terminated before or after the Contract Time, as adjusted by any extensions of time that the District
2 may have granted, pursuant to Section 18.07, the Contractor shall remain liable to the District for liquidated
3 damages for all periods of time from such termination date until the Date of Completion.
4

5 Section 14.06. Extension of Time Not a Waiver.

6 Any extension of time granted the Contractor pursuant to this Article shall not constitute a waiver by the District of,
7 nor a release of the Contractor from the Contractor's obligation to perform this Contract in the time specified by the
8 agreement, as modified by the particular extension in question.
9

10 The District's decision to grant a time extension due to one circumstance set forth in one request, shall not be
11 construed as a grant of an extension for any other circumstance or the same circumstance occurring at some other
12 time, and shall not be viewed by the Contractor as a precedent for any other request for extension.
13

14 Section 14.07. Suspensions Exceeding One Year.

15 Should the Work be suspended for a period exceeding one calendar year due to war conditions, labor conditions,
16 legal actions, or for other conditions constituting the legal defense of impossibility of performance, the Contractor
17 and District agree to enter into an agreement terminating the agreement upon the following terms and conditions.
18

19 District shall be responsible only to pay the Contractor the actual value of the work performed from the Date of
20 Commencement or from the date of the last progress payment, whichever is later, plus the five percent (5%)
21 retention from prior progress payments, less any deductions authorized by the Contract Documents.
22

23 As between the Contractor and District, it shall be conclusively presumed that the actual value for the Contractor's
24 work to the date of the last progress payment is no more than the actual amount of prior progress payment plus the
25 five percent (5%) retention from those progress payments; provided, however, that this Section shall not preclude
26 District from deducting charges for work or materials which do not meet the requirements of the Contract
27 Documents.
28

29 Section 14.08. Effect of Stop Work Notice.

30 If the District orders a stop work notice pursuant to Article 9, the days on which the suspension is in effect shall be
31 included in determining the required completion date, and shall not otherwise modify or extend the time within which
32 the Contractor is to perform. In such event, the Contractor shall not be entitled to any damages or compensation on
33 account of such suspension or delay, unless the Contractor can establish that stop work notice was not warranted.
34

ARTICLE 15. CHANGES TO THE WORK

Section 15.01. No Changes Without Consent.

No extra work shall be performed, and no change shall be made, except pursuant to a written Change Order or Proposed Change Order signed by the District, or by a Directive signed by either the District or the District Representative, stating that the extra work or change is authorized, and no claim for any addition to the Contract Sum or Contract Time shall be valid unless so authorized; provided, however, that nothing in this Article shall excuse the Contractor from proceeding with the prosecution of the work so changed. The Contractor shall, when required by the District Representative, furnish an itemized breakdown of the quantities and prices used in computing the value of any change requested by the Contractor, or that may have been ordered by the District, including all items listed in Sections 15.06 and 15.07, below.

Change Orders shall specify the cost adjustments associated therewith, and in no case shall the District pay or become liable to pay any sums different than those specified or those established under Section 15.06 and 15.07.

Certain CCDs must be submitted to, and approved by, DSA prior to being implemented. Substitutions are considered CCDs and, if DSA approval is required, are to be approved by DSA prior to fabrication or use.

Section 15.02. Change Orders.

Subject to legal requirements relating to competitive bidding, the District may require changes in, additions to, or deductions from the work to be performed or the materials to be furnished pursuant to the Contract Documents. Changes may be made pursuant to a written Change Order signed by the District, which shall state the agreement of the District, the Contractor, the Architect, and, if applicable, DSA upon all of the following:

- A. The scope of the 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.

The District may also issue unilateral change orders based upon previously issued Directives. Unilateral change orders shall be approved by the District, the Architect, DSA if applicable and the District Representative, but need not be signed by the Contractor.

If the Contractor believes that conditions have changed, or that it has been directed to do additional work requiring a change in time or cost, the Contractor may submit to the District Representative a Proposed Change Order (PCO).

Except for Minor Change Orders described below, all adjustments to the Contract Sum or the Contract Time must be approved by the District.

Signature by the Contractor on the Change Order constitutes its agreement with and acceptance of the adjustments in the Contract Sum and Contract Time, if any, set forth in the Change Order as full and complete satisfaction of any direct or indirect additional cost and/or time incurred by the Contractor in connection with performance of the change work.

Section 15.03. Minor Change Orders by District Administration.

The Board of Education of the District has authorized the District Superintendent or his/her designated deputy to order minor changes or additions in the Work. This authorization allows any change or addition in the Work to be ordered in writing by the Superintendent or designated deputy when the extra cost to the District for any such change or addition does not exceed the amount specifically authorized by the Board of Education.

Section 15.04. Change Orders Regarding Time for Completion.

Any time extension authorized by the District pursuant to Article 14 hereof shall be set forth in a Change Order signed by the District.

1 Section 15.05. Construction Change Directive/Directive.

2 Changes also may be made pursuant to a Directive, which shall direct a change in the Work and state a proposed
3 basis for adjustment, if any, in the Contract Sum or Contract Time, or both. A Directive shall be used in the absence
4 of total agreement on the terms of a Change Order, or when time does not permit processing of a Change Order
5 prior to implementation of the change. Directives shall be approved by the District, the Architect, and, if applicable,
6 DSA, but need not be signed by the Contractor. Upon receipt of a Directive, the Contractor shall promptly proceed
7 with the change in the work involved. It is the intent of the District that all Directives will be converted to a Change
8 Order.
9

10 When a Directive is used because time does not permit processing of a Change Order prior to implementation of the
11 change, signature by the Contractor on the Directive constitutes its agreement with and acceptance of the
12 adjustments in the Contract Sum and Contract Time, if any, set forth in the Directive as full and complete satisfaction
13 of any direct or indirect additional cost and/or time incurred by the Contractor in connection with performance of the
14 change work.
15

16 If the Contractor disagrees with the method for adjustment in the Contract Sum, the adjustment shall be
17 determined by the District Representative on the basis of any of the methods described in Section 15.06A,
18 paragraphs 2, 3, or 4.
19

20 Section 15.06. Pricing of Changes.

21 A. If a Change Order or Directive provides for an adjustment to the Contract Sum, the adjustment shall be
22 based on one of the following methods:
23

- 24 1. Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to
25 permit evaluation;
- 26 2. Unit prices stated in the Contract Documents or subsequently agreed upon;
- 27 3. The District Representative's estimate of the value of the change; or
- 28 4. Time and materials, as set forth in Section 15.07 and 15.08.
29
30
31

32 Section 15.07. Allowable Costs.

33 A. Allowable costs for any Change Order shall be limited to the following:
34

- 35 1. Costs of labor, including social security, medical and unemployment insurance, fringe benefits required
36 pursuant to Article 7, and workers' compensation insurance;
- 37 2. Costs of first line supervision labor, including labor burden as described in Paragraph 1. "First Line
38 Supervision" shall mean a working foreman or lead craft worker other than the project superintendent;
- 39 3. Actual cost of the project superintendent associated with any period of compensable delay caused by
40 issuance of the change order. In the absence of a compensable delay, all of the project
41 superintendent's time is considered to have been paid for as part of the Overhead;
- 42 4. Actual costs of materials, including sales tax and delivery;
- 43 5. Rental costs of machinery and equipment, exclusive of small tools, whether rented from the Contractor
44 or others;
- 45 6. Overhead and Profit as specified below. "Overhead" shall include the following:
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52 Preparation of all paperwork related to changes in the Work, including field review, estimating and cost
53 breakdown; coordination and supervision, both office and field, including the project superintendent;
54 vehicles including gas and maintenance; small tools, incidentals and consumables; engineering,
55 detailing, and revisions to shop drawings and as-built drawings; general office and administrative
56

1 expense; extended and unabsorbed home office overhead; warranty; costs of bonds, liability insurance,
2 and all taxes; and all other expenses not specifically included in Paragraph A above.
3

- 4 B. The Contractor's combined overhead and profit for work performed by its own forces shall be fifteen percent
5 (15%) of the costs specified in Section 15.07(A)(1)-(5). If the changed work is performed by a
6 Subcontractor, the Subcontractor shall be entitled to an allowance of fifteen percent (15%) of its actual labor,
7 material and rental costs for overhead and profit. The Contractor shall be allowed to mark-up the
8 Subcontractor's price ten percent (10%) for its overhead and profit. Cumulative total markup for all tiers of
9 contractors and subcontractors shall not exceed thirty percent (30%).
10
- 11 C. If the net value of a change results in a credit from the Contractor or Subcontractor, the credit shall be the
12 actual net cost, plus five percent (5%) for overhead and profit. When both additions and credits covering
13 related work or substitutions are involved in any one change, the allowance for Overhead and Profit shall be
14 figured on the basis of the net increase or decrease, if any, with respect to the change.
15

16 Section 15.08. Time and Materials Adjustment.

- 17 A. Pricing and Record Keeping. In the event that the pricing method selected is the time and materials method
18 described in Section 15.06A, paragraph 4, the pricing shall be calculated using the formula and costs set
19 forth in Section 15.07 except that time and material (T & M) labor rates shall be pre-approved by the District
20 Representative for T & M work. The Contractor shall keep and present daily, in such form as the District
21 Representative may prescribe, an itemized accounting together with appropriate invoices and other
22 supporting data of the labor, materials, and equipment used during that day. All labor shall be recorded on
23 separate time sheets clearly identified with the Directive number and scope of extra work involved. These
24 time sheets shall be signed daily by the Project Inspector or the District Representative. No costs will be
25 allowed for time not recorded and signed the same day the work takes place. The Contractor and the
26 District Representative shall discuss and attempt to resolve any disputes concerning the Contractor's daily
27 records at the time the report is submitted.
28
- 29 B. Reconciliation. The Contractor shall, on a monthly basis accompanying the progress payment request,
30 submit a reconciliation for all work performed under a time and materials Directive during the period of the
31 progress payment. A final reconciliation shall be submitted within 30 days after the work of the Directive is
32 completed. The reconciliation shall recap all costs and appropriate markups for the period. No costs will be
33 allowed for work not included in a reconciliation within the time periods specified.
34

35 Section 15.09. Effect on Sureties.

36 All changes authorized by the Contract Documents may be made without notice to or consent of the sureties on the
37 contract bonds, and shall not reduce the sureties' liability on the bonds.
38

39 The District reserves the right to require additional payment or performance bonds to secure a change order.
40

41 Section 15.10. Unforeseen Site Conditions.

42 If this Contract requires the digging of trenches or other excavations that extend deeper than four feet below the
43 existing surface, the following provision shall apply to those trenches or excavations:
44

- 45 A. In the event that any of the following described conditions is suspected to exist in the trench or excavation,
46 the Contractor shall promptly, and before the condition is disturbed, notify the District Representative, in
47 writing, of any:
48
- 49 1. Material that the Contractor believes may be material that is hazardous waste, as defined in Section
50 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III
51 disposal site in accordance with provisions of existing law.
 - 52 2. Subsurface or latent physical conditions at the Site differing materially from those indicated in the
53 Contract Documents.
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- 3. Unknown physical conditions at the Site of any unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.
 - B. Upon receipt of notice from the Contractor, the District Representative, the District and the Architect shall promptly investigate the conditions, and if it is determined that the conditions do materially so differ or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the work shall issue a Change Order or Directive under the procedures described in the Contract Documents.
 - C. In the event that a dispute arises between the District and the Contractor as to whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract Documents, but shall proceed with all work to be performed under the Contract Documents. The Contractor shall retain any and all rights provided either by the Contract Documents or by law which pertain to the resolution of disputes and protests between the contracting parties.
 - D. No contract adjustment which results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice under paragraph A of this Section 15.10.
 - E. No contract adjustment will be allowed under the provisions specified in this section for any effects caused on unchanged work.

25 Section 15.11. Notice of Dispute

26 If the Contractor intends to make a claim for a change in the Contract Sum or Contract Time, the Contractor must
27 give the District Representative written notice within ten (10) days of the occurrence of the event giving rise to the
28 claim. Thereafter, the Contractor may proceed with a claim as provided for in Articles 21 and 23. Failure to provide
29 the written notice within ten (10) days of the occurrence of the event giving rise to the claim shall constitute a waiver
30 by the Contractor of any claim for a change in the Contract Sum or Contract Time.
31

1 Section 18.02. Termination by the District for Cause.

2 The District may terminate the Contract, pursuant to the provisions of this Article, for the following causes:

- 3
- 4 A. The Contractor is insolvent or has made a general assignment for the benefit of creditors, or a receiver has
5 been appointed on account of the insolvency of the Contractor.
 - 6
 - 7 B. The Contractor or any of its Subcontractors violate any of the provisions of the Contract Documents or fail to
8 perform the work within the time specified in the current Contract Schedule.
 - 9
 - 10 C. The Contractor or any of its Subcontractors should fail to make prompt payment to Subcontractors or
11 material suppliers for material or for labor as required by statute.
 - 12
 - 13 D. The Contractor or a Subcontractor persistently disregards laws, ordinances, or the instructions of the District
14 Representative, Architect or the District.
 - 15
 - 16 E. The Contractor fails to abide by a stop work notice issued pursuant to Article 9 or fails to correct rejected
17 work or materials as required by Article 17.
 - 18
 - 19 F. The Contractor fails to provide and keep in full force and effect all insurance required by Article 3, or fails to
20 cause all Subcontractors to so comply.
 - 21
 - 22 G. The Contractor fails to supply a sufficient number of properly skilled workers or proper materials.
 - 23
 - 24 H. The Contractor commits any substantial violation of the terms and conditions of the Contract Documents
25 which the District, in its sole discretion, finds to be a material breach of the Contract.
 - 26

27 Section 18.03. Procedure for Termination for Cause.

28 The District may, without prejudice to any other right or remedy, give written notice to the Contractor and its surety or
29 sureties of its intention to terminate the Contract.

30

31 Unless within seven (7) days of the delivery of such notice, the Contractor shall cease such violation and make
32 satisfactory arrangements for a correction thereof, which arrangements are set forth in a written agreement signed
33 by the Contractor and the District Representative, the Contractor's right to complete the Work shall cease and
34 terminate.

35

36 In the event of any such termination, the District shall immediately give written notice thereof to the surety and to the
37 Contractor and the surety shall have the rights and obligations set forth in the performance bond. If the District is
38 forced to take over the Work, it may prosecute the same to completion by contract or by any other method it may
39 deem advisable, for the account and at the expense of the Contractor, and the Contractor and its sureties shall be
40 liable to the District for any excess costs, including management, supervision, and design support, occasioned
41 thereby. In such event, the District may, without liability, take possession of and utilize in completing the Work, the
42 Contractor's materials whether stored at the Site or elsewhere, that are necessary for completion. Contractor hereby
43 assigns to the District all of its interest in orders and/or contracts existing at the time of termination. The
44 assignment of said orders and/or contracts shall be effective upon notice of acceptance by the District in writing,
45 and only as to those orders and/or contracts which the District designates in writing. Whenever the Contractor's
46 right to proceed is terminated, the Contractor shall not be entitled to receive any further payment until the Work is
47 finished and shall be liable to the District for liquidated damages for all periods of time from such termination date
48 until the Date of Completion, as well as for all losses incurred by the District in completing the Work.

49

50 Section 18.04. Option in Event of a Loss.

51 In the event that any destruction or loss should exceed twenty percent (20%) of the value of the construction
52 completed to date, as determined at the end of the preceding month, or is due to an "Act of God," the District shall
53 have the option, at its sole discretion, to terminate this Contract.

54

1 Section 18.05. Provisions for Termination of Contract.

2 This Contract is subject to termination as provided by Sections 4410 and 4411 of the Government Code, being
3 portions of the Emergency Termination of Public Contracts Act of 1949.
4

5 Section 18.06. Survival of Obligations.

6 No termination of this Contract or of Contractor's Work shall excuse or otherwise relieve the Contractor of its
7 responsibilities under the Contract Documents with respect to any Work performed prior to the date of termination,
8 including, without limitation, its obligation to perform the Work in a good and workmanlike manner, free of defects,
9 and in accordance with the Contract Documents, its warranty obligations with respect to the Work, and its obligation
10 to make all payments due. All of Contractor's responsibilities under the Contract Documents with respect to the
11 Work performed prior to the date of termination shall survive any termination.
12

13 Section 18.07. Termination After Contract Time.

14 In addition to any rights it may have, the District may terminate this Contract at any time after the Contract Time, as
15 adjusted by any extensions of time that the District may have granted.
16

17 Upon such termination, in addition to the Contractor's obligations under Section 18.06 and the other provisions of
18 the Contract Documents, the Contractor shall not be entitled to receive any compensation for services rendered
19 before or after such termination until the Work is completed, and the Contractor shall be liable to the District for
20 liquidated damages for all periods of time from the Contract Time, adjusted by any extensions of time that the District
21 may have granted, until the Date of Completion, as well as for all losses incurred by the District in completing the
22 Work.
23

ARTICLE 19. PRESERVATION AND CLEANING

Section 19.01. Periodic Cleaning of Project.

The Contractor shall properly clean its work and the Site, and maintain its work area in an orderly manner. The Contractor shall remove all dirt, debris, waste, rubbish, and implements of service from the Project, the adjacent sidewalks and streets, and the working area daily or as directed by the District Representative. Debris, waste, or unused construction materials shall not be left under, in, or about the Project, nor allowed to accumulate on the Site or in the working area.

The Contractor, at its sole cost, shall contract with a disposal company to remove all rubbish, and shall have the refuse containers emptied at frequent enough intervals so that waste does not overflow the containers.

If the Contractor fails to clean up during progress or upon completion of the Work, the District may, at the Contractor's expense, do so as provided in Article 16.

Section 19.02. Final Cleaning of Project.

At completion of the Work and prior to final acceptance/inspection and occupancy by the District, the Contractor shall thoroughly clean the interior and exterior of the buildings, and the Site and adjacent areas, of all material related to its performance of the Work. In the event the Contractor fails to do so, the District may cause this work to be done at the Contractor's expense, as provided in Article 16. The following list is not inclusive but to act as a guideline:

- A. Removal of all spots, stains, paint spots, rubbish, debris, tools, equipment, trade markings and labels, and accumulated dust and dirt from all areas and broom clean. Steam clean all carpets and mop floors.
- B. Cleaning interior and exterior of the buildings including all windows in any area affected by the Work.
- C. Brush off, broom sweep, dust and clean ledges, stairs, doors, hardware, chalk board trays and any adjoining rooms or areas that were affected by the Work.
- D. The Contractor shall clear grounds and exterior paved areas and walks of all construction debris, dirt and dust and shall repair any Site areas damaged during the course of construction.

Prior to final completion or District occupancy, the Contractor shall conduct an inspection of sight-exposed surfaces, and all work areas, to verify that the entire work is clean. In the event the Contractor fails to do so, the District may cause this work to be done at the Contractor's expense.

1 Documents, nor act as a waiver by the District of any of the terms or conditions of the Contract Documents. Any
2 damage done by the District is the responsibility of the District. Contractor acknowledges and agrees that any
3 occupancy and/or use of all or any portion of the work of improvement does not constitute acceptance or completion
4 within the meaning of California Civil Code section 9200.
5

6 Section 20.06. Coordination with Other Activities.

7 The Contractor shall conduct its operations so as not to interfere unreasonably with the District's use of the occupied
8 portions of the Site. The Contractor shall submit periodic schedules to the District Representative proposing the
9 times, areas, and types of work to be done within such areas.

10
11 If the Work produces conditions rendering the occupied portions of building, the Site, or other areas uninhabitable,
12 either because of noise, dust, vibration, smoke, fumes, or for any other cause whatsoever, the District
13 Representative may suspend the Work or direct the Contractor to modify the Contract Schedule, and the Contractor
14 shall comply.
15

16 Except as provided by Change Order, the Contractor shall not be entitled to a time extension or increase in the
17 Contract Sum by virtue of conflicts between the Contractor's work and the District's occupancy.
18

ARTICLE 21. CONTRACT CLOSEOUT

Section 21.01. Contractor's Request for Final Payment.

When the Contractor determines that all of the Work on the Project is complete and all items on the punch list have been satisfied, or contends that such items are not required by the Contract Documents, the Contractor shall submit a certificate of completion and an application for final payment on the form provided.

Section 21.02. Additional Submissions.

Simultaneously with the Contractor's certificate of completion and request for final payment, the Contractor shall submit the following items to the District Representative:

- A. As-built drawing information pursuant to Section 5.08.
- B. One (1) original set of documentation and one (1) PDF file(s) in electronic format on a separate flash drive completely covering the operation and maintenance of the mechanical and electrical installation, elevators, kitchen equipment, and all other equipment required by the technical specifications to be furnished with such manuals. The documentation shall include charts, diagrams, performance curves, catalog information, lubrication manuals, and details pertaining to the functioning of various items of equipment. The documentation shall be divided logically into "systems" on the basis of operation, without respect to trades, subcontractors or arbitrary specifications sections. The relationship of the "systems" shall be clearly and concisely detailed.
- C. Hazardous material documentation as required.
- D. Form DSA-6 Final Verified Reports.
- E. All other required DSA, California Department of Education, State Allocation Board and Office of Public School Construction forms.
- F. Any extra stock material and equipment and manufacturer warranties/guarantees as required by the Contract Documents.
- G. Other items as required in Section 00 73 00 or the Construction Administrative Procedures Manual.

No payment will be processed unless accompanied by the above listed submissions in acceptable form.

Section 21.03. Final Payment Process.

Upon approval of the submittals required by this Article and receipt of the Contractor's final payment application, and upon verification that all of the Work is complete, including all punch list items, the District Representative shall either (1) recommend to the District that the payment application be accepted, which recommendation shall be made within five (5) business days of receipt of the Contractor's final payment application, or (2) send a notice to the Contractor rejecting the payment application, stating the basis therefor, and submitting a written estimate of the sum due to the Contractor, which written estimate shall be provided to the Contractor within twenty (20) calendar days of the District Representative's receipt of the Contractor's final payment application. The District Representative's estimate shall take into account the Contract Sum, as adjusted by any Change Orders; amounts already paid; and sums to be retained for incomplete work, liquidated damages, and for any other cause under the Contract Documents. Any protest by the Contractor of the District Representative's estimate shall be as set forth in Section 21.04 and Article 23.

The Architect shall prepare a statement of final inspection, stating that the Work has been given a final inspection, that the Contractor has submitted the required documents, setting forth with detail any deviations in the Work as completed from the Contract Documents, and estimating the cost of correction of such deviations.

The Architect's statement shall be transmitted to the District along with the Contractor's application for final payment approved by the District Representative, Architect and Project Inspector. The District Representative shall provide a copy of the Architect's statement of final inspection to the Contractor.

1 Section 21.04. Protest of the District Representative's Estimate; Claims.

2 If the Contractor contests the estimate of sums due prepared by the District Representative, the Contractor may file
3 a claim in writing with the District Representative pursuant to the requirements of Article 23 and setting forth in detail
4 all grounds alleged by the Contractor to justify an adjustment to the District Representative's estimate. The
5 Contractor's claim shall be certified under penalty of perjury and in compliance with the California False Claims Act.
6 Failure to include these required certifications will constitute grounds for immediate rejection of the claim.
7

8 Failure to file a timely claim shall constitute a waiver and acceptance by the Contractor of the District
9 Representative's estimate, which shall then become final and be forwarded to the District for approval of payment.
10

11 Section 21.05. Completion; Acceptance of Contract; Notice of Completion.

12 The Contractor acknowledges and agrees that completion shall mean the Contractor's complete performance of all
13 Work required by the Contract Documents, amendments, Change Orders, Construction Change Directives and
14 punch lists, and the District's formal acceptance of the Work, without regard to prior occupancy, substantial
15 completion doctrine, beneficial occupancy or otherwise.
16

17 Acceptance of the Work shall be made only by formal acceptance by the District. Recordation of a Notice of
18 Completion shall be in the manner prescribed by law, provided that the Work shall then be fully and satisfactorily
19 completed and the provisions of the Contract Documents fully and satisfactorily performed in all respects.
20

21 Section 21.06. Approval of Final Payment.

22 Following acceptance of the Work, the District shall authorize final payment to the Contractor of the undisputed
23 sums found due, subject to retentions for stop notices as provided in Section 21.07 below. This final payment shall
24 be made within sixty (60) days after completion, as defined in Section 21.05 above, and recordation of the Notice of
25 Completion.
26

27 Section 21.07. Withholding for Stop Notices.

28 The District may, in its sole discretion, and at any time, withhold from the Contractor any unpaid claims alleged in
29 Stop Notices filed pursuant to the California Civil Code. The District reserves all remedies it may have in the event
30 of a stop notice dispute. The basic standard to determine a sufficient withholding in the event of a Stop Notice shall
31 be one hundred fifty percent (150%) of the total of all stop notices filed; provided, however, the District reserves the
32 right to withhold different or greater sums in its discretion.
33

34 Section 21.08. Non-Waiver.

35 Neither acceptance of, nor payment for, the Work or any part thereof, nor any extension of time, nor any possession
36 taken by District shall operate as a waiver of any of the provisions of this Contract, nor shall a waiver of any breach
37 of this Contract be held to be a waiver of any other or subsequent breach. In addition, recordation of a Notice of
38 Completion shall not be deemed an acceptance of latent defects, nor shall it constitute a waiver of any of the
39 provisions of this agreement.
40

ARTICLE 22. GUARANTEES

Section 22.01. Guarantee Required.

In addition to any guarantees required elsewhere by the Contract Documents, the Contractor shall guarantee the Work for a minimum of two (2) years from and after the recordation of the Notice of Completion and completion of all contract obligations by the Contractor, including formal acceptance of the entire Project by the District. The Contractor specifically waives any right to claim or rely on the statutory definition of completion set forth in Civil Code section 9200. The Contractor specifically acknowledges and agrees that completion shall mean the Contractor's complete performance of all Work required by the Contract Documents, amendments, Change Orders, Directives, CCDs and punch lists, and the District's formal acceptance of the entire Project, without regard to prior occupancy, substantial completion doctrine, beneficial occupancy, or otherwise. Such guarantee shall be made on the form provided, as set forth in Specification Section 00420.

The guarantee period for corrected defective work shall continue for a duration equivalent to the original guarantee period.

Such guarantee is in addition to, and not in lieu of, the District's rights to enforce this Contract in all respects.

1
2
3 ARTICLE 23. CLAIM REQUIREMENTS

4 Claims shall be subject to the requirements of Public Contract Code sections 20104 *et seq.* and 9204. A summary
5 of those provisions is set forth below. A waiver of the rights granted by the referenced statutes is void and contrary
6 to public policy, provided, however, that (1) upon receipt of a Claim, the parties may mutually agree to waive, in
7 writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable;
8 and (2) the District may prescribe reasonable change order, claim, and dispute resolution procedures and
9 requirements in addition to the statutory requirements, so long as the contractual provisions do not conflict with or
10 otherwise impair the statutory timeframes and procedures. To the extent that the summary below is inconsistent
11 with any requirement of those statutes, the statutes shall control. The terms below are intended to be consistent
12 with the governing statutes, and any modifications shall be understood as lawful modifications or additions to the
13 statutory requirements if at all possible.

14 Section 23.01. Notice of Potential Claim.

15 The Contractor shall promptly provide a written Notice of Potential Claim to the District upon discovery of concealed
16 or unknown conditions or discovery of facts regarding any disagreement, protest, direction, situation, event, or
17 occurrence that may result in a claim, including but not limited to changes in work and delays. The written Notice of
18 Potential Claim shall set forth the reasons for which the Contractor believes adjustment to the Contract Price or
19 Contract Time will or may be due, the nature of the costs and/or time involved, and, insofar as possible, the amount
20 of the potential claim. The Notice shall be submitted as soon as practical, but no more than five (5) working days
21 after the discovery of any facts or event that does or may give rise to the claim, unless a different period for notice is
22 specified in the Contract Documents. **Failure to timely submit the Notice of Potential Claim constitutes**
23 **acknowledgement that the condition(s), fact(s), occurrence(s) or event(s) did not cause any increase in cost**
24 **or time to perform and waives any Claim that the Contractor otherwise may have had the right to submit**
25 **based on such condition(s), fact(s), occurrence(s) or event(s).**

26
27 Section 23.02. Definitions.

