5567 Reseda Blvd. Suite 209 Los Aneles, CA 91356 818.344.3045 Fax 818.344.0338

ADDENDUM #1

Project: Martin Luther King Jr. Middle School Modernization

50 North Medical Center Drive San Bernardino, CA 92411

Date: November 22, 2019

Owner: San Bernardino City Unified School District

1250 North Medical Center Drive

San Bernardino, CA 92411

Architect: John Sergio Fisher & Associates

5567 Reseda Boulevard, Suite 209

Los Angeles, CA 91356

- A. This Addendum of clarifications, modifications, changes, additions, and/or deletions contained herein shall be considered part of the Bid Documents for the above referenced Project as though it had been issued at the same time and shall be incorporated integrally with the Construction Documents for the project. Where provisions of the following supplementary data differ from those of the Original Bid Documents, this Addendum shall govern and take precedence.
- B. Bidders are hereby notified that they shall make any adjustments in their estimates as a result of this Addendum. It will be understood that each bidder's proposal is submitted with full knowledge of all modifications and supplemental data specified herein.

1. CHANGES AND ADDITIONS TO THE BID DOCUMENTS-SPECIFICATIONS:

Item No. 1.01 Specifications for Safety Improvement - Entry Door:

TOC REVISED AND SECTIONS OMITTED

A. Section 26 05 01 Basic Electrical Materials and Methods **OMITTED**

B. Section 26 05 19 Low Voltage Power Conductors OMITTED

C. Section 26 05 33 Conduit and Wire **OMITTED**

Item No. 1.02 Specification Section 01 20 00 Summary of Work REVISED



2. CHANGES AND ADDITIONS TO THE BID DOCUMENTS-DRAWINGS:

Item No. 2.01	Sheet CP100 CONSTRUCTION PLAN ADDED
Item No. 2.02	Sheet CP200 CONSTRUCTION SITE DETAILS; ADDED
Item No. 2.03	Sheet A108 TYPICAL CHAIN-LINK FENCE DETAILS; ADDED
Item No. 2.04	Sheet A501 ENLARGED FLOOR PLAN-BUILDING A; REVISED
Item No. 2.05	Sheet A502 ENLARGED FLOOR PLAN-BUILDING A; REVISED
Item No. 2.06	Sheet A503 ENLARGED RESTROOM PLANS AND INTERIOR ELEVATIONS; REVISED AND DETAILS ADDED
Item No. 2.07	Sheet E010 BUILDING A POWER AND DATA PLAN; REVISED

3. CHANGES AND ADDITIONS TO THE BID DOCUMENTS-SKETCHES:

Item No. 3.01	SK-ADD-1.0 ADDED SHEET TO DRAWING INDEX. Sheet A108 added to drawing index on CS-1.					
Item No. 3.02	SK-ADD-1.1 DETAIL 1/G106 ADDED CALLOUT. Callout added for new parking striping.					
Item No. 3.03		REVISED DEMO AT VET. 112. Demo revision at door from 113 to Vestibule 112				
Item No. 3.04		ADDED PARKING ADDED FENCING. Overall plan sheet A100 parking and fencing				
Item No. 3.05	SK-ADD-1.4 /	ADDED PARKING AND FENCING. Enlarged plan of adde area.				
Item No. 3.06	SK-ADD-1.5 E #20 added.	ENLARGED PROPOSED SITE PLAN. Material call outs #19 and				
Item No. 3.07	SK-ADD-1.6 F Vestibule 112	FLOOR PLAN AT VESTIBULE 112. Revised plan layout at				
Item No. 3.08	SK-ADD-1.7 I layout at Vestibu	REFLECTED CEILING PLAN AT VESTIBULE 112. Revised planule 112				
Item No. 3.09	SK-ADD-1.8 F #2/113.	REVISED DOOR SCHEDULE. Revised door type at door				



Item No. 3.10 SK-ADD-1.9 ADDED WALL CAP MATERIAL. Added hardwood wall cap at low wall in Admin area.

4. CHANGES AND ADDITIONS TO THE BID DOCUMENTS-RFI RESPONSES:

Item No. 4.01 PR-BID RFI dated 11/6/19 from Digital Networks Group, Inc.

MARTIN LUTHER KING, JR. MIDDLE SCHOOL

SAFETY IMPROVEMENT - ENTRY DOOR

SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT 777 NORTH F STREET SAN BERNARDINO, CA 92410

BID DOCUMENTS SPECIFICATIONS

JANUARY 22, 2019

REVISED ADDENDUM 01 NOVEMBER 22, 2019



John Sergio Fisher & Associates, Inc. 5567 Reseda Blvd. Suite 209 Tarzana, CA 91356 t: 818.344.3045 f: 818.344.0338

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SECTION 010000

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SECTION 01 11 00

SUMMARY OF WORK

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Summary of the Work of these Contract Documents for the construction of:

F18-11 Safety Improvements – Entry Door Security

1.02 GENERAL

- A. The Work for this project includes the engineering, fabrication, and installation of the Aiphone Video Intercom system(s), electric door stike, power supply and required cabling as describe herein, to provide a complete and fully functional system at each campus. Contractor shall supply all labor, equipment, materials, cabling, hardware, tools, transportation services, coordination, etc., as required for completion of the Project in accordance with the Contract Documents.
- B. The Scope of Work includes the procurement and installation of complete and fully operational Aiphone entry security video intercom system at approximately 40 San Bernardino City Unified School District (SBCUSD) school campuses. Each campus system is to include an electronically actuated door strike, exterior camera and intercom unit, and interior master control station at each location within the SBCUSD located within San Bernardino and Highland, CA. All installations shall be ADA accessible.
- C. The Contractor shall employ communications distribution installation personnel who possess, at minimum, the manufacturer and industry certifications listed below and factory-trained technical/service personnel who have a minimum of 3 years of experience installing the proposed system. Bidders shall submit as part of their response names and résumés for all certified personnel they propose to work on this project, as well as copies of all certificates issued to those personnel by the manufacturers. All contractor certifications must be current and valid.
 - Building Industry Consulting Service International (BICSI) Certified Technicians
 - 2. Registered Communications Distribution Designer (RCDD) certification
- D. Contract Time: Once the CONTRACTOR has received a notice to proceed, the CONTRACTOR shall complete the work within 120 (One hundred and twenty) calendar days from receipt of the notice to proceed, or no later than June 30, 2019, whichever is earlier. It is expressly understood that time is of the essence.
- E. This project is to be performed on active school campuses. All work shall be conducted in a manner that does not impact the health and safety of students, site workers and project personnel, school staff, adjacent property owners,

- and/or the general public. Contractor/Installer shall at all times employ safety practices and environmental controls which take into consideration the fact that work is being performed on an active school campus. All work shall be performed in a manner which maximizes safety.
- F. Contract Drawings: The Drawings (partial floor plans or plot plans included as Appendix B) provided with and identified in the Project Documents are the Drawings referenced in the Agreement.
 - 1. The approximate location of the equipment installations are noted on Drawings.
 - 2. Drawings are not to scale.
 - 3. Where the terms "as shown", "as indicated", "as noted", "as detailed", "as scheduled", or terms of like meaning, are used in the Drawings or Specifications, it shall be understood that reference is being made to the Drawings and Documents referenced in the Agreement.
 - 4. Where reference to the word "plans" is made anywhere in Drawings, Specifications and related Contract Documents, it shall be understood to mean the Drawings referenced in the Agreement.
- G. All work shall be performed in a manner that minimizes impact to the environment and minimizes disruption of school and school office activities.
- H. All work shall be performed in a manner that minimizes noise and vibration impacts to the adjacent classrooms and school operations. In some cases, loud or high vibration activities may have to be rescheduled to accommodate school instructional and/or testing activities. Such activities may require work during non-school hours or on weekends or during holiday breaks. Holiday break periods for the 2018-19 school year are as follows:

Winter Break: 12/17/18-1/4/19

MLK Day: 1/21/19
 Lincoln's Birthday: 2/11/19
 President's Day: 2/18/19

Spring Break: 3/25/19-4/5/19

Memorial Day: 5/27/19

Summer Break: Begins 6/10/19, Ends approx. 8/1/19 (TBD)

- I. All work shall be performed in a manner that protects existing infrastructure, landscaping, and other structures designated to remain.
- J. All work shall be performed in a manner that meets the District's expectation for safe work execution, as well as adherence to schedule and project budget.

1.03 Background

A. The various project sites are primarily located in predominantly residential communities. A list of the sites and their respective addresses is included in the Contract Documents as Appendix A – Site Information Summary Table.

- B. Contractor shall be responsible for routing electrical service and low voltage conduits and conductors in a neat and professional manner in full compliance with current codes and best industry practices. All activities shall be performed in a manner to minimize any disruption to school operations.
- C. Work may also include the cutting and patching of various existing walls, ceilings, floors and/or paving. Contractor shall restore cut and or patched areas to their original finish and color.

AVAILABLE PROJECT INFORMATION

1.04 EXISTING CONDITIONS

- A. A Site Information Summary Table is provided in the project documents as "Appendix A".
 - 1. This Table, by its nature, cannot reveal all conditions that exist on the site. Should site conditions be found to vary substantially from this information, changes in the design and installation of system(s) will be made, with resulting credits or expenditures to the Contract Sum accruing to District.
- B. Partial floor plans or plot plans for each location are provided as Appendix B. Print Drawings
 - 1. These drawings show approximate locations for installation of Aiphone devices at each campus.
 - 2. Drawings are not to scale.

C. Hazardous Materials

- Hazardous Materials such as lead based paints or asbestos containing
 materials are not expected to be encountered in the course of the installations
 specified in this project. In the event that suspect hazardous materials are
 noted during installation, Contractor shall stop work in the area of the suspect
 material and immediate contact the District Representative.
- D. Certain information relating to existing facility conditions and structures is available to bidders but will not be part of the Contract Documents, as follows:
 - 1. As-built drawings or construction documents of each project campus are available for inspection at District's offices during normal business hours.
 - 2. The District, Architect and Engineers disclaim all responsibility for the accuracy of information prepared by others.
 - 3. The District disclaims all responsibility for the information to be completely representative of conditions and materials which may be encountered and as being adequate for the purposes of construction.
- E. These as-built drawings, reports and summary table, by their nature, cannot reveal all conditions that exist on the site. Should hidden or subsurface conditions be found to vary substantially from project documents, changes in the scope of the work will be made, with resulting credits or expenditures to the Contract Sum accruing to District.

- F. If variances from Contract Documents are found, make written report to the District Representative.
- G. This applies only to conditions found after execution of the Agreement to be materially different from those reported and which are not customarily encountered in typical construction.

1.05 Section not used

1.06 WORK COMPONENTS

The following work components are required by the Contract, Technical Specifications and Bid Proposal Exhibits and text of this RFP:

A. Activities Prior to Start of On-site Work

- 1. Obtain ALL permits necessary to perform the scope of work. Prepare and file all required notifications.
- Submit and fully adhere to Contractor's Health and Safety Plan (HASP) in full
 compliance with CalOSHA, SCAQMD, and project specifications. Site work may not
 proceed until this plan is delivered to and accepted by District.
- 3. Contractor shall provide a sequence of work and proposed master schedule of installations at all sites.
- 4. The Contractor shall survey each site prior to system installation and shall provide a drawing showing proposed cable pathway, mounting locations for Aiphone devices, 24 V power supply and installation of door hardware. Contractor shall provide a detailed schedule of installation for all sites.

B. Site Work

- 1. Cable Routing: Contractor shall route electrical service and low voltage cable above ceilings and behind walls whenever feasible. On storefront systems, cables shall be routed within the mullion. Where masonry prevents in-wall installation, wire mold may be used. Routing of electrical service and low voltage systems shall be performed in a manner to minimize any disruption of service to the adjacent facilities and campus classrooms which are to remain in service.
- 2. All materials and equipment shall be as specified in contract documents.
- Contractor shall be responsible for preliminary and final testing of the installed system at each location.
- 4. Contractor shall provide systems operation training for school staff at each location.

1.07 SEQUENCING OF WORK

- A. Contractor shall submit a proposed sequence of work and detailed schedule of installation for all sites for District approval prior to commencing site work..
- B. Contractor shall complete site survey and submit a drawing depicting proposed installation details before commencing installation activities at any individual site.
- C.Upon approval by District Representative, work may be conducted concurrently at multiple sites.

- D. Contractor shall provide post-installation "As-built" documentation for each location.
- E. Contractor shall complete required testing at each location.
- F. Contractor shall provide training in the operation of the system at each location.

1.08 TESTING

- A. Contractor shall be responsible for preliminary and final testing of the installed system at each location, to include:
 - 1. Functional and operational test of all equipment and wiring.
 - 2. Polarity testing of all equipment and wiring.
 - 3. Submit contract closeout documents including all programming files.

1.09 TRAINING

- B. Contractor shall be responsible for providing training in the operation and programming of the installed systems:
 - Contractor shall provide training in the operation of the system at each location
 - 2. Contractor shall provide training to District IT personnel in the operation and programming of the systems.
 - 3. Contractor shall submit DVD of video recorded training session, suitable for web posting to facilitate remote training.

1.10 PERMITS, LICENSES AND FEES

A. Permits:

- 1. For Work included in the Contract, Contractor shall obtain all permits from authorities having jurisdiction and from serving utility companies and agencies.
- 2. District will reimburse Contractor for amount charged for such permits, without mark-up.
- B. Licenses and certifications:
 - 1. Contractor shall obtain and pay all licenses and certifications associated with project activities, such as business licenses, installer certifications, contractors' licenses and vehicle and equipment licenses.
 - 2. All costs for licenses shall be included in the Contract Sum.

C. Assessments:

1. District will pay all assessments and utility service connection fees. Costs of assessments shall not be included in the Contract Sum.

D. Test and Inspection Fees:

- 1. Contractor shall pay all fees charged by authorities having jurisdiction and from serving utility companies and agencies, for tests and inspections conducted by those authorities, companies and agencies.
- 2. District will reimburse Contractor for actual amount of such fees, without mark-up.
- 3. Refer to Section 01 40 00 Quality Requirements for additional information on tests and inspections and responsibility for payment of fees.

END OF SECTION

SECTION 01 11 14

WORK SEQUENCE and PHASING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Requirements for phasing of the Work include logistics, phasing, and completion of designated phases prior to commencement of subsequent phases.

1.02 RELATED SECTIONS

- A. Summary of the Work
- B. Project Coordination and Meetings
- C. Submittals
- D. Construction Progress Schedule
- E. Construction Facilities
- F. Temporary Controls
- G. Contract Closeout

1.03 SUBMITTALS

- A. Prior to commencement of the Work, CONTRACTOR shall prepare and submit to the DISTRICT a Project Logistics Plan, including a Logistics Site Plan, showing in detail the Contractor's Work Sequence/Phasing plan, in the same size and scale as the architectural site plan, including, but not limited to, the following, items:
 - 1. Truck access route to and from the Project site, in accordance with local ordinances.
 - 2. Location of any overhead wire restrictions for power, street lighting, signal, and/or cable.
 - 3. Local sidewalk access and street closure requirements.
 - 4. Protection of sidewalk pedestrians and vehicular traffic.
 - 5. Project site fencing and access gate locations.
 - 6. Construction parking.
 - 7. Material staging and/or delivery areas.
 - 8. Material storage areas.
 - 9. Temporary trailer locations.
 - 10. Temporary service location and proposed routing of all temporary utilities.
 - 11. Location of temporary and/or accessible fire protection
 - 12. Trash removal and location of dumpsters.
 - 13. Concrete pumping locations.
 - 14. Crane locations.
 - 15. Location of portable sanitary facilities.
 - 16. Mixer truck wash out locations.
 - 17. Traffic control signage.
 - 18. Perimeter and site lighting.
 - 19. Provisions for Storm Water Pollution Prevention Plan SWPPP

- 20. Stockpile and/or lay down areas.
- 21. Areas for separately identified phases of the work.
- 22. Barriers to separate construction activities from on-going school operations and circulation.

1.04 PHASING OF THE WORK --GENERAL

- A. Project will be constructed in separate phases, or milestone increments, as identified or described in this Section and other parts of the Contract Documents. The Logistics Plan must define and delineate Work to be completed in each designated phase.
- B. Each phase will be required to be completed according to the Milestones included in the approved Construction Progress Schedule, prior to the commencement of the next subsequent phase, unless exception is granted by the District. CONTRACTOR shall incorporate in the plan and coordinate the Work of separate work contracts or of DISTRICT relative to each separate phase of this Project.
- C. CONTRACTOR shall prepare the Construction Progress Schedule in order to complete the Work and related activities in accordance with the phasing requirements, and to meet both the Milestone and Contract Time requirements.
- D. CONTRACTOR shall install all necessary Work for utilities and services, including, but not limited to, power, lighting, signal, HVAC, drainage, and plumbing systems in phased Work before completion of the designated phase. All valves, pull boxes, stub outs, temporary valves or capping, and other Work necessary for phased completion and operation of all necessary systems shall be provided whether or not such Work is specifically identified in the Contract Documents.

1.05 PHASING OF THE WORK – SPECIFIC

A. CONTRACTOR shall prepare the Construction Progress Schedule including phased Milestones, under the following general headings:

Phase 1 Mobilization – (# of days) calendar days:

Milestone Tasks

Phase 2 Utility Re-routing and Hazardous Materials Abatement – (# of days) calendar days:

Milestone Tasks

Phase 3 Demolition – (# of days) calendar days:

Milestone Tasks

B. The Contract Time shall be that shown in the Construction Progress Schedule.

END OF SECTION

SECTION 01 11 40 WORK RESTRICTIONS

PART 1 – GENERAL

SECTION INCLUDES:

Contractor's Use of Premises

Access Roads

Parking

Work Hours

Restrictions on Noise, Dust, and Odor Emissions

Restrictions on Air Emissions of Toxic Chemicals

Protection of Existing Utilities

CONTRACTOR'S USE OF PREMISES:

- **A.** Contractor shall confine all operations, including the storage of materials, to the designated areas of the Project Site as shown in the Drawings, or as otherwise approved in writing by the Owner's Representative. Contractor shall be responsible for arranging for, and paying the costs of, any necessary off-site storage. No Impacted Materials shall be stored or stockpiled outside of the Project Site.
- **B.** Contractor's use of the premises shall be limited to the Work being performed under the Specifications and Drawings.
- C. Contractor shall be responsible for the security and safety of Contractor's equipment and facilities. Owner and the Owner's Representative shall not be liable for loss or damage of Contractor's tools, vehicles, equipment, or materials, whatever the cause. Such loss or damage shall not be sufficient reason for changes in the Project Schedule.
- **D.** Contractor shall be responsible for any damage to roadways, facilities, (unless otherwise marked for removal), or structures on, or adjacent to, the site due to negligence, carelessness, actions, errors, or omissions on the part of the Contractor.

ACCESS ROADS:

- **A.** Contractor vehicles shall enter and exit the site only at the location designated or as otherwise approved in writing by the Owner's Representative.
- **B.** Contractor shall be responsible for obtaining any permits and paying any fees necessary for Contractor's use of public streets or roads.
- **C.** Contractor shall abide by local, state, and federal regulations, including, but not limited to, any flaggers and signage for impeded traffic flow on public streets.
- **D.** Contractor shall, at all times, provide for unimpeded access for emergency vehicles to the Project Site and nearby properties.

PARKING:

- **A.** Contractor shall park construction vehicles and construction equipment only in areas designated for such purpose in accordance with Specifications.
- **B.** Contractor employees shall park personal vehicles only in an employee parking area as designated by the Owner's Representative.
- **C.** Vehicles shall not be parked in any locations where they impede traffic or access to areas where Work is being conducted.