28
29 “Claim” means a separate demand by Contractor sent by registered mail or certified mail with return
30 receipt requested, for one or more of the following:

- 31
32 (A) a time extension, including, without limitation, for relief from damages or penalties for delay
33 assessed by a public entity under a contract for a public works project.
34
35 (B) payment by the public entity of money or damages arising from work done by, or on behalf of,
36 Contractor pursuant to the contract for a public works project and payment for which is not
37 otherwise expressly provided or to which the claimant is not otherwise entitled.
38
39 (C) payment of an amount that is disputed by the District.
40

41 “Mediation” means any nonbinding process, including, but not limited to, neutral evaluation or a dispute review
42 board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by
43 issuance of an evaluation.
44

45 “Public works contract” or “public works project” means the erection, construction, alteration, repair, or
46 improvement of any public structure, building, road, or other public improvement of any kind.
47

48 “Subcontractor” means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of
49 Division 3 of the Business and Professions Code who either is in direct contract with the Contractor or is a lower tier
50 subcontractor.
51

52 Section 23.03. Claims Procedure.

53 All Claims under this Contract shall be resolved using the following procedure.

- 54
55 23.03.01 The Claim shall be in writing and include the documents necessary to substantiate the
56 Claim. The evaluation of the Claim will be based on the District’s records and the Claim
57 documentation submitted by the claimant, which shall include but not be limited to the

1 following: an explanation of the background; a chronology (including dates of all key
2 events and date(s) that the Notice of Potential Claim was given); an explanation of the
3 Contractor's position; supporting documentation of merit; analysis of delay for any
4 claimed additional time, including CPM schedules; and a calculation of damages or
5 additional amounts claimed, if any. Supporting documentation of merit may include, but
6 not be limited to, Construction Documents, correspondence, conference or meeting
7 notes, shop drawing logs, survey books, inspection reports, delivery schedules, test
8 reports, daily reports, subcontracts, CPM schedules, photos, RFIs, Directives, and other
9 such records. Supporting documentation of damages may include, but not be limited to,
10 certified payroll reports; purchase orders; invoices; project as-planned and as-built costs;
11 Subcontractor payment releases; quantity reports; other related records; general ledger
12 and any other accounting materials.

13
14 Claims must be filed on or before the date of final payment, except that the Claim must be
15 submitted no later than thirty (30) days from the date of the District Representative's
16 estimate of sums due. Any Claim shall be certified under penalty of perjury and in
17 compliance with the California False Claims Act, as set forth in Section 23.04 below.
18 Failure to include these required certifications will constitute grounds for immediate
19 rejection of the Claim and shall be deemed a waiver and absolute bar of the Claim,
20 including any right to pursue the Claim further.

21
22 23.03.02 If a Subcontractor, including a lower tier Subcontractor, lacks legal standing to assert a
23 Claim against the District because privity of contract does not exist, then the Contractor
24 may present a Claim on behalf of such a Subcontractor. A first-tier Subcontractor may
25 request in writing, either on its own behalf or on behalf of a lower tier Subcontractor, that
26 the Contractor present a Claim on behalf of the Subcontractor for work that was
27 performed by the Subcontractor. The Subcontractor requesting that the claim be
28 presented shall furnish reasonable documentation to support the Claim. Within 45 days of
29 receipt of this written request, the Contractor shall notify the Subcontractor in writing as to
30 whether the Contractor presented the Claim and, if the Contractor did not present the
31 Claim, provide the Subcontractor with a statement of the reasons for not having done so.

32
33 23.03.03 Upon receipt of a Claim, the District shall conduct a reasonable review of the Claim.
34 Within 30 days of receipt of the Claim, the District may request, in writing, any additional
35 documentation supporting the Claim or relating to defenses to the Claim that the District
36 may have against the claimant. Where additional information is requested by the District,
37 the time in which the District must respond to a Claim shall be tolled until all requested
38 information is provided. If additional information is thereafter required, then it shall be
39 requested and provided upon mutual agreement of the District and the Contractor.

40
41 23.03.04 Within 45 days of receipt of the Claim, as that time may be tolled as provided in Section
42 23.03.03 above, the District shall provide the Contractor with a written statement
43 identifying what portion of the Claim is disputed and what portion is undisputed. Upon
44 receipt of a Claim, the District and the Contractor may, by mutual agreement, extend the
45 time period for a response. Failure by the District to respond to a Claim within the time
46 periods described herein shall result in the Claim being deemed rejected in its entirety.
47 A Claim that is denied by failure of the District to respond shall not constitute an adverse
48 finding with regard to the merits of the Claim or the responsibility or qualifications of the
49 claimant.

50
51 23.03.05 Any payment due on an undisputed portion of the Claim shall be processed and made
52 within 60 days after the District issues its written statement. The District shall not fail to
53 pay money as to any portion of a claim which is undisputed except as otherwise provided
54 in the Contract.

55
56 23.03.06 If the claimant disputes the District's written response, or the District fails to respond
57 within the time prescribed, the Contractor may so notify the District, in writing, either

1 within 15 days of receipt of the District's response or within 15 days of the District's failure
2 to respond within the time prescribed, respectively, and demand an informal conference
3 to meet and confer for settlement of the issues in dispute. Upon receipt of a demand,
4 sent by registered mail or certified mail, return receipt requested, the District shall
5 schedule a meet and confer conference within 30 days for settlement of the dispute.
6

7 23.03.07 Within 10 business days following the conclusion of the meet and confer conference, if
8 the Claim or any portion of the Claim remains in dispute, then the District shall provide
9 the Contractor a written statement identifying the portion of the Claim that remains in
10 dispute and the portion that is undisputed. Failure by the District to provide the written
11 statement within the time periods described herein shall result in the remaining Claim
12 issues being deemed rejected in their entirety. Denial by failure of the District to respond
13 shall not constitute an adverse finding with regard to the merits of the remaining Claim
14 issues or the responsibility or qualifications of the claimant. Any payment due on an
15 undisputed portion of the Claim shall be processed and made within 60 days after the
16 District issues its written statement.
17

18 23.03.08 Any remaining disputed portion of the Claim following the meet and confer conference
19 shall be submitted to nonbinding mediation, with the District and the Contractor sharing
20 the associated costs equally. The District and Contractor shall mutually agree to a
21 mediator within 10 business days after the disputed portion of the Claim has been
22 identified in writing. If the parties cannot agree upon a mediator, each party shall select a
23 mediator and those mediators shall select a qualified neutral third party to mediate with
24 regard to the disputed portion of the Claim. Each party shall bear the fees and costs
25 charged by its respective mediator in connection with the selection of the neutral
26 mediator. Unless otherwise agreed to by the District and the Contractor in writing, the
27 mediation conducted pursuant to this Section shall excuse any further obligation under
28 Public Contract Code Section 20104.4 to mediate after litigation has been commenced.
29 This Section does not preclude arbitration if mediation under this Section does not
30 resolve the parties' dispute.
31

32 23.03.09 If mediation is unsuccessful, then the Contractor may file a claim as provided in Chapter
33 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part
34 3 of Division 3.6 of Title 1 of the Government Code with respect to the parts of the Claim
35 remaining in dispute. For purposes of those provisions, the running of the period of time
36 within which a claim must be filed shall be tolled from the time the Contractor submits his
37 or her written Claim pursuant to Section 23.03.01 until the time that mediation of disputed
38 portions of that Claim is completed. This Section does not apply to tort claims, and
39 nothing in this Section is intended nor shall be construed to change the time periods for
40 filing tort claims or actions specified by Chapter 1 (commencing with Section 900) and
41 Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the
42 Government Code.
43

44 23.03.10 Amounts not paid in a timely manner as required by this Section shall bear interest at
45 seven percent (7%) per year.
46

47 23.03.11 Claims of \$375,000 or less are subject to the following procedures for civil actions filed to
48 resolve the claims:
49

50 (a) The case shall be submitted to judicial arbitration pursuant to Chapter 2.5
51 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil
52 Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery
53 Act (Title 4 (commencing with Section 2016.010) of Part 4 of the Code of Civil
54 Procedure) shall apply to any such proceeding, consistent with the rules
55 pertaining to judicial arbitration.
56

- (b) The parties stipulate that the arbitrator shall be experienced in construction law and shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds.
- (c) In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who, after receiving an arbitration award, requests a trial *de novo* but does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, pay the attorneys' fees of the other party arising out of trial *de novo*.
- (d) The court may, upon request by any party, order any witnesses to participate in arbitration process.

In any suit filed under Public Contract Code Section 20104.4, the District shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

Section 23.04. Claim Certification.

Contractor acknowledges that it has read and is familiar with the provisions of the False Claims Act (California Government Code sections 12650 *et seq.*). Submission by Contractor of any claim (as the term "claim" is defined in False Claims Act) to the District in connection with the Project, whether on its behalf or on behalf of a Subcontractor or material supplier, shall constitute a representation by Contractor to the District that submission of the claim does not in any respect, violate the False Claims Act. Any party with an interest in the claim, including Contractor and any Subcontractor or material supplier, shall certify under penalty of perjury the validity and accuracy of any claim submitted to the District, as provided below. Compliance with this claims certification requirement shall be a condition precedent to any obligation District might otherwise have to review the claim, and failure to provide such certification shall constitute a waiver of the claim.

The claim certification required by this section shall provide as follows:

CLAIM CERTIFICATION

Under penalty of perjury, and with specific reference to the California False Claims Act, Government Code sections 12650 *et seq.* I certify that submission of the attached claim is made in good faith; that the supporting data prepared by the undersigned company are accurate and complete to the best of my knowledge and belief; that submission of the claim to the District does not violate the False Claims Act; and that I am duly authorized to certify the claim on behalf of the claimant.

Dated: _____

Company _____

Signature _____

Title _____

Section 23.05. Continuance of Work.

In the event of a dispute between the parties as to performance of the Work or the interpretation of the Construction Documents, or payment or nonpayment for Work performed or not performed, the parties shall attempt to resolve the dispute. Pending resolution of this dispute, the Contractor agrees to continue the Work diligently to completion. If the dispute is not resolved, except as provided otherwise in the Contract, the Contractor agrees it will neither rescind the Contract, nor stop the progress of the Work on the Project.

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2
3 ARTICLE 24. ADDITIONAL PROVISIONS

4 Section 24.01. Conflict of Interest.

5 No official of the District who is authorized on behalf of the District to negotiate, make, accept, or approve, any
6 architectural, engineering, inspection, construction, or materials supply contract, or any subcontract in connection
7 with the construction of the Project, or any land acquisition in connection with the Project, shall become directly or
8 indirectly interested personally in this contract or in any part thereof.

9 No officer, employee, architect, attorney, engineer, or inspector of or for the District who is authorized on behalf of
10 the District to exercise any executive, supervisory, or other similar function in connection with the construction of the
11 Project shall become directly or indirectly interested personally in this contract or any part thereof.

12
13 Section 24.02. No Agreements.

14 No verbal agreement or conversation with any officer, agent, or employee of the District, either before, during, or
15 after the execution of the Contract Documents shall affect or modify any term or condition contained in the Contract
16 Documents, nor shall such verbal agreement or conversation entitle the Contractor to any additional payment or time
17 to perform whatsoever under the terms of this agreement.

18
19 Section 24.03. Anti-Trust Assignment.

20 By execution of the Contract Documents, or any subcontract awarded by the Contractor, the Contractor or any
21 Subcontractor offers and agrees to assign and hereby does assign to the District all rights, title, and interest in and to
22 all causes of action the Contractor or Subcontractor may have under Section 4 of the Clayton Act (15 USC Section
23 15) or under the Cartwright Act (Chapter 2 of Part 2 of Division 7 of the Business and Professions Code,
24 commencing with Section 16700), arising from purchases of goods, services, or materials pursuant to this public
25 works contract or subcontract. This assignment shall be made and shall become effective at the time the District
26 tenders final payment to the Contractor, without further acknowledgment by the parties.

27
28 Section 24.04. Contractor Not Agent, Nor Employee.

29 Neither the Contractor nor any subcontractor, or any officer, agent, or employee of either, is, nor shall they represent
30 themselves to be, an officer, agent, or employee of the District for any purpose whatsoever.

31
32 No person employed by the Contractor, or by any subcontractors, are, nor shall they be construed to be in any
33 manner or for any purpose whatsoever, employees of the District.

34
35 Section 24.05. Access to Records.

36 The District or the District's authorized representative shall have access, upon reasonable notice, during normal
37 business hours, to any books, documents, accounting records, papers, project correspondence, project files,
38 scheduling information and other relevant records of the Contractor and all subcontractors directly or indirectly
39 pertinent to the Work, original as well as change and claimed extra work, to verify and evaluate the accuracy of cost
40 and pricing data submitted with any change order prospective or executed, or any claim for which additional
41 compensation has been requested.

42
43 Such books, documents and other records mentioned above shall include, but are not limited to all those reasonably
44 necessary in the opinion of the District to determine the accurate amount of direct and indirect costs, job site, area
45 and home office overhead, delay and impact costs, however characterized, and shall include the original bid and all
46 documents related to the bid and its preparation, as well as the as-planned Contract Schedule and all related
47 documents.

48
49 Such access shall include the right to examine and audit such records, and make excerpts, transcriptions and
50 photocopies at the District's cost.

51
52 END OF SECTION

Section 00 73 00 - SPECIAL PROVISIONS

ARTICLE 1: SCOPE OF WORK

Section 1.01 Bid Package(s)

- A. Bidder shall carefully review the total scope of responsibilities with respect to the Work of BP# **19-122**, and shall provide for the total scope in its Proposal.

Section 1.02 License Classification: C-10

Section 1.03 Scope of Work

Included:

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

Also Included:

1. Installation duration, on attached exhibits, are based on projected award of funding. Actual start date will depend on funding from SLD and SJUSD. SLD's funding cycle and timeline must be adhered to as part of these projects.
2. All work is to be performed during hours in which school is not in session (typically from 3:00PM to 12:00AM).
3. All work is to be coordinated with the site administrator, Project Manager as to accessibility and work hours for installation of items as described below.
4. Gyms, Auditoriums, and Cafeterias which are used by multiple organizations, will require work to be performed when they are not in use (typically from 10:00PM to 5:00AM).
5. Contractor's superintendent shall be fully empowered to act as agent for the Contractor on the site.
6. Contractor's superintendent shall be on site at all times when work is in progress.
7. Contractor's superintendent will be required to attend project meetings at least once a week, at agreed upon time and project inspection walks at completion of each phase as outlined in Exhibit B.
8. All existing low voltage systems including voice and data systems shall remain active during the installation process. If work should require the shut off or disconnect of any low voltage systems the work shall be planned to provide no or minimum down time for the users. If a system(s) need to be down which will interfere with the sites use of that / those system(s) it must be coordinated with the site through the Project Manager.
9. Temporary barricades, signs, pedestrian protection, temporary facilities and traffic control work.
10. Complete conduit and surface raceway pathways to facilitate the installation of the wire including additional conduit and pathways.
11. All Unistrut supports associated with conduit work.
12. All penetrations either for conduit or wire, including finished in-fill panels if penetrations must be made through window system.
13. All sealant and required fire-stopping associated with penetrations.
14. Patching, repairing, preparation for painting and/or replacement of all finished surfaces disturbed during installation and repair of affected areas.
15. Pre-painting, primer coating, or galvanize all conduit and fittings white prior to installation.
16. Wire management component including, but not limited to, ladder racking, cable trays, rack or component wire management, mushroom blocks, d-rings, j-hooks, velcro.
17. Mounting surfaces for cabinets and racks shall be smoothly cut on painted plywood backboards with ends sealed.

- 1 18. Removal and replacement of furniture and other existing site conditions, which may interfere with access to walls
2 and spaces: The contractor shall provide the required scheduling and performance of the moving out and back
3 when work is completed.
- 4 19. Provide temporary means of operation if foreseen downtime is required for existing storm, water, sewer, gas,
5 mechanical, electrical, and low voltage systems during installation, including provide temporary power via
6 generator(s) if necessary.
- 7 20. Labeling of all cables, termination blocks, patch panels and enclosures. Labeling shall be done according to
8 specifications and drawing details.
- 9 21. Provide test results on all installed cables according to specifications.
- 10 22. Detailed as-built documentation according to specifications.
- 11 23. Daily and final clean-up.
- 12 24. All demolition and removal and/or replacement of Work associated with this Bid Package.
- 13 25. All sealants and required firestopping associated with this Bid Package.
- 14 26. All access panels including backing and blocking, associated with this Bid Package.
- 15 27. Patching, repairing, painting and/or replacement of all finished surfaces disturbed during construction.
- 16 28. A full-time superintendent shall be provided for each modernization project. See Section 00 72 00, General
17 Conditions.
- 18 29. Removal, protection, temporary support and reinstallation of all existing (E) exterior building surface mounted
19 wire, cable and raceway systems, necessary to complete the Work. Note: Systems must remain operational
20 during construction operations.
- 21 30. The use of Constructware is required per Section 01 31 00 for Project Management Internet Communication
22 Requirements.
- 23 31. An excess liability policy will be required. Refer to General Conditions 00 72 00.

24
25
26
27
28

Excluded:

1. Permits.
2. Fees.

1 ARTICLE 2: ALTERNATES

2
3 Section 2.01 Alternates

4
5 Alternate Bids may be accepted at the option of the District. Any combination of Base Bid, Alternates, and Unit
6 Costs determined by the District will be basis for awarding a Contract.

7
8
9 ARTICLE 3: SCHEDULE

10
11 Section 3.01 Contract Time/Time for Completion

12 The time for completion of all Work is **within 180 calendar days of the Notice to Proceed.**

13
14 Time for completion of milestones is as set forth in the attached Preliminary Construction Schedule. Any
15 extensions of time for completion of milestones are governed by the same terms and restrictions as applicable to
16 extensions of the Contract Time referenced in the General Conditions Section 00 72 00.

17
18 Section 3.02 Schedules

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

24
25 Certain phases of the work may be designated as a "Zero Float Phase" in the Preliminary Construction Schedule.
26 Any Zero Float Phase shall have a fixed start and finish date that is not subject to change as a result of delays in
27 other phases or in issuance of the Notice to Proceed for the Project.

28
29 The Contractor is required to submit a Contract Schedule for the activities within its scope of Work according to
30 the requirements specified in General Conditions Section 00 72 00, Article 13, Time of Work.

31
32 The District will occupy the Site during the entire period of construction for the conduct of normal operations. The
33 Contractor shall cooperate with the District to minimize conflict, and to facilitate the District's operations.
34 Construction areas will be made available in the order and time frames shown in the Preliminary Construction
35 Schedule.

36
37 Schedule the Work to accommodate these requirements.

38
39 **Section 3.03 USAC (SLD / E-rate) Invoicing**

40
41 The Service Provider agrees to bill and receive a portion of the payment for the provisions of goods and services
42 described herein directly from USAC via the Form 474 Service Provider Invoice (SPI). The District will only be
43 responsible for paying its non-discounted share of costs and does not intend to use the BEAR process (Form
44 472). The maximum percentage the District will be liable for is the pre-discount amount minus the funded amount
45 as shown on the FCC Form 471 Block 5 and any identified ineligible costs. Upon the successful receipt or posting
46 of a Funding Commitment Decision Letter from the SLD and submission and certification of Form 486, the District
47 shall pay only the discounted amount beginning with the billing cycle immediately following said approval.
48 Alternatively, should the District decide that it is in the best interest of the District to file a Form 472, the District
49 will inform the Service Provider of its intent.

50
51 All Service Provider invoicing to USAC must be completed within 120 days from the last day of service. Should
52 the Service Provider fail to invoice USAC in a timely manner, the District will only be responsible for paying its
53 non-discounted share.

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Section 3.04 Liquidated Damages

In the event of failure on the part of the Contractor to complete each phase of the Work within the Milestone Completion Date, or the overall Project within the Contract Time, including any approved extensions thereof, the Contractor shall pay District, on a phase by phase basis, liquidated damages for each calendar day of delay until final completion of the Phase or the Project. The liquidated damages for each Phase and for the Project are separate, and may be accumulated if completion of more than one Phase is delayed concurrently.

The amount of liquidated damages is indicated below (also refer to General Conditions Section 00 72 00, Article 14, Section 14.05):

\$750.00/calendar day

1
2

EXHIBIT A – School Year Calendar



2019 – 2020

STUDENT CALENDAR

Looking for the [employee/staff calendars?](#)

AUGUST

M	T	W	T	F
			1	2
5	6	7	8	9
12	13	14	15	16
19	20	21	22	23
26	27	28	29	30

SEPTEMBER

M	T	W	T	F
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
23	24	25	26	27
30				

OCTOBER

M	T	W	T	F
	1	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30	31	

NOVEMBER

M	T	W	T	F
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

DECEMBER

M	T	W	T	F
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
23	24	25	26	27
30	31			

JANUARY

M	T	W	T	F
		1	2	3
6	7	8	9	10
13	14	15	16	17
20	21	22	23	24
27	28	29	30	31

FEBRUARY

M	T	W	T	F
3	4	5	6	7
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28

MARCH

M	T	W	T	F
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
23	24	25	26	27
30	31			

APRIL

M	T	W	T	F
		1	2	3
6	7	8	9	10
13	14	15	16	17
20	21	22	23	24
27	28	29	30	

MAY

M	T	W	T	F
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

JUNE

M	T	W	T	F
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26
29	30			

First/Last Day of School
Federal or State Holiday (No School)
School Recess or Local Holidays (No School)
Summer Break

HOLIDAYS

Sept. 2 – Labor Day
Nov. 11 – Veterans’ Day
Nov. 28 – Thanksgiving Day
Dec. 25 – Christmas day
Jan. 1 – New Year’s Day

Jan. 20 – Martin Luther King Jr. Day
Feb. 17 – Presidents’ Day
Feb. 18 – Lincoln’s Birthday (Observed)
May 25 – Memorial Day

NON-INSTRUCTIONAL DAYS

Oct. 4, 7 – No School
Nov. 12 – Teacher Work Day
Nov. 25 – 29 – Thanksgiving Break
Dec. 23 – Jan. 3 – Winter Recess

Jan. 6 – Teacher Work Day
Feb. 17 – 21 – Presidents’ Week Break
March 16 – No School
April 6 – 10 – Spring Break

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EXHIBIT B – Preliminary Construction Schedule

To be developed based on number of calendar days once Notice to Proceed is issued

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EXHIBIT C – Asbestos Abatement Specifications Procedures

N/A

1
2
3
4
5
6

EXHIBIT D – Lead-Based Paint Surface Preparation Specifications

N/A

1
2
3
4
5
6

EXHIBIT E – PCB Ballast/Fluorescent Tube Handling Procedures

N/A

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2
3
4
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6

EXHIBIT F – DSA Structural Test and Inspection Requirements (SSS 103-1)

N/A

EXHIBIT G – Index of Drawings

1
2

INDEX OF DRAWINGS UPS INFRASTRUCTURE BP #19-122	
T0.00	SYMBOLS AND NOTES
T2011	CAMERON RANCH, SITE PLAN
T2012	CAMERON RANCH, FLOOR PLAN
T2021	COLEMAN, SITE PLAN
T2022	COLEMAN, FLOOR PLAN
T2031	GRAND OAKS, SITE PLAN
T2032	GRAND OAKS, FLOOR PLAN
T2041	GREEN OAKS, SITE PLAN
T2042	GREEN OAKS, FLOOR PLAN
T2051	LAUREL RUFF, SITE PLAN
T2052	LAUREL RUFF, FLOOR PLAN
T2061	MARIPOSA, SITE PLAN
T2062	MARIPOSA, FLOOR PLAN
T2071	ORANGEVALE, ROBERTS, SITE PLAN
T2072	ORANGEVALE, ROBERTS, FLOOR PLAN
T2081	THOMAS KELLY, SITE PLAN
T2082	THOMAS KELLY, FLOOR PLAN
T2091	WILL ROGERS, SITE PLAN
T2092	WILL ROGERS, FLOOR PLAN
T9.00	DETAILS
T9.01	DETAILS

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EXHIBIT H – Escrow Agreement

ESCROW AGREEMENT FOR
SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between _____
whose address is _____
hereinafter called "Owner,"
_____ 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:

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by 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 the Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Owner within 10 days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Owner and Contractor. Securities shall be held in the name of _____, and shall designate the Contractor as the beneficial owner.

(2) **Option 1:** The Owner shall make progress payments to the Contractor for those funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.

(3) **Option 2:** When the Owner makes payment of retentions earned directly to the Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until the time that 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.

(4) **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. The Owner's expense are \$100 administrative fee charged per draw (for Option 2 only; see paragraph (11)).**

(5) The interest earned on the securities or the money market account 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.

(6) Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the Owner to the Escrow Agent that Owner consents to the withdrawal of the amount sought to be withdrawn by Contractor.

(7) The Owner shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days' written notice to the Escrow Agent from the owner of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Owner.

(8) 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 payments of fees and charges.

1
2 (9) Escrow Agent shall rely on the written notifications from the Owner and the Contractor
3 pursuant to Sections (5) to (8), inclusive, of this Agreement and the Owner and Contractor shall hold Escrow Agent
4 harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.
5

6 (10) The names of the persons who are authorized to give written notice or to receive written notice
7 on behalf of the Owner and on behalf of Contractor in connection with the foregoing, and exemplars of their
8 respective signatures are as follows:
9

10 (11) OPTIONS FOR ESCROW PAYMENTS:
11 Option No. 1: _____ Total Amount of Retention
12 Option No. 2: _____ Owner to make payment based on amount of retention
13

On behalf of Owner:

On behalf of Contractor:

Title

Title

Name

Name

Signature

Signature

Address

Address

14 On behalf of Escrow Agent:
15
16

17 _____
Title

18 _____
19 Name

20 _____
21 Signature

22 _____
23 Address

24
25
26
27
28 At the time the Escrow Account is opened, the Owner and Contractor shall deliver to the Escrow Agent a
29 fully executed counterpart of this Agreement.
30

31 IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date
32 first set forth above.
33

On behalf of Owner:

On behalf of Contractor:

Title

Title

Name

Name

Signature

Signature

1
2 **Section 01 21 13 – CASH ALLOWANCES**
3
4

5 PART 1 - GENERAL
6

7 1.01 SUMMARY
8

- 9 A. To provide adequate budget and bonding to cover scope of work not precisely determined by the
10 Contract Documents prior to bidding, allow within the proposed Contract Sum the amounts described in
11 the Proposal Form. All unused portions of the allowance will be deducted from the Contract through a
12 Change Order.
13
14 B. Related Work:
15 1. Documents affecting work of this Section include, but are not limited to, Bidding and Contract
16 Requirements, General Requirements and related Technical Requirements.
17 2. Other provisions concerning Cash Allowances are stated in Specification Section 00 42 00, Proposal
18 Form.
19 3. Other provisions concerning Cash Allowances also may be stated in other sections of the Project
20 Manual.
21

22 1.02 SPECIFIC CASH ALLOWANCES
23

24 BID PACKAGE #19-122
25

- 26 A. Allowance for unforeseen conditions and electrical upgrades required: Provide within the proposed
27 contract sum the amount of **\$25,000.00** for unforeseen conditions and electrical upgrades beyond that
28 which is shown. This allowance will be expended under a time and materials basis using current
29 prevailing wage rates, as directed by the District Representative. All unused portions of the allowance
30 will be deducted from the contract through a change order.
31
32

33 PART 2 - PRODUCTS
34

35 Not Used
36

37
38 PART 3 - EXECUTION
39

40 Not Used
41
42

43 END OF SECTION
44
45

1
2 **Section 01 31 00 - PROJECT MANAGEMENT INTERNET COMMUNICATION REQUIREMENTS**
3

4 **PART 1 - GENERAL**
5

6 1.01 RELATED DOCUMENTS
7

- 8 A. All Contract Documents, including General Conditions, Supplementary Conditions, Construction
9 Administrative Procedures Manual and other Division 1 - General Requirements, apply to the work of this
10 section.
11
12 B. This section contains general information that applies to all work performed under the Contract, and is
13 made inherently a part of each specification section.
14

15 1.02 GENERAL PROJECT MANAGEMENT OBJECTIVES
16

- 17 A. San Juan Unified School District (SJUSD) has directed its Contractor to use the project's existing
18 Internet/Web-based project management software to track and manage the project.
19
20 B. Use of this project management software will not replace or change any contractual responsibilities of the
21 construction team members.
22
23 C. Each project team member of the Contractor: Superintendent, Project Engineer, Scheduler, and Project
24 Manager, et al., shall have access to the Internet and an Internet e-mail address in order to communicate
25 with various project team members. The Contractor shall provide immediately upon receipt of the Notice
26 to Proceed confirmation of these conditions and the names, positions, and e-mail addresses to SJUSD's
27 Representative.
28

29 1.03 SOFTWARE AND HARDWARE REQUIREMENTS
30

- 31 A. The Contractor is required to provide at both the field office and home office location from where this project is
32 managed computer hardware and software that meet the requirements of Constructware® project
33 management software, developed by Emerging Solutions, Inc. of Alpharetta, GA. The Contractor is not
34 required to purchase Constructware® software, only the hardware and software required to access this
35 system via the Internet. SJUSD will provide the Contractor with one (1) user license to use the existing
36 project database for the duration of the bid package project. The Contractor shall pay Constructware® directly
37 for any additional licenses needed to use the database. Contractor's licenses to the SJUSD Constructware®
38 database will permit access only to this project, in accordance with permission levels configured by SJUSD's
39 Constructware® administrator.
40
41 B. SJUSD shall provide the Contractor with Constructware® training (if required). SJUSD will provide training for
42 up to 5 Contractor staff members. Contractor's Project Manager, Superintendent and main Construction
43 Administration staff are required to attend training sessions.
44
45 C. The Contractor shall provide an adequate number of users to properly manage the project in accordance with
46 the Project Timetable. The Contractor shall have Internet access through an Internet service provider of
47 his/her choice.
48
49 D. Software requirements are as follows:
50
 - Internet Explorer or Safari is recommended.
51
52 E. Hardware requirements are as follows:
53
 - Workstation, laptop or tablet
 - A connection to the Internet
54
55

- 1 F. More information on Constructware® may be obtained via the World Wide Web, at
2 www.constructware.com.