WORK HOURS:

- A. Normal Work Hours will be 7:00 a.m. to 5:00 p.m. Monday through Friday, or as determined in advance of Work between the Owner's Representative and Owner. Arrangements for non-school hours access (access on school holidays or weekends or, on school days, between the hours of 4:00 p.m. and 7:00 a.m.) is possible on a case by case basis. Work hours established by any ordinance, law, or regulation shall supersede the requirements of this Specification.
- **B.** In the event that Hazardous materials abatement activities are required, abatement shall not be conducted during normal school hours. Hazardous materials abatement activities shall occur on school holidays or weekends or, on school days, between the hours of 4:00 p.m. and 7:00 a.m.
- C. Should alternate or extended work hours be approved, Contractor shall conduct all Work during daylight hours so that the Work can be conducted safely and the Owner's Representative can effectively observe the Work, or Contractor may furnish adequate lighting for activities conducted by prior written approval of the Owner's Representative. Contractor shall provide adequate lighting at all times, as deemed necessary by the Owner's Representative for safety reasons, provided that the Contractor can demonstrate that light levels in the Work area meet or exceed OSHA Regulations.
- **D.** Contractor may conduct regular equipment maintenance during hours outside of the Normal Work Hours defined in this Section. The Contractor shall notify the Owner's Representative of such activities.
- **E.** Contractor personnel shall not work on site alone.
- F. Any variation from Normal Work Hours, or work on weekends or holidays shall be subject to approval by the Owner's Representative and Owner. Contractor shall submit notice to the Owner's Representative no less than 24 hours prior to requesting any necessary variation from Normal Work Hours, to allow for adequate review and coordination of staff. Contractor's notice to the Owner's Representative and Owner shall include Work activities to be conducted outside of Normal Work Hours, the hours and days that those activities shall be conducted, and the requested duration of the change in Normal Work Hours.
- G. Emergency repairs of equipment outside of Normal Work Hours may be performed without 24-hour notice, but Contractor shall verbally notify the Owner's Representative prior to such emergency maintenance.

RESTRICTIONS ON NOISE, DUST, AND ODOR EMISSIONS:

- A. Contractor is responsible for conducting all Work in accordance with all applicable Laws and Regulations concerning work hours, noise or sound levels including but not limited to the requirements of the City of San Bernardino. Work involving high noise or high vibration levels may be restricted so as not to conflict with school testing and/or instructional activities.
- **B.** In some cases, loud or high vibration activities may have to be rescheduled to accommodate school instructional and/or testing activities. Such activities may require work during non-school hours or on weekends or during holiday breaks.
- **C.** Contractor is responsible for conducting all Work in accordance with all applicable Laws and Regulations concerning airborne dust emissions including but not limited to the requirements of SCAQMD and the City of San Bernardino or City of Highland, as appropriate.
- **D.** Contractor is responsible for conducting all Work in accordance with all applicable Laws and Regulations concerning odor emissions including but not limited to the provisions of the City of San Bernardino or City of Highland, as appropriate.
- E. Contractor shall control the Work at all times such that noise, dust, and odor measurements do not exceed the Action Levels in the Specifications, Contractor's Health and Safety Plan and or regulatory limits.
- F. The Owner's Representative and Owner shall have authority to direct Contractor to stop Work or modify Work methods or activities as necessary to comply with the Health and Safety Plan, to prevent interruption to school testing or instructional activities, or should the Owner's Representative deem odor emissions, noise levels, or dust emissions be excessive.

1.07. RESTRICTIONS ON AIR EMISSIONS OF HAZARDOUS OF TOXIC MATERIALS:

- **A.** Contractor shall be responsible for conducting all Work in accordance with Laws and Regulations concerning airborne emissions of hazardous dusts or toxic chemicals including but not limited to the requirements of SCAQMD, California DTSC and the City of San Bernardino or City of Highland, as appropriate.
- **B.** Contractor shall control the Work at all times such that concentrations of airborne constituents measured at the perimeter of the work area are below the Action Levels set forth in the Health and Safety Plan and/or regulations.
- C. The District and/or Owner's Representative shall have authority to direct the Contractor to stop Work or modify Work methods or activities as necessary to enforce compliance with the Action Levels for airborne emissions of toxic chemicals.

1.08. PROTECTION OF EXISTING UTILITIES:

A. Contractor shall contact and cooperate with utility companies to locate and mark all utilities (including pipelines, cables, power poles, and other structures) on the site prior to beginning the Work. Utility location shall be in compliance with Specifications, Drawings and Contract documents.

- **B.** Contractor shall comply with the requirements of specific utility protection Laws or Regulations.
- **C.** All utilities shall be protected from damage during construction, unless otherwise indicated to be removed or abandoned. If damaged, the utilities shall be repaired as required by the utility's Owner at the Contractor's expense.
- D. If a utility is encountered or otherwise made known to the Contractor prior to beginning the Work, the Contractor shall promptly take necessary steps to assure that the utility is not damaged, and give written notice to the Owner's Representative. The Owner's Representative shall then review the conditions and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence of the utility.
- E. Contractor will be aware of and plan to prevent damage to underground utilities that might be caused by walking heavy equipment across the site. The Contractor will prevent mitigation measures in their costs and work plan to prevent damage to underground utilities.

END OF SECTION

SECTION 01 20 00

PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

- 1.01 SECTION INCLUDES
 - A. Payment Procedures
 - B. Schedule of Values
- 1.02 RELATED SECTIONS
 - 1. Construction Progress Schedule
 - 2. Contract Closeout
 - 3. Allowances
- 1.03 SCHEDULE OF VALUES
 - A. Submit a Schedule of Values to the ARCHITECT for review and approval within 10 calendar days after the date of DISTRICT-CONTRACTOR Agreement. Submit in electronic Excel spreadsheet format.
 - B. In the Schedule of Values, the Contract Sum shall be broken down into specific elements of the Work, as follows, coded in accordance with the DISTRICT'S coding structure.
 - 1. General Contractor's Overhead and Profit
 - Site Mobilization
 - 3. Bonds and Insurance
 - 4. Field Supervision
 - 5. Project Close-Out (Section of General Requirements)
 - 6. Other General Conditions and General Requirements
 - 7. Demolition
 - 8. Site Clearing and Preparation
 - 9. Site Earthwork
 - 10. Site Improvements (Paving, etc.)
 - 11. Site Utilities
 - 12. Landscape Irrigation
 - 13. Landscape Planting
 - 14. Hazardous Materials Abatement

- 15. HVAC Work
- 16. Plumbing
- 17. Electrical Communications and Security Systems
- 18. Electrical Power routing
- 19. Electrical Site Lighting
- 20. Fire Alarm and Smoke Detection Systems
- C. On projects of more than one building, provide separate schedules for each building.
- D. The percent-complete values from the approved cost-loaded Construction Progress Schedule shall provide the basis for each Application for Payment. Before each Application, update the Progress Schedule with all approved Change Orders.

1.04 APPLICATION FOR PAYMENT

- A. Submit Application for Payment to the ARCHITECT and IOR for review, in electronic format. Upon approval submit three (3) signed and original copies of each certified application. All copies shall be complete, including the updated Schedule of Values or Construction Progress Schedule, releases and similar attachments. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to ARCHITECT
- B. Each certified Application for Payment shall be consistent with previous applications and payments as reviewed by ARCHITECT and IOR; paid for by OWNER.
- C. Payment Application Times: The period of Work covered by each Application for Payment is based on the payment date for each progress payment as specified in the General Conditions. The period covered by each Application for Payment is the previous month.
- D. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with the first certified Application for Payment include, but are not limited to, the following:
 - Certified Schedule of Values or Cost-Loaded Schedule
 - 2. Performance and payment bonds
 - 3. List of principal suppliers and fabricators
 - 4. Worker Compensation certificates
 - Auto Insurance

- 6. Hazardous Material Insurance Certificates
- 7. Construction Progress Schedule
- 8. Submittal Schedule
- 9. Emergency Contact List
- Copies of authorizations and licenses from governing authorities for performance of the Work
- E. Application for Payment at Substantial Completion: Following OWNER issuance of the certificate of Substantial Completion, submit an Application for Payment together with the following:
 - 1. Occupancy permits and similar approvals by authorities having legal jurisdiction over the Work
 - 2. Removal of temporary facilities and services
 - 3. Testing, adjusting and balance records
 - 4. Removal of surplus materials, rubbish, and similar elements
 - 5. Meter readings
 - 6. Start-up performance reports
 - 7. OWNER training and orientations
 - 8. Change-over information related to OWNER occupancy, use, operation, and maintenance
 - 9. Final cleaning
 - 10. Ensure that incomplete Work is not accepted and will be completed without undue delay
 - 11. Advice on shifting insurance coverage
 - 12. List of defective Work, recognized as exceptions to certificate of Substantial Completion
 - 13. Change of door locks to OWNER system
- F. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include, but are not limited to, the following:
 - 1. Completion of Contract Closeout requirements
 - 2. Project record and other closeout documents
 - 3. Completion of final punch list items
 - 4. Delivery of extra materials, products and or stock
 - 5. Identification of unsettled claims

- 6. Proof that taxes, fees, and similar obligations are paid
- 7. Evidence of payment and release of liens
- 8. Operating and maintenance instruction manuals
- 9. Consent of surety to final payment
- 10. Waivers and releases
- 11. Warranties, guarantees and maintenance agreements

G. Retention

1. Retention will be released no sooner than 35 days and not later than 60 days after Notice of Completion has been recorded with the County Recorder's Office.

END OF SECTION

SECTION 01 26 00 CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.01 **SUMMARY**

- Α. This Section specifies administrative and procedural requirements for making modifications to the contract including:
 - **Change Orders** 1.
 - Construction Change Documents (see General Conditions) 2.
 - Contract Credits 3.
 - **Contract Additions** 4.
 - Construction Change Directives 5.
 - Immediate Change Directives (see General Conditions) 6.
 - 7. Instructions

B. Modifications:

- Provide full written data required to evaluate contract modifications, including breakdown of labor, material, equipment and description of work with unit costs for each category.
- 2. Maintain detailed records of work done on a time-and-material basis.
- Provide full documentation for all proposed Change Orders to the 3. Architect for his review.
- C. Designate in writing the member of Contractor's organization:
 - 1. Who is authorized to accept changes in the Work.
 - Who is responsible for informing others in the Contractor's employ 2. of the authorization of changes in the Work.

1.02 **RELATED SECTIONS**

- Addenda: All issued Addendums Α.
- B. Agreement: The amounts of unit prices if any as established in the Contract.
- C. General Conditions Article 7, Changes in the Work.
- D. Section 01 30 00 - Administrative Requirements for Submittal Procedures.
- E. Section 01 60 00 - Product Requirements

1.03 **REFERENCES**

- Α. Change Order Requirements per Title 24 Part 1 CCR.
 - Change Orders: Changes or alterations of the approved plans or specifications after a contract for the work has been awarded are to be made by means of Change Orders. State the reason for the change and provide supplementary drawings where necessary.

Change Orders must be manually signed by the Architect or Engineer in general responsible charge of observation of the work or by the Architect or Engineer delegated responsibility for observation of the portion of the work affected by the Change Order.

2. Change Orders are required to bear the approval of the School Board or their authorized representative upon delegated authority.

1.04 PRELIMINARY PROCEDURES

- A. The Architect or School District may initiate changes by submitting a Request for Proposal. The request will include:
 - Detailed description of the Change, Products, and location of the change in the Project. Changes may include additions and deletions from the Contract.
 - 2. Supplementary or revised Drawings and Specifications.
 - 3. The projected time span for making the change and a specific statement as to whether overtime work is, or is not, authorized.
 - 4. A specific period of time during which the requested price will be considered valid.
 - 5. Such request is for information only, and is not an instruction to execute the changes, nor to stop Work in progress.
- B. Contractor may initiate changes by submitting a written Change Order Request to the Architect or School District containing:
 - 1. Description of the proposed change.
 - 2. Statement of the reason for making the changes.
 - 3. Statement of the effect on the Contract Sum/ Contract Price and the Contract Time.
 - 4. Statement of the effect on the Work of separate contractors with breakdown of costs for labor, materials and equipment.
 - 5. Documentation supporting any change in Contract Sum/ Contract Price or Contract Time, as appropriate.

1.05 CONSTRUCTION CHANGE DIRECTIVES

- A. In lieu of Proposal Request, the School District through the Construction Manager may issue, a Construction Change Directive (also referred to as an Immediate Change Directive in the General Conditions) for Contractor to proceed with a change which shall state a basis for adjustment, if any, in the Contract Sum/ Contract Price or Contract Time, or both.
- B. Authorization will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change, and will designate the method of determining any change in the Contract Sum/ Contract Price and any change in Contract Time.
- C. The School District and Architect will sign and date the Construction Change Directive as authorization for the Contractor to proceed with the changes.

D. Contractor may sign and date the Construction Change Directive to indicate agreement with the terms therein.

1.06 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump-sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow the Engineer and School District to evaluate the quotation.
- B. On request provide additional data to support time and cost computations:
 - 1. Labor required in hours with unit costs.
 - 2. Equipment required.
 - 3. Products required in units
 - a. Recommended source of purchase and unit cost.
 - b. Quantities required
 - 4. Taxes, insurance and bonds.
 - 5. Credit for Work deleted from Contract, similarly documented.
 - 6. Overhead and profit.
 - 7. Justification for any change in Contract Time.
- C. Support each claim for additional costs, and for work done on a time and material basis, with documentation as required for a lump-sum proposal, plus additional information:
 - 1. Name of the School District's authorized agent who ordered the work, and date of the order.
 - 2. Dates and times work was performed, and by whom.
 - 3. Time record, summary of hours worked, and hourly rates paid.
 - 4. Receipts and invoices for:
 - a. Equipment used, listing dates and times of use.
 - b. Products used, listing of quantities.
 - c. Subcontracts
- D. Document requests for Substitution of Products as specified in Section 01 60 00.

1.07 CONSTRUCTION CREDITS

- A. Work deleted and no work has been completed by the Contractor: Work deleted from the contract is to be credited back to the District and subtracted from the contract amount. Credits are to be included in Change Orders.
 - 1. Contractor shall credit back to the District total value for the work deleted from the contract. Cost of credits shall be determined by the amount stated in the Contractor's Schedule of Values.
 - Where the value of credits cannot be determined from the Contractor's Schedule of values, total value of the credit is to be determined by the cost of materials, labor, overhead and profit, insurance, bonds, etc. All General Contractor, Subcontractor and Material Supplier levels of the Contract are to be included in the total value of credits back.

- 3. No amount at any level of the contract shall be withheld from credits for overhead and profit, insurance, bonds, time delays, construction schedule changes and administrative expenses.
- B. Work deleted and a portion of the work has been completed by the Contractor: Work deleted from the contract is to be credited back to the District and subtracted from the contract amount. Credits are to be included in Change Orders.
 - 1. Contractor shall credit back to the District the total value of the work deleted from the contract less any work already completed on the credit item. Cost of credits shall be determined by the amount stated in the Contractor's Schedule of Values less any work already completed. Completed work may include cost of shop drawings, submittals, site preparation, partially completed work on the credit item or other expenses related to the item.
 - 2. Where the value of credits cannot be determined from the Contractor's Schedule of values, total value of the credit is to be determined by the cost of materials, labor, overhead and profit, insurance, bonds, etc. All General Contractor, Subcontractor and Material Supplier levels of the Contract are to be included in the total value of credits back.
 - 3. An amount equal to the percentage of work already completed on the deleted item may be withheld from credits back for overhead and profit, insurance, bonds, construction schedule adjustments and administrative expenses, as indicated in the General Conditions.

1.08 PREPARATION OF CHANGE ORDERS

- The Architect will prepare each Change Order. Α.
- Change Order will describe changes in the Work, both additions and B. deletions, with attachments of revised Contract Documents to define details of the change.
- Change Order will provide an accounting of the adjustment in the C. Contract Sum/ Contract Price and in the Contract Time.

LUMP-SUM/FIXED PRICE CHANGE ORDER 1.09

- A. Content of Change Orders will be based on either:
 - 1. The School District's Proposal Request and Contractor's responsive Proposal as mutually agreed with the School District.
 - 2. Contractor's Proposal for a change, as recommended by the School District or their authorized agent.
- B. The School District, Division of the State Architect and Architect or Engineer in responsible charge will sign and date the Change Order as an authorization for the Contractor to proceed with the changes.
- The Contractor will sign and date the Change Order to indicate C. agreement with the terms therein.

1.10 **UNIT PRICE CHANGE ORDER**

- A. Content of Change Orders will be based on either:
 - The School District's definition of the scope of the required changes.
 - 2. Contractor's Proposal for a change, as recommended by the School District or Authorized Agent.
 - 3. Survey of completed work.
- B. The amounts of the unit prices to be:
 - Those stated in the Agreement. 1.
 - Those mutually agreed upon between School District and 2. Contractor.
- C. When quantities of each of the items affected by the Change Order can be determined prior to start of the work:
 - The School District and Architect or Engineer in responsible 1. charge will sign and date the Change Order as authorization for Contractor to proceed with the changes.
 - 2. Contractor is to sign and date the Change Order to indicate agreement with the terms therein.
- D. When quantities of the items cannot be determined prior to start of the
 - 1. The School District through the Architect will issue a Construction Change Directive directing the Contractor to proceed with the change on the basis of unit prices, and will cite the applicable unit prices.
 - 2. At completion of the change, the School District or its authorized agent will determine the cost of such work based on the unit prices and quantities used.
 - 3. The Contractor shall submit documentation to establish the number of units of each item and any claims for a change in Contract Time.
 - 4. The School District, Division of the State Architect and Architect or Engineer in responsible charge will sign and date the Change Order as authorization for the Contractor to proceed with the Changes.
 - 5. The Contractor will sign and date the Change Order to indicate agreement with the terms therein.

1.11 TIME AND MATERIALS CHANGE ORDER/CONSTRUCTION CHANGE DIRECTIVE:

- Α. The School District through the Architect will issue a Construction Change Directive directing Contractor to proceed with the changes
- B. At completion of the change, Contractor shall submit itemized accounting and supporting data as provided in the Article 1.6, "Documentation of Proposals and Claims," of this Section.
- C. The School District or its authorized representative will determine the allowable cost of such work, as provided in General Conditions and Supplementary Conditions.

- D. The School District, Division of the State Architect and Architect or Engineer in general responsible charge will sign and date the Change Order to authorize the change in Contract Sum/ Contract Price and in Contract Time.
- E. The Contractor will sign and date the Change Order to indicate agreement with the terms therewith.

1.12 INSTRUCTIONS

- A. Architect's Supplemental Instructions:
 - Minor changes in the work shall be carried out in accordance with supplemental instructions issued in accordance with the Contract Documents without change in Contract Sum/ Contract Price or Contract Time.
 - 2. The Architect will issue, sign, and date Supplemental Instructions.
 - 3. The Contractor will sign and date Supplemental Instructions to indicate acceptance of minor changes consistent with the Contract Documents and return signed copy to Architect.

1.13 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Periodically revise Schedule of Values and Request for Payment forms to record each change as a separate item of Work and to record the adjusted contract amounts.
- B. Periodically revise the Construction Schedule to reflect each change in Contract Time.
- C. Revise sub-schedules to show changes for other items of work affected by the changes.
- D. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

1.14 FORMS

- A. Submit Proposal Request typed on AIA Document G709. A Copy of this form may be obtained from the local American Institute of Architects, Chapter Office
- B. Submit Change Orders typed on the Change Order Form included in this Project Manual. Form is included in General Conditions and at the end of this Section.
- C. Submit Supplemental Instructions typed on the form provided by Architect, Requests for Interpretation (RFI's).
- D. Immediate Change Directive Form is included in the Supplementary General Conditions.