3
4 1.04 SYSTEM MANAGEMENT AND USE

- 5
6 A. SJUSD will administer the Constructware® user account.
7
8 B. All costs associated with using this system, including computer hardware, internet service, and additional
9 licenses beyond the one to use the existing project database are the responsibility of the Contractor.

10
11 1.05 COMMUNICATION PROCESS

- 12
13 A. SJUSD's Representative will outline and detail communication, correspondence and coordination
14 procedures at Project start meeting.
15
16 B. Most project communication will take place in the Constructware® project management system by
17 creating and distributing documents directly within the system, or by entering manually in the system
18 dates and descriptions of items to track over time. All documents requiring formal signatures will be
19 printed, and their hard copies signed and distributed.
20
21 C. The official submittal log will be maintained within Constructware®. The Contractor will use
22 Constructware® to upload their submittals using a bookmarked PDF file enabling navigation to each item
23 within the submittal package The Constructware® project management system will be used to track and
24 expedite processing of these items.
25
26 D. Contractor will be required to utilize modules including but not limited to: messaging, daily reports;
27 meeting minutes; punch lists; requests for information (RFI); change requests; and payment applications
28 (including Schedule of Values) within the Constructware® project management system. The Contractor
29 can enter an RFI and the Architect/Engineer respond to the RFI completely within the Constructware®
30 project management system without creating a hard copy. Support documentation in hard copy format for
31 any document in Constructware® may be scanned into an electronic file and attached in Constructware®
32 to documents.
33
34 E. Contractors are required to furnish and use a digital camera in order to photo-document job progress and
35 upload the associated images taken on a regular basis to the internet site. Each daily report should be
36 accompanied by a daily progress photo. The daily report should be entered into Constructware daily but
37 in no event later than once per week. Contractor must lock daily reports within a week after occurrence.
38

39 PART 2 – PRODUCTS

- 40
41 2.01 Extranet application service provider shall be the following (no substitution)
42 Constructware® as provided by:
43 Emerging Solutions
44 www.constructware.com
45
46

1 PART 3 – EXECUTION
2

3 3.01 Constructware® is an Internet-Accessed Centralized Database of project information and consists of
4 several separate modules or master file divisions for ease of organization. Available file divisions include
5 but are not limited to: Correspondence, Daily Reports, RFIs, Transmittals, Submittals, Meetings,
6 Documents, Drawings, Specifications, Punch Lists, Reports, Project Team, Schedule of Values, Change
7 Items, Request for Proposals, etc.
8

9 3.02 Contractor shall be provided with 1 user license for Constructware® (ASP) by SJUSD. Each major team
10 member for the contractor (i.e. project manager, superintendent, etc.) must have a separate user license.
11 The Contractor shall insure that all major team members on this project have Internet access available
12 during the duration of this project.
13

14 3.03 Subcontractors and suppliers will be able to utilize email or fax for submission of documents to the
15 Contractor.
16

17 END OF SECTION
18
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Section 01 31 19 - PROJECT MEETINGS & PROCEDURES

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. The District Representative will schedule and administer a preconstruction meeting, regular progress meetings, and specially called meetings throughout progress of the Work, and will:
 - 1. Prepare agenda for meetings.
 - 2. Make physical arrangements for meetings.
 - 3. Preside at meetings.
 - 4. Record the minutes; include significant proceedings and decisions.
 - 5. Reproduce and distribute copies of minutes after each meeting to participants in the meeting and to parties affected by decisions made at meeting.
- B. Representatives of Contractor, Subcontractors and suppliers attending meetings shall be experienced supervisory staff with written authorization to act on behalf of the entity each represents.

1.02 PRECONSTRUCTION MEETING

- A. Timing: Prior to start of construction.
- B. Attendance: Architect and consultants as appropriate, District Representative, Contractor, Project Inspector and Subcontractors when required by District to attend.
- C. Purpose: Discuss and familiarize Contractors with construction administrative procedures to be used on the Project.

1.03 PROGRESS MEETINGS

- A. Timing: Frequency, day and time to be determined by the District Representative, Architect and District.
- B. Attendance: District Representative and each contractor on site; Architect, consultants, Project Inspector, and Subcontractors when required.
- C. Purpose: The purpose of these meetings is to provide a formal and regular forum for the District, District Representative, Architect/Engineer and the Contractors to present questions, problems or issues that need to be addressed. It will also provide an opportunity to review the progress on previous issues and action items along with submittal and schedule review.
- D. Each Contractor scheduled to commence Work within the following week will attend the current week's meeting to coordinate Work with other contractors already on site.

1.04 SPECIALLY CALLED MEETINGS

- A. The District Representative may call a special meeting at any time during the course of the Project. Special Project meetings shall include representatives of the Project as requested in order to discuss problems and/or solutions that are common to the Project.

END OF SECTION

Section 01 35 16 - ALTERATION PROJECT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

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

1.02 RELATED SECTIONS

- A. Section 01 73 29 - Cutting and Patching.
- B. Section 02 41 00 - Minor Demolition for Remodeling.

1.03 ALTERATIONS, CUTTING AND PROTECTION

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

PART 2 PRODUCTS

2.01 PRODUCTS FOR PATCHING AND EXTENDING WORK

- A. New Materials. As specified in product Sections; match new materials to existing work.
 - 1. Provide same products or types of construction as that in existing structure, as needed to patch, extend or match existing work.
 - 2. Presence of a product, finish, or type of construction, requires that patching, extending or matching shall be performed consistent to, or better than, existing standards of quality.

- 1 B. Type and Quality of Existing Products: Determine by inspection and testing existing products where
2 necessary, referring to existing Work as a standard.
3
4

5 PART 3 EXECUTION
6

7 3.01 EXAMINATION
8

- 9 A. Verify that demolition is complete, and areas are ready for installation of new Work.
10
11 B. Beginning of restoration Work means acceptance of existing conditions.
12

13 3.02 PREPARATION
14

- 15 A. Cut, move, or remove items as necessary for access to alterations and/or renovation Work. Replace and
16 restore at completion. The full extent of cutting and patching is not shown or specified. The Contractor
17 shall perform all cutting and patching as required.
18
19 B. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and
20 deteriorated masonry and concrete. Replace materials as specified for finished Work.
21
22 C. Remove debris and abandoned items from area and from concealed spaces.
23
24 D. Prepare surface and remove surface finishes to provide for proper installation of new work and finishes.
25

26 3.03 INSTALLATION
27

- 28 A. Coordinate work of alterations and renovations to expedite completion and to accommodate District
29 occupancy. Patch and extend existing work using skilled mechanics that are capable of matching
30 existing quality of workmanship. Quality of patched or extended work shall be not less than that
31 Specified for new work.
32
33 B. Room Finishes. Complete in all respects consistent with the Contract Documents.
34
35 C. Remove, cut, and patch Work in a manner to minimize damage and to provide a means of restoring
36 Products and finishes to specified condition.
37
38 D. Install Products as specified In Individual Sections.
39

40 3.04 TRANSITIONS
41

- 42 A. Where new Work abuts or aligns with existing, perform a smooth and even transition.
43
44 B. Patch Work to match existing adjacent Work in texture and appearance, without breaks, steps or
45 bulkheads.
46
47 C. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate
48 existing surface along a straight line at a natural line of division and make recommendation to Architect.
49
50

1 3.05 ADJUSTMENTS
2

- 3 A. Where change of plane of 1/4 inch or more occurs, submit recommendation for providing a smooth
4 transition.
5
6 B. Where extreme change of plane of two inches or more occurs, request Instructions from Architect as to
7 method of making transition.
8
9 C. Trim existing doors as necessary to clear new threshold Installation. Refinish trim as required.
10
11 D. Fit work at penetrations of surfaces as shown on drawings.
12

13 3.06 SALVAGED MATERIALS
14

- 15 A. Salvaged Materials from existing facilities, which are specified in the Special Provisions, identified in bid
16 doc's or tagged in the field are to be salvaged and shall remain the property of the District. The Contractor
17 shall include the removal, disassembly, preparation, marking, bundling, packaging, tagging, hauling, and
18 stockpiling of salvaged materials or facilities to the location specified in the Special Provisions, or as
19 directed by the District Representative. Materials include, but are not limited to, parts, articles, and
20 equipment of assembled facilities. Salvaging does not include the preparation of existing material that is to
21 be reused in the work.
22
23 B. When only specific materials from the facility are designated to be salvaged, the remaining materials
24 from that facility shall be removed and disposed of as provided for elsewhere in the Contract
25 Documents. Materials to be salvaged shall not be removed until their use in the existing facility is no
26 longer required, as determined by the District Representative.
27
28 C. When practicable, salvaged materials shall be hauled directly to the location specified in the Special
29 Provisions and stockpiled; however, salvaged materials may be temporarily stored at a location selected
30 by the Contractor and approved by the District Representative and later hauled to and stockpiled at their
31 final location. Materials which are lost before stockpiling at their final location shall either be replaced by
32 the Contractor, at the Contractor's expense, or, at the discretion of the District Representative, the
33 estimated cost of replacement may be deducted from any moneys due or to become due to the
34 Contractor.
35
36 D. Materials designated to be salvaged that are damaged, as determined by the District Representative,
37 shall be segregated from undamaged material. After review of the damaged materials by the District
38 Representative, all damaged materials that are rejected by the Districts Representative shall become the
39 property of the Contractor and shall be disposed of as provided elsewhere in the Contract Documents.
40
41 E. Materials to be salvaged that are damaged as a result of the Contractor's operations shall be repaired by
42 the Contractor, at the Contractor's expense, to the satisfaction of the District Representative. Materials
43 that are damaged beyond repair as a result of the Contractor's operations shall be disposed of as
44 provided elsewhere in the Contract Documents and replaced at the Contractor's expense; or, at the
45 discretion of the District Representative, the estimated cost of replacement may be deducted from any
46 moneys due or to become due to the Contractor.
47
48 F. Replacements for lost or damaged materials shall be of the same kind and of the same or better quality
49 and condition as the lost or damaged materials were prior to their removal. Replacement materials
50 should also be of the same size, color, weight etc. of the original materials. Matching or exceeding
51 quality and condition alone may not permit the reuse of material.
52
53

1 3.07 REPAIR OF DAMAGED SURFACES
2

- 3 A. Patch or replace portions of existing surfaces, which are damaged, lifted, discolored, or showing other
4 imperfections.
5
6 B. Repair substrate prior to patching finish.
7

8 3.08 FINISHES
9

- 10 A. Finish surfaces as specified in Individual Product Sections.
11
12 B. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched,
13 refinish entire surface to nearest Intersections.
14
15 C. Unless otherwise specified or shown, subsurfaces shall be prepared as recommended by finish material
16 manufacturers for project conditions for the proper application of new finishes.
17

18 3.09 CLEANING
19

- 20 A. Clean adjacent Owner occupied areas of work soiled by work of this contract (See General Conditions
21 Section 00 72 00, Article 19).
22
23

24 END OF SECTION
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Section 01 41 00 - ADDITIONAL REQUIREMENTS FOR DSA-REVIEWED PROJECTS

NOT USED

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Section 01 45 00 - QUALITY CONTROL

NOT USED

END OF SECTION

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Section 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

NOT USED

END OF SECTION

1
2 **Section 01 71 23 - FIELD ENGINEERING & SURVEY CONTROLS**
3

4 PART 1 – GENERAL
5

6 1.01 SECTION INCLUDES
7

- 8 A. Contractor to provide and pay for field engineering services required for the execution of Work, including,
9 but not limited to:
10
11 1. Survey Work required in execution of the Bid Package Work scope.
12 2. Civil, structural or other professional engineering services specified, or required to execute Contractor's
13 construction methods.
14
15 B. Provide field staking of site improvements included in Bid Package; identify existing survey reference
16 points and property line corner stakes indicated on Drawings.
17
18 C. Locate and be aware of all existing on-site utility lines and improvements.
19

20 1.02 QUALIFICATIONS OF SURVEYOR OR ENGINEER
21

- 22 A. Qualified California registered professional engineer or registered land surveyor, acceptable to Contractor
23 and the District Representative.
24
25 B. Registered professional engineer of discipline required for specific service on Project, licensed in State of
26 California.
27

28 1.03 SUBMITTALS:
29

- 30 A. Submit name, address, and license of surveyor and professional engineer to the District Representative.
31

32 1.04 PROJECT SURVEY REQUIREMENTS
33

- 34 A. Establish and maintain lines and levels as necessary to locate and layout entire scope of Work in Bid
35 Package.
36
37 B. Preserve and protect all on-site underground utilities lines and existing on-site improvements in the area of
38 construction.
39

40
41 **END OF SECTION**
42
43
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Section 01 73 29 - CUTTING AND PATCHING

PART 1 - GENERAL

1.01 SECTION INCLUDES

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

1.02 RELATED SECTIONS

- A. Section 00 72 00 - General Conditions.
- B. Section 00 73 00 - Special Provisions.
- C. Section 01 35 16 - Alteration Project Procedures.
- D. Section 01 45 00 - Quality Control.
- E. Section 01 50 00 - Construction Facilities and Temporary Controls.
- F. Section 02 41 00 - Minor Demolition For Remodeling.

1
2 1.03 SUBMITTALS
3

- 4 A. Prior to cutting which affects structural safety of Project, submit written notice to Architect requesting
5 consent to proceed with cutting. See items "C" and "E", Section 1.01.
6
7 B. Should conditions of Work or schedule require change of materials or methods, submit written
8 recommendation to Architect, within 48 hours, including:
9 1. Conditions requiring change.
10 2. Recommendations for alternative materials or methods.
11 3. Submittals as required for substitutions.
12 4. Quotations of charges or credits.
13
14 C. Submit 48-hour advance written notice to Architect (with a copy to the District Representative)
15 designating the time Work will be uncovered.
16
17 D. Submit all materials to be used in cutting and patching in accordance with Specification Section 00 72 00.
18
19

20 PART 2 - PRODUCTS
21

22 2.01 MATERIALS
23

- 24 A. Primary Products: Materials for replacement of Work removed are to comply with Technical
25 Specifications and are required to match original installation.
26
27 B. Product Substitution: For any proposed change in materials, submit request for substitution in
28 accordance with Specification Section 00 72 00.
29
30

31 PART 3 - EXECUTION
32

33 3.01 EXAMINATION
34

- 35 A. Examine existing conditions prior to commencing Work, including elements subject to movement or
36 damage during cutting and patching.
37
38 B. After uncovering existing Work, examine conditions affecting installation of new products and
39 performance of Work.
40
41 C. Beginning of cutting or patching operations means acceptance of existing conditions.
42

43 3.02 PREPARATION
44

- 45 A. Provide means of shoring, bracing and temporary supports as required to maintain structural integrity of
46 the Work.
47
48 B. Provide devices, enclosures and methods to protect adjacent surfaces and areas of the property from
49 damage, dust or disruption.
50
51 C. Provide protection from the elements for areas, which may be exposed during cutting or patching.
52
53 D. Maintain excavations free of water.
54
55

1 3.03 CUTTING

- 2
- 3 A. Execute cutting, fitting and adjustment of products to permit finished installation to comply with specified
- 4 tolerances and finishes.
- 5
- 6 B. Perform cutting and demolition by methods, which will prevent damage to other Work, and will provide
- 7 proper surfaces to receive installation of repairs and new Work.
- 8
- 9 C. Uncover Work to install improperly sequenced Work.
- 10
- 11 D. Remove and replace defective, rejected or non-conforming Work.
- 12
- 13 E. Remove samples of installed Work for testing when requested.
- 14
- 15 F. Provide openings in the Work for penetration of Mechanical and Electrical Work.
- 16
- 17 G. Employ only experienced installers to perform cutting for weather exposed, moisture resistant and sight-
- 18 exposed surfaces.
- 19
- 20 H. Cut concrete, tile plaster and other rigid materials using masonry/concrete saws and core drills.
- 21 Pneumatic tools are not allowed without prior approval.
- 22

23 3.04 PATCHING

- 24
- 25 A. Execute patching to match adjacent Work.
- 26
- 27 B. Fit products together to integrate seamlessly with adjacent Work.
- 28
- 29 C. Execute patching by methods to avoid damage to adjacent Work, and which will provide appropriate
- 30 surfaces to receive finishing Work.
- 31
- 32 D. Employ only experienced installers to perform patching for weather exposed, moisture resistant and sight-
- 33 exposed surfaces.
- 34
- 35 E. Restore Work with new products in accordance with requirements of the Contract Documents.
- 36
- 37 F. At penetrations of fire rated walls, partitions, ceiling or floor construction, completely seal voids with
- 38 approved fire rated material in accordance with the manufacturers installation instructions and applicable
- 39 Codes.
- 40
- 41 G. Fit Work to pipes, sleeves, ducts, conduits and other penetrations through affected surfaces neatly and
- 42 leave in finished condition.
- 43
- 44 H. All patched surfaces are to match adjacent finishes in all respects: Type, texture, thickness and color.
- 45 For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire
- 46 unit or area.
- 47
- 48

END OF SECTION

SECTION 01 91 13

GENERAL COMMISSIONING REQUIREMENTS

NOT USED

SECTION 09 90 00

PAINTING

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation
- B. Surface finish schedule includes painting of all exposed surfaces, except as otherwise specified or indicated.
- C. Painting of all new and existing piping, ductwork, conduit and supports to match interior/exterior paint finishes.

1.02 RELATED SECTIONS (Listing is for the Contractor's convenience and may not be complete.)

- A. Section 00 72 00: General Conditions.
- B. Section 26 01 00: Electrical.

1.03 DEFINITIONS

- A. Conform to ANSI/ASTM D16-08 for interpretation of terms used in this Section.
- B. ASTM D4442-15 - Direct Moisture Content Measurement of Wood and Wood-Base Materials.

1.04 QUALITY ASSURANCE

- A. Product Manufacturer: Company specializing in manufacturing quality paints and finish products with five years' experience.
- B. Applicator: Company specializing in commercial painting and finishing with five years' experience.

1.05 REGULATORY REQUIREMENTS

- A. Conform to California Building Code for flame/spread/smoke density rating requirements for finishes.
- B. Furnish certification that all paint coatings furnished for project work comply with the EPA clean air act for permissible levels of volatile organic content for architectural coatings applied in California as designated by California Air Resources Board (CARB).

1.06 SUBMITTALS

- A. Submit product data under provisions of Section 00 72 00.
- B. Provide product data on all finishing products. Product data shall include the paint manufacturers recommended mil thickness application of each coat for each type of paint specified.
- C. Submit four brush-out samples 8x10 inch in size illustrating color and sheen selected for each surface-finishing product shown in the finish schedule.
- D. Field Sample: Furnish sample of actual paint colors selected on portion of building item to receive paint as

directed by Architect, prior to beginning interior and exterior painting.

- E. All shop-primed materials will be re-primed in the field with the specified materials as scheduled below.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in manufacturer's original unopened, labeled containers, inspect to verify acceptance.
- B. Store and protect products from abuse and contamination.
- C. Container labeling to include manufacturer's name, type of paint, brand name, brand code, coverage, surface preparation, drying time, cleanup, color designation, and instructions for mixing and reducing.
- D. Store paint materials at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F., in well-ventilated area, unless required otherwise by manufacturer's instructions.
- E. Take precautionary measures to prevent fire hazards and spontaneous combustion.

1.08 ENVIRONMENTAL REQUIREMENTS

- A. Provide continuous ventilation and heating facilities to maintain surface and ambient temperatures above 45 degrees F for 24 hours before, during, and 48 hours after application of finishes, unless required otherwise by manufacturer's instructions.
- B. Do not apply exterior coatings during rain or snow, or when relative humidity is above 50 percent, unless required otherwise by manufacturer's instructions.
- C. Minimum Application Temperatures for Latex Paints: 50 degrees F. for exterior work; 45 degrees F for interior work, unless required otherwise by manufacturer's instructions.
- D. Provide lighting level of 80-foot candles measured mid-height at substrate surface.
- E. Apply all alcohol-based primers, vanishes, lacquers or other products that produce excessive fumes after school hours or on weekends.

1.09 EXTRA STOCK

- A. N/A

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Kelly Moore
- B. Pittsburgh Paints.
- C. Sherwin Williams.

2.02 MATERIALS

- A. Coatings: Ready mixed manufacturers paint. Process pigments to a soft paste consistency capable of

being readily and uniformly dispersed to a homogeneous coating.

- B. Coatings: Good flow and brushing properties capable of drying or curing free of streaks or sags.
- C. Accessory Materials: All other materials not specifically indicated but required to achieve the finishes specified, of commercial quality.

2.03 FINISHES

- A. Refer to schedule at end of Section for surface finish schedule. Refer to drawings for finish schedule. Construction Manager to provide Owner selected colors.
- B. Product numbers listed are as manufactured by ICI unless indicated otherwise (equivalent products of other manufacturers listed hereinbefore are also acceptable).
- C. Sheens shall be as follows:
 - 1. Exterior Surfaces:
 - a. Wood:
 - 1) Wall Surfaces: Low Sheen. Semi-gloss only where matching existing systems.
 - 2) Overheads: Low Sheen.
 - 3) Trim: Low Sheen. Semi-gloss only where matching existing systems.
 - b. Stucco/Masonry:
 - 1) Wall Surfaces: Low Sheen. Semi-gloss only where matching existing systems.
 - 2) Overheads: Low Sheen.
 - c. Metals:
 - 1) All Surfaces: Low Sheen. Semi-gloss only where matching existing systems.
 - d. Galvanized Surfaces:
 - 1) Match background sheen
 - e. Window frames:
 - 1) All Surfaces: Match wall sheen.
 - f. Ductwork:
 - 1) Low Sheen. Semi-gloss only where matching existing systems.
 - 2. Interior Surfaces:
 - a. Walls:
 - 1) Low-sheen at all spaces except as noted below.

- 2) Semi-gloss at Kitchens, toilet rooms, custodian rooms.
 - b. Trim & Casework:
 - 1) Semi-gloss
 - c. Ceilings:
 - 1) Flat at all spaces except as noted below.
 - 2) Semi-gloss at ceilings at Toilet Rooms, Kitchens, and other “wet” areas.
 - d. Ductwork:
 - 1) Semi-gloss
- D. Contractor shall include in bid to allow for separate walls and ceiling colors. Colors shall be selected by Architect.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Carefully examine all surfaces to receive painting. Verify that all new work is acceptable and has been properly prepared in accordance with associated specification section. Field verify existing conditions of all existing surfaces to receive paint finish prior to bid. Provide all necessary surface preparation as required under this section to provide proper finish.
- B. Contractor to arrange for Inspector’s verification of proper surface preparation prior to start of painting and between each coat.
- C. Measure moisture content of surfaces using an electronic moisture meter. Provide de-humidifiers and heat as necessary to obtain required environmental conditions for interior paint applications. Do not apply finishes unless moisture content of surfaces is below the following maximums:
 - 1. Plaster, Gypsum Wallboard: 18 percent.
 - 2. Interior Located Wood: 15 percent, measured in accordance with ASTM D4442.
 - 3. Exterior Located Wood: 7 percent measured in accordance with ASTM D4442.
- D. Beginning of paint application to any new surface means acceptance of surfaces prepared under separate specification section.

3.02 PREPARATION

- A. Remove electrical plates, hardware, light fixture trim, and fittings prior to preparing surfaces for finishing.
- B. Remove all loose and peeling paints (see exhibit “D” for lead based paint abatement).
- C. Correct all defects on existing surfaces including patching holes in walls and ceilings, skimming surfaces, repairing cracks, puttying, sanding, etc. to restore original wall finish and provide a uniform texture. Spot prime all areas of repair.
- D. Clean all surfaces thoroughly with TSP or approved cleaning product. Rinse thoroughly and allow to

completely dry before coating.

- E. Remove or seal marks which may bleed through surface finishes with B-I-N Primer (additional coats may be required).
- F. Impervious Surfaces: Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach. Rinse with clean water and allow surface to dry. Repeat process if necessary.
- G. **New Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.**
- H. New Shop Primed Steel Surfaces: Sand, scrape and feather all edges. Remove loose primer and rust. Clean surfaces with solvent. Completely re-prime entire surfaces.
- I. Existing Metal Surfaces
 - 1. Remove loose primer, paint and rust.
 - 2. Sand, scrape and feather all edges.
 - 3. **Clean surfaces with a solvent approved by paint system manufacturer. Solvent shall be compatible with new paint system materials.**
 - 4. **Completely re-prime entire surfaces.**
 - 5. Use an approved primer that will be compatible and warranted by the selected paint manufacturer over any surface that has been previously painted with an oil-base finish.
- J. Interior Wood Items: Thoroughly clean all surfaces with suitable cleaner and solvent prior to priming. Repair any damage, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats.
 - 1. At woodwork with transparent finish - nail holes, cracks or defects shall be filled with wood filler tinted to match color of stain.
 - 2. All existing wood that is currently painted is to be repaired, cleaned, primed and repainted. All existing wood that is currently stained is to be repaired, cleaned, re-stained and either lacquered or varnished to match existing finish.
- K. Sandblast per Specification Section 02 51 33.16 if necessary to remove all loose, peeling paint or foreign material.

3.03 PROTECTION

- A. Protect elements surrounding the work of this Section from damage or disfiguration.
- B. Repair damage to other surfaces caused by work of this Section.
- C. Furnish drop cloths, shields, and protective methods to prevent spray or droppings from disfiguring other surfaces.
- D. All IDF's are to be properly protected in a manner that allows ventilation adequate to prevent damage to equipment. At completion of painting work, all IDF's must be professionally cleaned by an approved technician with a minimum of 3-years experience in computer cleaning.

- E. Remove all debris from site and properly dispose of in lawful manner.
- F. Do not use storm drain system for clean-up.

3.04 APPLICATION

- A. Apply all alcohol-based primers, vanishes, lacquers or other products that produce excessive fumes after school hours or on weekends.
- B. Apply products in accordance with manufacturer's instructions. Provide coats in appropriate mill thickness to provide suitable cover. Additional coats may be required to provide an acceptable finish depending on base tint and existing color bleed through.
- C. Do not apply finishes to surfaces that are not dry.
- D. Apply each coat to uniform finish. Number of coats in schedule are the minimum required, additional coats shall be applied as required to achieve a uniform final finish.
- E. Apply each coat of paint slightly darker than preceding coat unless otherwise approved.
- F. Sand lightly between coats to achieve required finish.
- G. Allow applied coat to dry before next coat is applied.
- H. Where clear finishes are required, tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.
- I. Prime back surfaces of interior and exterior woodwork with primer paint as recommended by manufacturer.
- J. Prime back surfaces of interior woodwork scheduled to receive stain or varnish finish with gloss varnish reduced 25 percent with mineral spirits.
- K. Interior face of exterior doors to be painted with the "exterior" finish system.
- L. All painted text on interior door face shall be uppercase Cooper font, 4 inch high numbers, 3 inch high text.

3.05 FINISHING MECHANICAL AND ELECTRICAL EQUIPMENT

- A. Paint interior surfaces of air ducts and convactor heating cabinets that are visible through grilles and louvers with one coat of flat black paint, to limit of sight line. Paint dampers exposed behind grilles, to match face panels. Paint all new conduit, pipes and conduit/pipe supports in exposed interior and exterior locations. Paint all new interior and exterior exposed ductwork and ductwork supports.
- B. At all locations where new exposed duct work is to be painted, Contractor shall paint duct work at floor level prior to installing on wall. Once painted, protect duct work from overspray and other construction related debris. Ductwork finish shall be smooth and without blemishes. Once installed, carefully touchup any areas scratched during install.
- C. Replace electrical plates, hardware, light fixture trim, and fittings removed prior to finishing.
- D. Do not paint factory finished mechanical and electrical equipment.

3.06 CLEAN UP

- A. As Work proceeds, promptly remove paint where spilled, splashed, or spattered.
- B. During progress of Work, maintain premises free of unnecessary accumulation of tools, equipment, surplus materials, and debris.
- C. Collect cotton waste, cloths, and material which may constitute a fire hazard, place in closed metal containers and remove daily from site.
- D. Upon completion of the work of this section, remove all surplus material and related debris from the site.

3.07 SCHEDULE - EXTERIOR SURFACES

Descriptions in schedule apply to new and previously painted surfaces. Number of coats listed are a minimum, additional coats may be required to provide suitable uniform finish.

- A. Ferrous Metal (Semi-Gloss Enamel) Re-prime all shop primed items in field
 1st coat – Rust-Oleum CV740 Primer
 2nd and 3rd coats – Devcryn 1448 Acrylic Semi-Gloss Enamel
- B. Metal Deck (underside) and Supporting Structural Steel Members
 1st coat – Devcryn 1440 DTM Primer/Finish
 2nd coat & 3rd coats – Devcryn 1448 Acrylic Semi-Gloss Enamel
- C. Galvanized Metal Railings (Gloss Urethane Enamel)
 1st coat – Etch and clean with solvent new galvanized finishes
 2nd coat – Sierra Performance Metal Max DTM Acrylic Enamel
 3rd and 4th coats – Sierra Performance Beyond Gloss Acrylic Enamel
- D. Galvanized Metal Non-Railings (Misc. Galvanized metals, underside of metal decking, flashings, etc.) (Semi-Gloss Enamel)
 1st coat – Etch and clean with solvent new galvanized finishes
 2nd coat - Devcryn 1440 DTM Primer/Finish
 3rd and 4th coats – Devcryn 1448 Acrylic Semi-Gloss Enamel
- E. Cement Plaster and Exposed Concrete (Semi-Gloss Enamel)
 1st coat - KM 247 Acry-Shield 100% Masonry Primer
 2nd and 3rd - KM 1215 Color Shield Exterior Acrylic Semi-Gloss Finish
- F. Wood (Semi-gloss)
 1st coat - KM 295 Kel-Bond Universal Primer
 2nd and 3rd coats - KM 1215 Color Shield Exterior Acrylic Semi-Gloss Finish
- G. New Concrete Block (Semi-Gloss)
 1st coat - Devco Coatings, Bloxfil 4000 Interior/Exterior Heavy Duty Acrylic Block Filler - KM 521 Color Shield Prime & Fill Acrylic Block Filler
 2nd and 3rd coats - KM 1215 Color Shield Exterior Acrylic Semi-Gloss Finish
- H. Existing Concrete Block (Semi-Gloss)
 1st coat - KM 295 Kel-Bond Universal Primer
 2nd and 3rd coats - KM 1215 Color Shield Exterior Acrylic Semi-Gloss Finish
- I. Aluminum In-Fill Panels:
 1st coat – Factory Prime coat (Touch up if abraded)

2nd and 3rd coats – Devcryn 1448 Acrylic Semi-Gloss Enamel

- J. Cementitious Siding:
1st coat – KM 295 KelBond Universal Primer
2nd and 3rd coat - KM 1200 Color Shield Exterior 100% Acrylic Flat.

3.08 SCHEDULE - INTERIOR SURFACES

Descriptions in schedule apply to new and previously painted surfaces. Number of coats listed are a minimum, additional coats may be required to provide suitable uniform finish.

- A. New Gypsum Board (Low sheen at Walls and Flat at Ceilings, Enamel)
1st coat - KM 971 Acry-Plex Zero VOC Interior PVA Sealer
2nd and 3rd coats. (Typical paint system at classrooms, toilet rooms, storage rooms, and kitchens.) – KM 1007 Professional Zero VOC.
At toilet rooms, kitchens, custodian rooms – KM 1685 Dura-Poxy 100% Acrylic Semi-Gloss Enamel.
- B. Existing Gypsum Board (Low sheen at Walls and Flat at Ceilings, Enamel)
1st coat - KM 295 Kel-Bond Universal Primer. Or B-I-N Primer-Sealer Stain-Killer if necessary.
2nd and 3rd coats. (Typical paint system at classrooms, toilet rooms, storage rooms, and kitchens.) – KM 1007 Professional Zero VOC.
At toilet rooms, kitchens, custodian rooms – KM 1685 Dura-Poxy 100% Acrylic Semi-Gloss Enamel.
- C. New or Existing Painted Wood (Semi-Gloss Enamel)
1st coat - KM 295 Kel-Bond Universal Primer-or B-I-N Primer-Sealer Stain-Killer if necessary.
2nd and 3rd coats. - KM 1050 Professional Zero VOC Semi-Gloss Enamel
- D. New Wood to Receive Transparent Finish (Stain and Lacquer)
1st coat - Gemini 200-0012 Sanding Sealer
2nd and 3rd coats - Gemini 500-0035 Satin Lacquer
- E. Existing Stained Wood (Varnish Finish)
1st coat – Stain to provide uniform finish, match existing tone- Old Masters Wiping Stain
2nd and 3rd coats. - Old Masters Water Based Polyurethane Satin
- F. Existing Stained Wood (Lacquer Finish)
1st coat - Old Masters Wiping Stain
2nd and 3rd coats - 91657 Satin Lacquer-Gemini 200-0012 Satin Lacquer
- G. Ferrous Metal (Semi-Gloss Enamel) – Re-prime all shop primed items in field.
1st coat – Rust-Oleum CV740 Primer
2nd and 3rd coats –, Industrial Acrylic, Semi-Gloss Enamel Typical paint system at all hollow metal doors and frames. - Devcryn 1448 Acrylic Semi-Gloss Enamel
- H. Cement Plaster and Exposed Concrete (Semi-Gloss at Walls and Flat at Ceilings, Enamel)
1st coat – KM 295 Kel-Bond Universal Primer-or B-I-N Primer-Sealer Stain-Killer if necessary
2nd and 3rd coats - KM 1050 Professional Zero VOC Interior Semi-Gloss Enamel
- I. Acoustical Ceiling Tiles (Flat)
1st coat – KM 295 Kel-Bond Universal Primer- or B-I-N Primer-Sealer Stain-Killer.
2nd and 3rd coats - KM 485 Commercial Flat wall Paint
- J. Galvanized and Zinc Alloy Metal, (Semi-Gloss Enamel).
1st coat – Etch and clean with solvent new galvanized finishes
2nd coat - KM 295 Kel-Bond Universal Primer

3rd and 4th coats – Devcryl 1448 Acrylic Semi-Gloss Enamel

- K. Concrete Block (Semi-Gloss)
 - 1st coat - KM 295 Kel-Bond Universal Primer
 - 2nd and 3rd coats - KM 1050 Professional Zero VOC Interior Semi-Gloss Enamel

[END OF SECTION 09 90 00]

SECTION 26 01 00

ELECTRICAL GENERAL REQUIREMENTS

The requirements of the foregoing General Conditions as they apply are a part of this specification.

PART 1 – GENERAL

1.01 DESCRIPTION

- A. Work Included: Provide all labor, materials, tools and equipment necessary for the complete in-place installation of all electrical items complete as shown on drawings and as specified in this Division.
1. Utilities - power. Extend service from existing service point through complete site.
 2. Complete lighting throughout buildings as indicated to include exterior site including lamps, switching and automatic controls and replacement of existing interior lighting and controls as indicated. Provide emergency lighting and new exit signs throughout.
 3. Complete new power distribution throughout project including main electrical service, distribution panelboards, branch circuit panelboards, conduit, wire, pull boxes, junction boxes and miscellaneous materials.
 4. Complete receptacle branch circuits including conduit, wire, outlet boxes and devices.
 5. Electrical connections to equipment furnished and installed under other sections.
 6. Testing and training for all systems.
 7. Maintenance manuals.
 8. As-built drawings.
 9. Handholes, conduits and stub outs.
 10. Provide connections of all equipment specified under this section and section 220000 including installation and connection of all motors, relays, remote starters, etc.
 11. Comply with Cal OSHA Safety Order Title 8.
- B. Related work included in other sections:
1. Section 26 05 00, BASIC MATERIALS AND METHODS.
- C. Correct related work not in contract-paragraph as follows:
1. "Utility connection fees paid by SJUSD"
- D. Definitions:
1. "Listed": Equipment is "listed" if of a kind mentioned in a list which:
 - a. Is published by a nationally recognized laboratory which makes periodic inspection of

- production of such equipment.
- b. States that such equipment meets nationally recognized standards or has been tested and found safe for use in a specified manner.
2. "Labeled": Equipment is labeled if:
 - a. It embodies a valid label, symbol, or other identifying mark of a nationally recognized testing laboratory such as Underwriters Laboratories, Inc.
 - b. The laboratory makes periodic inspection of the production of such equipment.
 - c. The labeling indicates compliance with nationally recognized standards or tests to determine safe use in a specified manner.
 3. "Certified": Equipment is "certified" if:
 - a. Equipment has been tested and found by a nationally recognized testing laboratory to meet nationally recognized standards or to be safe for use in a specified manner.
 - b. Production is periodically inspected by a nationally recognized testing laboratory.
 - c. It bears a label, tag or other record of certification.
 4. "Nationally Recognized Testing Laboratory": A testing laboratory which is approved, in accordance with OSHA regulation, by the Secretary of Labor.
 5. "The Contractor": Refers to the prime contractors.
 6. "The Architect": Refers to the Professional Architect.
 7. "The Owner": Refers to the legally registered owner of the project or their authorized representative.
 8. "The Engineer": Refers to the Professional Electrical Engineer.
 9. "Provide": Construed to mean furnish (supply), install and connect complete and ready for safe and regular operation of particular work referred to unless otherwise noted.
 10. "Furnish": Construed to mean purchase, procure, acquire and deliver complete with related accessories to project site.
 11. "Install": Construed to mean to physically erect and mount the item(s) complete with related accessories in-place.
 12. "Connect": Construed to mean make final electrical connections for a complete operating piece of equipment with related accessories.
 13. "As directed": In written directive by the Owner or their authorized representative.
 14. "Work": Labor, materials, equipment, apparatus, controls, accessories and other items required for proper and complete installation.
 15. "Wiring": Raceway, fittings, wire, boxes and related items.

16. "Concealed": Embedded in or below masonry or other construction, installed in furred spaces, within partitions, above suspended ceilings, in trenches, or in enclosures.
17. "Exposed": Not installed underground or "concealed" as defined above.
18. "Indicated", "shown" or "noted": As indicated, shown or noted on drawings or specifications.
19. "Utility Companies": Construed to mean either the electric utility company (Sacramento Municipal Utility District) or the telephone utility company (Pacific Bell or the cable television utility company).

1.02 LOCAL CONDITIONS

- A. Examine site; verify dimensions and locations against drawings and become informed of all conditions under which work is to be done before submitting proposal. No allowance will be made for extra expenses because of omission on Contractor's part to include cost of work under prevailing conditions.
- B. Information shown relative to services is based upon available records and data shall be regarded as approximate only. Minor deviations found necessary to conform with actual locations and conditions shall be made without extra cost.
- C. Extreme care shall be exercised in excavating near existing utilities to avoid any damage thereto; contractor is responsible for any damage caused by such operations.

1.03 INSPECTIONS

- A. Arrange for required inspections and secure approvals from authorities having jurisdiction.
- B. During its progress, work shall be subject to inspection by DSA Inspector.

1.04 CODES AND STANDARDS

- A. Work and materials shall be in full accordance with California Occupational Safety Health Act (CAL-OSHA), California Electrical Code (CEC), State Fire Marshal, Title 8, Safety Orders of Division of Industrial Safety (ESO), the National Fire Protection Association, California Building Code (CBC); California Code of Regulations - Title 24 and other applicable laws or regulations. Nothing in the Drawings or Specifications shall be construed to permit work not conforming to these codes.
- B. When Contract Documents differ from governing codes, furnish and install larger size or higher standards called for without extra charge.

1.05 RECORD DRAWINGS

- A. Upon completion of Work, furnish Engineer with complete sets of current and accurate plans, both printed and electronic versions (not marked blueprints) upon which shall be shown all Work installed under Contract, which are not in accordance with Original Contract Drawings.
- B. All symbols and designations used in preparing Record Drawings shall match those used in Contract Drawings.
 1. Show all buried and concealed conduit, stub-outs, etc. Locate all buried conduit and stub-outs by dimensions from permanent, easily located and identifiable portions of structure; also, dimension ends of stub-outs, etc. Note depth of buried items below grade.

- C. The contractor is responsible to obtain IOR review acceptance of Record Drawings on a weekly basis as work is being installed and is responsible to submit Record Drawings prints for EE approval at end of project with submittal cover sheet and signed by IOR and Contractor.

1.06 SUBMITTALS

- A. Submit product data, shop drawings, manufacturer's installation instructions for all electrical equipment and materials in accordance with Division 01-General Requirements, 01 33 00 Submittal Procedures.
- B. All submittals are to be submitted within 35 days from the issuance of the Notice of Intent to Award.
- C. The M&O manuals shall be submitted for approval within 60 days after submittals are approved.
- D. Provide submittals and M&O manuals prior to close out.

PART 2 – PRODUCTS

- A. Materials mentioned herein or on drawings require that each item listed be provided and of quality noted, or an approved equal. All material shall be new, full weight and standard in all respects and in first-class conditions. Where possible, all materials used shall be of the same brand or manufacturer throughout for each class of material or equipment.
- B. Grade or quality of materials desired is indicated by trade names or catalog numbers stated herein. Dimensions, sizes and capacities shown are a minimum and shall not be changed without permission of Engineer.

PART 3 – EXECUTION

3.01 DRAWINGS AND COORDINATION

- A. Examine Drawings and Site; be familiar with types of construction where electrical installation is involved.
 - 1. Work shall be neatly installed in a workmanlike manner in accordance with NECA Standard of Installation. Work shall be coordinated with other trades to avoid conflicts. Clarifications will be made by Engineer and minor adjustments shall be made without additional cost to Owner.
- B. Layouts of equipment, accessories and wiring systems are diagrammatic (not pictorial), but shall be followed as closely as possible. Drawings and Specifications are for assistance and guidance, and exact locations, distances, levels, etc., will be governed by Site.

3.02 EQUIPMENT INSTALLATION

- A. Install locations for transformers, panels, lighting control panel (LCP), MDF/IDF, and fire alarm panels on first floor structure so District O&M personnel not require to access potential arc-flash hazardous equipment via ladder or stairs.

3.03 WORKING SPACE

- A. Provide adequate working space around electrical equipment in compliance with Article 4 of Electrical Safety Orders. In general, provide 36 inches minimum clear work space in front of panelboards and controls.

3.04 CARE AND CLEANING

- A. All broken, damaged or otherwise defective parts shall be repaired or replaced without additional cost to Owner. Work shall be left in a condition satisfactory to Engineer. At completion, carefully clean and adjust all equipment, fixtures and trim installed as part of this work. Systems and equipment shall be left in a satisfactory operating condition.
- B. All surplus materials and debris resulting from this work shall be cleaned out and removed from site; this includes surplus excavated material.

3.05 EXCAVATING AND BACKFILLING

- A. Excavate and backfill as required for installation of electrical work. Restore all surfaces, roadways, sod, walks, curbs, walls, existing underground installation, etc., cut by installations to original condition in an acceptable manner. Maintain all warning signs, barricades, flares and lanterns as required by the Safety Orders and local ordinances.
- B. Excavation: See section 31 00 00 (Earthwork).
- C. Backfill: See section 31 00 00 (Earthwork).

3.06 PROTECTION

- A. In performance of work, protect work from damage. Protect electrical equipment, stored and installed, from dust, water or other damage.

3.07 EQUIPMENT IDENTIFICATION

- A. Provide screwed-on engraved nameplates of black limacodid with 3/4 inch high white lettering for main switchboards (including each breaker and switch), all panelboards, transformers, all relays, timers, terminal cabinets (including each section) and all special panels and consoles.
- B. Provide identifying numbers for each breaker in all lighting and appliance panelboards in a permanently attached (not pasted on) directory with plexiglass cover with typewritten identification of each circuit.
- C. Provide screwed-on engraved nameplates of black limacodid with white 1/2 inch high lettering, identifying function, for all disconnect switches and starters.
- D. Provide labels at each end of each pull cord for all empty conduits/raceways.
- E. Indicate type of equipment, equipment designation and origination, ex. "PANEL-XXX fed from SWITCHBOARD-XXX", PANEL-XXX fed from TRANSFORMER-XXX", etc.
- F. Provide 1/4 inch high white lettering labels for all receptacles to identify panel and circuit number.

3.08 RUST INHIBITER

- A. Channels, joiners, hangers, caps, nuts and bolts and associated parts shall be plated electrolytically with zinc followed immediately thereafter by treating freshly deposited zinc surfaces with chromic acid to obtain a surface which will not form a white deposit on surface for an average of one hundred twenty (120) hours when subjected to a standard salt spray cabinet test, or shall be hot dipped galvanized.

3.09 EQUIPMENT PADS

- A. Concrete reinforced pads for mounting of equipment (i.e. switchboard, transformers, freestanding panels, etc.) shall be minimum 3000psi, 6" thick with #4 rebar at 12" on center each way. Rebars shall be centered in pad. Pad shall extend 2" beyond equipment and 3" above surrounding area.

3.10 TEST

- A. Test all wiring and connections for continuity and grounds; where such test indicate faulty insulation or other defects, locate, repair and retest. Balance loads at panelboards. Furnish all testing equipment.

3.11 CLOSING OF UNINSPECTED WORK

- A. Do not allow or cause any of work installed hereunder to be covered up or enclosed before it has been inspected and approved.
- B. Should any work be enclosed or covered up before it has been approved, uncover such work and after it has been inspected and approved, make all repairs necessary to restore work of others to conditions in which it was found at time of cutting, all without additional cost to Owner.

3.12 ELECTRICAL SYSTEM SHUTDOWN

- A. Provide District with minimum of 10 working days' notice prior to any contemplated shutdown or connection to existing facilities, the contractor shall submit for review their work procedures, which shall include the contractor's lockout/tagout procedures.
- B. A minimum of 2 working days before any shutdown of existing systems, a meeting shall be held to discuss the Contractor's shutdown procedures with the IOR, Construction Manager and the District.

3.13 POWER SYSTEM COORDINATION

- A. Provide a coordination study of the new power system to match the trip curves of all new circuit breaker for proper interruption of the system. Contractor to make final breaker settings based on results of study.

3.14 WARRANTY

- A. See section 00 72 00 General Conditions for warranty requirements. The start date of all warranty items is the recordation date of the Notice of Completion. The warranty for equipment when put into operation per the phasing schedule will start with the date of occupancy. All items to have a minimum of 2-years warranty.

3.15 PAINTING

- A. All painting is to be performed by General Prime contractor per section 09 90 00, Scope of Work in accordance with section 09900, Painting. Coordinate all required painting.

[END OF SECTION 26 01 00]

SECTION 26 05 00

BASIC MATERIALS AND METHODS

The requirements of the General Conditions and Division 1 apply to all work specified hereunder. Work specified in other sections, as applicable, shall apply to all work specified hereunder.

PART 1 - GENERAL

1.01 SCOPE

- A. The work of this Section consists of basic materials and methods for all work included under Division 26. Additional specification requirements for electrical work are specified under other sections of Division 26 and where those requirements differ from the requirements of this Section, the more stringent shall govern.

1.02 SUBMITTALS

- A. Submit product data, shop drawings, manufacturer's installation instructions for all electrical equipment and materials in accordance with General Conditions.
- B. Provide as-built documentation and operation & maintenance manuals in accordance with General Conditions.

PART 2 - PRODUCTS

2.00 All products used on this project shall bear the label and be approved by Underwriters Laboratories unless otherwise approved in writing by Architect.

2.01 RACEWAYS

- A. Rigid Steel Metallic: Full weight with threaded fittings conforming to industry standards. Rigid steel conduit in contact with earth or in concrete slabs must be PVC wrapped or PVC coated. Minimum trade size for rigid steel conduit shall be ¾ inc.
 - 1. Rigid Steel Conduit: Protected inside and outside by galvanizing or sherardizing. By Triangle, Western Pipe & Tubing, Republic or approved equal. Risers and 90 degree elbows shall be wrapped with 3M Scotchwrap 51 PVC-based tape and 3M pipe primer or PVC coating (cover exposed threads and couplings).
- B. Electric metallic tubing (EMT): Protected inside and outside by galvanizing or sherardizing. Minimum trade size for EMT is 3/4 inch and maximum diameter is 4 inch. Same manufacturers as for rigid steel conduit. All fittings by: Thomas & Betts,/Steel City, Raco, OZ/Gedney, or approved equal.
- C. Flexible conduit: All Flex, American Flexible Conduit, or approved equal. Where exposed to weather use liquid-tight flexible conduit, type UA complete with waterproof fittings. American Flexible Conduit, Electri-Flex, Sealrite, Anaconda, or approved equal. MC Cable shall not be utilized.
- D. PVC conduit: Schedule 40 polyvinylchloride high density, high impact, type two with factory-made couplings and fittings, as manufactured by Carlon, PW Pipe, Cantex, or approved equal. Use of PVC is subject to local utility company having jurisdiction. Minimum trade size for PVC shall be ¾ inch.
- E. Raceway Fittings:

1. Rigid Steel Conduit: Fittings, such as couplings, connectors, condulets, elbows, bends, etc., shall be subject to same requirements as for rigid steel conduit. Couplings and unions shall be threaded type, assembled with anti-corrosion, conductive anti-seize compound at joints, and made absolutely tight to exclude water. Unions shall be equal to Krouse-Hinds UNY, UNF or approved equal.
2. EMT: Fittings for indoor use: couplings and connectors 3/4" and smaller shall be steel set-screw type or threaded compression type. 1" and larger, and all outdoor applications shall be compression type. All connectors must have insulated throats.
3. Flexible Metallic Conduit: Angle wedge type with insulated throat.
4. Bushings: Metallic insulated type. Weatherproof, liquid-tight, dust-tight installations with sealing ring and insulated throat, Krouse-Hinds, OZ/Gedney type "KR".
5. Expansion and Deflection Fittings: OZ/Gedney, Type "DX" or accepted equal.

F. Lugs and Connectors:

1. #6 AWG and larger: Thomas & Betts "Lock-Tite", Burndy "Quicklug", Panduit, or approved equal.
2. #8 AWG and smaller: Scotch "Scotchlok" with insulator, Thomas & Betts, "Sta-kon" with insulator, Ideal Series 2002 with insulator, or approved equal.

G. All multi channel non-metallic surface mounted raceways shall be three compartment 5500 Wiremold or approved equal - color to be ivory or as selected by Architect. Provide all components necessary to complete the work.

1. Components include, but are not limited to:
 - a. 5500BD-Divided Base
 - b. 5500C- Cover
 - c. 5507C- Device Bracket
 - d. 5507D- Duplex Plate
 - e. 5507B (2)-Blank Plates
 - f. 5510D Entrance End Fitting
 - g. 5500WC- Wire Clip

H. All single channel non-metallic surface mounted raceways shall be 800, 2300, and/or 2900 Wiremold ,type and size specified in the drawings or approved equal - color to be ivory or as selected by Architect. Provide all components necessary to complete the work.

1. Components include, but are not limited to:
 - a. Base
 - b. Cover
 - c. Surface mount box
 - d. Tee fitting
 - e. 90 flat elbow, inside, outside fittings
 - f. Entrance End Fitting
 - g. Blank End Fitting
 - h. Transition fittings

I. Power and Communication poles shall be Wiremold (p/n 30TP-4*V) (* height of pole shall be determined by ceiling height of the room in which installed) or approved equal.

1. Components include, but are not limited to:
 - a. Rectangular Device Cover (p/n 30TP-L)
 6 port Leviton QuickPort Decora Multimedia Insert (p/n 41646-W) with blanks (p/n 41084-BWB)

2.02 BOXES

A. Galvanized one-piece or welded pressed steel type. Boxes for fixture shall not be less than 4" square and shall be equipped with fixture stud. Boxes shall be at least 1-1/2" deep, 4" square for 1 or 2 gang devices, with plaster rings

and gang box with gang cover. Boxes mounted in wall or ceiling finished with gypsum board shall be furnished with 3/4" deep plaster rings. Use screws and not nails to support outlet boxes. Boxes in unfinished areas, installed exposed, shall be cast type conduit for switches and convenience outlets. Exposed boxes mounted below 8 ft from finished floor shall be cast type. Provide blank cover for all boxes without fixture or device.

- B. Junction boxes located outdoors, or in wet or damp locations shall be rated NEMA-3R, with hinged door and pad-locking tabs.
- C. Floor boxes shall be one-gang or multi-gang recessed, fully adjustable with brass lids and cover plates for respective tile or carpet floor finish. For "hard" floors such as tile or wood, the top of the cover shall be flush with the top of the finished floor. Receptacle covers shall have individual flip-lids with screw lock. Junction boxes shall have screwed on plugs.
 - 1. Grade level or below: Water-tight and concrete-tight of cast iron construction, Walker 880CS series or equal.
 - 2. Above grade level: Concrete-tight of stamped steel construction, Walker 880S series or equal.
- D. Provide center pin TORX tamper-proof screws for all exterior boxes and conduit bodies (i.e. LB, SLB, RLB, etc.).
- E. No handy boxes allowed.

2.03 WIRE AND CABLE

- A. Manufacturers: Rome, General Cable, American Insulated Wire (AIW), Essex, or approved equal.
- B. Conductors: Soft-drawn copper with 600-volt insulation #12 AWG minimum. (Use #10 AWG minimum for 120-volt branch circuit runs over 100 feet.). All wire and cable shall be copper. No aluminum will be allowed (no substitutions).
- C. Insulation types:
 - 1. #8 AWG and smaller THWN, XHHW or THHN as required.
 - 2. Stranded for #8 and larger, stranded may be used for #10 and smaller. (Use THHN where permitted in raceways with more than 6 conductors for de-rating purposed unless a larger wire is indicated and the use of THHN is not necessary.
 - 3. #6 AWG or larger - THW, RHW, XHHW, THWN, THHN or as noted.
 - 4. Within fluorescent fixtures - Standard 90 degree C. type RHH, THHN, FEP or XHHW.
 - 5. Underground - THHN/THWN-2 or XHHW 600V.

2.04 RELAYS AND CONTACTORS

- A. Relays and contactors to be electrically held, (unless otherwise noted) in NEMA 1 enclosures, by ASCO, Square D or approved equal. Contacts to be rated for load and type of load. Noisy relays and contactors shall be replaced. Where there are three (3) or more relays, install in a separate common cabinet.

2.05 WALL SWITCHES

- A. Shall be "AC" rated, heavy duty, quiet type, rated 20 amperes at 120/277 volts AC. Application of switches shall comply with Section 404-8 CEC. Color shall be ivory unless otherwise noted. Plates shall be smooth **nylon** type. Switches to be Leviton, Hubbel, or equal as follows:

<u>Manufacturer</u>	<u>Single Pole</u>	<u>3-Way</u>	<u>Locking Single Pole</u>
Leviton	1221-2I	1223-2I	1221-2IL

2.06 CONVENIENCE OUTLETS

- A. Outlets shall be "Specification" grade rated 20 amperes at 125 volts, composition base with slots to accommodate parallel plug caps with grounding peg. Contact shall grip both sides of plug prongs. Outlets shall be UL listed. Plates shall be smooth **nylon** type.

<u>Receptacle</u>	<u>Leviton</u>
20A duplex.	5362
20A duplex GFI	6898-HGI
20A duplex IG	5362-IG

- B. Color shall be WHITE unless otherwise noted. Isolated ground (IG) and dedicated receptacles shall be orange. Provide with matching color plates.

2.07 SPECIAL OUTLETS FOR LAPTOP AND PAD CHARGING CABINETS

- A. Outlets shall be "Specification" grade rated at 125 volts, twist lock with slots to accommodate parallel L5-20P plug caps with grounding peg. Outlets shall be UL listed. Plates shall be smooth **nylon** type

<u>Receptacle</u>	<u>Leviton</u>	<u>Hubbell</u>	<u>Legrand</u>
NEMA L5-20R.	2310	HBL2310	L520R

- B. Color shall be WHITE unless otherwise noted. Provide with matching color plates.