PART 2 – PRODUCTS - (Not Applicable)

PART 3 – EXECUTION - (Not Applicable)
END OF SECTION (Form Attached)

SECTION 01 30 00 ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preconstruction meeting.
- B. Site mobilization meeting.
- C. Progress meetings.
- D. Construction progress schedule.
- E. Progress photographs.
- F. Coordination drawings.
- G. Requests for Interpretation.
- H. Submittals for review, information, and project closeout.
- I. Number of copies of submittals.
- J. Submittal procedures.
- K. Labor Compliance Program

1.02 RELATED REQUIREMENTS

- A. Section 01 20 00 Price and Payment Procedures:
 - 1. Proposal Requests, Construction Change Directives and Change Orders.
 - 2. Applications for Payment and the Schedule of Values.
- B. Section 01 32 16 Construction Progress Schedule: Form, content, and administration of schedules.
- C. Section 01 40 00 Quality Requirements: Test and inspection reports.
- D. Section 01 60 00 Product Requirements: Requests for substitutions of materials, products, equipment and systems.
- E. Section 01 70 00 Execution and Closeout Requirements: Additional coordination requirements.
 - 1. Requirements for preparation and submission of operation and maintenance data.
 - 2. Lien and bonding company releases, keys, inspection records from authorities having jurisdiction and insurance documents.
 - 3. Submittals for occupancy, Acceptance and Final Payment.
- F. Section 01 78 00 Closeout Submittals: Project record documents.
 - 1. Procedures for submitting warranty and guarantee documentation.
- I. Divisions 2 through 33 Sections (as applicable): Procedures for specific submittals specified in those Sections to be made at Contract closeout.

1.03 REFERENCE STANDARDS

A. AIA G810 - Transmittal Letter; 2001.

1.04 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires responsive action by Construction Manager and Architect or other responsible design professional.
- B. Informational Submittals: Written information that does not require responsive action by Construction Manager and Architect or other responsible design professional.
- C. Unsolicited Submittals: Action or informational submittals not required by the Contract Documents or not requested by the reviewer. Unsolicited submittals may be returned with notation "not reviewed."
- D. Product Data: Standard published information ("catalog cuts") and specially prepared data for the Work of the Contract, including standard illustrations, schedules, brochures, diagrams, performance charts, instructions and other information to illustrate a portion of the Work.
- E. Request for Interpretation (RFI): A document submitted by the Contractor requesting clarification of a portion of the Contract Documents, hereinafter referred to as an RFI.
- F. Samples: Physical examples that demonstrate the materials, finishes, features, workmanship and other characteristics of a portion of the Work. Accepted samples shall serve as quality basis for evaluating the Work.
- G. Shop Drawings, Product Data and Samples: Instruments prepared and submitted by Contractor, for Contractor's benefit, to communicate to Architect the Contractor's understanding of the design intent, for review and comment by Architect on the conformance of the submitted information to the general intent of the design. Shop drawings, product data and samples are not Contract Documents.
- H. Shop Drawings: Drawings, diagrams, schedules and illustrations, with related notes, specially prepared for the Work of the Contract, to illustrate a portion of the Work.
- Other Submittals: Technical data, test reports, calculations, surveys, certifications, special warranties and guarantees, operation and maintenance data, extra stock and other submitted information and products shall not be considered as Contract Documents but shall be information from Contractor to Architect to illustrate a portion of the Work for confirmation of understanding of design intent.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROGRESS PHOTOGRAPHS (Section not used)

Section not used

3.02 CONTRACTOR'S REQUESTS FOR INTERPRETATION (RFI)

- A. Contractor shall comply with procedures specified herein to make a Request for Interpretation (RFI).
 - 1. Prior to submitting a written RFI, when possible, the Contractor shall have a verbal conversation with the Architect to discuss the item in question.
- B. The Contractor shall request that the Architect or District Representative make an interpretation of the requirements of the Contract Documents for resolution of the following:

- 1. Inability to determine from the Contract Documents the exact material, process, or system to be installed;
- 2. Or when the elements of construction are required to occupy the same space (interference);
- 3. Or when an item of Work is described differently at more than one place in the Contract Documents; .
- Submission of RFIs: RFIs shall be prepared and submitted on form acceptable to Architect.
 - 1. Forms shall be completely filled in, and if prepared by hand, shall be fully legible after copying by xerographic process.
 - 2. Each RFI shall be limited to a single discrete subject.
 - 3. Each RFI shall be given a discrete, consecutive number.
 - 4. Each page of the RFI and each attachment to the RFI shall bear the Project name, District's Project number, date, RFI number and a descriptive title.
 - 5. Contractor shall sign all RFIs attesting to good faith effort to determine from the Contract Documents the information requested for interpretation.
 - 6. Make submission of RFIs to District Representative.
 - 7. RFI may be submitted by email as a PDF attachment or through an electronic service if agreed to in advance by all parties.
- D. Subcontractor-Initiated and Supplier-Initiated RFIs:
 - RFIs from subcontractors and material suppliers shall be submitted through, be reviewed by and be attached to an RFI prepared, signed and submitted by Contractor.
 - a. RFIs submitted directly by subcontractors or material suppliers will be returned unanswered to the Contractor.
 - 2. Contractor shall review all subcontractor- and supplier-initiated RFIs and take actions to resolve issues of coordination, sequencing and layout of the Work.
 - RFIs submitted to request clarification of issues related to means, methods, techniques and sequences of construction or for establishing trade jurisdictions and scopes of subcontracts will be returned without interpretation.
 - 1) Such issues are solely the Contractor's responsibility.
 - b. Contractor shall be responsible for delays resulting from the necessity to resubmit an RFI due to insufficient or incorrect information presented in the RFI.

E. Requested Information:

- Contractor shall carefully study the Contract Documents to ensure that information sufficient for interpretation of requirements of the Contract Documents is not already included. RFIs that request interpretation of requirements clearly indicated in the Contract Documents will be returned without interpretation.
- 2. In all cases in which RFIs are issued to request clarification of issues related to
- 3. In all cases, the Contractor shall furnish all information required for the District Representative to analyze and/or understand the circumstances causing the RFI and prepare a clarification or direction as to how the Contractor shall proceed for RFIs issued to request clarification of issues related to:

- a. Means, methods, techniques and sequences of construction, for example
- b. Pipe and duct routing, clearances;
- c. Specific locations of Work shown diagrammatically;
- d. Apparent interferences and similar items.
- 4. If information included with this type RFI by the Contractor is insufficient, the RFI will be returned unanswered.
- F. Unacceptable Uses for RFIs: RFIs shall not be used for the following purposes:
 - 1. To request approval of submittals.
 - 2. To request approval of substitutions. See Section 01 60 00 Product Requirements.
 - 3. To request changes that entail change in Contract Time and Contract Sum. (Comply with provisions of the Conditions of the Contract), as discussed in detail during pre-construction conference).
 - 4. To request different methods of performing Work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
- G. Disputed Requirements: In the event the Contractor believes that a clarification by the District Representative results in additional cost or time, Contractor shall not proceed with the Work indicated by the RFI until authorized to proceed by the District and claims, if any, are resolved in accordance with provisions in the Conditions of the Contract.
- H. RFI Log: Contractor shall prepare and maintain a log of RFIs, and at any time requested by the District Representative or District, the Contractor shall furnish copies of the log showing all outstanding RFIs.
- I. Review Time: District Representative will return RFIs to Contractor and District within ten calendar days of receipt.
 - 1. RFIs received after 12:00 noon shall be considered received on the next regular working day for the purpose of establishing the start of the response period.
 - 2. District Representative will endeavor to respond in a timely fashion to RFIs, in less than the allotted time. Some RFI's could take longer depending on third party responses.

SECTION 01 31 00

PROJECT COORDINATION AND MEETINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Coordination and Coordination Drawings.
- B Pre-construction meeting.
- C. Progress meetings.
- D. Pre-installation meetings.

1.02 RELATED SECTIONS

- A. Construction Progress Schedule.
- B Work Sequence and Phasing.
- C. Labor Compliance Program (LCP Coordination).
- D. Submittal Procedures.
- E. Closeout Procedures.
- F. Field Engineering.

1.02 COORDINATION

- A. Coordinate scheduling, submittals and work of the various portions of the Contract Documents to assure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. When separate or multiple-prime contracts exist, work cooperatively with the DISTRICT and all other CONTRACTORs, subcontractors, suppliers and other entities working on any portion of the Project.
- C. Work closely with the DISTRICT to coordinate work and to maintain the Construction Progress Schedule.
- D. Verify that utility-requirements of equipment to be installed are compatible with building utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment, as well as work of utility companies.
- E. Coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on drawings. Follow routing shown for pipes, ducts and conduit, as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance and for repairs.

- F. In finished areas, except as otherwise indicated, conceal pipes, ducts and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- G. In locations where several elements of mechanical and electrical work must be sequenced and positioned with precision in order to fit into available space, prepare Coordination Drawings showing the actual conditions required for the installation prior to purchasing, fabricating or installing the elements required to be coordinated. Submit Coordination Drawings to DISTRICT.
- H. Closing up of walls, partitions or furred spaces, backfilling and other covering up operations shall not proceed until all enclosed or covered work and inspections have been completed. Verify before proceeding.
- I. Coordinate completion and cleanup of work of separate sections in preparation for substantial completion, including portions of work designated for DISTRICT's full and/or partial occupancy).
- J. After DISTRICT occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, in a manner to minimize disruption of DISTRICT's activities.

1.03 PRE-CONSTRUCTION MEETING

- A. The DISTRICT will schedule a pre-construction meeting immediately after receipt of the Notice of Award.
- B. Mandatory attendance includes DISTRICT Representative, INSPECTOR OF RECORD (IOR), Testing Laboratory Representative, ARCHITECT, CONTRACTOR and CONTRACTORS Job Superintendents, and major subcontractors.
- C. Optional Attendance includes Architect's consultants, subcontractors and utility company representatives.
- D. The DISTRICT Representative will preside at the conference, and will record meeting minutes and distribute copies in a timely manner.

E. Agenda:

- 1. Execution of Agreement between DISTRICT and CONTRACTOR.
- Issue Notice to Proceed.
- 3. Submission of executed bonds and insurance certificates.
- 4. Distribution of Contract Documents, Notice of Award, Forms, sample Schedule of Values.
- 5. Submission of list of subcontractors, list of products.
- 6. Designation of responsible personnel representing the parties.
- 7. Procedures for processing of field decisions, submittals, substitutions, applications for payments, proposal requests, change orders, construction directives, and contract closeout procedures.
- 8. Preliminary Construction Progress Schedule.

- 9. Critical work sequencing.
- 10. Submittals, substitutions.
- 11. Procedures and forms for preparation and maintenance of project record/as-built documents
- 12. Use of the Project site and parking availability
- 13. Temporary facilities
- 14. Equipment deliveries and priorities
- 15. Safety procedures
- 16 Security
- 17. Housekeeping
- 18. Working hours
- 19. Labor Compliance Officer presentation
- 20. Insurance Services including OCIP
- 21. Environmental Health & Safety
- 22. Review of Logistics Plan
- 23. Progress payments
- 24. Communications procedures
- 25. Fingerprinting requirements
- 26. Construction permits
- 27. Inspections and tests
- 28. SWPPP
- Project meetings

1.04 PROGRESS MEETINGS

- A. CONTRACTOR shall schedule and administer progress meetings throughout progress of the work at regular intervals, typically weekly, or more frequently if needed.
- B. CONTRACTOR shall make arrangements for meetings, prepare agenda and preside at meetings, record minutes and distribute copies.
- C. Attendance required: DISTRICT, Architect, IOR, CONTRACTOR.
- D. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review work progress.
 - 3. Field observations, problems and decisions.
 - 4. Identification of problems which impede planned progress.
 - 5. Review of submittals' status and schedule of submittals.
 - 6. Review of off-site fabrication progress and delivery schedules.
 - 7. Maintenance of Progress Schedule.
 - 8. Corrective measures to regain projected schedules.
 - 9. Planned progress during succeeding work period.
 - 10. Coordination of projected progress.
 - 11. Maintenance of quality and workmanship standards.
 - 12. Proposed changes and effect on progress schedule and coordination.
 - 13. Other business appropriate to the status of the Project.

1.05 PRE-INSTALLATION MEETING

- A. When required in individual Specification Sections, convene a pre-installation meeting prior to commencing work of the Section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section, including but not limited to the ARCHITECT, IOR, CONTRACTOR, and affected sub-contractors, manufacturers and fabricators.
- C. Notify DISTRICT and ARCHITECT at least five (5) days in advance of meeting date.
- D. Prepare agenda, preside at conference, record minutes and distribute copies within three (3) days after conference to participants
- E. Review and discuss pre-installation conditions, preparation, installation procedures, coordination with related work, and orientation of Maintenance and Operations personnel.

SECTION 01 31 14

LABOR COMPLIANCE PROGRAM (LCP) COORDINATION

PART 1 GENERAL

1.01 **SECTION INCLUDES**

- Α. LCP Coordination Activities
- B. LCP Meeting

1.02 **RELATED SECTIONS**

- A. **Project Coordination and Meetings**
- B. Price and Payment Procedures

1.03 LABOR COMPLIANCE PROGRAM MEETING

After the DISTRICT awards the Contract, and prior to the commencement of the work, a mandatory pre-job LCP Meeting will be conducted by the LCP representative with the CONTRACTOR(s) and those subcontractors listed in the Bid Documents – as part of the Pre-Construction Meeting or as a separate meeting.

At that meeting, the LCP representative will discuss the federal and state labor law requirements applicable to the contract including prevailing wage requirements, respective record keeping responsibilities, the requirement for the submittal of certified payroll records to the DISTRICT, and the prohibition against discrimination in employment.

The LCP representative will provide the CONTRACTOR and each subcontractor with a checklist of labor law requirements and will discuss, in detail, the following checklist items:

1. **Payment of Prevailing Wage Rates**

The CONTRACTOR to whom the contract is awarded and its subcontractors hired for the public works project are required to pay no less than the specified general prevailing wage rates to all workers employed in the execution of the contract, including each subcontract.

The CONTRACTOR is responsible for ascertaining and complying with all current general prevailing wage rates for crafts and any rate changes that occur during the life of the contract. Information on all prevailing wage rates and all rate changes are to be posted at the job site for all workers to view.

2. **Apprentice**

It is the duty of the CONTRACTOR and subcontractors to employ registered apprentices on the public works project under Labor Code Section 1777.5;

3. Penalties

There are penalties required for CONTRACTOR'S/ subcontractor's failure to pay prevailing wages and for failure to employ apprentices, including forfeitures and debarment under Labor Code Sections 1775; 1776; 1771.1; 1777.7 and 1813;

4. Certified Payroll Reports

Under Labor Code Section 1776, CONTRACTORS and subcontractors are required to keep accurate payroll records showing the name, address, social security number and work classification for each employee and owner performing work; also the straight time and overtime hours worked each day and each week, the fringe benefits and the actual per diem wage paid to each owner, journey person, apprentice worker or other employee hired in connection with the public works project.

Employee payroll records shall be certified and shall be made available for inspection at all reasonable hours at the principal office of the contractor/subcontractor, or shall be furnished to any employee, or his/her authorized representative on request, pursuant to Labor Code Section 1776;

Each CONTRACTOR and every lower-tier subcontractor and supplier is required to submit certified payrolls and labor compliance documentation electronically as specified by the DISTRICT.

Electronic submittal will be a web-based system, accessed on the World Wide Web by a web browser. Each contractor and subcontractor will be given a Log On identification and a password to access the DISTRICT's reporting system.

Use of the system may entail additional data entry of weekly payroll information including; employee identification, labor classification, total hours worked and hours worked on this project, wage and benefit rates paid, etc. The CONTRACTOR's payroll and accounting software may be capable of generating a 'comma delimited file' that will interface with the software.

This electronic reporting requirement will be 'flowed down' to every lower-tier subcontractor and vendor required to provide labor compliance documentation.

Under Labor Code Section 1776(g) there are penalties required for contractor's/ subcontractor's failure to maintain and submit copies of certified payroll records on request.

5. Nondiscrimination in Employment

There exists prohibition against employment discrimination under Labor Code Sections 1735 and 1776.6, the Government Code, the Public Contracts Code and Title VII of the Civil Rights Act of 1964;

6. Kickbacks Prohibited

CONTRACTORS and subcontractors are prohibited from recapturing wages illegally or extracting "kickbacks" from employee wages under Labor Code Section 1778;

7. Itemized Wage Deduction Statement

Under Labor Code Section 226, every employer shall at the time of each payment of wages, furnish each of his or her employees, an accurate itemized statement in writing showing the gross wages, total hours worked, all deductions, net wages earned, the inclusive dates of the period for which the employee is paid, name of the employee and his/her social security number, the name and address of the employer and all applicable hourly rates in effect during the pay period.

8. Acceptance of fees prohibited

There exists a prohibition against CONTRACTOR/subcontractor acceptance of fees for registering any person for public work under Labor Code Section 1779; or for filling work orders on public works contracts pursuant to Labor Code Section 1780;

9. **Listing of Subcontractors**

All prime CONTRACTORS are required to list properly all subcontractors hired to perform work on the public works projects covering more than one half of one percent, pursuant to Government Code Section 4100 et seg:

10. **Proper Licensing**

CONTRACTORS are required to be licensed properly and to require that all subcontractors be properly licensed. Penalties are required for employing workers while unlicensed under Labor Code Section 1021 and under the California Contractors License Law found at Business and Professions Code Section 7000 et seq.

11. **Unfair Competition Prohibited**

CONTRACTORS/ subcontractors are prohibited from engaging in unfair competition as specified under Business and Professions Code Sections 17200 to 17208;

12. **Workers Compensation Insurance**

Labor Code Section 1861 requires that CONTRACTORS and subcontractors be insured properly for Workers Compensation.

OSHA 13.

Contractors and subcontractors are required to abide by the Occupational Safety and Health laws and regulations that apply to the particular construction project.

14. **Employment Diversity**

The requirement to demonstrate employment diversity in the hiring of women and ethnic groups as outlined in the Public Contracts Code Section 10115 and in the DISTRICT contract.

The CONTRACTOR's and subcontractors present at the meeting will be given the opportunity to ask questions of the LCP representative relative to the items contained in the Labor Law Requirements Checklist. The checklist will then be signed by the CONTRACTOR's representative and the DISTRICT's LCP representative, a representative of each subcontractor, and the DISTRICT's LCP representative.

At the meeting, the DISTRICT's LCP representative will provide the CONTRACTOR with a copy of the DISTRICT's LCP package.

It will be the CONTRACTOR's responsibility to provide copies of the LCP package to all of the CONTRACTOR's listed subcontractors and to any substituted subcontractors.

SECTION 01 32 16

CONSTRUCTION PROGRESS SCHEDULE

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide a Construction Progress Schedule ("schedule") for the entire Work, including all necessary and related sub-schedules.
- B. Provide updates of the Schedule and periodic reports as required.

1.02 RELATED SECTIONS

- A. Summary of the Work
- B. Work Sequence and Phasing
- C. Price and Payment Procedures
- D. Project Coordination and Meetings
- E. Submittals
- F. Testing and Inspection
- G. Contract Closeout

1.03 FORM AND CONTENT OF SCHEDULES

- A. Schedule shall be in the form of a computer-generated Critical Path Method (CPM) network in Precedence Diagram Mode (PDM) showing all construction activities required to complete the Work of the Project within the Contract Time and any DISTRICT-defined Milestones.
- B. Schedule shall include but not be limited to the following:
 - 1. Complete sequence, with start and completion dates, of each and every activity of construction or element of the construction process.
 - 2. Phases of construction, with start and completion Milestones, as well as any other Milestones defined by the DISTRICT.
 - Critical submittals, including DISTRICT and ARCHITECT review and approval periods, including 15 workdays for the first submittal (10 days for resubmittal), 21 days when the ARCHITECT's Consultants must review, and 30 days for review of submittals of Structural Steel, Door Hardware, and Steel Doors and Frames.
 - 4. Procurement, manufacture and/or fabrication; testing and delivery to the Project site of special long-lead-time material and equipment.
 - 5. Operational start-up, test and balance, performance testing, and training of operators for systems and equipment; for Substantial Completion and for Final Completion.

- 6. Temporary facilities; construction of mock-ups, prototypes and/or samples; punch list; interfaces with Separate Work Contracts; and regulatory agency approvals and permits required for performance of the Work.
- 7. Deferred Approvals by the Department of the State Architect (DSA), allowing a minimum of ninety (90) days for all Deferred Approval items.
- 8. DISTRICT interfaces and owner-furnished equipment, either installed by CONTRACTOR (OFCI) or by OWNER (OFOI).
- 9. Decision dates for products specified by allowances, selection of finishes, and other ARCHITECT- or DISTRICT-furnished schedules or decisions.
- C. Schedule shall be updated periodically as specified to show progress of each activity and all changes since the previous submission, including:
 - 1. Major changes in scope.
 - 2. Activities modified since previous updating.
 - 3. Revised projections due to changes.
 - 4. Other identifiable changes.

1.04 QUALITY ASSURANCE

- A. Scheduler: Contractor's personnel or consultant specializing in CPM scheduling shall have five (5) years minimum experience in scheduling construction work of the size and complexity comparable to this Project, including use of Primavera P6 or other as approved by DISTRICT, and shall have use of computer facilities with high-speed Internet access. DISTRICT must approve the Scheduler's resume, experience, and demonstrated skills.
- B. Contractor's Administrative Personnel: Two years minimum experience in using and monitoring CPM schedules on comparable projects.

1.05 SCHEDULE SUBMITTALS

- A. CONTRACTOR shall submit Construction Progress Schedules as follows:
 - 1. Preliminary Schedule: Submit a preliminary Baseline Schedule within fourteen days after Notice of Award. DISTRICT will review the Preliminary Schedule and return comments within ten workdays.
 - 2. Initial Schedule: Revise the preliminary Schedule and resubmit within ten days, to provide the Project's Baseline Schedule.
 - 3. Monthly Schedule Update: While retaining the Baseline Schedule, revise copies to show actual construction progress to date, and submit at scheduled monthly dates, or as otherwise required by the DISTRICT.
 - 4. In the event that the progress of the Work or the sequencing of the activities of the Work differs significantly from that indicated in the Baseline Schedule, the Contractor shall submit a Recovery Schedule to

the DISTRICT, demonstrating the Contractor's plan to recover lost time. achieve all contractual milestones, and complete the work within the Contract Time. Appropriate recovery actions include, but are not limited to, assignments of additional labor or equipment, shift or overtime work, expediting of submittals or deliveries, overlapping of activities, or sequencing changes to increase activity concurrence. An accompanying narrative shall describe the cause of the problems and the actions planned by the Contractor to recover the schedule. The DISTRICT will review the Recovery Schedule and provide comments, leading to approval of the schedule.

B. CONTRACTOR shall include with schedule submittals a written narrative report sufficiently comprehensive to explain the basis and determination of CONTRACTOR's approach to the Work, including but not limited to: activity durations; manpower flow; average crew sizes; equipment requirements; production rates; potential problem areas; permits; all necessary coordination with authorities, utilities suppliers, Separate Work Contracts, and other parties; and long lead delivery items requiring more than thirty (30) days from the date of order to delivery on the Project site. Report shall define problem areas, anticipated delays, or other factors having an impact on the Schedule.

1.06 SCHEDULE REQUIREMENTS

- A. Schedule shall represent CONTRACTOR's plan to complete the Work within the Milestones and/or Contract Time. However:
 - 1. A schedule extending beyond the Milestones and/or Contract Time will not be acceptable.
 - 2. A schedule indicating Work completed in less than the Milestones and/or Contract Time will not be acceptable. CONTRACTOR shall indicate any available float.
 - 3. A schedule found unacceptable by the DISTRICT shall be revised by CONTRACTOR and resubmitted within five (5) days.
- B. Schedule shall be in sufficient detail to assure adequate planning and execution of Work, including but not limited to:
 - 1. Start and completion of all items of Work and their major components. and all designated dates identified as Milestones by DISTRICT.
 - 2. Construction activity durations shall be limited to no more than two reporting periods, with exception of fabrication and procurement activities, unless approved otherwise by DISTRICT. Activity durations shall be total of actual workdays to perform and complete that activity and shall not include consideration of weather impact on the activity.

- 3. Activities for procurement, delivery, and installation of equipment, materials and other supplies, including time for submittals, reviews and re-submittals. Include decision dates for selection of finishes.
- 4. Time for fabrication and delivery of manufactured products for the Work, showing interdependence of procurement and construction activities.
- 5. Identify each activity with applicable CSI Specification Division number, and coordinate with the CONTRACTOR's approved "Schedule of Values." Include adequate breakdown of activities for the Mechanical and Electrical elements of the work, to enable accurate monitoring and to assure full coordination with DISTRICT operating personnel.
- 6. Each activity shall be capable of being cost and resource-loaded with the resulting cost total equal to the Contract Amount
- 7. Activities shall include all associated interface activities contained within the Contract Documents including, but not limited to, DISTRICT maintenance-and-operations activities
- 8. Each activity shall be defined to permit reasonable monitoring and evaluation of progress in performance of the Work.
- Activities shall include:
 - a. A description of what is to be accomplished and where.
 - b. Workday duration.
 - c. Responsibility code identifying the performing party for each individual activity.
 - d. Area of Work coded on each Work activity.
 - e. Phase of Work coded on each Work activity.
- 10. Network shall show continuous flow from left to right.
- 11. Network shall be capable of multiple sorts as required for DISTRICT review.
- 12. Program shall be capable of compiling monetary value of completed and partially completed activities, of accepting revised completion dates and re-computation of all dates and float.
- 13. Contractor shall not sequester float through strategies such as extending activity durations estimates to consume available float, using preferential logic, using extensive or insufficient crew or resource loading, or by using float-suppression techniques, special lead or lag logic restraints, or imposed dates.

- 14. Identify days per week and shifts per day worked; also, non-work days and holidays.
- 15. Identify activities that constitute controlling operations, i.e., Milestones or Critical Path.
- 16. DISTRICT may require additional coding of activities.
- C. Notwithstanding acceptance of the Schedule, failure to identify and/or include any element of the Contract into the Schedule shall not release CONTRACTOR from obligation of completing all required Work in accordance with the Contract Completion Date or any Milestones.
- D. Submittal of the Schedule shall constitute CONTRACTOR's confirmation that the Schedule meets the requirements of the Contract Documents, and the Work will be executed in the sequence indicated in the Schedule.

1.07 COST LOADING OF SCHEDULE

- A. The Contract Schedule shall contain sufficient detail and information so that the CONTRACTOR can cost load the schedule in accordance with the District's coding structure.
- B. Power, security, telephone, PA/intercom, data, clock, video, fire alarm, and HVAC controls cabling shall not be scheduled together in an activity.
- C. The CONTRACTOR shall assign a cost value to each activity consisting of the sum of labor, material, equipment, overhead, profit, and general conditions costs allocable to that activity. The sum of all such values assigned shall equal the Contract total.
- D. Unless authorized by the DISTRICT, no site-related activity shall have a value exceeding \$100,000. The CONTRACTOR shall not cost load procurement and submittal related activities, unless authorized by the DISTRICT.
- E. For site-stored materials that are eligible for payment as provided by the Contract Documents, the Contractor may load the value of the materials on a one-day delivery activity. Payment for uninstalled materials is limited to major pieces of equipment with a cost value in excess of \$10,000. If the Work includes items covered by allowances, the Contractor shall include one activity in the schedule for each allowance that is loaded with the cost of that allowance. The scheduling of the allowance activities shall reflect the Contractor's best estimate of the duration and sequence of the Work.
- F. Upon District approval of a Change Order, the Contractor shall add separate cost-loaded activities to the Contract Schedule for each Change Order individually. If the DISTRICT so determines, the Contractor must further divide each Change Order as necessary to comply with the District's cost coding system.

1.08 REQUIREMENTS FOR UPDATING AND REVIEW

- A. Prepare updated Schedule by one of following methods:
 - 1. When updating current Schedule with actual Work progress only (non logic changes), status current Schedule with actual start and finish dates, remaining durations, and percent completion of cost and resource loaded activities and submit to DISTRICT and ARCHITECT for review.
 - 2. When updating current Schedule with logic changes, Construction Directives, Change Orders, delay / disruption activities, or recovery plans, prepare an explanatory description or computer-generated fragnet for DISTRICT and ARCHITECT review.
 - 3. When Work is associated with a Change Order, the adjustments shall be resource-loaded with material unit quantities, corresponding cost account, resources account codes, activity description, accepted costs and time adjustments. The activity ID number shall identify the number of the Change Order.
- B. CONTRACTOR shall attend weekly and monthly Schedule review meetings in order to accomplish the following:
 - Discuss actual activity start and/or completion dates and any applicable variances, forecast activity start and/or completion dates and any applicable variances, progress of all activities underway at the time of the review, and to plan remedial action to mitigate schedule variances.
 - 2. Identify activities modified by CONTRACTOR since last update.
 - 3. Indicate changes that may be required to maintain the Milestones and Date of Completion.
- C. Submit updated schedules:
 - 1. With each Application for Payment.
 - 2. After Milestones, changes in scope, major delays, or other significant points in the construction process.

1.09 FAILURE TO COMPLY WITH REQUIREMENTS

- A. If CONTRACTOR fails to comply with the specified requirements, DISTRICT reserves the right to engage an independent scheduling consultant and/or provide its own expertise to fulfill these requirements, and shall be entitled to recover by assessment all incurred costs for the services from the CONTRACTOR.
- B. Submittal of any Schedule is subject to review and acceptance by ARCHITECT and/or DISTRICT. DISTRICT retains the right to withhold progress payments in whole or part until CONTRACTOR submits a Schedule acceptable to DISTRICT.

1.10 RECORD DOCUMENTS

A. Prior to Final Completion of the Work, CONTRACTOR shall submit as-built report and time-scaled network diagram reflecting as-built Project critical paths.

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Submittal Procedures
- B. Shop Drawing Submittals
- C. Product Data Submittals
- D. Samples Submittals
- E. Manufacturers' Instruction Submittals
- F. Manufacturers' Certificate Submittals
- G. Coordination Drawing Submittals
- H. DSA Deferred Approvals

1.02 SUBMITTAL PROCEDURES

- A. Provide submittals wherever required by other sections of this Specification. Transmit ONE (1) electronic copy, and hard copy as requested, of each submittal directly to the ARCHITECT/IOR/DISTRICT/CM on forms prescribed by the ARCHITECT, with a copy of the transmittal form to the DISTRICT. Clearly identify each item submitted. Sequentially number the transmittal forms. For resubmittals use original submittal number with an alphabetic suffix.
 - 1. Include ARCHITECT's job number as it appears on Contract Documents, and all information required by the prescribed form.
 - 2. Include state agency application or approval number.
 - 3. Bind drawing and data submittals sturdily, clearly label covers.
- B. Identify Project, CONTRACTOR, subcontractor or supplier; pertinent Drawing sheet and detail number(s) and specification Section number, as well as name and telephone number of individual who may be contacted for further information.
- C. Determine and verify all field dimensions and conditions, materials, catalog numbers and similar data.
- D. Provide space for CONTRACTOR and ARCHITECT review stamps.
- E. Apply CONTRACTOR's dated stamp with CONTRACTOR's original signature or initials, certifying that review, verification of Products, field dimensions, adjacent construction Work and coordination of information is in accordance with the requirements of the Work and Contract Documents. Stamped signatures or initials are not acceptable.
 - F. Identify clearly, on the submittal and the transmittal form, any changes or variations from the Contract Documents. State effect of changes on Construction Progress Schedule and changes required in other Work or products (including

- "no effect"). Any change not so noted, even though stamped reviewed, will not be considered approved. Specific written approval by the ARCHITECT must be provided for any deviation from the Contract Documents.
- G. Revise and resubmit submittals as required; identify all changes made since previous submittal.
- H. Coordinate as required with all trades and all public agencies involved.
- I. Unless otherwise specifically authorized by ARCHITECT, make all submittals in groups containing all associated items. ARCHITECT may reject partial submittals as not complying with the provisions of this section.

1.03 SCHEDULES FOR SUBMITTALS

- A. Schedule submittals in accordance with the Construction Progress Schedule, far enough in advance of scheduled dates of installation to provide required time for the review and approval process, including possible revision and resubmittal and for placing orders and securing delivery.
- B. Within thirty (30) days from the Notice of Award, or in accordance with the Project Schedule, whichever is sooner, submit to the ARCHITECT and the DISTRICT for review and acceptance a "Schedule for Submission of Shop Drawings, Product Data, and Samples" ("Submittal Schedule") listing all submittals with planned dates of submission and return approved.
- C. Submittal Schedule will be incorporated into the Construction Progress Schedule. Update and submit revised schedule not less often than monthly.
- D. Allow in the Submittal Schedule sixteen (16) days after receipt for the ARCHITECT's review, both for initial submittals and for resubmittals; more for complex changes.

1.04 SHOP DRAWINGS

- A. Shop Drawings shall include fabrications and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:
 - 1. Dimensions.
 - 2. Identification of products and materials included.
 - Compliance with specified standards.
 - 4. Notation of coordination requirements.
 - 5. Notation of dimensions established by field measurement.
- B. Sheet Size: Except for templates, patterns and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2-inch x 11 inch, but not larger than 30-inch x 42 inch.

- C. Stamp: Each page of shop drawings shall bear the CONTRACTOR's stamp. which shall signify the CONTRACTOR's representation that he has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained in the shop drawings. Each stamp shall be accompanied by a wet signature or initial of an employee of the CONTRACTOR who may be contacted for information. Stamped signatures or initials are not acceptable.
- D. Review Process: Make initial submittal of one (1) electronic copy and hard copy as required by AOR of each shop drawing. Comments or corrections will be noted on the reproducible and returned to the CONTRACTOR. If resubmittal is required, CONTRACTOR shall identify all changes made since the previous submittal and resubmit in the same manner. ARCHITECT will stamp or note drawings as follows:
 - 1. "NO EXCEPTION TAKEN" indicating that construction or fabrication may proceed.
 - 2. "MAKE CORRECTIONS NOTED" indicating that no resubmittal is required contingent upon corrections being made.
 - 3. "REJECTED" or "REVISE & RESUBMIT" indicating that corrections shall be made and drawings resubmitted for review.

After the final review, the CONTRACTOR shall copy and distribute the stamped drawings to the ARCHITECT.

- E. The ARCHITECT will review shop drawings for conformance with the requirements of the Contract Documents. The ARCHITECT's favorable review of a separate item shall not indicate acceptance of an assembly in which the item functions.
- F. The ARCHITECT's review of shop drawings shall not relieve the CONTRACTOR of responsibility for any deviation from the requirements of the Contract Documents unless the CONTRACTOR has informed the ARCHITECT in writing of such deviation at the time of submission and the ARCHITECT has given written acceptance to the specific deviation. The ARCHITECT's favorable review shall not relieve the CONTRACTOR from responsibility for errors or omissions in the shop drawings.
- G. No portion of work requiring shop drawings shall be commenced until the shop drawings have been returned with a favorable review by the ARCHITECT.
- H. ARCHITECT's CAD Drawings: The CONTRACTOR may request the use of the ARCHITECT's computer-generated drawings for use in preparing shop drawings. If the ARCHITECT approves this request, any costs incurred must be paid by the CONTRACTOR to the ARCHITECT. The CONTRACTOR must assume all liability for the accuracy and completeness of the shop drawings so prepared, and must hold the ARCHITECT harmless. The request must be in writing to the ARCHITECT, specifying the format and media requested.

1.05 PRODUCT DATA

- A. Product Data includes manufacturers' standard drawings, catalogs, certificates of conformance, substantiating calculations, and similar relevant data as specified in individual Specification sections.
- B. Submit six (6) copies loose-leaf in binders, to facilitate copying of individual sheets. Provide the CONTRACTOR's stamp on the cover sheet of each submittal.
- C. Mark each copy to identify applicable products, models, options and other data. Supplement manufacturers' standard data to provide information unique to this Project.
- D. Review process, corrections, final distribution, and other conditions shall be similar to that for Shop Drawings.

1.06 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification sections, submit manufacturers' certificates to ARCHITECT for review in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product, but must be acceptable to ARCHITECT.
- D. Review process, corrections, final distribution, and other conditions shall be similar to that for Shop Drawings.

1.07 COORDINATION DRAWINGS

- A. The CONTRACTOR shall prepare and submit for review Coordination Drawings of all major spaces. Coordination Drawings indicate routing, locations, sizes, types and numbers of components for each class of work in concealed spaces where potential conflict may occur between structures, mechanical, electrical, fire sprinklers, communications and ceiling suspension systems. They include both plans and section drawings. (See also the General Requirements Section "PROJECT COORDINATION & MEETINGS.")
- B. Show all systems components, including plan locations of all ceiling penetrations and surface-mounted items. Provide cross sections wherever necessary to indicate proper support of ceilings and non-interference with work of other sections of the specifications. Cross sections shall indicate coordination required and proposed solutions for routing of elements where potential conflict exists.
- C. Drawings shall be based on field measurements, shop drawings and product data. They shall be prepared early enough to allow time to identify and resolve conflicts without delaying the progress of the Work. Conflicts shall be brought to

- ARCHITECT's attention immediately, together with CONTRACTOR's recommendations for resolution.
- D. Submit the Coordination Drawings in a scale of not less than 1/8" = 1' 0," with necessary sections and profiles at an appropriate, clearly readable enlarged scale. Submit the coordinated drawings as one reproducible and two prints.
- E. The ARCHITECT will review the submittals, make appropriate notations and comments to ensure the solutions meet the intent of the Contract Documents, and then return to CONTRACTOR for implementation.
- F. It shall be the responsibility of the CONTRACTOR to assure that all fabricators and installers of work involved in the Coordination Drawings be informed, consulted and advised in sufficient advance time to arrive at solutions where no extension of contract time or extra cost to the DISTRICT will be involved.

1.08 DSA DEFERRED APPROVALS

- A. Installation of deferred approval items shall not be started until detailed plans, specifications and engineering calculations have been accepted and signed by the ARCHITECT or Engineer in responsible charge of design and signed by a California registered ARCHITECT or Professional Engineer who has been delegated responsibility covering the work shown on a particular plan or specification, and the design has been approved by the Division of the State Architect (DSA). Deferred approval items for this project are the following:
 - 1. n/a
- B. Deferred approval drawings and specifications become part of the approved documents for the project when they have been approved by the Division of the State ARCHITECT.
- C. Submit electronic files and hard copies of each drawing as required by AOR and DISTRICT.
- D. Submit color electronic copies of calculations, product data and test reports and hardcopies as required by AOR.
- E. Identify and specify all supports, fasteners, spacing, penetrations, etc. for each of the deferred approval items, including calculations for each and all fasteners.
- F. Submit documents to the ARCHITECT for review prior to submitting to the Division of the State Architect. Submission shall be made within 30 days of the award of contract.
- G. Documents shall bear the stamp and signature of the Structural, Mechanical, or Electrical Engineer licensed in the State of California who is responsible for the Work shown on the documents.