2.08 PANELBOARDS

- A. Panelboards shall be Square D – NQOD, NEHB, I-Line as specified for secondary utilization voltage and phase, or as manufactured by Eaton Cutler Hammer, General Electric, or approved equal. Busses shall be copper or aluminum. Circuit breakers shall be Quicklag and AB type, single-pole and multi-pole for branch circuit control with trip-rating marked thereon, or approved equal. Multi-pole breakers shall be common trip types with single handle. Factory assembled and listed multi-pole breakers with handle ties shall be acceptable. Bails will not be accepted except where used with multi-wire branch circuits through fluorescent lighting fixtures. All circuit breaker handles shall be equipped with padlocking tabs, "lock-off" device.
- B. Enclosures shall be code gauge, galvanized metal with front trim and hinged door with lock. Front trim shall be equipped with concealed trim clamps and concealed door hinges. Panel shall be finished ASA-61. Inside door shall have frame for circuit identification card. Fill out card, typewritten, with list of circuits in use. Identification shall be specific with room designation, etc.
- C. Panelboard submissions shall show numbering and trip rating of each circuit breaker. Panelboard shall bear the UL label of approval. Distribution panel circuit identification shall be with screw-on engraved laminated plastic plate showing load served and trip rating. Provide all panelboards with master-keyed lock.
- D. All circuit breakers shall be fully rated to withstand the available short circuit current as designated on the drawings. Series rated equipment will not be acceptable.

2.09 TRANSIENT VOLTAGE SURGE SUPPRESSOR (TVSS)

- A. At main service entrance, Leviton 57000 Series or APT TE/HPS/CL.
 - 1. Maximum single pulse transient peak (8 x 20 us, Amps peak) = 150,000 per mode of protection.
 - 2. Noise rejection at 50 Ohms, 5K - 100 Mhz db = -20 to -40.
 - 3. Clamping performance rating per UL1449 2nd edition:
 - a. 120 Volt rating = 400 V
 - b. 277 Volt rating = 800 V
 - 4. Maximum Continuous Operating Voltage (MCOV) shall be at least 125% of the nominal voltage.

Features shall include clamping envelope tracking, built-in redundancy provides complete protection on all phases, modular design allowing replacement of modules, normal mode and common mode protection for WYE-configured 3-phase systems, fuse protection for each module, metal enclosure with hinged metal cover. UL 1449 listed. Limited 10-year warranty. 15.1"H x 13.1"W x 5.2"D. Install directly adjacent to panel it is protecting. Provide in NEMA-3R cabinet where installed outdoors.

- B. At panel, Leviton 52000 or APT TE/HPS/CX.
 - 1. Maximum single pulse transient peak (8 x 20 us, Amps peak) = 100,000 per mode of protection.
 - 2. Noise rejection at 50 Ohms, 5K - 100 Mhz db = -20 to -40.
 - 3. Clamping performance rating per UL 1449 2nd edition:
 - a) 120 Volt rating = 400 Volts
 - b) 277 Volt rating = 800 Volts

Features shall include clamping envelope tracking, built-in redundancy provides complete protection on all phases, modular design allowing replacement of modules, normal mode and common mode protection for WYE-configured 3-phase systems, fuse protection for each module, metal enclosure with hinged metal cover. UL 1449 listed. Limited 10-year warranty. 15.1"H x 13.1"W x 13.1"D. Install directly adjacent to panel it is protecting. Provide in NEMA-3R cabinet where installed outdoors.

- C. Integral Surge Suppressor Devices (SPD) in Panelboards, Leviton 57000/5200 or Square 'D' XGA.
 - 1. SPD shall be Listed and Component Recognized in accordance with UL 1449 Second Edition to include Section 37.3 highest fault current category. SPD shall be UL 1283 listed.
 - 2. SPD shall be installed by and shipped from the electrical distribution equipment manufacturer's factory.
 - 3. The TVSS devices in panelboards shall be bus or cable mounted between the main branch devices. TVSS devices bussed off the end of the panelboard are not allowed. Panelboards with TVSS will accommodate thru-feed lugs and sub-feed circuit breakers in single section and multi-section panelboards.
 - 4. The TVSS devices in power distribution panelboards and switchboards shall be cable connected.
 - 5. SPD shall provide surge current diversion paths for all modes of protection; L-N, L-G, N-G in WYE systems.
 - 6. SPD shall be modular in design. Each mode including N-G shall be fused with a 200kAIR UL recognized surge rated fuse and incorporate a thermal cutout device.
 - 7. Audible diagnostic monitoring shall be by way of audible alarm. This alarm shall activate upon a fault condition. An alarm on/off switch shall be provided to silence the alarm. An alarm push to test switch shall be provided.
 - 8. SPD shall meet or exceed the following criteria:
 - a. Minimum surge current capability (single pulse rated) per phase shall be:
 Service Entrance Panelboards Locations: 240kA per phase.
 Distribution and Lighting and Appliance Panelboards Locations: 160kA per phase.
 - b. UL 1449 Suppression Voltage Ratings:

<u>VOLTAGE</u>	<u>LOCATION</u>	<u>L-N</u>	<u>L-G</u>	<u>N-G</u>
208Y/120V	Distribution:	330V	300V	300V
480Y/277V	Distribution:	600V	600V	600V

9. SPD shall have a minimum EMI/RFI filtering of –50dB at 100kHz with an insertion ration of 50:1 using MIL-STD-220A methodology.
10. SPD shall be provided with one set of NO/NC dry contacts.
11. SPD shall have a warranty for a period of five years, incorporating unlimited replacement of suppressor parts. Warranty shall be the responsibility of the electrical distribution equipment manufacturer and shall be supported by their respective field service division.

2.10 SAFETY SWITCHES (DISCONNECTS)

- A. Type "HD" Heavy-Duty safety switches with externally operated handle. Switches shall be manufactured by Eaton Cutler Hammer, General Electric, Square D, BullDog or approved equal. Switches shall be rated 250 or 600 volts as applicable, AC, of size and poles as shown on Drawings and as required. Disconnects used outdoor shall be in NEMA-3R. Provide fused switches with proper sized fuses where required by equipment manufacturer.
- B. All switches shall have pad-locking cover with cover interlock. Rating shall be fully rated to equipment feeder protection.

2.11 MOTOR STARTERS

- A. Furnish and install all motor starters required by but not integrally furnished with mechanical equipment. Coordinate with Division 23 contractor so that starters are properly sized to the requirements of the equipment actually being installed, as accepted by approved submittals, whether or not as indicated in plans and specifications.

2.12 EXTERIOR LIGHTING AND AUTOMATIC CONTROLS

- A. Where shown on drawings, all lighting fixtures lamps shall be LED. See the fixture schedule on the drawings for fixture types and model numbers. There are no known equals, however the Contractor may submit for consideration as an equal fixture that meets all the photometric and physical characteristics for consideration by the Engineer and District. The District's decision on whether or not a fixture is equal shall be final.
- B. The lighting control system for exterior lighting shall consist of photo-cell sensors, time clocks lighting contactors as required for a fully operational system.
- C. Provide mounting brackets and all accessories as required for a complete installation in accordance with manufacturer's printed installation instructions.
- D. Provide shop drawings and equipment submittals to include pole foundations, poles, luminaires, and light fixtures; as well as lighting control devices, device enclosures, wiring requirements, and mounting details.

2.13 PULL LINE

- A. Furnish and install pull line in all unused (empty) raceways. Minimum 1/8" diameter, or larger if so designated on plans, braided line of polypropylene or Jet-Line #232, or approved equal line of continuous fiber polyolefin. Minimum breaking strength of 1/8 in. line: 200 lbs.
- B. All pull lines shall be permanently tagged with identification at both ends.

2.14 PRECAST CONCRETE PULLBOXES/HANDHOLES

- A. Boxes shall be size as indicated on the drawings. Design loads shall consist of live, dead, impact, hydrostatic and other loads. Live loads shall be for H-20 and/or H-20-S16-44, or as required, per A.A.S.H.O. standard specifications

for highway bridges with revisions. Design loads shall be sixteen KIPS. Concrete shall be per ASTM-C-33-64. Lightweight concrete shall conform to ASTM-C-33-64T. Cement shall be Portland Cement meeting ASTM-C-150 Type II standards. Compressive strength shall be minimum 4,000 psi at 28 days.

- B. Boxes (48" x 30" or larger): Pre-cast high-density reinforced concrete with end and side knockouts, pulling-in irons. Minimum 4" wall thickness conforming to SMUD standards with spring assist traffic rated lids. Coordinate size of thin-wall knockouts with manufacturer for conduit entry. Provide grate at sump location with a 4" PVC drainage pipe to nearest drain. Acceptable manufacturers shall be Forni, Christy or equal.
- C. Boxes (smaller than 48" X 30"): Pre-cast high-density reinforced concrete with end and side knockouts, and extension as required. Minimum 1 1/2" wall thickness. Acceptable manufacturers shall be Forni, Christy or equal.
- D. Covers: Large box covers conforming to SMUD standards with spring assist traffic rated lids shall be one or multi piece as required, steel checker plate, galvanized with anti-slip surface rated for parkway loading, with hold-down bolts. Where susceptible to vehicular traffic, use H-20 rated traffic cover. Small box covers shall be steel checker covers, with hold-down bolts. All Covers shall be factory marked, see drawings for marking/label required, and provided with hold down bolts.
- E. Utility Co. boxes shall be per their requirements. Provide with ground rod as required.
- F. All conduits terminating in ground boxes shall be evenly spaced, squarely cut, and bell ends installed.
- G. Provide 3/8 inch Penta head tamper-proof bolt and collar for all underground boxes.

2.15 ELECTRICAL PEDESTALS

- A. Electrical pedestals shall be Tesco low-profile underground distribution Model Series 24-200 or equal.
- B. Configure pedestal per drawings and provide shop drawings for approval.

PART 3 - EXECUTION

3.01 RACEWAYS

- A. EMT conduit may be used at following locations:
 - 1. In dry locations in furred spaces.
 - 2. In partitions other than concrete or solid masonry.
 - 3. In exterior locations, except as noted in 3.01.B.
- B. Rigid steel conduit and fittings shall be used for vertical risers and on top of all roofs, overhangs, walkways and canopies.
- C. All raceways installed in interior exposed locations shall be surface mounted raceway (Wiremold).
- D. Provide flexible connections of short length (4 foot maximum) to equipment subject to vibration or movement and to all motors. Provide a separate bonding conductor in all flexible connections, except as provided for in CEC 250-92
 - 1. Portable buildings shall have sealtight flex transition from underground to building for both high/low voltage systems.
- E. Install exposed conduit run neatly, parallel to or at right angles to structural members. Maintain a minimum of 12 inches of clearance from steam or hot water pipes. All installed unistrut supports should allow for future conduit

attachments. The width of unistrut is to match the width of the closest attached junction box. See drawing details for attachment requirements.

- F. Supports: Support conduit with two-hole straps or Unistrut where shown and/or specified. Coordinate supports with architectural details. Secure to wood structure by means of bolts or lag screws, to metal by means of shallow self-tapping screws, to concrete by means of insert or expansion bolts, to brickwork by means of expansion bolts, and to hollow masonry or stucco by means of toggle bolts. Straps, expanders and shields shall be steel or malleable iron.
- G. Spacing for all EMT and rigid steel conduit supports shall be as follows unless otherwise specified in drawing details:
1. Surface conduits, roof mounted:
 - a. Spacing of supports shall comply with CEC Article 344, Table 344-30(B)(2) and CBC 1632A.
 - b. Construction of roof supports shall comply with roofing manufacturer's requirements.
 - c. Roof supports shall be securely fastened to the roof with a gluing system approved by the roof manufacturer.
 - d. Route conduits parallel with mechanical piping and along building lines.
 - e. Provide ground wire in conduits.
 2. Surface conduit spacing and supports, except as noted in 260500, 3.01,G,1. and unless otherwise specified in drawing details:
 - a. EMT – Size 3/4" to 1-1/2" – 4' O.C. maximum (3 each supports per 10' conduit length) and 12" from each end of conduit at coupling, connector or 90 degree bend.
 - b. EMT – Size 2" to 4" – 4' O.C. maximum (3 each supports per 10' conduit length) and 12" from end of conduit at coupling, connector or 90 degree bend.
 - c. Rigid steel – Size 3/4" to 1" – 4' O.C. maximum (3 each supports per 10' conduit length) and 12" from each end of conduit at coupling, connector or 90 degree bend.
 - d. Rigid steel – Size 1-1/2" to 2" – 5' O.C. maximum (2 each supports per 10' conduit length) and 12" from end of conduit at coupling, connector or 90 degree bend.
 - e. Rigid steel – Size 3" to 6" – 10' O.C. maximum (1 each support per 10' conduit length) and 12" from end of conduit at coupling, connector or 90 degree bend.
- H. Do not install conduit in the "section" of concrete slabs, except for perpendicular penetrations. Refer to Structural Drawings for specific details.
- I. Conduits installed in contact with concrete or earth shall be:
1. Install PVC conduit in a 2" sand or fine earth (passed through 1/8 in. screen) envelope below ground. Provide a minimum of 2" of sand or fine earth at the bottom of the trench before laying conduits. Risers, sweeps, and bends greater than 30 degrees, shall be PVC-wrapped, or rigid steel conduit.
 2. When installing underground conduits to specified depth, depth shall be taken from the top of the conduit to the finished grade level. Unless otherwise specified, underground conduits shall be installed with top side not less than 24" below finished grade except that utility company primary conduit shall be 48" minimum below finished grade or as required to meet utility company standards. All conduits inside foundation line shall be not less than 4" below sub grade.
 3. The minimum size of conduits outside the foundation line shall be 1", 3/4" inside the foundation line.
 4. Bends shall be wide sweeping type with a minimum radius of 12 times the nominal conduit diameter.
 5. Place a 6" wide non-biodegradable plastic tape at 12" below grade, labeled "CAUTION ELECTRIC LINE BURIED BELOW". Fluorescent red for electric power conduits and fluorescent orange for telephone and signal conduits. Tape shall be continuous for full length of trench.
 6. Provide tape with 1 mil metallic tracing wire or #10 wire for all empty underground conduit and shall be continuous for full length of trench.
- J. All junction boxes shall be connected to conduits using appropriate connecting hardware (i.e. box connectors)

- K. Clean, prepare, and paint all exposed conduit, junction boxes, unistrut, fittings and accessories except rooftop mounted rigid steel conduit. Refer to specification sections 00 80 00 and 09 90 00 for requirements.
- L. Mark (paint) the end of each conduit at every junction box and ground box (internal) on the low voltage conduit runs with color coordinated spray paint at the junction entrance. Computer (1 ea.) is yellow, Telephone (2 ea.) is orange, Cable TV (1 ea.) is blue and Fire/Intrusion (1 ea.) is red.
- M. EXPANSION JOINTS
1. Provide conduit expansion fitting in each conduit run which is mechanically attached to separate structures to relieve strain caused by shift of one structure in relation to another.
 2. Provide conduit expansion fitting in each conduit run wherever it crosses expansion joint in structure to which it is attached.
 3. Provide expansion fittings where expansion and contraction are a consideration in long runs of exposed conduits (one inch [1"] or larger conduit in excess of one hundred feet [100']).
- N. PROOFING
1. Before pulling any conductors into a PVC conduit, the conduit shall be first be proofed by pulling through a mandrel of a diameter 1/4 in. smaller than the conduit ID, followed by a swab of the same diameter as the conduit ID. Proofing will be done in the presence of District Representative or Inspector of Record for verification.
- O. SURFACE MOUNTED RACEWAYS
1. Surface mount non-metallic raceways shall be used as required to provide communications cabling services as shown on installation drawings.
 2. The Contractor will provide and install all surface mounted non-metallic type raceway and appropriate fittings to provide a safe and complete installation.
 3. All non-metallic raceway boxes, bases, covers and fittings shall be of the same manufacture.
 4. Wire management clips shall be installed in all raceway (vertical and horizontal runs) on maximum of 4' on center spacing.
 5. The non-metallic raceway components shall meet all of the CEC applicable articles.
 6. Multiple channel surface mounted raceways shall be color-coded and marked with a permanent marker on the inside of the channel and across the entire length of the channel blue for data, telephone, and CATV and red for power. These color-coded channels shall be installed consistently with the same relative position of color on the top and the bottom throughout the site in accordance with CEC Article 386.
 7. The non-metallic raceway may have a factory-applied adhesive for mounting to the substrate. The contractor shall not use the factory-applied adhesive, instead the Contractor shall fasten raceways every 16" on center to studs where ever possible utilizing appropriate fastening methods by the manufacturer. Contractor shall use pan head type screws, sized in accordance with the manufacturer installation instructions. In addition to the manufactures mounting instructions, mounting hardware and anchor types recommended for any raceway that shall be mounted to the building or structure:
 - a. Sheet rock / drywall / wall board: by means of Easy Anchor, toggle bolt, other spread type anchor with load distribution, or approved equal.
 - b. Concrete / cinder block / solid masonry: by means of expanding compression type lag, expanding compression type bolt, expanding compression type all tread with nuts, or approved equal.
 - c. Tile / Stucco / hollow masonry: by means of toggle bolts or approved equal.
 - d. Wood: by means of lags, pan head wood screws, or approved equal.
 - e. Metal: by means of a clamp, self-tapping pan head screw, or approved equal.
 8. The raceway is to be manufactured of rigid PVC compounds. The cover shall have a matte texture.
 9. A full complement of fittings must be available including, but not limited to, extension boxes, 90-degree elbows, tees, inside corners, outside corners, fixture boxes, wire clips, and device boxes. All fittings must match the color of the raceway cover.

10. The raceway and all system components must be UL Listed and exhibit non-flammable self-extinguishing characteristics.
11. At locations where raceway is mounted below 48 inches from the finished floor the contractor shall install a device bracket every 30" on center throughout the entire length of the raceway system.
12. Do not use pulling means, including fish tape, cable or rope, which can damage the non-metallic surface raceway.
13. Raceway shall not have covers installed until fastening and cabling is approved by the inspector of record.

P. POWER AND COMMUNICATION POLE TERMINATIONS

1. In areas with system furniture and/or office furniture is set up in open areas, the cables shall be routed through an existing power pole or a Contractor supplied and installed power pole from the ceiling space above and anchored to the floor.
2. Contractor may utilize an existing power pole providing fill capacities are not exceeded.
3. Contractor shall determine how system furniture areas will need to be fitted with a power pole device.
4. In the event that a power pole is not in place to serve the specific systems furniture area, Contractor is required to provide and install one.
5. Contractor shall determine how a power pole will be installed during the site survey, and shall submit price for necessary hardware to accommodate this requirement prior to submission of Contractor's Bid.
6. Where cables pass through a hole in the pole, the Contractor shall provide and install a grommet around the hole in the power pole to protect the wire and cable. The grommet will be fitted with either a plastic or rubber shutter device that provides a tight seal around the wire and cable. In addition, Contractor shall provide and install a spiral wrap type plastic device, which shall serve as a protected raceway from the power pole to the system furniture. Contractor shall then route the cables into the systems furniture raceways to the designated point of attachment at each drop location.
7. Contractor will terminate the wire and/or cable on the device outlets, which will be installed in the appropriate manner for the type of furniture being installed.

Q. FLOOR MONUMENT TERMINATION

1. Contractor shall provide and install approved floor monuments in those areas that cables are routed below the floor space and or require termination of a drop outlet in an open area that cannot be served either by a fixed wall or power pole.
2. Contractor shall provide all necessary labor and materials to saw cut floor, core holes and patch substrates/surfaces necessary to accommodate the installation of a floor monument.
3. Contractor shall provide and install a floor monument as specified by the District Low Voltage Consultant.
4. Where cables pass through a hole in the pole, the Contractor shall provide and install a grommet around the hole in the power pole to protect the wire and cable. The grommet will be fitted with either a plastic or rubber shutter device that provides a tight seal around the wire and cable. In addition, Contractor shall provide and install a spiral wrap type plastic device, which shall serve as a protected raceway from the power pole to the system furniture. Contractor shall then route the cables into the systems furniture raceways to the designated point of attachment at each drop location.
5. Contractor shall then route the cables into the systems furniture raceways and/or office furniture setup in open areas to the designated point of attachment at each drop location. Contractor will then terminate these cables on device outlets which will then be installed in a high profile boxes, which will be surface mounted to the underside of the work surface at each location.

R. EXCAVATING, BACKFILLING AND COMPACTING FOR UTILITIES

1. Excavating, backfilling and compacting for conduit, underground pull boxes, vaults and other underground electrical and low voltage utilities shall be performed in accordance with Specification Section 31 00 00 (Earthwork) – Excavating, Backfilling and Compacting for Utilities and the District's Geotechnical Engineering Consultant.

3.02 CAPPING

- A. Cap conduits during construction with manufactured seals. Swab out conduits before wires are pulled in.
- B. Cap all empty conduits below grade and in pull boxes with manufacturer's caps to prevent entrance of debris, attach pull string to cap.

3.03 CONDUIT PENETRATIONS

- A. Penetrations through walls, ceilings, or floors.
 - 1. Wood, stucco, drywall, and hollow masonry
 - a. Scanning for structural members and wall studs
 - i. Contractor shall scan the wall for studs and metal using an electronic stud finder to avoid drilling through a structural member.
 - ii. If the contractor is unsure of the building's structural supports, the contractor shall notify the inspector and/or project manager to confirm the location before drilling.
 - b. Drilling
 - i. A pilot hole not exceeding 3/8" diameter shall be drill through the material for each penetration to confirm placement of penetration on both sides of the wall and before using an auger bit or hole saw to finalize penetration size.
 - ii. Final penetration sizes shall take into account the size of the conduit to be installed including box connectors if EMT and angular space requirements for fire or draft stopping.
 - 2. Concrete, brick, and solid masonry
 - a. X-ray scanning
 - i. Contractor shall perform or hire out to have each location of each wall penetration x-rayed to confirm the locations of rebar and other structural steel supports.
 - ii. If the contractor is unsure of the building's structural supports, the contractor shall notify the inspector and/or project manager to confirm the location before drilling.
 - b. Core boring/ Drilling
 - i. Contractor shall notify the inspector and/or project manager of the time the core boring/drilling will be performed.
 - ii. The contractor shall save all removed material from wall and for inspection.
 - iii. Contractor shall take precautions to protect site property from water and debris created by core boring.
 - iv. Final penetration sizes shall take into account the size of the conduit to be installed including box connectors if EMT and angular space requirements for dry packing.
 - c. Filling angular space / dry packing
 - i. Contractor shall fill the angular space between the conduit and the wall with structural grout. The grout shall be even and uniform all the way around the conduit with no gaps or voids.
- B. Where conduit passes through walls, ceilings, or floors with connection points to junction boxes or raceway mounted to the same wall as the penetration provide rigid steel or IMC conduit treaded on both ends and secured in place with locking rings on both sides. Bend radius requirements shall be maintained where penetrations are made through the back of raceways; junction boxes with adequate depth shall be installed in order to comply with this requirement.
- C. Where conduit passes through walls, ceilings, or floors with connection points to junction boxes or raceway not mounted to the same wall as the penetration provide EMT conduit and secured in place with unistrut. Box connectors shall always be used to connect EMT to junction boxes and raceways.

- D. Where conduit passes through walls, ceilings, or floors with no connection points to junction boxes or raceway provide rigid steel or IMC conduit treaded on both ends and secured in place with locking rings and large reducing washers on both sides.
- E. Where conduit passes through finished walls or ceilings, provide steel escutcheon plates, chrome or painted, as directed. Conduit, which penetrate floor slabs, concrete or masonry walls shall be grouted and sealed watertight at penetrations.
- F. Fire stopping:
 - 1. Seal all conduit penetrations through fire rated walls and floors fire and smoke tight in conformance with CBC Sections 714 and 2016 CEC 300-21.
- G. Draft stopping:
 - 1. All non-fire rated walls must be draft stopped and sealed. Confirm method and material with inspector and/or project manager. Spray in foam is the most commonly used material.
- H. Water stopping:
 - 1. All exterior penetrations shall be sealed watertight. The contractor shall use silicon rubber caulk or other approved methods and materials. Confirm method and material with inspector and/or project manager.
- I. Provide 12" vertical and horizontal clearance for conduit risers through roofs. Coordinate with roof manufacturer to seal roof.

3.04 BOXES

- A. Screws shall be used to attach boxes, and must be accurately placed for finish, independently and securely supported by adequate wood backing or by manufactured adjustable channel type heavy-duty box hangers. Boxes with metal box hangers shall be attached to metal studs. Box hangers shall be securely tied or welded (where permitted) to metal studs. Paint weld with rust inhibitor. Boxes installed in masonry tile or concrete block construction shall be secured with auxiliary plates, bars or clips and be grouted in place.
- B. Locate outlets at the following heights above floor to the center of the device or handle unless otherwise noted on Drawings, Specifications, or as required to meet ADA handicap requirements.
 - 1. Convenience Outlets: 18" (6" above counter or splash).
 - 2. Local Switches: 48".
 - 3. Telephone Outlets: 18" (45 in. for wall phone).
- C. Install pull boxes as required in accessible spaces but do not install in finished areas unless approved by Architect.
- D. Outlet boxes penetrating the fire resistive membranes shall comply with all requirements of Title 24 Part 2, Volume 1 of 2, Section 714. Outlet boxes on opposite sides of wall requiring protected openings shall be separated by a horizontal distance of twenty-four (24") inches per Title 24 Part 2, Volume 1 of 2, Sections 714.3.1 through 714.3.3.
- E. For sound control, separate outlets on opposite sides of walls 16" minimum. Where outlets are less than 16" or in sound rated walls, seal air tight with fire rated sheet putty pads. Fill gap between junction box and wall with acoustical sealant all around perimeter of junction box. Fill conduits larger than 1 1/4" with fire rated caulk or putty.
- F. Installation of conduit and outlet boxes in fire-resistive walls and partitions shall comply with Title 24, Part 2, Volume 1 of 2, Section 714.

- G. Installation of conduit and outlet boxes in fire-resistive floors, floor-ceiling or roof-ceiling assemblies shall comply with Title 24, Part 2, Volume 1 of 2, Section 714.4.

3.05 CONDUCTORS

- A. Splices and joints for #10 AWG or smaller wiring shall be twisted together electrically and mechanically strong and insulated with approved type insulated electrical spring connectors, Scotchlok or Ideal. Joints and connections for #8 AWG or larger shall be made with Burndy, T & B, or approved equal, solderless tool applied pressure lugs and connectors. Un-insulated lugs and wire ends shall be insulated with layers of plastic tape equal to insulation of wire and with all irregular surfaces properly padded with 3M "Scotchfil" putty prior to application of tape. Tape shall be equal to 3M Scotch #33, General Electric #AW-1, or approved equal. Feeders shall not contain splices unless authorized in writing by the Architect. Feeder splicing, where permitted, shall be made with high compression sleeve type connector followed by manufactured splicing kit utilizing as insulators, resins poured into a ready-to-use plastic mold to provide a uniform, moisture-proof tough, impact-resistant insulation. All splices shall be made in readily accessible code sized pullboxes.
- B. Use only UL approved wire pulling compound as lubricant.
- C. Lace conductors together with waxed linen lacing cord, T & B "Ty-Rap", Holub "Quik-Wrap" or equal, in a neat and workmanlike manner in panelboards, wireways, raceways, pull boxes and similar locations.
- D. #12 AWG wire shall be minimum size wire used for lighting and power circuits. Motor control circuits may be #14 except as marked on Drawings, unless shown. Conduit sizes shall conform to code regulation for number of wires shown on the Drawings.
- E. Provide cable supports in risers by means of a clamping device with insulated wedges or "Kellem" grips.
- F. Install all power conductors and convenience outlets in the bottom (lower) raceway compartment of the surface mounted G5500 series wire mold.
- G. Perform wire pulling in the presence of the Owner's Representative except as otherwise specified.

3.06 GROUNDING

- A. Ground fittings shall be UL approved for each application as installed, installed and connected to system in accordance with Code requirements.
- B. Neutral conductors and non-current carrying parts of equipment at each installation shall be grounded in accordance with applicable code. Ground conductor shall be copper having a current capacity in accordance with CEC.
- C. All equipment cases, motor frames, etc. shall be completely grounded to satisfy requirements of CEC. Install bond wire in flexible conduit. Install copper bond wire, sized in accordance with CEC, in all nonmetallic raceways and bond to all metallic parts using approved fittings.
- D. Service ground conductor shall be connected to an "Ufer" encased ground and bonded to the cold water pipe system.
- E. Ground resistance of made electrodes shall not exceed 25 ohms, per CEC Article 250-56. Perform ground resistance test prior to connection.

- F. All connections shall be made with solderless connectors or molded fusion-welding process. Solderless connections shall be made to conform with Code requirements or manufacturers requirements if more stringent.
- G. Chain link fence for electrical yard and enclosures shall be grounded per CEC.
- H. Provide ground wire in all rooftop conduits.

3.07 FIELD TESTS

- A. General: Perform field test in the presence of the Owner's Representative except as otherwise specified. Provide required labor, materials, equipment and connections to perform tests. Document results and submit them to the Owner's Representative. Repair or replace all defective work.
- B. Perform Megger test on all feeders motor branch circuits 10 HP and over.
 - 1. Notify Architect when installed cable is ready to be tested.
 - 2. Apply megger tests. Supply labor, materials and test equipment required to perform continuity checks and megger tests. Submit test data for approval.
 - 3. If any failure is detected, locate failure, determine cause and, as directed by Architect, replace or repair cable or conductor to satisfaction of Architect at no increase in Contract Sum.
 - 4. Subject feeder cables rated 600 volts AC to one (1) minute withstand test, or until stable reading is obtained with 1000-volt megger. Provide written report of megger test results. Test report to include all test conditions.
 - 5. Do not megger any cables after connecting to any equipment, unless specifically directed to do so by Architect.
- C. Verify operation of starters and install overload protection devices sized in accordance with the motor full load current.
- D. Demonstrate proper direction of rotation and proper rotational speed of all motors. Refer to Division 26 to correct all electrical problems, and Division 23 to correct any mechanical problems.

3.08 CLEANING

- A. Brush and clean work prior to concealing, painting and acceptance. Performed in stages if directed.
- B. Clean and repair soiled or damaged painted exposed work and match adjoining work before final acceptance.
- C. Remove debris from inside and outside of material, equipment and structures.

END OF SECTION 26 05 00

SECTION 27 05 00COMMON WORK RESULTS FOR COMMUNICATIONSPART 1 GENERAL

1.01 SCOPE

- A. The work of this Section consists of basic materials and methods for all low voltage pathways work included under Division 27 and 28. Additional specification requirements for electrical work are specified under other sections of Division 26 and where those requirements differ from the requirements of this section, the more stringent shall govern.

1.02 SUBMITTALS

- A. Submit the following prior to starting work for the project: All submittals shall be in electronic format:
1. Product data and manufacturer's installation instructions for all low voltage / communications systems electronically in PDF format. The PDF shall include bookmarks for each section of the submittal.
 2. A Microsoft Excel spreadsheet listing each item submitted as a separate row. The spreadsheet shall, at a minimum, contain the following columns:
 - a. Submittal #,
 - b. Item # (tied to PDF cut sheet.
 - c. Spec section submitted
 - d. Drawing sheet referenced
 - e. Manufacturer
 - f. Part number
 - g. Description
 - h. Column for notes / special instructions
- B. Specific submittal requirements as applicable to the systems being submitted on:
1. Patch cord cut sheets and list of length, color, and quantity shall be provided in an itemized breakout in the material submittal.
 2. Category 6 and 6A tester model, serial number and calibration certificate within the past year shall be submitted with material submittals.
 3. Fiber optic power meter tester model, serial number and calibration certificate within the past year shall be submitted with material submittals.
 4. All fiber data installs shall carry a Leviton Limited Lifetime warranty. This will require the contractor to certify their installers to the manufactures guidelines and submit their certifications with bid documents for the project.
 5. Copper (Cat 6 & Cat 6A) data installs for projects that have 10 or less cables shall be covered by the contractors 2-year warranty.
 6. Copper (Cat 6 & Cat 6A) data installs for projects that have 11 or more cables shall carry a Leviton Limited Lifetime warranty. This will require the contractor to certify their installers to the manufactures guidelines and submit their certifications with bid documents for the project.
 7. Upon hookup of system and system startup (to be coordinated with District representative), any system troubles that indicate problems with the cables or terminations, it shall be the responsibility of the cable installation contractor to repair any such problems free of charge to the District. The contractor shall start this repair work within a 48-hour period of time from initial notification by the District.
 8. Sample of Manufacturer's warranty shall be provided.
 9. Any products that have deviated from the specification or drawings shall be flagged as "substitution request".

- C. Submittal shall also be done in accordance with General Conditions and part 3 in this division.
- D. Provide as-built documentation and operation & maintenance manuals in accordance with General Condition and part 3 included in this section.
- E. Warranty certificates and documentation.
 - 1. 2 Year workmanship warranty
 - 2. 15 Year minimum manufacture warranty for data fiber plant
 - 3. 15 Year minimum manufacture warranty for Cat6 copper plant
 - 4. Lifetime manufacture warranty for Cat6A copper plant
- F. Warranty:
 - 1. All components, parts, and installation supplied by the contractor shall be guaranteed against defects in materials and workmanship for two years from date of County Notice of Completion or system acceptance, whichever falls later. Labor to repair, reprogram, or replace components shall be furnished by the contractor at no charge during the warranty period.
- G. All warranty work of a minor nature shall be performed during normal contractor work hours, Monday through Friday. Major warranty work, defined as, affecting more than 15% of the system, causing complete operator workstation or server failure, or work involving life safety shall be responded to within four hours. Major warranty work shall be performed regardless of normal work hours or days until corrected.

PART 2 PRODUCTS

2.00 All products used on this project shall bear the label and be approved by Underwriters Laboratories unless otherwise approved in writing by the District.

2.01 RACEWAYS

- A. Rigid Steel Metallic (GRC): Full weight with threaded fittings conforming to industry standards. Rigid steel conduit in contact with earth or in concrete slabs must be PVC wrapped.
 - 1. Rigid Steel Conduit: Protected inside and outside by galvanizing or sherardizing. By Triangle, Western Pipe & Tubing, Republic or approved equal. Risers and 90-degree elbows shall be wrapped with 3M Scotchwrap 51 PVC-based tape and 3M pipe primer(cover exposed threads and couplings).
- B. Electric metallic tubing (EMT): Protected inside and outside by galvanizing or sherardizing. Minimum diameter size for EMT is $\frac{3}{4}$ " and maximum diameter is 4". Same manufacturers as for rigid steel conduit. All fittings by: Thomas & Betts, Steel City, Raco, OZ/Gedney, or approved equal.
- C. Flexible conduit: All Flex, American Flexible Conduit, or approved equal. Where exposed to weather use liquid-tight flexible conduit, type UA complete with waterproof fittings. American Flexible Conduit, Electri-Flex, Sealtite, Anaconda, or approved equal.
- D. PVC conduit: Schedule 40 polyvinyl chloride high density, high impact, type two with factory-made bends, couplings and fittings, as manufactured by Carlon, PW Pipe, Cantex, or approved equal. Use of PVC is subject to local utility company having jurisdiction.
- E. Raceway Fittings:
 - 1. Rigid Steel Conduit (GRC): Fittings, such as couplings, connectors, condulets, elbows, bends, etc., shall be subject to same requirements as for rigid steel conduit. Couplings and unions shall be threaded type, assembled with anti-corrosion, conductive anti-seize compound at joints, and made absolutely tight to exclude water. Unions shall be equal to Crouse-Hinds UNY, UNF or approved equal.

2. EMT: Fittings for indoor use: couplings and connectors 3/4" and larger shall be steel setscrew type or threaded compression type. 3/4" and larger, and all outdoor applications shall be compression type. All connectors must have insulated throats.
 3. Flexible Metallic Conduit: Angle wedge type with insulated throat.
 4. Bushings: Metallic insulated type. Weatherproof, liquid-tight, dust-tight installations with sealing ring and insulated throat, Crouse-Hinds, OZ/Gedney type "KR".
 5. Expansion and Deflection Fittings: OZ/Gedney, Type "DX" or accepted equal.
- F. All multi channel non-metallic surface mounted raceways shall be three compartment 5500 Wiremold by Legrand or approved equal - color to be ivory or as selected by the District. Provide all components necessary to complete the work. **See Appendix A for additional information.**
1. 5500WC- Wire Clip to be installed every 24"
- G. All small single or dual channel non-metallic surface mounted raceways shall be 2300 Wiremold by Legrand, type and size specified in the drawings or approved equal - color to be ivory or as selected by the District. Provide all components necessary to complete the work.
1. Components include, but are not limited to:
 - a. Base
 - b. Cover
 - c. Surface mount box
 - d. Tee fitting
 - e. 90 flat elbow, inside, outside fittings
 - f. Entrance End Fitting
 - g. Blank End Fitting
 - h. Transition Fitting
 - i. Cross-over Fitting
 - j. Wire Clip to be installed every 24"
- H. Power and Communication pole: **See Appendix A for additional information.**

2.02 BOXES

- A. Galvanized one-piece or welded pressed steel type. Boxes for fixture shall not be less than 4" square and shall be equipped with fixture stud. Boxes shall be at least 1-1/2" deep, 4" square for 1 or 2 gang devices, with plaster rings and gang box with gang cover. Boxes mounted in wall or ceiling finished with gypsum board shall be furnished with 5/8" deep plaster rings. Use screws and not nails to support outlet boxes. Boxes in unfinished areas, installed exposed, shall be cast metal type conduit for switches and convenience outlets. Surface mount, exposed boxes mounted below 8 ft above finished floor shall be non-metallic Wiremold (p/n NM2044**) (**color to match surface raceway). Provide blank cover for all boxes without fixture or device.
- B. Junction boxes, larger than 8", located indoors shall be NEMA rated, with hinged door and a cylinder lock kit.
- C. Junction boxes, larger than 8", located outdoors, or in wet or damp locations shall be rated NEMA-3R, with hinged door and cylinder lock kit keyed to match the site's master key.
- D. Floor boxes shall be one-gang or multi-gang recessed, fully adjustable with brass lids and cover plates for respective tile or carpet floor finish. For "hard" floors such as tile or wood, the top of the cover shall be flush with the top of the finished floor. Receptacle covers shall have individual flip-lids with screw lock. Junction boxes shall have screwed on plugs.
1. Grade level or below: Watertight and concrete-tight of cast iron construction, Walker 880CS series or equal.
 2. Above grade level: Concrete-tight of stamped steel construction, Walker 880S series or equal.

- E. Provide and install center pin Torx tamper-proof screws for all exterior boxes and conduit bodies (i.e. LB, SLB, RLB, etc.).

2.03 PULL LINE

- A. Furnish and install pull line in all unused (empty) raceways / conduits. Minimum 1/8" diameter, or larger if so designated on plans, braided line of polypropylene or Jet-Line #232, or approved equal line of continuous fiber polyolefin. Minimum breaking strength of 1/8 in. line: 200 lbs.
- B. All pull lines shall be permanently tagged with identification at both ends.

2.04 PRECAST CONCRETE PULLBOXES/HANDHOLES

- A. Boxes shall be size as indicated on the drawings. Design loads shall consist of live, dead, impact, hydrostatic and other loads. Live loads shall be for H-20 and/or H-20-S16-44, or as required, per A.A.S.H.O. standard specifications for highway bridges with revisions. Design loads shall be sixteen KIPS. Concrete shall be per ASTM-C-33-64. Lightweight concrete shall conform to ASTM-C-33-64T. Cement shall be Portland Cement meeting ASTM-C-150 Type II standards. Compressive strength shall be minimum 4,000 psi at 28 days.
- B. Boxes shall be supplied with steel edging in order to make spot welding cover lit to enclosure an option.
- C. Boxes (48" x 30" or larger): Pre-cast high-density reinforced concrete with end and side knockouts, pulling-in irons. Minimum 4" wall thickness conforming to SMUD standards with spring assist traffic rated lids. Coordinate size of thin-wall knockouts with manufacturer for conduit entry. Provide grate at sump location with a 4" PVC drainage pipe to nearest drain. Acceptable manufacturers shall be Forni, Christy, Jensen or equal.
- D. Boxes (smaller than 48" X 30"): Pre-cast high-density reinforced concrete with end and side knockouts, and extension as required. Minimum 1 1/2" wall thickness. Acceptable manufacturers shall be Forni, Christy, Jensen or equal.
- E. Covers: Large box covers conforming to SMUD standards with spring assist traffic rated lids shall be spring assisted traffic rated one or multi piece as required, steel checker plate, galvanized with anti-slip surface rated for parkway loading, with hold-down bolts. All boxes shall use H-20 rated traffic covers. No concrete covers shall be allowed. All Covers shall be factory marked, see drawings for marking/label required, or if not shown, request clarification prior to ordering the covers. Covers shall be provided with Penta Head hold down bolts.
- F. Utility Co. boxes shall be per their requirements. Provide with ground rod as required.
- G. All conduits terminating in ground boxes shall be evenly spaced, squarely cut, and bell ends installed.
- H. All new ground boxes shall be located using GPS points (decimal degrees) and documented on the as built drawings.

2.05 LOW VOLTAGE ENCLOSURES AND PATHWAYS

- A. Refer to Appendix A for specific part numbers.
- B. Mounting hardware and anchors recommended by the Manufacture of any material that shall be mounted to the building or structure.
 1. Sheet rock / drywall / wall board: Easy Anchor, toggle bolt, other spread type anchor with load distribution, or approved equal.
 2. Concrete / cinder block / solid masonry: expanding compression type lag, expanding compression type bolt, expanding compression type all tread with nuts, or approved equal.

3. Tile / Stucco / hollow masonry: toggle bolts or approved equal.
4. Wood: lags, wood screws, or approved equal.
5. Metal: clamp, or approved equal.

PART 3 EXECUTION

3.01 RACEWAYS

- A. EMT conduit may be used at following locations:
 1. In dry locations in furred spaces.
 2. In partitions other than concrete or solid masonry.
 3. In exterior locations, except as noted in 3.01.B.
- B. Rigid steel conduit and fittings shall be used for vertical risers and on top of all roofs, overhangs, walkways and canopies.
- C. All raceways installed in interior exposed locations shall be surface mounted raceway (Wiremold) by Legrand.
- D. Provide flexible connections of short length (4 foot maximum) to equipment subject to vibration or movement and to all motors. Provide a separate bonding conductor in all flexible connections, except as provided for in CEC 250-91 (b) Ex1.
- E. Portable buildings shall have sealtight flex transition from underground to building for both high/low voltage systems.
- F. Install exposed conduit run neatly, parallel to or at right angles to structural members. Maintain a minimum of 12 inches of clearance from steam or hot water pipes. All installed unistrut / strut channel supports should allow for future conduit attachments. The width of unistrut / strut channel to match the width of the closest attached junction box. See drawing details for attachment requirements.
- G. Supports: Support conduit with two-hole straps or unistrut / strut channel where shown and/or specified. Coordinate supports with architectural details. Secure to wood structure by means of bolts or lag screws, to metal by means of shallow self-tapping screws, to concrete by means of insert or expansion bolts, to brickwork by means of expansion bolts, and to hollow masonry or stucco by means of toggle bolts. Straps, expanders and shields shall be steel or malleable iron.
- H. Spacing for all EMT and rigid steel conduit supports shall be as follows unless otherwise specified in drawing details:
 1. Surface conduits, roof mounted:
 - a. Spacing of supports shall comply with CEC Article 344, Table 344-30(B)(2) and 2013 CBC 1603A.
 - b. Construction of roof supports shall comply with roofing manufacturer's requirements.
 - c. Roof supports shall be securely fastened to the roof with a gluing system approved by the roof manufacturer.
 - d. Route conduits parallel with mechanical piping and along building lines.
 - e. Provide ground wire in conduits.
 2. Surface conduit spacing and supports and unless otherwise specified or shown on drawing details:
 - a. EMT – Size 3/4" to 1-1/2" – 4' maximum spacing (3 each supports per 10' conduit length) and 12" from each end of conduit at coupling, connector or 90 degree bend.
 - b. EMT – Size 2" to 4" – 4' maximum spacing (3 each supports per 10' conduit length) and 12" from end of conduit at coupling, connector or 90 degree bend.
 - c. Rigid steel – Size 3/4" to 1" – 4' maximum spacing (3 each supports per 10' conduit length) and 12" from each end of conduit at coupling, connector or 90 degree bend.

- d. Rigid steel – Size 1-1/2" to 2" – 10' maximum spacing (1 each supports per 10' conduit length) and 12" from end of conduit at coupling, connector or 90 degree bend.
- e. Rigid steel – Size 3" to 6" – 10' maximum spacing (1 each support per 10' conduit length) and 12" from end of conduit at coupling, connector or 90 degree bend.

I. Do not install conduit in the "section" of concrete slabs, except for perpendicular penetrations. Refer to Structural Drawings for specific details.

J. Conduits installed in contact with concrete or earth shall be:

- 1. Install PVC conduit in a 3" sand or fine earth (passed through 1/8 in. screen) envelope below ground. Provide a minimum of 3" of sand or fine earth at the bottom of the trench before laying conduits.
- 2. Risers, sweeps, bends greater than 30 degrees, shall be PVC-wrapped, or rigid steel conduit with a minimum inside bend radius as follows unless otherwise specified:

<u>Conduit Size</u> <u>(Inches - Nominal)</u>	<u>Minimum Bending Radius</u> <u>(Times conduit size)</u>
2" and smaller	6
Larger than 2"	9

- 3. When installing underground conduits to specified depth, depth shall be taken from the top of the conduit to the finished grade level. Unless otherwise specified, underground conduits shall be installed with top side not less than 24" below finished grade except that utility company primary conduit shall be 30" minimum below finished grade or as required to meet utility company standards. All conduits inside foundation line shall be not less than 2" below sub grade.
- 4. The minimum size of conduits outside the foundation line shall be 1", 3/4" inside the foundation line.
- 5. Place two 3" wide fluorescent orange non-biodegradable plastic tapes on both sides of trench at 12" below grade, labeled "CAUTION FIBER OPTIC LINE BURIED BELOW". Tape shall be continuous for full length of trench.
- 6. Contractor shall install a #10 insulated wire at the same depth as the underground conduits. The #10 insulated wire shall be continuous for full length of trench and terminated on unistrut / strut channel at the riser or grounding strip at ground box.

K. Above ground conduits shall have a minimum inside bend radius as follows unless otherwise specified:

<u>Conduit Size</u> <u>(Inches - Nominal)</u>	<u>Minimum Bending Radius</u> <u>(Times conduit size)</u>
2" and smaller	6
Larger than 2"	9

L. If conduit is designated for low voltage use, no more than a total of 180 degrees of conduit bend radius will be allowed between boxes.

M. All junction boxes shall be connected to conduits using appropriate connecting hardware (i.e. box connectors)

N. The use of conduit LB, SLB or LBT fittings for low voltage systems is strictly prohibited.

O. Clean, prepare, and paint all exposed conduit, junction boxes, unistrut, fittings and accessories except rooftop mounted rigid steel conduit to match the surface in which it is installed. Refer to specification section 099000 for requirements.

P. EXPANSION JOINTS

- 1. Provide conduit expansion fitting in each conduit run, which is mechanically attached to separate structures to relieve strain caused by shift of one structure in relation to another.
- 2. Provide conduit expansion fitting in each conduit run wherever it crosses expansion joint in structure to which it is attached.

3. Provide expansion fittings where expansion and contraction are a consideration in long runs of exposed conduits (one inch [1"] or larger conduit in excess of one hundred feet [100']).

Q. PROOFING

1. Before pulling any conductors into a PVC conduit, the conduit shall be first be proofed by pulling through a mandrel of a diameter $\frac{1}{4}$ in. smaller than the conduit inside dia., followed by a swab of the same diameter as the conduit inside diameter. Proofing will be done in the presence of District Representative for verification.

R. SURFACE MOUNTED RACEWAYS

1. Surface mount non-metallic raceways shall be used as required to provide communications cabling services as shown on installation drawings.
2. The Contractor will provide and install all surface mounted non-metallic type raceway and appropriate fittings to provide a safe and complete installation.
3. All non-metallic raceway boxes, bases, covers and fittings shall be of the same manufacture.
4. Wire management clips shall be installed in all raceway (vertical and horizontal runs) on maximum of 24" on center spacing. If utilizing existing raceway for new wires, wire management clips shall be installed.
5. The non-metallic raceway components shall meet all of the CEC applicable articles.
6. Multiple channel surface mounted raceways shall be color-coded and marked with a permanent marker on the inside of the channel and across the entire length of the channel blue for data, telephone, and CATV and red for power. These color-coded channels shall be installed consistently with the same relative position of color on the top and the bottom throughout the site in accordance with CEC Article 352-26.
7. The non-metallic raceway may have a factory-applied adhesive for mounting to the substrate. The contractor shall not use the factory-applied adhesive, instead the Contractor shall fasten raceways every 16" on center to studs where ever possible utilizing appropriate fastening methods by the manufacturer. Contractor shall use pan head type screws, sized in accordance with the manufacturer installation instructions. In addition to the manufactures mounting instructions, mounting hardware and anchor types recommended for any raceway that shall be mounted to the building or structure.
 - a. Sheet rock / drywall / wall board: by means of Easy Anchor, toggle bolt, other spread type anchor with load distribution, or approved equal.
 - b. Concrete / cinder block / solid masonry: by means of expanding compression type lag, expanding compression type bolt, expanding compression type all tread with nuts, or approved equal.
 - c. Tile / Stucco / hollow masonry: by means of toggle bolts or approved equal.
 - d. Wood: by means of lags, pan head wood screws, or approved equal.
 - e. Metal: by means of a clamp, self-tapping pan head screw, or approved equal.
8. The raceway is to be manufactured of rigid PVC compounds. The cover shall have a matte texture.
9. A full complement of fittings must be available including, but not limited to, extension boxes, 90-degree elbows, tees, inside corners, outside corners, fixture boxes, wire clips, and device boxes. All fittings must match the color of the raceway cover.
10. The raceway and all system components must be UL Listed and exhibit non-flammable self-extinguishing characteristics.
11. At locations where raceway is mounted below 48 inches from the finished floor the contractor shall install a device bracket every 30" on center throughout the entire length of the raceway system. Any unused slots on the device bracket shall have a blank plate installed.
12. Do not use pulling means, including fish tape, cable or rope, which can damage the non-metallic surface raceway.
13. Raceway shall not have covers installed until fastening and cabling is approved by the inspector of record.

S. POWER AND COMMUNICATION POLES

1. In areas with system furniture and/or office furniture is set up in open areas, the cables shall be routed through an existing power pole or a Contractor supplied and installed power pole from the ceiling space to the floor.

2. Power pole shall be properly anchored to the ceiling and the floor using the recommended mounting instruction from the manufacture.
3. Contractor may utilize an existing power pole provided fill capacities are not exceeded.
4. Project manager or District representative shall determine how system furniture areas will need to be fitted with a power pole device.
5. In the event that a power pole is not in place to serve the specific systems furniture area, Contractor is required to provide and install one.
6. Contractor shall obtain clarification if method of installation is unclear regarding how a power pole will be installed prior to submission of Contractor's Bid.
7. Where cables pass through a hole in the pole, the Contractor shall provide and install a grommet around the hole in the power pole to protect the wire and cable. The grommet will be fitted with either a plastic or rubber shutter device that provides a tight seal around the wire and cable. In addition, Contractor shall provide and install a spiral wrap type plastic device, which shall serve as a protected raceway from the power pole to the system furniture. Contractor shall then route the cables into the systems furniture raceways to the designated point of attachment at each drop location.
8. Contractor will terminate the wire and/or cable on the device outlets, which will be installed in the appropriate manner for the type of furniture being installed.

T. FLOOR MONUMENTS

1. Contractor shall provide and install approved floor monuments in those areas that cables are routed below the floor space and or require termination of a drop outlet in an open area that cannot be served either by a fixed wall or power pole.
2. Contractor shall provide all necessary labor and materials to saw cut floor, core holes and patch substrates/surfaces necessary to accommodate the installation of a floor monument.
3. Contractor shall provide and install a floor monument as specified in construction documents.
4. Where cables pass through a hole in the monument, the Contractor shall provide and install a grommet around the hole in the power pole to protect the wire and cable. The grommet will be fitted with either a plastic or rubber shutter device that provides a tight seal around the wire and cable. In addition, Contractor shall provide and install a spiral wrap type plastic device, which shall serve as a protected raceway from the monument to the system furniture. Contractor shall then route the cables into the systems furniture raceways to the designated point of attachment at each drop location.
5. Contractor shall then route the cables into the systems furniture raceways and/or office furniture setup in open areas to the designated point of attachment at each drop location. Contractor will then terminate these cables on device outlets which will then be installed in a high profile boxes, which will be surface mounted to the underside of the work surface at each location.

U. EXCAVATING, BACKFILLING AND COMPACTING FOR UTILITIES

1. Excavating, backfilling and compacting for conduit, underground pull boxes, vaults and other underground electrical and low voltage utilities shall be performed in accordance with Specification Section 310000 (Earthwork) for Utilities and the District's Geotechnical Engineering Consultant.

3.02 CAPPING

- A. Cap conduits during construction with manufactured seals. Swab out conduits before wires are pulled in.
- B. Cap all empty conduits below grade and in pull boxes with manufacturer's caps to prevent entrance of debris, attach pull string to cap.

3.03 CONDUIT PENETRATIONS

- A. Penetrations through walls, ceilings, or floors.
 1. Wood, stucco, drywall, and hollow masonry
 - a. Scanning for structural members and wall studs
 - 1) Contractor shall scan the wall for studs and metal using an electronic stud finder to avoid drilling through a structural member.

- 2) If the contractor is unsure of the building's structural supports, the contractor shall notify the inspector and/or project manager to confirm the location before drilling.
- b. Drilling
 - 1) A pilot hole not exceeding 3/8" diameter shall be drilled through the material for each penetration to confirm placement of penetration on both sides of the wall and before using an auger bit or hole saw to finalize penetration size.
 - 2) Final penetration sizes shall take into account the size of the conduit to be installed including box connectors if EMT and angular space requirements for fire or draft stopping.
2. Concrete, brick, and solid masonry
 - a. X-ray scanning
 - 1) Contractor shall perform or hire out to have each location of each wall penetration x-rayed to confirm the locations of rebar and other structural steel supports.
 - 2) If the contractor is unsure of the building's structural supports, the contractor shall notify the inspector and/or project manager to confirm the location before drilling.
 - b. Core boring/ Drilling
 - 1) Contractor shall notify the inspector and/or project manager of the time the core boring/drilling will be performed.
 - 2) The contractor shall save all removed material from wall and for inspection. Contractor shall take precautions to protect site property from water and debris created by core boring.
 - 3) Final penetration sizes shall take into account the size of the conduit to be installed including box connectors if EMT and angular space requirements for dry packing.
 - c. Filling angular space / dry packing
 - 1) Contractor shall fill the angular space between the conduit and the wall with structural grout. The grout shall be even and uniform all the way around the conduit with no gaps or voids.
- B. Where conduit passes through walls, ceilings, or floors with connection points to junction boxes or raceway mounted to the same wall as the penetration provide rigid steel or IMC conduit treaded on both ends and secured in place with locking rings on both sides. Bend radius requirements shall be maintained where penetrations are made through the back of raceways; junction boxes with adequate depth shall be installed in order to comply with this requirement.
- C. Where conduit passes through walls, ceilings, or floors with connection points to junction boxes or raceway not mounted to the same wall as the penetration provide EMT conduit and secured in place with unistrut / strut channel. Box connectors shall always be used to connect EMT to junction boxes and raceways.
- D. Where conduit passes through walls, ceilings, or floors with no connection points to junction boxes or raceway provide rigid steel or IMC conduit treaded on both ends and secured in place with locking rings and large reducing washers on both sides.
- E. Where conduit passes through finished walls or ceilings, provide steel escutcheon plates, chrome or painted, as directed. Conduit, which penetrate floor slabs, concrete or masonry walls shall be grouted and sealed watertight at penetrations.
- F. Fire stopping:
 1. Seal all conduit penetrations through fire rated walls and floors fire and smoke tight in conformance with 2013 CBC Sections 714 & and 2013 CEC 300-21.
- G. Draft stopping:
 1. All non-fire rated walls must be draft stopped and sealed. Submit method to be used for approval by inspector and/or project manager. Mineral wool is one product that may be used.
- H. Water stopping:
 1. All exterior penetrations shall be sealed watertight. The contractor shall use silicon rubber caulk or other approved methods and materials. Submit method and material with inspector and/or project manager.