- H. ARCHITECT will submit the documents as appropriate to the Project Structural, Mechanical and Electrical Engineers for review. Their review shall only be for conformance with the design intent shown in the Contract Documents.
- J. After review by ARCHITECT, forward submittal to the Division of the State Architect for approval, with copy of the transmittal to the DISTRICT.
- K. Respond to review comments made by the Division of the State Architect and revise and resubmit submittal to DSA for final approval. Provide copies of the DSA-approved documents to the ARCHITECT and the DISTRICT.

SECTION 01 33 00 - 1 SUPPLEMENTAL SUBMITTAL PROCEDURES (For Projects involving DEMOLITION and/or hazardous materials abatement)

PART 1 – GENERAL

1.01 SECTION INCLUDES:

- A. Supplemental Submittal Procedures
- B. Requests for Information
- C. Startup Submittals
- D. Outline of Contractor's Technical Execution Plan

1.02 SUPPLEMENTAL SUBMITTAL PROCEDURES:

- Contractor shall prepare and transmit two copies of each of the following Submittals to the CM:
 - 1. Contractor shall submit the initial Project Schedule as discussed in this Section.
 - 2. Contractor shall submit the Contractor's Health & Safety Plan (HASP) as discussed in this Section.
 - Contractor shall submit a Technical Execution Plan (Work Plan) as discussed in this Section.
 - **4.** Contractor shall submit Contractor's Daily Construction Report electronically by 10:00 A.M. the next Working day. Daily report shall include:
 - a. Summary of day's activities.
 - **b.** Summary of corrective actions that were taken to improve site safety, security, and erosion and sediment control BMPs.
 - c. Summary of materials imported and exported
 - d. Listing of equipment that was mobilized or demobilized
 - **e.** Summary of any safety issues.
 - **f.** Any "Near Miss" observations for the day.
 - g. Summary of Daily Safety Meeting
 - **h.** Summary of day's weather conditions
 - i. Total number of personnel onsite for the day
 - j. Listing of personnel onsite
 - k. Listing of subcontractors onsite

- I. Listing of visitors onsite
- 5. Contractor shall submit weight tickets, Bill of Lading documents, generators initial waste manifest copies and any other form of shipping documents on a daily basis as specified in other Sections of the Specifications.
- **6.** Contractor shall submit a two week look-ahead schedule at each weekly construction meeting.
- **7.** Contractor shall submit biweekly revisions and updates of Progress Schedule and Technical Execution Plan as required by the CM.
- **8.** Contractor shall submit monthly Health and Safety reports, as specified in Specifications Section 01-45-15 Health and Safety Requirements.
- **9.** Contractor shall submit weekly safety reports.
- **10.** Contractor shall submit equipment inspection logs on a daily basis. To be included in the Daily Construction Report.
- **11.** Additional submittals as described in the Specifications.
- **B.** Contractor shall transmit each Submittal to the CM at the Project Site. Each submittal will be reviewed and returned with one of the following Classifications:
 - 1. No exceptions taken; Contractor may proceed with the work.
 - **2.** Conformed as Noted: Contractor may proceed with the work subject to the comments and/or notes on the Submittal. Re-submittal is not required.
 - **3.** Revise and Resubmit: Contractor may not proceed with the work. Re-submittal is required for certain items.
 - 4. Rejected
- Contractor shall develop a submittal register for review at weekly progress meetings. Register shall be based on submittals listed in the Submittal Summary following this section, requirements throughout the Specifications and additional items as deemed necessary by the Construction Manager or Engineer. In the event a submittal is not listed in the Submittal Summary it does not relieve the Contractor from the responsibility to provide such submittal.
- **D.** Contractor shall submit copies (with all signatures affixed) of any/all waste manifests, weigh tickets, Certificates of Destruction, and other shipping documentation.
- **E.** Contractor shall transmit each Submittal with a cover letter signed by Contractor's Project Superintendent. Contractor shall, by signing each Submittal, certify that Contractor has reviewed the Submittal, and that the submitted information conforms to the requirements of the Work and these Specifications.
- **F.** Contractor shall sequentially number the transmittals (e.g., Submittal No. 001). Contractor shall number revised Submittals with original number and a sequential alphabetic suffix (e.g., Submittal No. 001a).

- **G.** Each Submittal shall include Project title, Contractor, Subcontractor or Supplier, title of Submittal, Specifications Section number and, if applicable, Drawing number.
- **H.** Submittals that do not conform to the requirements of the Specifications shall be returned with a notation of deficiencies. Contractor shall revise to correct noted deficiencies and resubmit. When revised for resubmission, Contractor shall identify all changes made since previous submission.
- I. Submittals must be submitted to the Engineer prior to the execution of work that requires approval of submittal(s) associated with that work.
- **J.** The Engineer shall be allowed an ample amount of time to review, supply comment, and provide additional review and approval of all submittals.
- K. Submittals not required by the Specifications shall not be recognized or processed.

1.03 REQUESTS FOR INFORMATION:

- **A.** Contractor shall submit all Requests for Information (RFI) to the Engineer in writing. Requests for information shall be numbered sequentially and shall include the related Specifications Section number or Drawing number.
- **B.** RFIs shall be used for the purposes of providing clarification, proposing an alternative procedure or method, and providing a platform for discussion with regards to any changes in the work or proposed changes in the work.
- **C.** The Engineer will provide any revisions to the Specifications or Drawings in writing.
- **D.** Contractor shall request written confirmation of any interpretations or clarifications provided verbally by the Engineer.

1.04 STARTUP SUBMITTALS:

- A. This paragraph specifies Submittals that Contractor shall prepare and transmit prior to commencing the Work at the Project Site. Additional Submittals are specified in other Sections of these Specifications.
 - 1. Contractor shall submit the initial Project Schedule. The Project Schedule shall identify milestones and shall be consist with the Contractors TEP with regards to Abatement and Demolition sequence. The Project Schedule shall be prepared using Microsoft Project software.
 - 2. Contractor shall submit the Contractor's HASP as specified in Specifications Section 01415 Health and Safety Requirements, including documentation of worker's OSHA training and medical monitoring and the name and qualifications of the full-time Site Safety and Health Officer.
 - 3. Technical Execution Plan: Certain elements of the Work require the Contractor to provide detailed written information for review, comment, and approval by the Engineer prior to the execution of the work. Prior to commencing any work on the site, Contractor shall submit a draft Technical Execution Plan (TEP), conforming to the outline specified in Paragraph 1.05, for the Engineer's review and comment. Contractor shall revise the draft TEP as requested by the Engineer and submit a final TEP, subject to the Engineer's review, approval, and acceptance, prior to commencing Work. Any material changes in the

- Work, process, staffing, major equipment or materials will require a TEP amendment and review and approval by the Engineer.
- 4. Contractor shall file required notifications of abatement and/or demolition activities with appropriate regulatory agencies prior to initiation of regulated site activities. Copies of all such notifications shall be submitted to Engineer concurrent with Contractor's submittal to said regulatory agencies.
- 5. Contractor shall provide for Engineer's approval the name and qualifications of Subcontractors providing any sampling, laboratory analyses, geotechnical, material testing or surveying services as required in the Specifications and/or contract documents.

1.05 OUTLINE OF CONTRACTOR'S TECHNICAL EXECUTION PLAN

- **A.** Contractor shall prepare and submit a Proposed Technical Execution Plan to the Engineer at least 10 days prior to the planned start of site work. The Technical Execution Plan shall, at a minimum, include the following sections:
 - 1. Project Coordination.
 - **a.** Detailed Project staffing plan showing staffing levels for each task and phase of Work. Note: No undocumented workers are allowed to work on site.
 - **b.** Resume of key project staff including proposed Project Superintendent(s).
 - **c.** List of all proposed subcontractors, including hazardous material abatement companies, transportation companies, and disposal facilities.
 - **d.** List of major equipment and materials.
 - **e.** List of Permits and Approvals to be obtained by Contractor, including contact names, titles, and phone numbers.
 - **2.** Progress Schedule.
 - **a.** Include Contractor's initial Baseline Project Schedule, including line items for all major project work elements.
 - 3. Construction Facilities and Temporary Controls.
 - **a.** Locations, sizes, and requirements for utility services.
 - b. Layout of Work Zones
 - **4.** Site Security Requirements.
 - **a.** Detailed plan describing site security measures to be used during working and non-working hours to prevent unauthorized access to the property.
 - **5.** Notifications and Permits.
 - **a.** List of all required Permits and Notifications.

- **b.** Proof of submittal of required notifications to appropriate regulatory agencies (Demolition and abatement notifications, etc.)
- **c.** Description of information and assistance required for Contractor to obtain above-referenced notifications and permits.
- **6.** Asbestos and Lead Paint Abatement and Regulated Waste Work Plan. (If applicable)
 - a. Identify proposed asbestos and lead paint abatement subcontractor to be used, if work will not be performed by Contractor. Include detailed work procedures to be used in the removal and demolition of the asbestos containing material, lead paint material, and universal waste. Contractor shall review the Asbestos Specifications and Hazardous Materials Survey Report provided in the Appendices. The work plan will identify proposed asbestos, lead paint, and regulated waste disposal and recycling facilities. Included within the plan written certification as specified herein that employees have received appropriate training regarding hazards of asbestos and lead paint exposure, respirator use, personnel decontamination, procedures and OSHA regulations. The Contractor shall provide proof of appropriate licenses to perform the Work. Additional information to be submitted from Asbestos abatement contractor are:
 - **b.** Equipment List;
 - **c.** Proof of Worker Training and required Medical Examinations;
 - **d.** Proof of employee respirator fit testing, and
 - **e.** Contractor and subcontractor's Respiratory Protection Plans.
- **7.** Off-site Transportation and Traffic Control Plan.
 - **a.** Provide an estimate, by day, of the expected quantities of material to be shipped from the site. Describe the number of trucks to be used, the expected turn-around-times, and the expected number of trips per day.
- 8. Site Cleanup
 - a. Describe the method for site clean-up activities and disposal of materials (fine debris, trash, etc.). This includes, but will not be limited to, preventing cross contamination of waste streams and quality control procedures to ensure hazardous materials are not mixed with nonhazardous materials; Describe dust mitigation during site clean-up activities.
- **9.** Site Specific Health and Safety Plan (HASP).
 - a. Provide a HASP, including measures to be taken for operational and worker safety, protection of the general public, and measures to control exposure to airborne dusts, asbestos, lead-based paint, as well as hazards related to demolition activities.

- **b.** Contractor's HASP shall designate a qualified, dedicated Site Safety and Health Officer (SSHO) to be present on the Project site during the Work.
- 10. Disposal and Recycling Facilities.
 - **a.** List of proposed disposal and recycling facilities to be used and their daily capacities for this project.

SECTION 01 35 16

ALTERATION PROJECT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

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

PART 2 PRODUCTS

2.01 PRODUCTS FOR PATCHING AND EXTENDING WORK

- A. New Materials: As specified in product Sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspection, and testing products where necessary, referring to existing work as a standard.

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 PREPARATION

- A. Move, cut, or remove items as necessary for access to alterations and renovation work. Replace and restore at completion.
- B. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals and deteriorated masonry and concrete. Replace materials as specified for finished work.
- C. Remove debris and abandoned items from area and from concealed spaces.
- D. Prepare surface and remove surface finishes to provide for proper installation of new work and finishes.
- E. Close openings in exterior surfaces to protect existing work and salvage items from weather and extremes of temperature and humidity. Insulate ductwork and piping to prevent condensation in exposed areas.

3.03 INSTALLATION

- A. Coordinate work of alterations and renovations to expedite completion sequentially and to accommodate District occupancy.
- B. Remove, cut and patch work in a manner to minimize damage and to provide a means of restoring products and finishes to original or specified condition.
- C. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material with a neat transition to adjacent finishes.
- D. Restore existing and remaining plumbing, heating, ventilating and air conditioning, electrical and fire alarm systems to full operating condition and advise DISTRICT REPRESENTATIVE of any deficiencies discovered during the course of the work.
- E. Install products as specified in individual Sections.

3.04 TRANSITIONS

- A. Where new work abuts or aligns with existing, perform a smooth and even transition. Patched work shall match existing adjacent work in texture and appearance.
- B. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to DISTRICT REPRESENTATIVE for a satisfactory resolution.

3.05 ADJUSTMENTS

- A. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls and ceilings to a smooth plane without breaks, steps or bulkheads.
- B. Where a change of plane of 1/4 inch or more occurs, request instructions from DISTRICT REPRESENTATIVE.
- C. Trim existing doors as necessary to clear new floor finish. Refinish trim as required.
- D. Fit work at penetrations in fire-rated assemblies as specified in "Cutting and Patching" section.

3.06 REPAIR OF DAMAGED SURFACES

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

3.07 FINISHES

- A. Finish surfaces as specified in individual product Sections.
- B. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

3.08 CLEANING

A. Conform to "Contract Closeout" requirements.

SECTION 01 45 00

QUALITY CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Quality assurance and control of installation
- B. Reference Standards
- C. Field Samples
- D. Mock-up
- E. Project Inspector
- F. Permits and Fees
- G. Verified Reports
- H. Manufacturers' field services and reports

1.02 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions and workmanship to produce work of specified quality.
- B. Comply fully with manufacturers' instructions including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from District Representative before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Where experience minimums for workmen, applicators, companies or manufacturers are required in individual sections, written certification and documentation substantiating such minimums shall be submitted and approved by the District Representative, when requested.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.03 REFERENCE STANDARDS

- A. Conform to reference standard by date of issue current on date of Contract Documents.
- B. Obtain copies of standards when required by Contract Documents.
- C. Should specified reference standards conflict with Contract Documents, request clarification from the District Representative before proceeding.

D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.04 FIELD SAMPLES

- A. Install field samples at the site as required by individual specifications Sections for review by District Representative.
- B. Accepted samples represent a quality level for the Work.
- C. Where field sample is specified in individual Sections to be removed, clear area after field sample has been accepted by District Representative and is no longer required for reference.

1.05 MOCK-UP

- A. Tests will be performed under provisions identified in this section.
- B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals and finishes.
- C. Where mock-up is specified in individual Sections to be removed, clear area after mock-up has been accepted by District Representative and is no longer required for reference.

1.06 PROJECT INSPECTOR

- A. An Inspector, herein referred to as the "Project Inspector" or "Inspector of Record", will be employed by the District and approved by Office of Regulation Services, Division of State Architect (ORS/DSA) in accordance with Part 1, Title 24, Section 4-333, California Code of Regulations. His duties are described in Part 1, Title 24, Section 4-342, CCR. His duties are also required and defined in Sections 17309, 17311, 81141 and 81143 of the California Education Code as they relate to schools.
- B. The work of construction in all stages of progress shall be subject to the personal continuous observation of the Inspector of Record (IOR). He shall have free access to any or all part of the work at any time. The Contractor shall furnish the Inspector reasonable facilities for obtaining such information as may be necessary to keep him fully informed respecting the progress and manner of the work and the character of the materials. Inspection of the work shall not relieve the Contractor from any obligation to fulfill the requirements of this Contract.

1.07 VERIFIED REPORTS

A. Contractor shall comply with Part 1, Title 24, Sections 4-336 and 4-343, California Code of Regulations and issue verified reports through the Architect as required.

1.08 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment and as applicable and to initiate instructions when necessary.
- B. Manufacturers' Representatives shall report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- C. Submit report of observation to Architect for review.

SECTION 01 45 15 HEALTH AND SAFETY REQUIREMENTS

PART 1 – GENERAL

1.01 SECTION INCLUDES:

- **A.** Summary
- **B.** References
- C. Contractor's Responsibility for Health and Safety
- **D.** Submittals
- E. Notifications
- F. Equipment and Facilities
- **G.** Personal Protective Equipment
- H. Other Health and Safety Equipment
- I. Training
- J. Work Planning and Meetings
- K. Engineering Controls
- L. Monitoring
- M. Evaluation of Performance
- N. Site Security Other Safety Considerations
- O. Work by Others
- P. EHS Incident Report Form
- Q. Hot Work Permit Form
- R. Job Safety and Hazard Analysis Form

1.02 SUMMARY:

A. This Section includes requirements for Health and Safety during performance of Work, including identification of applicable Laws and Regulations, Submittals, notification requirements, and Health and Safety Specifications.

1.03 REFERENCES:

- **A.** Applicable regulations and publications include, but are not limited to, the following:
 - 1. ANSI, Emergency Eyewash and Shower Equipment, Z358.1, 1981.
 - 2. ANSI, Practice for Occupational and Educational Eye and Face Protection, Z87.1, 1979.
 - 3. ANSI, Protective Footwear, Z41.1, 1983.
 - 4. DOT Standards and Regulations, 49 CFR 171, 49 CFR 172 and 49 CFR 214.
 - 5. NFPA, Flammable and Combustible Liquids Code, NFPA 30, most recent revision.
 - 6. OSHA, Title 29 CFR Part 1910, Occupational Safety and Health Standards, and Title 29 CFR Part 1926, Safety and Health Regulations for Construction Sites.
 - 7. USEPA, Health and Safety Requirements for Personnel Engaged in Field Activities, USEPA Order No. 14402.
 - 8. USEPA, Standard Operating Safety Guidelines, November 1984.
 - 9. Title 8, California Code of Regulations, Section 1532.1, Lead. Cal/OSHA
 - 10. Title 8, California Code of Regulations, Section 1529. Asbestos. Cal/OSHA
 - 11. Title 8, California Code of Regulations, Section 1529(I)(2), Asbestos Waste Disposal, Cal/OSHA

12. South Coast Air Quality Management District (SCAQMD) regulations including but not limited to Rule 402, 403, and 1403)

Where two or more regulations/documents conflict, the one(s) offering the greatest degree of protection shall apply.

1.04 CONTRACTOR'S RESPONSIBILITY FOR HEALTH AND SAFETY:

- **A.** Contractor shall comply with any and all state, federal, and local Ordinances, Laws and Regulations.
 - Contractor shall be responsible for the Health and Safety of Contractor's employees, its Subcontractors, Suppliers, agents, inspectors, visitors, the general public, and any others associated with or interacting with Contractor who provides labor, goods, or other services on the Project site.
 - 2. Contractor shall be responsible for emergency response planning and notification, and for actual response to any and all emergencies that may occur during the course of the Work, including emergencies that may occur when Contractor is not present at the Project site.
 - 3. Contractor is responsible for communicating daily with the District Representative regarding Health and Safety issues for the District Representative's safe conduct of the District Representative's duties, but such communication shall not imply any duty or responsibility on the part of the District Representative with regard to Health and Safety of Contractor's employees, its Subcontractors, Suppliers, the general public, or others. The District Representative's responsibility and duty with regard to Health and Safety shall be limited to the District Representative's employees. Contractor shall have responsibility and duty to the District Representative to communicate Health and Safety issues accurately and in a timely manner to allow the District Representative to take appropriate actions to protect the District Representative's employees and the Owner's employees.
 - 4. Contractor shall designate a dedicated Site Safety and Health Officer (SSHO) on the Project site during the Work.
 - A. The SSHO duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs associated with the Contractor's activities at the Project site. The designated SSHO shall be certified in applicable OSHA Construction Safety training. At a minimum, the designated SSHO shall have at least 1 year of experience as a SSHO on demolition and construction sites. Contractor's SSHO shall be solely dedicated to Health and Safety issues from the start of the site activities through completion.
 - B. The SSHO shall enforce the requirements of safety for all Contractor personnel onsite at all times. The SSHO shall ensure that all Contractor personnel, Subcontractor personnel, and Contractor visitors follow the Contractor's site Health and Safety Plan (HASP), including wearing the designated level of PPE. If the SSHO elects to require a higher level of protection than that specified in the District Representatives HASP, the extra costs associated with such higher level shall be borne by Contractor, unless such extra costs are approved in advance in writing by the District Representative.
 - **C.** Prior to mobilization and continually through the duration of the Work, the SSHO shall inspect the Project site and document area-specific and worker-specific protection requirements.