- I. Provide 12" vertical and horizontal clearance for conduit risers through roofs. Coordinate with roof manufacturer to seal roof.

3.04 BOXES

- A. Screws shall be used to attach boxes, and must be accurately placed for finish, independently and securely supported by adequate wood backing or by manufactured adjustable channel type heavy-duty box hangers. Boxes with metal box hangers shall be attached to metal studs. Box hangers shall be securely tied or welded (where permitted) to metal studs. Paint weld with rust inhibitor. Boxes installed in masonry tile or concrete block construction shall be secured with auxiliary plates, bars or clips and be grouted in place.
- B. Locate outlets at the following heights above floor to the center of the device or handle unless otherwise noted on Drawings, Specifications, 2013 CBC 11B-308 or as required to meet ADA handicap requirements.
 1. Convenience Outlets: 18" AFF (6" above counter or splash not to exceed 40" above finished floor).
 2. Telephone Outlets: 18" AFF (45 in. for wall phone).
- C. Install pull boxes as required in accessible spaces but do not install in finished areas unless approved by the District.
- D. Outlet boxes on opposite sides of wall requiring protected openings shall be separated by a horizontal distance of twenty-four (24") inches, Title 24 Part 2, 713.3.2 Exception #1.
- E. For sound control, separate outlets on opposite sides of walls 16" minimum. Where outlets are less than 16" or in sound rated walls, seal air tight with fire rated sheet putty pads. Fill gap between junction box and wall with acoustical sealant all around perimeter of junction box. Fill conduits larger than 1 1/4" with fire rated putty.
- F. Installation of conduit and outlet boxes in fire-resistive walls and partitions shall comply with Title 24, Part 2, Section 713.
- G. Installation of conduit and outlet boxes in fire-resistive floors, floor-ceiling or roof-ceiling assemblies shall comply with Title 24, Part 2, Section 713.

3.05 GROUNDING

- A. Ground fittings shall be UL approved for each application as installed, installed and connected to system in accordance with 2013 CEC Code requirements.
- B. Neutral conductors and non-current carrying parts of equipment at each installation shall be grounded in accordance with applicable code. Ground conductor shall be copper having a current capacity in accordance with CEC Section 250.
- C. All equipment cases, motor frames, etc. shall be completely grounded to satisfy requirements of CEC. Install bond wire in flexible conduit. Install copper bond wire, sized in accordance with CEC, in all nonmetallic raceways and bond to all metallic parts using approved fittings.
- D. Service ground conductor shall be connected to a "Ufer" encased ground and bonded to the cold water pipe system.
- E. Ground resistance of made electrodes shall not exceed 25 ohms, per CEC Article 250-84. Perform ground resistance test prior to connection.
- F. All connections shall be made with solder less connectors or molded fusion-welding process. Solder less connections shall be made to conform to Code requirements or manufacturers requirements if more stringent.

- G. Provide ground wire in all rooftop conduits.

3.06 FIELD TESTS

- A. General: Perform field test in the presence of the Owner's Representative except as otherwise specified. Provide required labor, materials, equipment and connections to perform tests. Document results and submit them to the Owner's Representative. Repair or replace all defective work.
- B. Perform Megger test on all grounding legs:
 1. Notify the District when installed cable is ready to be tested.
 2. Apply Megger tests. Supply labor, materials and test equipment required to perform continuity checks and Megger tests. Submit test data for approval.
 3. If any failure is detected, locate failure, determine cause and, as directed by the District, replace or repair cable or conductor to satisfaction of the District at no increase in Contract Sum.
 4. Subject feeder cables rated 600 volts AC to one (1) minute withstand test, or until stable reading is obtained with 1000-volt Megger. Provide written report of Megger test results. Test report to include all test conditions.
 5. Do not Megger test any cables after connecting test equipment, unless specifically directed to do so by the District.

3.07 CLEANING

- A. Brush and clean work prior to concealing, painting and acceptance. Performed in stages if directed.
- B. Clean and repair soiled or damaged painted exposed work and match adjoining work before final acceptance.
- C. Remove debris from inside and outside of material, equipment and structures.

3.08 MDF AND IDF INSTALLATION PARAMETERS

- A. UTP cabling shall conform to a 6-foot separation requirement from the main power panel, transformers, switchgear and/or starter motors adjacent to the MDF, IDF and termination locations.
- B. All data & voice communications racks and cabinets shall be anchored in accordance with manufacture specifications, project specifications and/or drawn details, to walls and floors and grounded to building ground grid (not to water pipes etc.).
- C. All floor-mounted racks and cabinets shall have ladder racking from top of rack or cabinet to nearest wall as directed by drawn details.
- D. Wall-mounted racks and cabinets.
- E. Backboards:
 - a. Shall be installed behind the rack or cabinet if the cabinet is not able to be directly attached to two vertical wall studs.
 - b. Backboards shall be made of fire retardant or treated materials, squarely cut, routed and sanded edges, void free and painted, leaving the fire-retardant stamp unpainted. Edges shall be sealed with manufacturing fire retardant sealant.
 - c. Backboards made from particle or pressed board materials are NOT acceptable.
 - d. Backboards shall be a minimum $\frac{3}{4}$ " thick and large enough to secure it to two vertical wall studs.
 - e. Backboard shall be painted with white fire-retardant paint.
 - f. Backboards shall be fastened with 5/16 lag bolt and washer, non-recessed, with maximum spacing of 18" into 2 vertical studs. Backboards mounted on the inside of the cabinets shall be squarely cut, with

sanded edges and void free. Inside backboard shall match the inside dimensions of the installed cabinet. Inside backboard shall be a minimum thickness of $\frac{3}{4}$ ".

- F. All new racks and cabinets shall be securely mounted to wall studs in accordance with manufacturer's specifications and drawn details.
- G. Contractor shall set up a complete wire management system at each MDF/IDF, this includes wire management organizer(s). Contractor shall provide one horizontal wire manager for each new patch panel and one horizontal wire manager for each switch to be installed unless otherwise indicated in design drawings and details.
- H. Contractor to place a large label to ID the rack or cabinet location. It shall be placed on the top left side of the rack or the cabinet, clearly visible from the floor. A label shall also be placed on each of the racks or cabinet's patch panel on the top left side of the patch panel (i.e. IDF 1.2).
- I. If more than one cabinet or rack is located in the MDF/IDF, they will be labeled in alphabetical order (A, B, C, etc.)

3.09 CABLE INSTALLATION AND ROUTING

- A. Cable shall be routed in appropriate conduit by system type as outlined in details. Contractor is to contact District representative when this requirement can't be met.
- B. Cable shall not be exposed at any point in the cable path. Contractor is to use appropriate pathway for the situation (i.e. above drop ceiling, inside wall, conduit, or non-metallic surface raceway).
- C. Cables shall be protected and sleeved with a conduit in locations where cables need to pass through walls, floors, or hard ceilings. Contractor shall install rigid steel or IMC conduit threaded on both ends and secured in place with locking rings and large reducing washers on both sides. Bend radius requirements shall be maintained where penetrations are made through the back of raceways; junction boxes with adequate depth shall be installed in order to comply with this requirement. The fire rating of the wall must be maintained during and after installation.
- D. At solid wall locations such as plaster, brick, concrete, cinder block, tile, reinforced concrete, Contractor will provide and install surface mounted non-metallic raceways or equivalent. The use of different series raceways is required at locations where cable fill capacities are exceeded.
- E. Cables will be run vertically inside the wall and into the ceiling space. Terminations on stud walls will be accomplished with cut-in type electrical boxes with a 1" conduit (flex or EMT) extended from the box within the wall to ceiling access space.
- F. Cables routed above drop ceilings shall be run in corridors wherever possible in order to avoid furniture and work areas so that access to the cables is unencumbered.
- G. The cables are to be as accessible as possible, placed above all other items in the ceiling, including ducts and supports.
- H. Service loops:
 - 1. Service loops in Ground boxes and J-boxes shall not be installed unless with prior written approval or to allow for the minimum bend radius specified by the manufacturer:
 - 2. Cables routed above drop ceilings shall be run in corridors wherever possible in order to avoid furniture and work areas so that access to the cables is unencumbered.
 - 3. Fiber feeder cable
 - a. Shall be a minimum of 10' at all MDF and IDF locations.

- b. Shall be routed around the perimeter of the ground box as cable exits and enters each side of the ground box. No visible service loop required. Cable shall be secured to the side of the ground box and not rest on the bottom of the box.
 4. Voice feeder cables
 - a. Shall be routed around the perimeter of the backboard in which it is terminated on.
 - b. Shall be routed around the perimeter of the ground box as cable exits and enters each side of the ground box. No visible service loop required. Cable shall be secured to the side of the ground box and not rest on the bottom of the box.
 5. Category 6 and 6A cable
 - a. Shall be a minimum of 6' at all MDF and IDF locations.
 - b. Shall be routed around the perimeter of the ground box as cable exits and enters each side of the ground box. No visible service loop required. Cable shall be secured to the side of the ground box and not rest on the bottom of the box.
 - c. Shall be a minimum of 9" behind each station location.
 6. Service loops, Intercom:
 - a. Horizontal cables:
 - i. Shall be a minimum of 3' at all TC locations.
 - ii. Shall be a minimum of 12" behind each speaker.
 - iii. Feeder/Backbone cables shall be routed around the perimeter of the backboard in which it is terminated on.
- I. The cables are to be as accessible as possible, placed above all other items in the ceiling, including ducts and supports.
- J. Do not use pulling means, including fish tape, cable or rope, which can damage the non-metallic surface raceway.
- K. Use pulling compound or lubricant, with prior District approval, only when necessary.
- L. Pulling compound shall be a water base pulling lubricant that will not deteriorate cable or conduit.
- M. Cables shall not be pulled across sharp edges. If sharp edges are present a small sleeve, insuliner, or grommet shall be installed to protect the cable.
- N. Cables shall be pulled free of sharp bends or kinks.
- O. Cables shall not be forced or jammed between metal parts, assemblies, etc.
- P. Cables shall not be pulled across access doors and pull box covers. Access to all equipment and systems shall be maintained.
- Q. Manufacturer's specifications for pulling stress and minimum bend radius shall not be exceeded on any cable.
- R. Install or replace pull-string after installing cable in any EMT, IMC, Rigid, or PVC conduits.
- S. A maximum fill capacity of 40% will be deemed acceptable for conduits and 75% of raceway and surface pathway. Contractor shall inform District / District representative in writing if this requirement cannot be met. If the Contractor fails to inform the District or its representative, any labor involve in rerouting cables in such conduit or raceways shall be the sole responsibility of the Contractor
- T. Cable shall be identified with a machine-printed tag identifying the system type, source or head end location, and destination location in all access points (i.e. junction boxes, ground boxes, MDF, IDFs, etc.) and as they enter or exit the conduit pathway.

- U. Contractor will assess whether or not the ceiling space is a plenum air return, which shall dictate the use of the listed plenum type or PVC type cable required in the materials specification section. Any cable installations that shall be pulled through underground conduit will require Outside Plant (OSP) cable. OSP cable are limited to a length of 50' inside a building.
- V. Power feeds of greater than 220 volts shall not be run parallel to UTP, Speaker or other system cables. Parallel runs of greater than 20 feet require a minimum separation distance of 3 feet, or 18 inches if cables are contained in a metallic conduit, which is grounded.
- W. All power feeds crossing the path of UTP, Speaker or other system cables at right angles shall be a minimum of 6 inches in distance from the UTP cables.
- X. There shall be a 6-inch separation between the cables and the light fixtures and motors. Contractor will notify the District or it's representative in the event this requirement cannot be met.
- Y. All cable/cabling shall be kept 6 inches away from any heat source; i.e., HVAC ducting, steam valves, etc.
- Z. Fiber Optic cable/cables shall be identified with a tag identifying cable type, destination and origin, and date installed, every 30 feet when installed in open trays or suspension systems in ceilings.
- AA. Station Cable (UTP) or (STP) runs are not to exceed 290 feet.
- BB. Cable splicing at any point of any cable installed by the contractor is unacceptable without specific District and designer approval.
- CC. No cabling is allowed to rest on any ceiling tile or suspension system unless specifically authorized by the District. Strapping or mounting to any existing wires (e.g., lighting, ceiling grid, conduits, etc.) is not permitted.
- DD. Cables bundled in quantities of 40 or larger shall be securely mounted to building structure (i.e. stud, beam, or other framing member.) with Contractor supplied cable tray unless otherwise specified on design drawings and details.
- EE. Cables bundled in quantities less than 40 shall be securely mounted to building structure (i.e. stud, beam, or other framing member.) with Contractor supplied J-hooks every 4 feet unless otherwise specified on design drawings and details.
- FF. Cables bundled in junction boxes shall be neatly routed and secured to box with Contractor supplied Velcro straps typically 4 per box.
- GG. Cables shall be securely supported to building structure (i.e. stud, beam, or other framing member.) within 12 inches of any conduit or raceway entrance or exit. Cable tray may be required if noted on plans.
- HH. Contractor will place all UTP, Speaker and other system cables in the ceiling area on Contractor supplied and installed wire hangers or in floor spaces and raceways. Cable tray may be required if noted on plans.
- II. Insulation shall be removed to expose shielding and conductors/fibers to the exact length required by manufacturer for proper termination of plugs, pins and fiber terminations.
 - 1. Wires and shielding shall not be nicked or damaged in any way upon termination of pins and closure of plug assembly.
 - 2. Pins and plugs, upon termination, shall not be damaged in any way.

3.10 FINAL DOCUMENT SUBMITTALS

- A. The Contractor shall prepare and provide a complete Electronic Cable Book (PDF format), submitted on San Juan Unified School District UPS Infrastructure – Group B1 – BP 19-122

CD or electronically, as documentation. This cable book shall consist of the following with each section bookmarked within the PDF file:

1. Title of project
 2. Index page detailing the following sections
 3. Site plans (Record set redlined drawings on original full size bid set plans, hard and soft copy)
 4. The drawings shall depict, at a minimum, the following conditions:
 - a. The exact MDF/IDF locations and the areas or zones they feed.
 - b. Type and routing of backbone cable from each IDF to the MDF
 - c. Station locations and their exact labeling ID(s), which shall match the physical label at the device and the test report.
 - d. The exact Head End/Main TC1/Intermediate TC locations and the areas or zones they feed.
 - e. Size and routing of backbone cable from each Intermediate TC to the Main TC1.
 - f. Clock locations and their exact labeling ID(s), which shall match the physical label at the device.
 - g. New pathways, conduit, ground boxes, junction boxes, raceway, power-poles and floor-monuments
 - h. Any other new conditions.
 5. The Contractor shall submit record set drawings no later than the project due date.
- B. Data Fiber backbone test results, as applicable.
1. Electronically on CDR media in original format of the testers software and in pdf format. PDF format file shall be submitted on CD or flash drive or other date verifiable electronic transmission media.
- C. Data station cable test results, as applicable.
1. Electronically on CDR media in original format of the testers software and in pdf format. PDF format file shall be submitted on CD or flash drive or other date verifiable electronic transmission media.
- D. Copper feeder test results, as applicable.
1. Electronically on CDR media in original format of the testers software and in pdf format. PDF format file shall be submitted on CD or flash drive or other date verifiable electronic transmission media.
 2. If applicable, Station / Feeder connectivity (cross connect) spread sheet (8-1/2" x11" in electronic file. (Microsoft Excel format).

2.

Appendix A – Materials

LOW VOLTAGE ENCLOSURE AND PATHWAYS

DESCRIPTION	MANUFACTURER	PART NUMBER
Cable tray, open bottom, ceiling mounted	Snake Tray	201 series ceiling mounted
Cable tray, open bottom, wall mounted	Snake Tray	501 series wall mounted
Cable tray, solid bottom, center hung style	MonoSystems	RTCX-XX-120-PX
Cable tray, solid bottom, wall mount style	MonoSystems	RTWX-XX-120-PX
Power Pole plates, QuickPort Decora Multimedia Insert	Leviton	41646-I
Blanks to cover any unused port	Leviton	41084-BIB
Wall mount face plates, 6 port A. Color to match electrical plate color or raceway to be installed.	Leviton	41091-6XX
2-Port Surface Mount Box, Ivory	Leviton	41089-4IP
2-port angled faceplate	Leviton	41081-2WP
Wiremold Legrand 5500 components include, but are not limited to: a. 500BD-Divided Base b. 5500C- Cover c. 5507C- Device Bracket d. 5507D- Duplex Plate e. 5507B- (2)-Blank Plates f. 5510D- Entrance End Fitting g. 5500WC- Wire Clip to be installed every 24"	Wiremold Legrand	See column to left
All small single or dual channel non-metallic surface mounted raceways shall be 2300 Wiremold by Legrand, type and size specified in the drawings or approved equal	Wiremold Legrand	2300
Power and Communication Components include, but are not limited to: a. Rectangular Device Cover b. 6 port QuickPort Decora Multimedia Insert c. with blanks	Wiremold Legrand Wiremold Legrand Leviton Leviton	30TP 4*V (*height of pole determined by ceiling height) p/n 30TP-L p/n 41646-W p/n 41084-BWB

CABINETS AND RACKS

DESCRIPTION	MANUFACTURER	PART NUMBER
Wall mounted cabinets, ReBox, Light Gray	Hubbel, ReBox	RE4X Including lock set CKL333 Including fan kit REKF
Floor or Wall mounted cabinet, Pivoting rack Included Accessories are: a. 1 Set Additional Mounting Rails b. Vented front door c. Zero Clearance Latch d. Vertical power strip e. Grommets f. Qty 4 - 4 ½ " fans g. Fan controller h. (2) Zero rack space mounted shelves	Middle Atlantic	SR-46-28 a. DWR-RR46 b. VFD-46 c. DWRSR-ZL d. PD-2420SC-NS e. GK-4G f. QFAN g. FC-4-1C h. WUSS20.5
Floor mounted cabinets, with a minimum the following accessories (drawings may depict additional accessories): a. (1 Set) Additional Mounting Rails b. (2 ea.) Zero rack space mounted shelves c. (1 ea.) Fan controller d. (1 ea.) Ganging Hardware e. (1 ea.) Brush Grommet Panel	Middle Atlantic	MRK-4431-AV a. MV-RR44 b. WUSS20.5 c. FC-2-215-1C) d. SPN-44_312 e. BR2
Floor mount Relay Rack, 19"W x 86"H universal Patching Frame with: a. 12" Runway mounting kit b. specified ladder racking with mounting hardware for structural support. c. Include two single sided shelves. d. Vertical wire management shall be installed on both sides on the rack unless shown otherwise.	Chatsworth	46383-203 a. 55105-712 b. As detailed c. 10758-701 d. As detailed
Floor mount, 4 post adjustable quadra rack (19"x84" (45U)	Chatsworth	15215-703

END OF EXHIBIT A

[END OF SECTION 27 05 00]

SECTION 27 11 23

COMMUNICATION CABLE MANAGEMENT & LADDER RACK

PART I - GENERAL

1.01 SECTION INCLUDES

- A. The work covered under this section consists of the furnishing of all necessary labor, supervision, materials, equipment, tests and services to install a complete cable ladder system or cable tray system as shown on the drawings. Cable ladder and tray will be used for cable management inside the TC closets, server rooms, and above accessible ceilings.
- B. Cable ladder systems are defined to include, but are not limited to straight sections of ladder, type cable ladders, bends, tees, elbows, drop-outs, supports and accessories.
- C. Tray system are defined to include, but not limited to straight sections of tray, factory and field bends."T" fittings, drop-out fittings, supports and accessories.

1.02 REFERENCES

- A. ANSI/NFPA 70 - National Electrical Code.
- B. ASTM B633 - Specification for Electro-deposited Coatings of Zinc on Iron and Steel
- C. NEMA VE 1 - Metallic Cable ladder Systems.

1.03 DRAWINGS

- A. The drawings which constitute a part of these specifications indicate the general route of the cable ladder / tray systems. Data presented on these drawings are as accurate as preliminary surveys and planning can determine until final equipment selection is made. Accuracy is not guaranteed and field verification, of all dimensions, routing, etc., by the contractor is required.
- B. Specifications and drawings are for assistance and guidance, but exact routing, locations, distances and levels will be governed by actual field conditions. Contractor is directed to make field surveys as part of his work prior to submitting system layout drawings (shop drawings).

1.04 SUBMITTALS

- A. Submittal Drawings: Submit elevation drawings of cable ladder and/or tray and accessories including clamps, brackets, hanger rods, splice plate connectors, expansion joint assemblies, fire stopping, and fittings, showing accurately scaled components.
- B. Product Data: Submit manufacturer's data on cable ladder and/or tray including, but not limited to, types, materials, finishes, rung spacing, inside depths and fitting radii. For side rails and rungs, submit cross sectional properties including Section Modulus (Sx) and Moment of Inertia (Ix).

1.05 QUALITY ASSURANCE

- A. Manufacturers: Firms regularly engaged in manufacture of cable ladders / trays and fittings of types and capacities required, whose products have been in satisfactory use in similar service for not less than 5 years.

- B. NEMA Compliance: Comply with NEMA Standards Publication Number VE1, "Cable ladder Systems".
- C. NEC Compliance: Comply with NEC, as applicable to construction and installation of cable ladder and cable tray systems (Article 318, NEC).
- D. UL Compliance: Provide products which are UL-classified and labeled.
- E. NFPA Compliance: Comply with NFPA 70B, "Recommended Practice for Electrical Equipment Maintenance" pertaining to installation of cable ladder and tray systems.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver cable ladder and/or tray systems and components carefully to avoid breakage, denting and scoring finishes. Do not install damaged equipment.
- B. Store cable ladders, tray and accessories in original cartons and in clean dry space; protect from weather and construction traffic.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Manufacturer: Subject to compliance with these specifications, cable ladder systems to be installed shall be as manufactured by B-Line Systems, Inc., Chatsworth Products, Inc., or engineer approved equal. Cable tray system shall be installed as specified by the manufacturer of the system or engineer approved equal.

2.02 CABLE LADDER SECTIONS AND COMPONENTS

- A. General: Except as otherwise indicated, provide metal cable ladders, of types, classes and sizes indicated; with splice plates, bolts, nuts and washers for connecting units. Construct units with rounded edges and smooth surfaces; in compliance with applicable standards; and with the following additional construction features.
- B. Materials and Finish: Material and finish specifications for each cable ladder type are as follows:
1. 1-1/2" Tubular Steel: Straight section and fitting side rails and rungs shall be extruded from ASTM A513 steel tube. All fabricated parts shall be finished with a black powder coat.

2.03 TYPE OF CABLE LADDER SYSTEM

- A. Ladder shall consist of two longitudinal members (stringers) with transverse members (rungs) welded to the stringers. Rungs shall be spaced 9" inches on center. Rung spacing in radiused fittings shall be 9 inches and measured at the center of the cable ladder's width. Rungs shall have a minimum cable bearing surface of 1" with radiused edges. No portion of the rungs shall protrude below the bottom plane of the side rails.
- B. Straight cable ladder sections shall have side rails fabricated as tubular steel channels. All straight sections shall be supplied in standard 10' foot lengths, except where shorter lengths are permitted to facilitate cable ladder assembly lengths as shown on drawings.
- C. Cable ladder widths shall be 12" and/or 18" inches per drawings.
- D. Butt Splice kits shall be the bolted type made as indicated below for each cable ladder type. The resistance of fixed splice connections between an adjacent section of cable ladder shall not exceed .00033 ohm. Splice plate construction shall be such that a splice may be located anywhere within the support span without diminishing the cable ladder rated loading capacity.
1. All splice materials shall be made of ASTM A570 structural steel using carriage bolts and serrated flange locknuts. Hardware shall be Yellow Zinc Dichromate.
- E. Cable ladder Supports: Shall be placed so that the support spans do not exceed a maximum span of 5' feet. Supports shall be constructed from formed shape channel members 1 5/8" x 1 5/8" with necessary hardware such as Trapeze Support Kits (9G-55XX-22SH) as manufactured by B-Line Systems or engineer approved equal. Cable ladders installed adjacent to walls shall be supported on wall mounted brackets such as SB-214 as manufactured by B-Line Systems, Inc. or engineer approved equal. Trapeze hangers shall be supported by 1/2" (minimum) diameter rods and a cover shall be installed over the threaded rod.
- F. Accessories - special accessories shall be furnished as required to protect, support, and install a cable ladder system. Accessories shall consist of but are not limited to; section splice plates, expansion plates, blind-end plates, specially-designed ladder drop-outs, barriers, etc.

2.04 CABLE TRAY SECTIONS AND COMPONENTS

- A. General: Except as otherwise indicated, provide metal cable trays, of types, classes and sizes indicated; with splice connector bolt, bolts, nuts and washers for connecting units. Construct units with rounded edges and smooth surfaces; in compliance with applicable standards; and with the following additional construction features.
- B. Materials and Finish: Material and finish specifications for each cable tray type are as follows:
 - 1. Pre-galvanized ASTM B633 SC3 steel wire: Mounting rings or snake eyes are located along the center spine for mounting.

2.05 TYPE OF CABLE TRAY SYSTEM

- A. Tray type cable trays shall consist of single spine wire with transverse members (rungs) welded to the spine. Rungs shall be spaced 6 inches minimum on center. Linear single spine tray shall be hand bendable in any direction along any plane. Tray shall be field formed as needed.
- B. Splicing of tray shall be accomplished by using a single manufacturer supplied UL classified connector bolt or splice plate.
- C. Tray shall be secured to the following, but not limited to: wall, rod, and/or floor; every 4 feet via built-in integrated mounting rings or double rail.
- D. Tray sections that are cut to meet installation requirements shall be free of burrs and sharp edges.

2.06 LOADING CAPACITIES

- A. Cable ladders shall meet NEMA class designations: 8A.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install cable ladders and/or trays as indicated; in accordance with equipment manufacturer's instructions, and with recognized industry practices, to ensure that cable ladder or tray equipment comply with requirements of NEC, and applicable portions of NFPA 70b and NECA's "Standards of Installation" pertaining to general electrical installation practices.
- B. Install cabinets, cable ladders and/or cable trays per local codes for earthquake "zone" requirements.
- C. Coordinate cable ladder and tray with other electrical work as necessary to properly interface installation of cable ladder and tray work with other work.
- D. Provide sufficient space encompassing cable ladders to permit access for installing and maintaining cables.

3.02 TESTING

- A. Test cable ladders and trays to ensure electrical continuity of bonding and grounding connections, and to demonstrate compliance with specified maximum grounding resistance. Refer to NFPA70B, Chapter 18, for testing and test methods.

END OF SECTION 27 11 23

SECTION 27 13 00

COMMUNICATION BACKBONE CABLING

PART 1 – GENERAL

1.01 SCOPE

- A. DATA FIBER BACKBONE: The work will include but not be limited to the following objectives:
1. Terminate all strands of fiber at each fiber enclosure. All cables shall be installed with a minimum 10' service loops at MDF/IDF locations. Fiber will be terminated using ST type connectors.
 2. Provide (unless otherwise noted on drawings), mount and install switches, router, UPS, and other components required to provide a turnkey network for the site. Contractor shall notify the District in writing two weeks prior to the expected installation date of the active network components. If contractor is providing contractor furnished owner configured equipment, contractor shall provide a delivery receipt listing product description, serial number and quantities provided at time of delivery to district or district representative. The delivery receipt shall be signed by contractor and district / district representative and contractor is responsible to keep a copy of the delivery receipt.
 3. Testing of cables and connections to insure a complete and operable end-to-end data connection using ANSI/TIA 568-C testing guidelines for multi-mode and single-mode fiber.
 4. Set up a complete wire management system at each MDF/IDF, this includes wire management organizer(s). Contractor shall provide one horizontal wire manager for each new patch panel and one horizontal wire manager for each switch to be installed unless otherwise indicated in design drawings and details.
- B. VOICE COPPER BACKBONE- The work will include but not be limited to the following objectives:
1. Backbone feeder cables shall be at a minimum Category 3, size and number of pairs as indicated in drawings and Scope of Work documents. All pairs are to be terminated on modular patch panel (single pair per RJ45 port unless otherwise specified on design drawings and details) at the IDF side and modular patch panel (single pair per RJ45 port unless otherwise specified on drawings and details) at the MDF side, see drawings and details for termination details.
 2. Contractor shall perform telephone connection cutovers to new cabling with zero down time unless deemed unavoidable by District representative. In order to achieve this goal the contractor shall make a half tap connection point at the telephone PBX (switch) location so that the new feeder and room outlet can be made active while the existing feeder and outlet remain active.
 3. Prior to phone cutover, contractor is responsible to identify on floor plans each and every existing extension at the area involved. Contractor shall perform an initial walk-through of the area, transfer information onto a voice cutover floor plan document / cross connect sheet. After document is prepared, contractor shall schedule a second walk with district representative to confirm existing voice locations. In addition, contractor shall compare district prepared extension listing to the voice cutover floor plan and reconcile any discrepancies prior to cutover. Voice extension or direct dial extensions, Fax lines, EMS lines, modem lines, ATT or other carrier lines.