- **D.** After mobilization, the SSHO shall monitor activities and shall document the need for additional worker protection as required, based on activities performed and Action Levels specified in the HASP.
- **E.** The SSHO shall verify that all activities are performed in accordance with the HASP and all federal, state, local, and Health and Safety standards, Laws and Regulations, and guidelines.
- F. In the event of a health or safety risk, as determined by the SSHO or by other Contractor personnel or by the District Representative, Contractor shall not proceed with the Work until a method for handling the risk has been determined in consultation with the District Representative and implemented. Any health or safety risk resulting in a stoppage of Work shall be reported immediately to the District Representative.

Contractor shall be responsible for implementing a behavior-based safety process and providing site training, observation, and feedback for Contractor personnel employed at the Site.

District Representative shall provide the Contractor with a copy of the District Representative's HASP as a reference. Contractor shall be responsible for preparing their own HASP under which their employees shall work.

1.05 SUBMITTALS:

- A. Contractor shall prepare and submit a HASP to the District Representative as a part of the TEP. The Contractor shall follow all applicable local, state, and federal Health and Safety standards, Laws and Regulations, and guidelines implemented through, but not limited to, CalOSHA, SCAQMD, OSHA and USEPA. Where these are in conflict, the most stringent requirement shall be followed. The following points shall be addressed in the Contractor's HASP:
 - Names of key personnel and alternates responsible for Health and Safety, including a Contractor Health and Safety Representative and SSHO. The District Representative must approve the SSHO.
 - A Health and Safety risk or Task Hazard Analysis (THA) associated with each portion of the Work (i.e., list potential hazards), including THAs for abatement, demolition, construction of retaining structures, loading and transportation of demolition debris and materials, decontamination, truck traffic, and restoration.
 - 3. A requirement that Contractor locate Underground Facilities by using Southern California "Dig Alert" procedures prior to the start of the Work.
 - 4. PPE to be used for each of the site tasks and operations being conducted, as required by Cal/OSHA and 29 CFR Subpart I, and 29 CFR 1926.
 - 5. Frequency and types of dust monitoring and instrumentation to be used by the Contractor, including methods of maintenance and calibration of monitoring and sampling equipment. Dust monitoring requirements will be determined by the South Coast Air Quality Management District (SCAQMD Rule 403).
 - 6. Corrective actions and upgrading of PPE based on monitoring of dust, with specific Action Levels identified.
 - 7. Site control measures in accordance with the control program required Cal/OSHA and OSHA.
 - 8. Decontamination procedures in accordance with Specifications.
 - 9. An emergency response plan meeting federal, state, and local requirements for safe and effective responses to emergencies, including the necessary PPE and other equipment. Explanation of potential emergencies and contingency plan of

- action, including description of the route to the nearest appropriate hospital, hospital route map, and posting of emergency telephone numbers at the Project site.
- 10. If confined space entry is required, include confined space entry procedures in accordance with Cal/OSHA Title 8, Subchapter 7 § 5157 Permit Required Confined Spaces and a list of all anticipated confined space entries required by Contractor in the course of the Work.
- 11. A spill containment program meeting the requirements of all applicable local, state, and federal Health and Safety standards.
- 12. A list of Health and Safety and emergency equipment available on the Site.
- 13. A description of engineering controls used to reduce the hazards of equipment operation.
- 14. Training for emergency response procedures as outlined in the District Representative's HASP.
- 15. Heat stress program consistent with the references provided in the District Representative's HASP.
- 16. Cold stress program consistent with the references provided in the District Representative's HASP.
- 17. Lockout/Tagout where the operation of machinery and/or equipment in which the unexpected energization on start up or the release of stored energy could cause injury to personnel.
- 18. Measures in place to ensure accountability of the location of all workers onsite at all times specifically to prevent workers from entering into unsafe areas such as buildings being demolished;
- 19. Measures in place to verify that unauthorized personnel such as passersby and homeless personnel have not entered the site prior to beginning of demolition in the morning, after lunch or other times when the site is momentarily left unattended:
- 20. Securing the site each night to ensure there are no large pieces of metal, brick, concrete, etc. that might fall on workers during the next shift or unauthorized people that might enter the site after hours;
- 21. Ensuring that all holes and pits where personnel might fall or trip are covered, backfilled fenced or barricaded as needed to prevent injuries;
- 1.06 Contractor's Daily Construction Report, submitted in accordance with Specifications Section 01330, shall include a summary of daily safety issues and a summary of Contractor's Daily Safety Meeting.
 - A. Contractor shall submit weekly safety reports that include:
 - The names of all Contractor and Subcontractor personnel employed at the Site at any time during the week, and the names and duties of key personnel including Contractor's Project Manager, Project Superintendent, SSHO, and all competent personnel.
 - 2. A summary of all Health and Safety incidents describing any medical treatment that was provided during the week, the current Work status of any individuals affected the names of individuals who may have observed the incident, and actions taken by Contractor to address the unsafe act or unsafe condition.
 - 3. A summary of all Health and Safety near-misses or observations providing an opportunity for shared learning and future hazard avoidance. For any Health or Safety incident or near-miss, list the date, the nature of the incident or near-miss, and the names of individuals involved.
 - 4. The total number of labor hours worked at the Site during that week.

- Internal Health and Safety audits performed by the Contractor as part of the Contractor's HASP.
- 6. Results of Contractor behavioral observation and feedback evaluations as described in the District Representative's HASP.
- **B.** Contractor shall submit documentation of training and experience for the designated competent persons.
- **C.** Contractor shall maintain all required and applicable training records on-site including, but not limited to those specified in Part 3.01 (A) of this Section.
- **D.** Contractor shall submit a Hot Work Permit for any torch cutting, or activities that generate sparks. If the Contractor does not have a permit format readily available, they may request a permit from the District Representative.
- **E.** Contractor shall conduct a THA for significant activities and submit the documentation to the District Representative for review prior to the start of the activities. Contractor's THA shall be submitted on the THA forms attached to this Section, or other form acceptable to the District Representative.
- **F.** Contractor shall submit copies of all daily equipment inspections completed.

1.07 NOTIFICATIONS:

- A. Contractor shall immediately (within 30 minutes) verbally report to the District Representative the occurrence of any and all Health and Safety incidents. A Supervisor's Accident/ Incident Report (SAIR), which may be requested from the District Representative, shall be submitted within 24 hours of occurrence of the incident or issue.
- B. Contractor shall immediately and fully investigate any such incident or near-miss and conduct a root cause analysis, and shall submit to the District Representative, the Contractor's written corrective action plan for such incident within one day after the incident occurs in accordance with Specifications Section 01330 Submittal Procedures.
- C. Contractor shall notify the District Representative in writing at least 5 days prior to bringing any hazardous material, equipment, or process to the site, or using the same on the Site. Contractor shall provide the District Representative with a MSDS for all chemicals brought on to the Site.
- D. Contractor shall immediately notify the District Representative in writing of any hazard that Contractor discovers or observes on the site and corrective measures planned or taken to eliminate or minimize such hazard. Hazard reporting will be completed as a Near Miss Report as described in 1.05(C)(3) of this Section.

PART 2 - PRODUCTS

2.01 EQUIPMENT AND FACILITIES:

A. Contractor shall provide all equipment, temporary facilities, and personnel required to perform activities onsite safely in accordance with all Laws and Regulations and standards, and with the Contractor's HASP.

2.02 PERSONAL PROTECTIVE EQUIPMENT:

- A. The appropriate level of PPE shall be determined by the Contractor for specific tasks as described in the Contractor's HASP. If hazards are identified that require a level of protection greater than Level D (defined in paragraph C below), Work shall be suspended and the District Representative notified. The Contractor's SSHO, in consultation with the District Representative, shall determine what actions are required prior to restarting Work. Contractor shall determine and document the appropriateness of suggested minimum PPE requirements for Contractor's employees and others at the Project site.
- B. Contractor shall furnish and maintain materials and equipment for the Health and Safety of Contractor employees, its Subcontractors, Suppliers, and visitor personnel. Contractor shall

provide all required Health and Safety equipment, first aid equipment, tools, monitoring equipment, PPE, and ancillary equipment and methods required to ensure workers' Health and Safety and to comply with the Contractor's HASP. District Representative will furnish PPE and monitoring for District Representative's employees.

- C. Level D protection will be required at all times while onsite by all personnel and visitors. Level D PPE consists of:
 - 1. Hard hat
 - 2. Steel-toed boots
 - 3. Safety glasses with permanent side shields
 - 4. Work clothes (long pants, shirts with sleeves)
 - 5. High visibility reflective safety vests
 - 6. Hearing protection (as needed to prevent exposure exceeding 85 dB level) if noise level warrants.
- D. In most cases, Level D will be the maximum allowed level of PPE. Level C may be required as certain hazards are faced provided that personnel are properly trained and certified. Contractor shall notify District Representative immediately when upgrades to Level C are employed by the Contractor.
- E. In cases where the Owner requires additional PPE, the District Representative will notify the Contractor of these additional requirements in advance of mobilization so that Contractor may obtain the necessary equipment.

2.03 OTHER HEALTH AND SAFETY EQUIPMENT:

- **A.** Contractor is required to have the following equipment available on the Site for the Health and Safety of Contractor, Subcontractors, Suppliers, and visitors:
 - **1.** First aid kits
 - 2. Fire suppression equipment (appropriate to location and type of flammable materials present). Equipment will be certified ready for use within the previous twelve months and will also have been inspected each month; documentation supporting certification and inspections will be available for review.
 - 3. Emergency eyewash facilities meeting OSHA specifications
 - **4.** Other equipment or supplies as determined to be necessary or prudent by Contractor or the District Representative
 - **5.** Flammable liquids storage cabinet(s), if necessary
 - **6.** Fall protection equipment appropriate for the hazards on the project
 - **7.** Heavy blankets

PART 3 - EXECUTION

3.01 WORKER QUALIFICATION:

- **A.** Contractor shall provide the following training to each worker, unless otherwise specified:
 - 1. Cal OSHA, OSHA, AHERA, and or California Department of Public Health (CDPH) compliant worker training as required by regulations including but not limited to CCR Title 8, 29 CFR, and 40 CFR.
 - **2.** Current cardiopulmonary resuscitation (CPR) and first aid certification for at least two workers assigned to Work on the site.
 - **3.** Confined Space Entry Training for workers entering confined spaces.
 - **4.** Contractor shall designate one "competent person" for Demolition as defined by 29 CFR Part 1926.850.
 - A. For one who is assigned the role of a "competent person," documentation of sufficient and relevant training and experience to perform the assigned duties

- and responsibilities of that role. As defined in 29 CFR 1926.32(f), the competent person shall be "one who is capable of identifying existing and predictable hazards, and who has authority to take prompt corrective measures to eliminate them."
- B. Relevant training and experience shall be in the same type of Project activities included in the Work under this contract.
- C. Training as required for Asbestos and Lead abatement workers

3.02 WORK PLANNING AND MEETINGS

- a. Contractor and the District Representative shall conduct a daily Health and Safety meeting, prior to beginning Work for that day, to address Health and Safety issues, changing site conditions, activities and personnel. All Contractor and Subcontractor employees working on the Site on that day shall attend the meeting. All meetings shall be documented and attendees shall sign acknowledgement of their presence at the meeting. Daily meetings shall include an evaluation of the Work to be conducted, the hazards associated with the work, and control measures being used to reduce exposure.
- b. Contractor personnel who are not in attendance for the daily Health and Safety meeting shall be briefed on the meeting notes upon arrival at the Site and prior to commencing their Work activities. Employees shall sign acknowledgement of briefings prior to commencing Work.
- c. Contractor shall hold and document additional safety meetings at the start of each major task and whenever site conditions affecting personnel safety change. Any major task undertaken shall require the completion, or modification, of a THA as described in this Section.

3.03 ENGINEERING CONTROLS

- **A.** Contractor shall, at a minimum, provide the following Engineering controls to reduce the hazards of equipment operation and exposure during demolition and lead and asbestos abatement activities:
 - 1. Roll-over cages for bulldozers, back hoes, loaders, and tractors
 - 2. Back-up alarms for all trucks and moving equipment
 - 3. Wetting of media or other means to control dust during the Work
 - 4. Decontamination of equipment in accordance with Specifications.
 - 5. Enclosures for abatement activities.
 - 6. Barricades around restricted areas.
 - 7. Others as determined to be necessary or prudent by Contractor or as directed by the District Representative
 - 8. Contractor shall post ground-level warning signs every 50 feet below all overhead utilities onsite.

3.04 MONITORING:

- **A.** Contractor shall perform heat exposure and cold exposure monitoring activities as required by weather conditions.
 - 1. Contractor shall perform all atmospheric monitoring of tanks, pits, sumps, vaults, and enclosures to ensure that toxic or explosive gases are not present prior to performing demolition activities or personnel entry. At a minimum, atmospheric monitoring shall include the Lower Explosive Limit (LEL), % Oxygen, and Hydrogen Sulfide gas.

2. Contractor should monitor workers for dust exposure using a personal dust monitor. Workers with the greatest likelihood of being exposed to dust, as evaluated by the SSHO, should don a personal dust monitor.

3.05 EVALUATION OF PERFORMANCE:

- a. Contractor shall routinely conduct internal safety audits on Subcontract and Subsubcontract Work sites in accordance with the Contractor's HASP. The focus of these routine audits will be on compliance with OSHA and local occupational safety regulations.
- b. Contractor shall conduct routine behavioral observations and provide immediate feedback during Work activities to promote safe behavior of Contractor employees and Subcontractor employees.

3.06 SITE SECURITY - OTHER SAFETY CONSIDERATIONS

- **A.** The Site is located in a heavily developed community, with frequent traffic on adjacent streets, and truck traffic delivering to the neighboring retail locations. Site workers, visitors, and truck drivers need to become familiar with the local traffic pattern to prevent traffic accidents and impeding traffic when entering and exiting the site.
- **B.** There is evidence of some transients and/or trespassers attempting to enter the portions of the campus.
- **C.** Site Security measures in the form of fencing, barricades and signage are critically important to maintain a safe work environment and to protect the public. The Contractor shall be responsible for maintaining adequate security measures for the duration of the project.

3.07 WORK BY OTHERS

A. District representative or consultant may perform site perimeter dust monitoring activities and monitor for emissions of nuisance dust and/or hazardous materials to areas outside the Work limits.

END OF SECTION

HEALTH AND SAFETY FORMS FOLLOW

- Hot Work Permit

Permit Valid

Client:	

Permits MUST be completed in its Entirety Before Hot Work Begins

	Yes	No
Has Project supervisor been notified of intended Hot Work?		
Does client representative need to be notified of the intended Hot Work?		
Will Hot Work impact the general public, clients, or operation employees?		
Will the intended Hot Work need to be coordinated with other contractors who may be working on the site to make them aware of any hazards and the scope of work to be performed?		
Have hazardous energy sources been identified, isolated, and locked out/tagged out before the start of the Project?		
Will Hot Work be conducted within a confined space?		
All testing equipment (i.e., CGI, oxygen meter, etc.) and firefighting equipment (i.e., extinguisher, etc.) have been checked to ensure proper operation and calibration before the start of this Project?		
Has a fire watch been designated and on station?		
Have coatings on metal surfaces been tested for ignitability and flame spread?		
Has the area been cleared of all flammable materials?		
Have all fuel sources been identified and protected?		
Has the area been restricted with proper barriers and signs?		
Has the area been tested to be certain that atmosphere is 0% LEL before starting Hot Work?		
Have flame sensitive areas and equipment (including cylinders and gas delivery lines) exposed to slag and sparks been protected by flame resistant blankets or removed from the area?		
Have all equipment and hoses been protected from falling metal structures and debris?		
Have escape routes been identified before starting work?		
Is ventilation equipment needed? Type needed:		

The Following Protective Equipment Will be Required:

	Yes	No		Yes	No
Welding Goggles/Shield Tint			Supplied Air Respirator		
Safety Boots			Head Protection		
Leather gloves			Safety Harness		
Hearing Protection			Welding Leathers – Top		
APR Cartridge			Welding Leathers - Bottom		

Permit Valid for 1 Work Day

_	
The following procedures will be applica structures. (Check all that apply and fill	able prior to Hot Work on tanks or other types of enclosed in appropriate information.)
☐ Ventilate to 0% LEL	
☐ Confined Space Entry Perm	it
☐ Mechanical Ventilation Req	uired
☐ Cold Cut Only	Method Allowed:
☐ Hot Cutting Permitted	Method Allowed:
Inert to <% Oxygen	
Approvals:	
Date	
District Representative	
Contractor's Site Safety Officer	
Fire Watch	
Performed Hot Work Employee	
File Permit in Project Work File and Hea	alth and Safety Department

SECTION 01 45 23

TESTING AND INSPECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

This Section includes CONTRACTOR's responsibilities with regard to mandatory testing and inspection services:

- A. Testing and inspection services to meet requirements of the California Code of Regulations (CCR), Title 24, California Building Code (CBC).
- B. Tests of materials required by the DISTRICT's DSA certified testing agency as set forth in Section 4-335 of the California Building Standards Administrative Code.
- C. Inspection by DSA certified inspectors, employed by the DISTRICT in accordance with the requirements of California Building Standards Administrative Code, assigned to the Work with duties specifically defined in Section 4-333(b).

1.02 TESTING AGENCY

- A. DISTRICT will select an independent testing agency approved by the California Division of the State Architect to conduct tests, sampling, and testing of materials.
- B. Selection of material to be tested shall be by the agency or the INSPECTOR OF RECORD (IOR) and not by CONTRACTOR.
- C. Any material shipped from the source of supply prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice from IOR that such testing and inspection is not required shall not be incorporated into the Work.
- D. DISTRICT will select and directly reimburse testing agency the costs for all DSA and/or DSA required tests and inspections, but may be reimbursed by CONTRACTOR for such costs as noted in related portions of the Contract Documents.
- E. The independent testing agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work. The testing agency shall not perform any duties of CONTRACTOR. The agency does not have authority to stop the Work.

1.02 TEST REPORTING

A. Test reports shall include all tests performed, regardless of whether such tests indicate the material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Records of special sampling operations as required shall also be reported. Reports shall indicate the material or materials were sampled and tested in accordance with requirements of CBC, Title 24, Parts 1 and 2. Test reports shall indicate specified design strength. They shall also definitely state whether or not material or materials tested comply with the specified requirements. When requested by DISTRICT or Architect, provide interpretation of test results.

- B. After each inspection and test, testing agency will promptly submit one (1) copy of laboratory report to the following distribution list:
 - Division of State Architect
 - 2. District. (or District Representative if applicable)
 - 3. Project Inspector.
 - Architect.
 - 5. Structural Engineer.
 - 6. Mechanical and Electrical Engineers (Related Tests and Inspections).
 - 7. Contractor
- C. Each test report will include:
 - Date issued.
 - 2. Project title, Architect's number, DSA application and file number.
 - 3. Name of agency's inspector.
 - 4. Date and time of sampling or inspection.
 - 5. Identification of product and Specifications Section.
 - 6. Location in the Project.
 - 7. Type of inspection or test.
 - 8. Date of test and ambient conditions at time of test.
 - 9. Results of tests.
 - 10. Statement of Conformance with Contract Documents.
 - 11. Signature by Registered Professional Engineer licensed in California.
 - 12. Statement that tests were conducted in accordance with Parts 1 and 2, Title 24, California Code of Regulations.
- D. Immediately upon testing agency determination of a test failure, the agency will telephone the results of the test to the ARCHITECT. On the same day, the agency will send written test results to those on the distribution list.

1.03 TEST AND INSPECTION VERIFICATION REPORT

A. Testing agency shall submit to the Division of the State Architect a verified report in duplicate, with copy to the DISTRICT, covering each test which is required to be performed by that agency during progress of the Work. Such report shall be furnished each time construction on the Work is suspended, covering tests up to that time, and also prior to Final Completion of the Work, covering all tests.

1.04 INSPECTION BY DISTRICT

- A. DISTRICT and its representatives shall at all times have access, for purpose of inspection, to all parts of the Work and to shops wherein the Work is in preparation, and CONTRACTOR shall at all times maintain proper facilities and provide safe access for such inspection.
- B. DISTRICT shall have the right to reject materials and/or workmanship deemed defective Work, and to require correction. Defective workmanship shall be corrected in a satisfactory manner and defective materials shall be removed from the premises and legally disposed of, all without charge to DISTRICT. If CONTRACTOR does not correct such defective Work within a reasonable time, fixed by written notice and in accordance with the terms and conditions of the Contract Documents, DISTRICT may correct such defective Work and proceed to recover costs in accordance with related Articles of the Contract Documents.

1.05 INSPECTOR OF RECORD

- A. INSPECTOR OF RECORD (IOR) is employed by DISTRICT in accordance with requirements of Title 24 of the California Code of Regulations with their duties specifically defined therein.
- B. Inspection of Work shall not relieve CONTRACTOR from any obligation to fulfill all of the terms and conditions of the Contract Documents.
- C. CONTRACTOR shall be responsible for scheduling times of inspection, tests, sample taking, and similar activities of the Work.

1.06 CONTRACTOR RESPONSIBILITIES

- A. Cooperate with testing agency personnel, DISTRICT's Representative, INSPECTOR OF RECORD (IOR), CONSTRUCTION MANAGER and the ARCHITECT, to provide access to the Work including weekends and after work hours and to manufacturer's facilities.
- B. Provide incidental labor, materials and facilities to provide, at all times, safe access to Work to be tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, storage and curing of test samples.
- C. Notify CONSTRUCTION MANAGER, IOR and testing agency 24 hours in advance of required inspections or sampling, and 48 hours in advance of special testing or inspections. Notify DISTRICT in advance of the manufacturer or fabrication of materials in time to plan and schedule required testing at the source of supply. Extra expenses resulting from a failure to notify the agency shall be borne by the CONTRACTOR. Whenever extra expenses are indicated to be borne by the CONTRACTOR, they will be charged to the CONTRACTOR by Change Order.
- D. The DISTRICT, IOR, CONSTRUCTION MANAGER or the ARCHITECT shall have the right to reject materials and workmanship which are defective or to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without cost to the DISTRICT. Extra expenses for retesting and re-inspection shall be borne by the CONTRACTOR. If the CONTRACTOR fails to correct such rejected work within a reasonable time, fixed by written notice, the DISTRICT will correct same and charge the expense to the CONTRACTOR by Change Order.
- E. Should it be considered necessary or advisable by the DISTRICT at any time before date of substantial completion of the entire work to make an examination of work already completed by removing or tearing out the same, the CONTRACTOR shall on request promptly furnish all necessary facilities, labor and materials. If such work is found to be defective in any respect due to fault of the CONTRACTOR or his subcontractor, all extra expenses shall be borne by the CONTRACTOR. If, however, such work is found to meet the requirements of the Contract, the additional cost of labor and material necessarily involved in the examination and replacement costs shall be allowed the CONTRACTOR by Change Order.
- F. When changes of construction progress schedule are necessary during construction, coordinate such changes with the testing agency as required.

- G. When the testing agency is ready to test according to the established schedule, but is prevented from testing or taking specimens due to incompleteness of the Work, extra charges for testing attributable to the delay shall be borne by the CONTRACTOR.
- H. CONTRACTOR is responsible for compliance to all applicable local, state, and federal regulations regarding codes, regulations, ordinances, restrictions, and requirements, regardless of the provisions of this Section.
- I. Inspecting and testing performed exclusively for the CONTRACTOR's convenience shall be the sole responsibility and expense of the CONTRACTOR.

1.07. TESTS AND INSPECTIONS

- A. The following tests and inspections do not limit inspection of the Work but are required by DSA, other agencies, or are required in related Sections of the Contract Documents. The list may not be all inclusive.
- B. Excavations, Foundations and Retaining Walls CBC, Chapter 18A and 33A
 - 1. Inspection:

a.	Earth Fill Compaction	1801A.2
b.	Inspection of Driven Pile Installation	1809A.6
C.	Inspection of Caissons	1809A.7

- C. Concrete CBC, Chapter 19A:
 - Materials:

a.	Test of Materials	1903A.1
b.	Portland Cement Tests	1903A.2
C.	Concrete Aggregate	1903A.3
d.	Shotcrete Aggregate	1903A.3; 1924A.3
e.	Reinforcing Bars	1903A.5.1; 1903A.5.2;
		1903A.5.3; 1903A.5.4;
f.	Prestressing Steel & Anchorage	1903A.5.5;
g.	Structural Steel, Steel Pipe or tubing	1903A.5.6
h.	Admixtures	1903A.6
d.	Batch Plant Inspection	1929A.4
e.	Waiver of Batch Plant	1929A.5, 1929A.6
	Inspection & Tests	

2. Quality:

a.	Proportions of Concrete	1905A.1; 1905A.2; 1905A.3;
		1905A.4; 1905A.5; 1905A.6,
b.	Mixing and Placing	1905A.1.1; 1905A.1.2;
		1905A.1.3
C.	Concrete Testing	1905A.6;
d.	Test Of Shotcrete	1905A.6; 1924A.10
e.	Composite Construction Cores	1929A.8
f.	Gypsum Concrete Strength Tests	1925A.1; 1929A.13
a.	Insulating Concrete Tests	DSA IR 27-1

Inspection:

a. Project Site Inspection 1905A.7.1

b. Batch Plant or Weigh-

master Inspection: 1929A.4, 1929A.5; 1929A.6

c. Pre-stressed Concrete Inspection 1929A.9d. Shotcrete Inspection 1929A.10

e. Reinforcing Bar Welding Inspection 1929A.12, 1903A.10

D. Lightweight Metal - CBC, Chapter 20A:

Materials:

a. Alloysb. Identification2001A.22001A.4

2. Inspection:

a. Welding 2004A.8

E. Masonry - CBC, Chapter 21A:

Materials:

a. Masonry Units
 b. Portland Cement, Lime
 c. Mortar & Grout Aggregates
 2102A.2, 4, .5, .6
 2102A.2.2, .3; 2103A.2
 2102A.2.1; 2103A.4.3

d. Reinforcing Bars 2102A.2.10; 1903A5,

2102A.2.10

2. Quality:

a. Portland Cement Tests 1903A.2, 1929(A.1)

b. Mortar & Grout Tests 2105A.3.4.2

c. Masonry Prism Tests 2105A.3.2, 2105A3.5

d. Masonry Core Testse. Reinforcing Bars2105A 3.12102A.2.10

3. Inspection:

a. Reinforced Masonry 2105A

b. Reinforcing Bar Welding 1903A.10, 1929A.12

Inspection

F. Steel - CBC, Chapters 17A & 22A:

1. Materials:

a. Structural Steel, 2202A.1, 2231A.1

Cold Formed Steel

b. Material Identification 2203.A4

2. Inspection and Tests:

a. Test of Structural Steel 2231.A

b. Tests of High Strength Bolts, 2231.A.2 Nuts, and Washers

c. Tests of End Welded Studsd. Shop Fabrication Inspection2231.A.4

e. Welding Inspection 2231.A.5

f.	Non-destructive Weld Testing	1703	3A
g.	High Strength Bolt Inspection	223	1A.6
ĥ.	Steel Joist Load Tests	223	1A.7
i	Spray applied fire resistance mate	rials	1701

- G. Wood CBC, Chapter 23A:
 - Materials:

a.	Lumber and Plywood Grading	2303A.1, 2304A
b.	Glue-Laminated Members	2303A.2, 2304A

2. Inspection:

a.	Glue-Laminated Fabrication	2337A.1
b.	Timber Connectors	2337A.2
C.	Manufactured Trusses	2337A.3

- H. Exterior Wall Coverings CBC, Chapter 14A, 25A:
 - 1. Materials:

a. Portland Cement Plaster 2508A, 2509A, 2510A

2. Inspection:

a. Veneer Inspection 1405A

- I. Clay or Concrete Roof Tile CBC Chapter 15A:
 - 1. Materials:

a. Clay or concrete tile 1507.7

2. Inspection: District Requirement

1.08 EARTHWORK

- A. The DISTRICT's testing agency, under the direction of the Geotechnical Engineer of Record, will provide continuous inspection of fill and will field test fill and earth backfill as placed and compacted, and inspect excavations and subgrade before concrete is placed and provide periodic inspection of open excavations, embankments, and other cuts or vertical surfaces of earth. Geotechnical Engineer will sign all reports of observation and testing.
- B. Unsatisfactory materials shall be removed from the site. Materials installed improperly shall be removed, replaced, moisture adjusted, re-compacted and otherwise re-worked to achieve a satisfactory installation.
- C. Imported fill materials from offsite or onsite shall be inspected and tested at the source before importing and placing, and a report issue attesting to the satisfactory nature of the material.
- D. The agency will perform all sampling and testing of materials and testing of work in place as required by the DSA Testing and Inspection Listing, or otherwise required. Testing will be performed in accordance with ASTM or California-required test methods.

1.09 CONCRETE

- A. The DISTRICT's testing agency will conduct one-time sampling of aggregate and preparation and testing of concrete mix design for each strength and/or aggregate size specified. Testing costs for additional mix designs shall be borne by the CONTRACTOR.
- B. Continuous plant inspection and other concrete installation tests will be conducted by the DISTRICT's testing agency. However, costs for retesting of materials that do not meet specification requirements shall be borne by the CONTRACTOR.

1.10 ROOFING

- A. Testing agency will conduct inspection and testing of built-up bituminous roofing in accordance with manufacturer's instructions, including:
 - 1. Attend pre-roofing conference.
 - 2. Check deck surfaces prior to roofing application to verify that substrate is in satisfactory condition to receive roofing.
 - 3. Check kettle temperature control system and monitor kettle control temperatures.
 - 4. Inspect and test materials including softening point of asphalt to ensure conformance with specifications.
 - Check for excessive moisture.
 - Observe roofing application to ensure conformance with specifications.
 - Supervise cutting and repair of cut-out tests and test and inspect cut-out samples for conformance with specifications.

SECTION 01 52 00

CONSTRUCTION FACILITIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Furnishing and installing temporary facilities as indicated, specified or required for proper performance of the Work.

1.02 RELATED SECTIONS

- A. Temporary. Storm Water Pollution Control
- B. Temporary Controls
- C. Construction Waste Management and Disposal

1.03 GENERAL

- A. CONTRACTOR shall provide, maintain, relocate, and remove temporary facilities, including buildings, field office, toilets, utilities, storage units, fencing, barricades, chutes, elevators, hoists, scaffolds, railings and other facilities or services as required. CONTRACTOR shall be responsible for all use charges for the items provided as specified herein.
- B. CONTRACTOR shall furnish, install, maintain and pay for all necessary permits, inspections, temporary lines and connections and metering devices, use charges, move-ins/outs, connection fees, service, extension and distribution, deliveries/pickups, rentals, storage, transportation, taxes, labor, insurance, bonds, materials, equipment and all other required miscellaneous items for the temporary utilities systems required for completion of the work, and, upon substantial completion of the Work, remove all such temporary utilities systems and appurtenances.

1.04 REGULATORY REQUIREMENTS

- A. Comply with governing ordinances, regulations and utility company requirements and recommendations.
- B. Comply with pollution and environmental protection codes and regulations for use of water and energy, for discharge of waste and storm drainage from the project site, and for control of dust, air pollution and noise.
- C. Temporary construction shall conform to requirements of State, County and local authorities and insurance requirements which pertain to operation, health, safety and fire hazard. Provide items necessary to comply with such requirements, whether or not specifically indicated or specified in the Contract Documents.

1.05 TEMPORARY WATER

A. Section not used

1.06 TEMPORARY SANITARY FACILITIES

- A. CONTRACTOR shall provide portable chemical toilet facilities, in quantities based on total number of workers and shall be in accordance with CAL/OSHA standards.
- B. Portable chemical toilet facilities shall be maintained with adequate supplies and in a clean and sanitary condition and shall be removed from the Project site upon Substantial Completion of the Work.
- C. CONTRACTOR employees shall not use school toilet facilities.
- D. CONTRACTOR will define appropriate areas for break and lunch periods and will provide suitable containers for placement of trash in those areas. Areas shall be maintained clean and orderly.

1.07 TEMPORARY TELEPHONE SERVICE

Section not used

1.08 TEMPORARY ELECTRICAL POWER

- A. CONTRACTOR shall provide temporary electrical service for construction, temporary facilities, and connections for construction equipment requiring power or lighting, at all points required for the Work, for inspection and safety.
- B. CONTRACTOR shall ensure that welding equipment is supplied by electrical generators, not by the utility-furnished electrical power.

1.09 TEMPORARY LIGHTING

- A. CONTRACTOR shall provide and maintain all temporary lighting as necessary to provide safe access, performance and inspection of the work.
- B. Light levels provided shall be a minimum of 20 foot candles inside buildings and 5 foot candles outside for inspection, safety and security.
- 1.10 TEMPORARY HEATING, VENTILATION AND AIR CONDITIONING (HVAC)
 - A. Section not used
- 1.11 TEMPORARY GAS
 - A. Section not used.

1.12 CONSTRUCTION EQUIPMENT AND FACILITIES

A. CONTRACTOR shall erect, equip, and maintain construction equipment in strict accordance with applicable statues, laws, ordinances and regulations of authority having jurisdiction.

B. CONTRACTOR shall provide, maintain and remove upon completion of the Work all temporary rigging, scaffolding, hoisting equipment, rubbish chutes, ramps, stairs, runways, platforms, ladders, railings and other temporary construction as required for all work hereunder.

1.13 FIELD OFFICES

A. Section not used

1.14 STORAGE AND STAGING

- A. Operations of the CONTRACTOR, including storage of materials, shall be confined to areas approved by DISTRICT. CONTRACTOR shall be liable for damage caused by him during such use of property of the DISTRICT or other parties.
- B. Storage facilities shall provide protection of products from excessive cold, heat, moisture, humidity or physical abuse as specified in the respective sections for the products stored.
- C. CONTRACTOR shall save the DISTRICT, along with its respective officers, employees and agents, and the ARCHITECT and his employees, free and harmless from liability of any nature or kind arising from any use, trespass or damage occasioned by his operations on assigned premises of third parties.

1.15 FENCES AND BARRICADES

- A. If trenching, placing concrete, or engaged in work that could present a danger to students, staff or the public, CONTRACTOR shall install temporary Project site security fence(s) and/or barricade(s), as specified herein or indicated on Drawings, or as required for safety and security. New or used material may be furnished. Security of Project site and contents is a continuous obligation of CONTRACTOR.
 - 1. Section not used
- B. Other Temporary Enclosures & Barricades
 - 1. Provide fences and barricades to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
 - 2. Provide lockable, temporary weather-tight enclosures at openings in exterior walls to create acceptable working conditions, to allow for temporary heating and for security.
 - Provide protective barriers around trees, plants and other improvements designated to remain. Replace any damaged materials as directed by the ARCHITECT
 - 4. Temporary partitions shall be installed at all openings where additions connect to existing buildings, and where necessary to protect areas, spaces, property, personnel, students and faculty and to separate and control dust, debris, noise, access, sight, fire areas, safety and security.

Temporary partitions shall be as designated on the Drawings or as specified by ARCHITECT. At CONTRACTOR expense and without limitation, remove and/or relocate enclosures, barriers and temporary partitions as rapidly as required in order to provide for progress of the Work.

- 5. Since the Work of this Project may be immediately adjacent to existing occupied structures and vehicular and pedestrian right of ways, CONTRACTOR shall, in his sole judgment and in accordance with applicable safety standards, provide all temporary facilities, additional barricades, protection and care to protect existing structures, occupants, property, pedestrians and vehicular traffic. CONTRACTOR is responsible for any damage, which may occur to the property and occupants of the property of DISTRICT or adjacent private or public properties which in any way results from the acts or neglect of CONTRACTOR.
- Fences and barricades must completely separate construction activities and personnel from school operations, staff, students and the public.
 Construction workers shall not interact or communicate with students or staff except in emergency or safety related situations.
- 7. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing buildings.
- 8. Protect vehicles, stored materials, site and structures from damage.

1.16 TEMPORARY DE-WATERING FACILITIES & DRAINAGE:

- A. For temporary drainage and de-watering facilities and operations not directly associated with construction activities included under individual sections, comply with de-watering requirements of applicable Division 01 sections or of sound practice. CONTRACTOR shall maintain the Work, Project site and related areas free of water.
- B. For temporary drainage and de-watering facilities and operations directly associated with new buildings, additions or other construction activities, comply with Division 01 & 02 Sections. CONTRACTOR shall be responsible for dewatering of excavations, trenches & below grade areas of buildings, structures, the Project site and related areas.

1.17 TEMPORARY PROTECTION FACILITIES:

- A. CONTRACTOR shall not change over from using temporary facilities and controls to permanent facilities until Substantial Completion, except as permitted by DISTRICT.
- B. CONTRACTOR shall provide fire protection during construction in accordance with CFC, Article 87
- C. Until permanent fire protection needs are supplied and approved by authorities having jurisdiction, CONTRACTOR shall provide, install and maintain temporary fire protection facilities of the types needed in order to adequately protect against

- fire loss. CONTRACTOR shall adequately supervise welding operations, combustion type temporary heating and similar sources of fire ignition.
- D. CONTRACTOR shall provide, install and maintain substantial temporary enclosures of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security. Where materials, tools and equipment are stored within the Work area, CONTRACTOR shall provide secure lock up to protect against vandalism, theft and similar violations of security. DISTRICT accepts no financial responsibility for loss, damage, vandalism or theft.
- E. CONTRACTOR operations shall not block, hinder, impede or otherwise inhibit the use of required exits and/or emergency exits to the public way, except as approved by the DISTRICT. CONTRACTOR shall maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for firefighting equipment and/or personnel.
- F. With approval of DISTRICT and at the earliest feasible date in each area of the Work, complete installation of the permanent fire protection facilities including connected services and place into operation and use. Instruct DISTRICT personnel in use of permanent fire protection facilities.
- G. In the event of an emergency drill or an actual emergency, designated by the sounding of the fire alarm and/or other sounding device, all construction activities must cease. CONTRACTOR shall evacuate the Work area and remain outside the Work area until permitted to return. No Work shall be conducted during the evacuation of a building or during an emergency.

1.18 TEMPORARY SECURITY AND SAFETY MEASURES:

- A. During performance of the Work in existing facilities CONTRACTOR shall provide, install and maintain substantial temporary barriers and/or partitions separating all Work areas from areas occupied by students, faculty and/or administrative staff.
- B. During performance of the Work in existing facilities and/or on a Project site occupied by students and where temporary barriers and/or partitions are not physically feasible, CONTRACTOR shall provide an employee meeting the requirements of Education Code Section 45125.2. (2) to continually supervise and monitor all employees of the CONTRACTOR and Subcontractor. For the purposes of this Section, CONTRACTOR employee shall be someone whom the Department of Justice has ascertained has not been convicted of a violent or serious felony as listed in Penal Code Section 667.5(c) and/or Penal Code Section 1192.7(c). To comply with this Section, CONTRACTOR shall have his employee submit his or her fingerprints to the Department of Justice pursuant to Education Code Section 45125.1(a).
- C. Penal Code Sections 290 and 290.4, commonly known as "Megan's Law," require, among other things, individuals convicted of sexually oriented crimes, to register with the chief of police where the convicted individual resides or with a county sheriff or other law enforcement officials. The CONTRACTOR shall check its own employees and require each Subcontractor to check its employees and report to the CONTRACTOR if any such employees are registered sex

offenders. The CONTRACTOR shall check monthly during the life of the Contract to ascertain this information and report same to DISTRICT. Before starting the Work, and monthly thereafter during the life of Contract, CONTRACTOR shall notify the DISTRICT in writing if any of its employees and/or if any Subcontractor's employees is a registered sex offender. If so, CONTRACTOR shall proceed in accordance with the previous paragraph.