1.02 INDUSTRY GUIDELINES AND STANDARDS

- A. ANSI/TIA-568-C.1: Commercial Building Telecommunications Cabling Standard. (2016)
- B. ANSI/TIA -568-C.3: Optical Fiber Cabling Components Standard. (2016)
- C. ANSI/TIA/EIA-569-C: Telecommunications Pathways and Spaces. (2015)
- D. ANSI/TIA -568-C.0: Measurement of Optical Power Loss of Installed Fiber Optic Cable Plant(2016)
- E. ANSI/TIA -598-C: Optical Fiber Cable Color Coding. (2005)

- F. ANSI/TIA -606-B: Administration Standard for Commercial Telecommunications Infrastructure. (2012)
- G. ANSI/TIA -607-B: Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications (2013)
- H. ANSI/TIA -758-B: Customer-Owned Outside Plant Telecommunications Infrastructure Standard. (2012)
- I. Fiber optic cable, electrical cable, wire and connectors shall be installed as indicated, in accordance with the manufacturer's written instructions, the applicable requirements of NEC and the National Electrical Contractors Association's "Standard of Installation", and in accordance with recognized industry practices to ensure that products serve the intended functions. As such, all of the following: National Fire Code (NFPA), National Electrical Code (NEC), California Electrical Code (CEC), California Building Code (CBC) & Local Codes shall be followed.

1.03 SUBMITTALS

- A. See section 27 05 00, part 1 and part 3 for requirements.

PART 2 – PRODUCTS

See Appendix at the end of this document for approved material for each type of material to be used.

2.01 DATA FIBER BACKBONE

- A. Wire management will be Leviton Horizontal Cable Management System.
- B. Fiber optic cables shall be tight buffered to conform to the following outside diameter requirements:
 - 6 Strand = Less than .23"
 - 12 Strand = Less than .28"
 - 18 Strand = Less than .38"
 - 24 Strand = Less than .55"
- 1. Multi-Mode Fiber optic cable shall be 62.5/125 microns with a modal bandwidth of 160/500/MHz/Km. See Appendix at the end of this document for approved material.
- C. Fiber Optic connectors for multi-mode shall be industry standard ST type connectors. See Appendix at the end of this document for approved material.
- D. MDF rack mount fiber optic enclosures (L.I.U.) shall be as outlined in Appendix at the end of this document and completely loaded with Ceramic ST Six Packs unless listed otherwise in drawings and details, or approved equal.
- E. Furnish one (1)-meter ST to LC duplex fiber patch cord for every two terminations at IDF locations and one (2) meter LST to LC duplex cross over fiber patch cord for every two terminations at MDF location. The patch cords shall have connectors with ceramic ferrules. All patch cords shall be packaged with a factory performance certification report. Verify all lengths before ordering.

Gigabit Media Converters shall be as outlined in Appendix at the end of this document.

2.02 VOICE COPPER BACKBONE

- A. See appendix for feeder pair, riser or OSP part numbers.

2.03 LOW VOLTAGE ENCLOSURES AND PATHWAYS

- A. See section 270500 for additional requirements.

PART 3 – EXECUTION

3.01 CABLE ROUTING

- A. See 27 05 00 for additional routing requirements
- B. The cables will be routed to their respective Main Distribution Frame (MDF) or Intermediate Distribution Frame (IDF) utilizing the shortest path possible while maintaining right angles to the building structure.

3.02 CABLE INSTALLATION PARAMETERS

- A. Contractor is required to adhere to the following parameters in this section whether or not existing equipment has been placed by Contractor and/or others.
- B. Contractor will notify the District of any of the following requirements that cannot be met prior to bid.
- C. Voice copper backbone
 - 1. Terminations shall be T568B configuration unless otherwise specified.
 - 2. Patch panels shall be installed in accordance with manufacturer's design and installation guidelines and include a wire management bar.
 - 3. Labeling
 - a. Wiring termination locations shall be labeled to corresponding pairs at the MDF and IDF.
 - b. Cables shall be labeled no more than 3" back from each end of the termination point with a cable label that matches the patch panel labeling.
 - c. Contractor will provide tags, straps, and adhesive labels. These tags, straps, and adhesive labels shall be of high quality that will endure over time.
 - d. Hand written labels are not acceptable.
 - e. Each pair shall have a unique label throughout the site. This would allow a cable management system to track each cable pair.
 - f. Labeling Scheme
 - 1) Closet labeling: Patch panel shall be labeled with the MDF or IDF #, sequential feeder pair number only. The labeling itself shall be in a white background with black lettering. Large label to ID the rack or cabinet location shall be placed on the outside of the front door and on each patch panel. (i.e. IDF 1.2)
 - 2) If more than one cabinet or rack is located in the MDF/IDF, they will be labeled in alphabetical order (A, B, C, etc.)
- D. Data Fiber Backbone
 - 1. The District has standardized on materials that provide component quality. Refer to the Appendix A at the end of this specification and design documents.
 - 2. Fiber Optics Cable Installation and Testing.
 - a. Fiber cables shall be securely mounted to the fiber enclosure using zip ties in at least two locations around the jacket to prevent cable twisting and movement. In addition the Kevlar or strength member shall be bolted, tied, or securely fastened to the enclosure.
 - b. Fibers strands shall be neatly organized in the enclosure with individual bundled paths from each cable to the bulkheads in which they are mounted.
 - c. Fiber strands shall be made to rest in their final position without tension or stress of any kind.
 - d. All spare optical ports and connectors shall have a dust cap in place to protect from the environment.
 - e. Contractor shall provide and install blanks in unused spaces of the fiber enclosure.
 - 3. Fiber Optics Labeling
 - a. Fiber termination locations shall be labeled to corresponding fiber strands pairs at the MDF and IDF.
 - b. The labeling scheme will be provided by the District and will be specific up to and including

instructions for the placement of labeling, tags, straps, and adhesive labels.

- c. Contractor is expected to provide tags, straps, and adhesive labels. These tags, straps, and adhesive labels shall be of high quality that will endure over time.
- d. Hand written labels are not acceptable.
- e. Labeling Scheme
 - 1) Cables shall be labeled approximately 12 inches back from the point where the cable enters the fiber enclosure with a cable label that identifies the origin and destination of the cable.
 - 2) Closet labeling; each connection shall be labeled denoting each strands number, origin and destination.
 - 3) The type (single-mode or multi-mode) of fiber optic cable used shall be clearly labeled on the fiber patch panel per drawn details.
 - 4) Color-coding shall conform to ANSI/TIA specifications.
4. Fiber Optics Testing
 - a. All optical test equipment shall have current, traceable calibration certification.
 - b. If fiber is supplied to Contractor by the district shall be tested before installation, while still on the shipping reel, using an optical time domain reflectometer (OTDR). The test results shall be compared to the manufacturers test results. A discrepancy of more than 1 dB on any fiber in either window indicates possible shipping damage and the fiber shall be returned to the supplier. The test results shall be maintained in a file for future reference.
 - c. All fiber shall be tested after installation according to the Method A procedures described in ANST/TIA-568-C. Multi-mode fiber optic cables shall be tested with an 850/1300 nm power meter and stabilized light source in both directions and in both optical windows.
 - d. Power meter test equipment shall produce a machine generated test report containing the minimum of the following test information:
 - 1) Contractor's Name
 - 2) Operator's Name
 - 3) Customer's location
 - 4) Closet Location
 - 5) Cable ID
 - 6) Test Summary – i.e. Pass/Fail
 - 7) Date and Time of test
 - 8) Test Standard
 - 9) Equipment serial numbers
 - 10) Length in Feet
 - 11) Test direction – i.e. MDF to IDF=A-B / IDF to MDF=B-A
 - 12) Wave Length
 - 13) Optical loss in dB
 - 14) Optical loss limit
 - 15) Reference setting
 - 16) Reference setting date and time

(Most bi-directional test sets will meet these criteria providing the operator enters the proper information. Contractor shall notify the project manager before testing if there is any question regarding this requirement)
 - e. In addition to power meter testing, OTDR testing is to be performed in any location where the fiber is not continuous, i.e. coupled LC connectors (soft splice), fusion splice, and mechanical splice. When testing with an OTDR the contractor shall utilize a test lead or launch cable a minimum of 100 meters in length and a trail test cable a minimum of 100 meters in length. The contractor shall set a marker at the start and end of the tested cable on each test result and the difference in loss between the two markers shall be noted on the test report. The results of these tests (printed OTDR result power meter attenuation results) shall be provided by the installer as documentation of the quality of installation and as a baseline for future troubleshooting. The results shall be compared to the pre-installation test results for significant changes.
 - f. The multi-mode cable shall comply with the following maximum individual fiber loss limits in accordance with ANSI/TIA-568-C Multimode: Attenuation 850 nm/1.79 dB end to end (basic link),

1300 nm/1.63 dB end to end (basic link) Bandwidth 850 nm/160mhz km, 1300 nm/500mhz.

- g. Aerial fiber cable mounting hardware shall be matched to the all dielectric self-supporting (ADSS) fiber cable exactly and be installed in accordance with mounting hardware and cabling manufacturers specifications.

E. UTP Specifications – Voice

1. Each station cable shall be cross connected utilizing a gray patch cable at the IDF closet side from the data patch panel to a single pair/port on the backbone feeder cable patch panel. If existing voice backbone cable is installed and terminated onto 66 or 110 blocks, contractor to supply a solid core patch cord routed from patch panel jack to 66 or 110 blocks and terminate on the block.
2. Multi pair feeder cables shall be installed between MDF, IDF, PBX, and MPOE locations as noted on drawings and pair counts as specified in the drawings.
3. Voice UTP Labeling
 - a. MDF and IDF Closet labeling: Feeder patch panels shall be labeled with the source and designation on the top left side and pair number at each port.
4. Voice Cable Installation and Testing
 - a. Voice feeder cables shall be terminated using ANSI/TIA color-coding order.
 - b. OSP cables with gel or icky pick shall be blocked at the point of breakout with sealing tape wrapped around the breakout and taped over with electrical tape.
 - c. All voice backbone UTP cable shall be tested after installation according to the procedures and acceptability criteria described in ANSI/TIA Standards for Category 3 cable and connecting hardware.
 - d. In addition to the testing required by (c.) the contractor shall single pair test continuity of the center two pins (blue/ white and white/blue) from the station end through the cross connect to the telephone switch location. These test results shall be machine generated and provided as part of (g.) along with the results from testing performed in (c.).
 - e. Voice backbone UTP cable shall meet or exceed requirements for 100 mbps voice transmission.
 - f. All UTP testing equipment shall have current calibration certification, per manufacturer's specifications.
 - g. Test results shall be provided as documentation of the quality of installation procedures and as a baseline for future troubleshooting.
 - h. Contractor to provide station / feeder connectivity spread sheet which includes room number, cable number, IDF number and IDF cross connect number.

3.03 MDF / IDF INSTALLATION PARAMETERS

- A. UTP cabling shall conform to a 6-foot separation requirement from the main power panel, transformers, switchgear and/or starter motors adjacent to the MDF, IDF and termination locations.

3.04 FINAL DOCUMENT SUBMITTALS

- A. See section 27 05 00, part 1 and part 3 for requirements.

Appendix A – Materials

PATCH PANEL AND WIRE MANAGEMENT

DESCRIPTION	MANUFACTURER	PART NUMBER
48-Port Snap-in Patch Panel, 2U Wire management bar included	Leviton	49255-D48
Horizontal Cable Management	Leviton	49253-LPM

FIBER MATERIAL

DESCRIPTION	MANUFACTURER	PART NUMBER
Leviton OPT-X Ultra Series fiber housing a) 19" rack mounted units completely loaded with Zirconia Ceramic ST Six Packs	Leviton	OPT-X: 1U-5R1UH-503 2U-5R2UH-S06 4U-5R4UH-S12
6 strand MM (no loose tube allowed), 62.5uM	Superior Essex	W30066G01
6 strand MM (no loose tube allowed), 62.5uM	OCC Fiber	DX006KWLX9OR
6 strand MM (no loose tube allowed), 62.5uM	Berk-Tek	PDR006GB3510/25-I/O
1 m or 2M LC to ST fiber patch cord, 62.5uM	Leviton	Length as needed
Gigabit Media Converter Switch containing: 1. Duplex Multimode SC Duplex fiber connector 2. Two (2) 10/100/1000 Mb ports	GarrettCom	Magnum CSG14-SX-PD

VOICE COPPER FEEDER MATERIAL

DESCRIPTION	MANUFACTURER	PART NUMBER
Gray category 5E jacks	Leviton	5G110-RG5
4 pair voice feeder cables, 24AWG, Gray, Category 3	Superior Essex	18-241-33
CMR 12 pair voice feeder cables, 24 AWG shielded, beige	Superior Essex	18-872-13
OSP 4 pair voice feeder cables shall be Category 3.	Superior Essex	04-001-54 or approved equal.
OSP Category 6 cable, blue	Superior Essex	77-246-21

OSP to CMR cable splice case	Tyco	1217195-1
CMR 25 pair voice feeder cables, Category-3 24 AWG	Superior Essex	18-475-33 or approved equal.
66-blocks with standoff brackets. Must include: <ul style="list-style-type: none"> - gray hinge cover (Leviton p/n 40050-MHG or equal) for labeling purposes - and required bridge clips (Siemon p/n SMBC-2-2 or equal)). 	Leviton	40066-0MW and 40089-00D or equal

END OF EXHIBIT A

END OF SECTION 27 13 00

SECTION 27 15 00

COMMUNICATION HORIZONTAL CABLINGPART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Section 27 05 00.
- B. Drawings and General Conditions of Contract, including Supplementary Conditions apply to work in this Section.

1.02 SCOPE

- A. DATA: The work will include but not be limited to the following objectives:
 - 1. Installation of the patch panel.
 - 2. Installation of new Category 6 or 6A data channels, outlets at locations as indicated on drawings. Category 6 terminations will be ANSI/TIA standard T568B wiring configuration into RJ45 workstation data jacks.
 - 3. All connections from the patch panel to the switches, and at station locations, shall be made by the contractor using contractor supplied slim line type patch cords.
 - 4. Set up a complete wire management system at each MDF/IDF, this includes wire management organizer(s). Contractor shall provide one horizontal wire manager for each new Category 6 patch panel and one horizontal wire manager for each switch to be installed unless MDF / IDF rack or cabinet layout indicate otherwise.

1.03 INDUSTRY GUIDELINES AND STANDARDS

- A. ANSI/TIA-568-1.D: Commercial Building Telecommunications Cabling Standard. (2018)
- B. ANSI/TIA -568-C.2: Balanced Twisted-Pair Telecommunications Cabling and Components Standard. (2016)
- C. ANSI/TIA/EIA-569-D: Telecommunications Pathways and Spaces. (2018)
- D. ANSI/TIA -606-C: Administration Standard for Telecommunications Infrastructure. (2017)
- E. ANSI/TIA -607-C: Generic Telecommunications Bonding and Grounding (Earthing) Requirements for Customer Premises (2017)
- F. ANSI/TIA -758-B: Customer-Owned Outside Plant Telecommunications Infrastructure Standard. (2012)
- G. Fiber optic cable, electrical cable, wire and connectors shall be installed as indicated, in accordance with the manufacturer's written instructions, the applicable requirements of NEC and the National Electrical Contractors Association's "Standard of Installation", and in accordance with recognized industry practices to ensure that products serve the intended functions. As such, all of the following: National Fire Code (NFPA), National Electrical Code (NEC), California Electrical Code (CEC), California Building Code (CBC) & Local Codes shall be followed.

1.03 SUBMITTALS

- A. See section 27 05 00 for requirements.

1.04 Warranty

- 1. Warranty

- a. See section 27 05 00 for requirements.

PART 2 – PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. Contractor shall confirm all equipment part numbers with the District prior to ordering equipment and updating submittals as required.
- B. No substitutions to District specified networking equipment is allowed.

2.02 DATA

- A. Refer to Appendix A for Approved manufacturers and part numbers.
 1. Category 6 and 6A riser cable shall meet or exceed IEEE 802.3 for Gigabit Ethernet. Cable shall be Yellow for Category 6 and White for Category 6A in color unless otherwise noted. Refer to Appendix A for Approved manufacturers.
 2. Category 6 and 6A underground cable shall be rated for the application intended. Refer to Appendix A for approved manufacturers.
- B. All Category 6 / 6A jacks shall be Leviton.
- C. Patch panel frame shall be Leviton. The rear of the patch panel shall include a wire management bar.
- D. Horizontal Cable Management System shall be installed to provide a complete wire management system.

2.03 PATCH CORDS

1. For all data cables installed, the contractor shall supply the following:
 - a. 100% of the total number of cables installed, patch cords at the MDF/IDF, typically 1' length for each of the MDF / IDF to minimize the excess slack. At certain installation, a 3', 5' or 7' length might be required (length/color to be confirmed prior to ordering). Minimal slack (maximum 12") will be allowed at all cabinets. Refer to Appendix A for patch cord color code. Contractor to provide any patch cord not installed to District in a clearly labeled box, with a letter of transmittal attached.
 - b. 100% of the total number of cables installed, patch cords for the station end, 60%-7', 30%-5', and 10%-10' (length/color to be confirmed prior to ordering). Refer to Appendix A for patch cord color code. Contractor to provide any patch cord not installed, to District in a clearly labeled box, with a letter of transmittal attached.
 - c. Contractor to provide an additional 10% of all patch cords lengths and colors to District in a clearly labeled box, with a letter of transmittal attached.

2.04 LOW VOLTAGE ENCLOSURES AND PATHWAYS

- A. Refer to Appendix A for Approved manufacturers and part numbers.
- B. See section 27 05 00 for additional requirements.

2.05 EQUIPMENT

- A. Refer to Appendix A for Approved manufacturers and part numbers.

PART 3 – EXECUTION

3.01 CABLE ROUTING

- A. The cables will be routed to their respective Main Distribution Frame (MDF) or Intermediate Distribution Frame (IDF), to Node Termination Point (NTP) utilizing the shortest path possible while maintaining right angles to the building structure.
- B. See section 27 05 00 for additional requirements.

3.02 CABLE INSTALLATION

- A. Contractor is required to adhere to the following parameters in this section whether or not existing equipment has been placed by Contractor and/or others.
- B. Contractor will notify the District of any of the following requirements that cannot be met prior to bid.
- C. Data UTP
 - 1. Data terminations shall be T568B configuration.
 - 2. Patch panels shall be installed in accordance with manufacturer's installation guidelines.
 - 3. Labeling
 - a. Wiring termination locations shall be labeled to corresponding pairs at the MDF, IDF, and at each workstation end.
 - b. Cables shall be labeled no more than 3" back from each end of the termination point with a cable label that matches the faceplate labeling.
 - c. Contractor will provide tags, straps, and adhesive labels. These tags, straps, and adhesive labels shall be of high quality that will endure over time.
 - d. Hand written labels are not acceptable.
 - e. Each drop shall have a unique label throughout the site. This would allow a cable management system to track each cable pair.
 - f. Labeling Scheme
 - 1) Workstation labeling: The faceplate or surface block shall be labeled with the MDF/IDF #, Room #, sequential workstation number for each room (ex. 1.1-B2-09). Each room shall have a sequential workstation number starting with the number 01 (ex. 1.1-B2-01 through 1.1-B2-10 and 1.1-B3-01 through 1.1-B3) The labeling itself shall be in a white background with black lettering.
MDF / IDF labeling: Patch panel shall be labeled with the Room #, sequential workstation number to match workstation labeling. The labeling itself shall be in a black background with white lettering.
 - 2) Data UTP Testing
 - a. All data UTP cable shall be tested after installation according to the procedures and acceptability criteria described in ANSI/TIA Standards for Category 6 or 6A cable and connecting hardware as appropriate. Test at level IIIe compliance or higher.
 - b. Data UTP cable shall meet or exceed requirements for 1000 mbps data transmission for Cat6 and 10Gbps for Cat6A.
 - c. Test results will be submitted per Section 270500.
- D. UTP Specifications – Voice and Data
 - 1. As applicable if the site has not been converted to a new Voice over IP system, each station cable shall be cross connected utilizing a gray patch cable at the IDF closet side from the data patch panel to a single pair/port on the backbone feeder cable patch panel.
 - 2. As applicable if the site has not been converted to a new Voice over IP system, multi pair feeder cables shall be installed between MDF, IDF, PBX, and MPOE locations as noted on drawings and pair counts as specified in the drawings.
 - 3. As applicable if the site has not been converted to a new Voice over IP system, voice UTP Labeling
 - a. MDF and IDF Closet labeling: Feeder patch panels shall be labeled with the source and

designation on the top left side and pair number at each port.

- b. Switch/MPOE Closet labeling: 66-blocks shall be labeled with the Room #, sequential workstation number as indicated on telephone detail sheet. Contractor shall provide a hinged 66-block cover, which shall be labeled with station IDs on the backside and a large IDF ID on the front side.
 - 1) The labeling itself shall be in a white background with black lettering.
 - 2) Large label to ID the 66-block location (i.e. IDF 1.2)
 - 3) Hand written labels are not acceptable.
- 4. As applicable if the site has not been converted to a new Voice over IP system, voice UTP Installation and Testing
 - a. OSP cables with gel or “icky pic” shall be blocked at the point of breakout with sealing tape wrapped around the breakout and taped over with electrical tape. All conductors from that point shall be cleaned with Hydrasol.
 - b. All UTP testing equipment shall have current calibration certification, per manufacturer’s specifications.
 - c. Test results will be submitted per Section 270500.
- E. Manufacturer's specification for pulling stress and minimum bend radius shall not be exceeded on any Category 6 or 6A cable.
- F. Station Cable (UTP) or (STP) runs are not to exceed 295 feet (90 meters)

3.03

3.04 EQUIPMENT INSTALLATION CONFIGURATION AND TESTING

- A. Equipment to be installed per manufacturer’s instructions and District’s requirements.
- B. Equipment to be configured per District standards
 - a. Data switches – District configured (Technology Services)
 - b. UPS NIC per District’s requirements including but not limited to: network, date/time, and email notification.
 - c. If Contractor is providing equipment for district to configure, contractor shall deliver the equipment to the District 45 calendar days prior to installation with a delivery receipt listing product description, serial number and quantities provided at time of delivery to district or district representative. The delivery receipt shall be signed by contractor and district / district representative and contractor is responsible to keep a copy of the delivery receipt.
 - d. For contractor furnished contractor configured equipment that requires information from the District contractor shall coordinate with the District and obtain required information 45 calendar days prior to installation.
- C. All equipment to be tested for functionality prior to turn-over to District

3.04 FINAL DOCUMENT SUBMITTALS

- A. See section 27 05 00 for requirements.

Appendix A – Materials

LOW VOLTAGE ENCLOSURE AND PATHWAYS

DESCRIPTION	MANUFACTURER	PART NUMBER
Surface mount boxes, Quickport, 6-port	Leviton	41089-6IP
Blanks to cover any unused port	Leviton	41084-BIB
- Flush mount face plates, 6-port Color to match electrical plate color or raceway to be installed.	Leviton	41091-6XX
2-Port Surface Mount Box, Ivory: - Color to match electrical plate color or raceway to be installed.	Leviton	41089-4IP
2-port angled faceplate, Ivory - Color to match electrical plate color or raceway to be installed.	Leviton	41001-2WP

PATCH PANEL AND WIRE MANAGEMENT

DESCRIPTION	MANUFACTURER	PART NUMBER
48-Port Snap-in Patch Panel, 2U wire management bar included	Leviton	49255-H48
24-Port Snap-in Patch Panel, 1U wire management bar included	Leviton	49255-H24
Horizontal Cable Management	Leviton	49253-LPM

CAT 6 / 6A CABLES

DESCRIPTION	MANUFACTURER	PART NUMBER
Cat 6, non-plenum	Berk-Tek LANmark 1000	10032461
Cat 6, non-plenum	Superior Essex DataGain	66-246-6A
Cat 6, non-plenum	General GenSPEED 6500	7133932
Cat 6, non-plenum	Mohawk	M58920
Cat 6, plenum	Berk-Tek LANmark 1000	10032090
Cat 6, plenum	Superior Essex DataGain	66-246-6B
Cat 6, plenum	General GenSPEED 6500	7131932
Cat 6, plenum	Mohawk	M58863
Cat 6 Outside Plant cable	Berk-Tek LANmark-6	10139885
Cat-6 Outside Plant cable	Superior Essex	77-246-X1

Cat 6A 10Gig UTP, PVC, White*	Berk-Tek	11089906
Cat 6A Outdoor Rated Cable, Black	Berk-Tek 10G-OSP	11094458
Cat 6A Outdoor Rated Cable, Black	Superior Essex	04-001-A4

*Graybar is one of the distributors who stock this cable.

CAT 6 / CAT 6A JACKS AND PATCH CORDS

DESCRIPTION	MANUFACTURER	PART NUMBER
Cat6 jack, default color, Yellow	Leviton	61110-RY6
Cat6 jack, VOIP, Yellow	Leviton	61110-RY6
Cat6 jack, IP Clock, Purple	Leviton	61110-RP6
Cat6 jack, Fire System, Crimson Red	Leviton	61110-RC6
Cat6 jack, CCTV System, Green	Leviton	61110-RV6
Cat6 jack, Access Control, Green	Leviton	61110-RV6
Cat6 jack, Irrigation controller, Black	Leviton	61110-RE6
Cat6 jack, HVAC EMS, Black	Leviton	61110-RE6
Cat6A jack, Access Points, White	Leviton	6A10G-RW6
Cat 6 Patch cables, eXtreme High Flex HD6 (O.D. 0.15") (Insert length in feet <u>6l [6"]</u> , <u>01'</u> , <u>02'</u> , <u>03'</u> , <u>05'</u> <u>07'</u> , <u>10'</u> instead of XX in part number) Insert color instead of "*" in part number. VoIP – White (W) Data/UPS – Yellow (Y) IP Clock - Purple Admin – Red (R) FA/Int – Pink CCTV – Green (G) Access Control – Green (G) HVAC – Blue (L)	Leviton, or equal	6H460-XX*

Cat6A Patch cable, eXtreme Cat6A SlimLine (OD 0.24"), 2' or 3' AP - White	Leviton, or equal	6AS10-xW Where "x" denotes length
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EQUIPMENT

DESCRIPTION	MFG	PART NUMBER
Data Switches for MDF (as of 8/15/2018). Part numbers to be confirmed with district / Technology prior to ordering.	HP Aruba	<ul style="list-style-type: none"> - 1 ea. Aruba 5406R 44GT PoE+ and 4-port SFP+ (No PSU) v3 zL2 Switch (JL003A) - 1 ea. Aruba 5406R v3 ZL2 Management module (J9827A) - 2 ea. Aruba 5406R v3 ZL2 1100 watt PSUs (J9829A) - 2 ea. Aruba 24-port POE+ expansion module (J9986A) - 2 ea. Aruba 24-port SFP+ expansion module (J9988A) - District to provide GBIC, HP 1000 Base SX LC from existing inventory
Data Switches for IDF (as of 8/15/2018). Part numbers to be confirmed with district / Technology prior to ordering.	HP Aruba	<ul style="list-style-type: none"> - Aruba 2930, 48 port PoE, PN JL256A - District to provide GBIC, HP 1000 Base SX LC from existing inventory
Media Converters	GarrettCom	Model / PN depends on types of connection(s).
UPS & UPS NIC for MDF	APC	<ul style="list-style-type: none"> - APC 2200 main unit, PN SMX2200RMLV2U - APC 2200 battery pack add on, PN SMX120RMBP2U - UPS Network Management Card 2 with Environmental Monitoring, PN AP9631
UPS & UPS NIC for MDF	APC	<ul style="list-style-type: none"> - APC 1500, PN SMT1500RM2U - UPS Network Management Card 2 with Environmental Monitoring, PN AP9631
Wireless Access Points	HP Aruba	Model number and mounting solution depends on where AP will be installed and what the coverage needs to be. Designer shall propose an initial layout which shall be reviewed by Manager of Technology Services prior to finalizing the design drawings.
Wireless Bridges	Ubiquity Networks	Model / PN depends on types of connection(s).

END OF EXHIBIT A

[END OF SECTION 27 15 00]