1.19 TEMPORARY ACCESS ROADS AND PARKING:

- A. Due to the limited amount of on and off Project site space for the parking of staff, students and school visitors' vehicles, there will be no parking of CONTRACTOR vehicles in areas designated for school use only. CONTRACTOR shall provide legal access to and maintain CONTRACTOR designated areas for the legal parking, loading, off-loading & delivery of all vehicles associated with the Work. CONTRACTOR shall be solely responsible for providing and maintaining these requirements whether on or off the Project site.
- B. Contractor's onsite parking shall be in areas shown on the Logistics Site Plan or as otherwise designated by the DISTRICT.
- C. Temporary access roads are to be installed and maintained by CONTRACTOR to all areas of the Project site.
- D. CONTRACTOR will be permitted to utilize existing on-site roads as designated by DISTRICT. CONTRACTOR shall only utilize those entrances and exits as designated by DISTRICT, and CONTRACTOR shall observe all traffic regulations of DISTRICT.
- E. Provide and maintain access to fire hydrants, free of obstructions.
- F. Do not park or drive on concrete walks or in the new buildings at any time.
- G. CONTRACTOR shall maintain roads and walkways in a clean condition including removal of debris and/or other deleterious material on a daily basis.

1.20 TRENCHES

- A. CONTRACTOR shall comply with all applicable statutes, codes & regulations regarding trenching and trenching operations. Open trenches for installation of utility lines (water, gas, electrical and similar utilities) and open pits outside barricaded working areas shall be barricaded at all times in a legal manner determined by CONTRACTOR.
- B. Open trenches deeper than 3'-6", and not located within a public street access, shall be enclosed within an 8'-0" high chain-link fence.
- C. Trenches shall be backfilled and patch-paved within twenty-four (24) hours after approval of installation by authorities having jurisdiction or shall have "trench plates" installed.
- D. Required access to buildings shall be provided and maintained.

1.21 PROJECT SIGNAGE

- A. CONTRACTOR shall furnish and install a Project sign on the Project site at a location established by ARCHITECT. A graphical layout of the proposed sign shall be submitted to ARCHITECT and DISTRICT for review before fabrication.
- B. Sign construction shall be 10'-0" wide by 6'-0" high with 6" x 6" posts and 1" exterior grade plywood, bolted to posts.
- C. Sign lettering shall be painted white with exhibit lettering by a professional sign painter, in accordance with details reviewed by ARCHITECT. The following shall be listed on sign:
 - DISTRICT San Bernardino City Unified School District.
 - Name of School.
 - 3. Names of the Architect/Engineer and Consultants.
 - 4. Name of Prime Contractor.
 - 5. Other principal Contractors.
 - 6. Name of School Board member from District in which project is located.
- D. Except as otherwise specified herein, no other signs shall be displayed without approval of DISTRICT. At CONTRACTOR expense and without limitation remove and/or relocate Project signage and related facilities as rapidly as required in order to provide for progress of the Work.
- E. CONTRACTOR shall remove any Project signage at Substantial Completion of the Work.
- F. CONTRACTOR shall provide and install signage to provide directional, identification, and contact information to construction personnel and visitors as follows and as approved by DISTRICT.
 - 1. For construction traffic control/flow at entrances/exits, and as designated by DISTRICT.
 - 2. To direct visitors.
 - 3. For construction parking.
 - To direct deliveries.
 - 5. For Warning Signs as required.
 - 6. Per CAL/OSHA standards as necessary.
 - 7. For office identification and Project site address.
 - 8. For "No Smoking" safe work site at designated locations.
 - 9. Emergency contact information and phone number of CONTRACTOR.
 - 10. Emergency contact information and phone number of local police, fire, and emergency personnel.

1.22. CLOSE OUT

A. Remove all temporary facilities at the completion of construction, and restore the site and facilities to conditions acceptable to the DISTRICT, ARCHITECT and to local authorities.

SECTION 01 57 00

TEMPORARY CONTROLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Water Control.
- B. Dust Control.
- C. Erosion and Sediment Control.
- D. Noise Control.
- E. Pollution Control.

1.02 RELATED SECTIONS

- A. Work Sequence and Phasing.
- B. Temporary Storm Water Pollution Control
- C. Construction Facilities

1.08 GENERAL

- A. Include planned temporary control measures in the Project Logistics Plan of Section 01 32 16, Work Sequence and Phasing. Include hours of operation permitted by the Contract Documents or by local authorities.
- B. Update this Plan and provide status reports to the DISTRICT on temporary controls on a monthly basis

1.04 WATER CONTROL

- A. Do not permit surface or subsurface water or other liquids to accumulate on the site or in the immediate vicinity.
- B. Should such conditions be encountered or develop, control the accumulation of water or other liquid and suitably dispose of it by means of temporary pumps, piping, drainage lines, troughs, ditches, dams or other methods as approved by the ARCHITECT and/or the authority having jurisdiction.

1.05 DUST CONTROL

- A. Conduct earthwork operations in a manner to prevent windblown dust and dirt from interfering with the progress of the Work, the District's activities, the existing occupied structures in the areas of the site immediately adjacent, and offsite adjacent properties.
- B. Water construction areas as necessary to minimize windblown dust and on-site accumulation of dust and dirt.
- C. Water spray or cover with tarpaulins truckloads of soil to minimize generation of dust and dirt from construction transportation operations.

D. Prevent dust and dirt from accumulating on walks, roadways, parking areas and from washing into sewer and storm drain lines.

1.06 EROSION AND SEDIMENT CONTROL

- A. Plan and execute construction by methods that will control surface drainage from cuts and fills and from borrow and waste disposal areas, and to prevent erosion and sedimentation.
- B. Minimize amount of bare soil exposed at one time.
- C. Provide temporary measures such as berms, dikes and drains to prevent water flow over adjacent properties or City rights-of-way.
- D. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays. Avoid any eroded materials flowing off the property.
- E. Periodically inspect earthwork to detect evidence of erosion and sedimentation; and promptly apply corrective measures.

1.07 NOISE CONTROL

- A. Avoid excessive noise that would affect detrimentally adjacent activities and adjoining property. All work shall be performed in a manner that minimizes noise and vibration impacts to the adjacent classrooms and school operations. In some cases, loud or high vibration activities may have to be rescheduled to accommodate school instructional and/or testing activities. Such activities may require work during non-school hours or on weekends or during holiday breaks.
- B. Confine operations to permissible hours of day, to eliminate neighborhood noise pollution.

1.08 POLLUTION CONTROL

- A. Provide methods, means and facilities to prevent contamination of soil, water and atmosphere from discharge of noxious, toxic substances and pollutants produced by construction operations.
- B. Do not burn refuse, debris or other materials on the site.
- C. Comply with all State and local ordinances and regulatory requirements controlling environmental pollution during the course of construction and disposal operations.

1.09 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris and rubbish. Maintain site in a clean and orderly condition.
- B. CONTRACTOR shall assure the removal of debris and rubbish from pipe chases, plenums, attics, crawl spaces and other closed or remote spaces prior to the space being enclosed.

- C. CONTRACTOR shall assure the brooming and vacuum cleaning of interior areas prior to start of surface finishing, as well as continuing cleaning to eliminate dust.
- D. Until Substantial Completion of the Work, CONTRACTOR shall remove, as required, all graffiti from buildings, equipment, fences and other improvements on the Project site.
- E. CONTRACTOR shall remove waste materials, debris and rubbish from site periodically and dispose off-site.

1.10 CLOSE OUT

A. Remove all temporary control measures at the completion of construction, and restore the site and facilities to conditions acceptable to the ARCHITECT and local authorities.

SECTION 01 57 13 TEMPORARY EROSION AND SEDIMENT CONTROL

Section Not Used

PART 1 - GENERAL

1.01 SUMMARY

- A. The District will be filing with the State of California, State Water Resources Control Board a Notice of Intent (N.O.I.) to comply with the terms of the General Permit to Discharge Storm Water Associated with Construction Activity, prior to the beginning of construction on this site.
- B. A copy of the SWPPP will be made available to Contractors during the bidding period. The Contractor will need to implement and monitor the storm water pollution prevention plan prepared for this site. The Contractor will be required to review the storm water pollution prevention plan and to identify possible pollution sources and mitigation measures with all subcontractors at their starting of work on site.
- C. The Contractor will be obligated to comply with the requirements of the State's General Permit. Any fines or penalties due to failure to comply with the general permit shall be borne by the Contractor.
- D. Prior to construction and after commencement of construction activities, revisions to the SWPPP shall be submitted, by the Contractor, to the Architect for amendment to the general permit by the Civil Engineer.
- E. Storm water pollution prevention plan testing and reporting will be performed by the Contractor until such responsibility is reassigned by the District.

1.02 REFERENCE STANDARDS

A. EPA (NPDES) - National Pollutant Discharge Elimination System (NPDES), Construction General Permit; Current Edition.

1.03 QUALITY ASSURANCE

- A. Codes and Standards
 - 1. California Codes and Regulations: Title 24, California Building Code, Parts 1 & 2.
 - 2. State of California State Water Resources Control Board Regulations.
 - 3. US EPA's National Pollutant Discharge Elimination System EPA (NPDES).

1.04 SUBMITTAL

A. Comply with pertinent provisions of the general permit.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION

- A. Installation of the work shall be as indicated on the drawings as specified herein and regulatory requirements.
- B. Maintain the protection up to the project completion.

3.03 CLEANING

A. During and upon completion of the work comply with the general provisions of the general permit.

SECTION 01 60 00

MATERIALS AND EQUIPMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

This Section includes administrative and procedural requirements governing products for incorporation into the Work.

1.02 RELATED SECTIONS

A. Section 01300: Submittals

B. Section 01420: Testing and Inspection

C. Section 01640: Substitutions

D. Section 01740: Warranties

1.03 DEFINITIONS

Definitions used in this Section are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and other similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.

- A. "Products" are items purchased for incorporation into the Work, whether purchased for the Work or taken from previously purchased stock. The term "product" includes the terms "material" and "equipment" and terms of similar intent.
 - 1. "Named Products," are items identified by the manufacturer's product name, including make, model number or other designation, shown or listed in the manufacturer's published product literature, current as of the date of the Contract.
 - 2. "Foreign Products," as distinguished from "domestic products," are items substantially manufactured (50 percent or more of value) outside the United States and its possessions.
- B. "Materials" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
- C. "Equipment" is a product with operational parts, whether motorized or manually operated, that may require service connections, such as wiring or piping. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work.

1.04 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.
- B. Compatibility of Options: When the CONTRACTOR is given the option of selecting between two or more products for use in the Work, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
- C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed

surfaces of products that will be exposed in view in occupied spaces or on the exterior.

- 1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
- Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
 - a. Name of product and manufacturer
 - b. Model and serial number
 - c. Capacity
 - d. Speed
 - e. Ratings

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.
 - 1. Schedule delivery to minimize long-term storage at the Project site and to prevent overcrowding of Work spaces.
 - 2. Coordinate delivery with installation time to assure minimum holding time for all items, but especially those that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to the Project site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 4. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement or damage.
 - 5. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
 - 6. Store products at the Project site in a manner that will facilitate inspection and measurement of quantity or counting of units.
 - 7. Store heavy materials away from structures in a manner that will not endanger the structure's supporting construction.
 - 8. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter. Cover products subject to deterioration with impervious sheet covering.
 - 9. When approved by the District, provide off-site storage and protection in a bonded warehouse approved by District when site does not permit on-site storage or protection at no cost to the District.

10. Store products subject to damage by the elements above ground, under cover in a weather-tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

1.06 MATERIAL SELECTION

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.
 - Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
 - Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other Projects.
- B. Product Selection Procedures: The Contract Documents and governing regulations govern product selection. Procedures governing product selection include the following:
 - 1. Proprietary Specification Requirements: Where Specifications name only a single material or manufacturer, provide the product indicated. No substitutions will be permitted.
 - 2. Semi-proprietary Specification Requirements: Where Specifications name two or more products or manufacturers, provide one of the products indicated throughout the Project. No substitutions will be permitted.
 - a. Where Specifications specify products or manufacturers by name, accompanied by the term "or equal," comply with General Conditions article on Substitutions to obtain approval for use of an unnamed product.
 - 3. Descriptive Specification Requirements: Where Specifications describe a product or assembly and list exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that has the characteristics and otherwise complies with the Contract Documents.
 - 4. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated.
 - a. Manufacturer's recommendations may be contained in published material literature or by the manufacturer's certification of performance.
 - Compliance with Standards, Codes, and Regulations: Where Specifications only require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes, or regulations specified.
 - 6. Visual Matching: Where Specifications require matching an established Sample, decision of the ARCHITECT will be final on whether a proposed product matches satisfactorily.

7. Visual Selection: Where specified product requirements include the phrase "... as selected from manufacturer's standard or premium colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The ARCHITECT will select the color, pattern, and texture from the product line selected.

1.07 INSTALLATION OF PRODUCTS

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located, and aligned with other Work.
- B. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration until Substantial Completion.

SECTION 01 60 00.01 REQUEST FOR SUBSTITUTION

SUBSTITUTION REQUEST NO Date:	
PROJECT NAME: PACIFIC HIGH SCHOOL BUILDINGS G	AND H DEMOLITION
PROJECT NUMBER: 1-78-23	
TO: RUHNAU CLARKE ARCHITECTS . 3775 Tenth Street, Riverside, California 92501 From:	
We hereby submit for your consideration the following pro specified product and the proposed substitution. The und that failure to answer any item below may be cause for rej substitution.	ersigned fully understands
Request for substitution shall only be made during bidding to bid opening for inclusion by Addendum) except under a Contractor.	
Specified Product:	
Project Manual Section Title Nu Paragraph	· ·
Drawing No	Detail No.
Proposed Substitution:	
Manufacturer:	Tel:
A. Reason request for substitution is being submitted:	
B. Does proposed substitution affect in any way the Structura Compliance, or Fire & Life Safety portions of the project?	

Explain
Does proposed substitution affect dimensions, gages, weights, etc. on Drawing? No_ Yes Explain
Does proposed substitution require changes in Drawings or design and installation changes? No Yes (If ye
cost of these changes is the responsibility of the Contractor.)
Does proposed substitution affect product cost, delivery time, or construction schedule? NoYes Explain
Does proposed substitution comply with specified ICC Number, UL Rating, ASTM Numbers? No Yes Explain
Does proposed substitution affect other trades and systems such as wiring, piping, ductwork, structure, etc.? No Yes (Explain which and how)
 If yes, has impact on their work been included in price of proposed substitution? No_ Yes
Does proposed substitution product guarantee differ from that of the specified product No Yes Explain
If the substitution request is accepted, it will result in: No cost impact credit of \$
Attach a listing of 3 projects (one in service for at least 3 years) using the proposed substitution.
Substantiating Data: Attach product data/brochures and Vendor qualifications for both specified and substitute product. Provide samples for both specified and substitute products, if applicable.

specified product, understar	nas examined Construction Do nds indicated application of pro t caused by the requested sub	duct, and understands
Submitted by:		
(Type Name)	Signature	Date
Signature must be made by persterms.	son having legal authority to bi	nd his firm to the above
Architect's Comments: Accepted, accepted Reviewed by:	ed as noted, not accept	ed, received too late.
Architect	 Date	
Construction Manager	Date	
District	Date	

SECTION 01 71 23

FIELD ENGINEERING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Construction surveying requirements for the Work

1.02 RELATED SECTIONS

- A. Summary of the Work
- B. Project Coordination and Meetings
- C. Submittals
- D. Contract Closeout

1.03 SUBMITTALS

- A. Upon completion of each individual site, Contractor shall provide "as-built" documentation noting any deviations from the pre-installation routing plan provided by Contractor.
- B. At request of ARCHITECT and/or DISTRICT, CONTRACTOR shall submit copies of cut sheets, coordinate plots, data collector printouts, and other documentation as available to verify completeness and/or accuracy of field surveying Work

PART 2 - PRODUCTS (Not applicable)

PART 3 - EXECUTION

3.01 SURVEY REQUIREMENTS

- A. Establish a minimum of two permanent horizontal and vertical control points on the Project site, remote from the building area, referenced to data established by the survey control points.
- B. Indicate the reference points on the project record drawings with the basis of elevation being the established benchmarks.
- C. Establish lines, grades, locations and dimensions by instrumentation.

 Periodically, verify the layout of all Work by the same methods.
- D. Provide grade stakes and elevations for over-excavation and re-compaction, rough and final grades, paved areas, curbs, gutters, sidewalks, building pads, landscaped areas, and other areas as required.

- E. Calculate and layout proposed finished elevations and intermediate control as required to provide smooth transitions between the spot elevations indicated in the Contract Documents.
- F. Provide stakes and elevations for grading, fill, and topsoil placement.
- G. Provide adequate horizontal and vertical control to locate utility lines, including but not limited to, storm drains, sewers, water mains, gas, electric and signal, and provide vertical control in proportion to the slope of the line as required for accurate construction.
 - 1. Prior to trench closure, survey and record locations and invert and flow line elevations at manholes. POCs. and 50-foot intervals.
 - 2. Survey and record top of curb and flow line elevations on finished concrete or AC surfaces at key locations such as BC's, EC's, grade breaks, corners or angle points in sufficient number to demonstrate the Work complies with the intent of the Contract Documents.
- H. Provide horizontal and vertical control for batter boards for drainage, utility, and other on-site structures as required.
- I. Furnish building corner offsets as required to adequately locate building pads. Provide cut and fill stakes within the building pad perimeter adequate to control both over excavation and re-compaction and the final sub-grade elevation of the building pad.
- J. Submit a certification signed by the surveyor confirming that the elevations and locations of improvements are in conformance with the Contract Documents. The statement shall include survey notes for the finish floor and building pad, showing the actual measured elevations on the completed sub-grade, recorded to the nearest 0.01'. Building pad tolerance will be +- 0.10'.

3.02 RECORD DRAWINGS

- B. Upon completion of each individual site, Contractor shall provide "as-built" documentation noting any deviations from the pre-installation routing plan provided by Contractor.
- C. Upon Substantial Completion, CONTRACTOR shall deliver to the ARCHITECT Electronic CAD file as the final Record Drawings. CAD version to be determined by DISTRICT.
- D. Completed record drawing Electronic files shall be signed by the licensed surveyor, certifying that the information shown is correct and is in conformance with the Contract Documents within specified tolerances.
- E. Where other sections of the Contract Documents require verification or measurements of installed Work by survey, the surveyor shall perform and certify that all such surveys or verifications are completed in accordance with the Contract Documents.

SECTION 01 73 29

CUTTING AND PATCHING

PART 1 GENERAL

1.01 SECTION INCLUDES

Requirements and limitations for cutting and patching of work.

1.02 SCOPE

- A. Where the work requires that a particular existing building element, such as a partition, wall, paving, window or similar element of existing building construction, be removed, it is the intention of this specification that such work be a part of the demolition section and not a part of cutting and patching. Refer to individual category scope of work sheets to determine the limits of demolition work for each CONTRACTOR.
- B. New work required to replace such removals is considered as a part of the separate sections of the specifications covering similar new construction.
- C. Where incidental cutting and patching is required for the installation of a specific item or piece of equipment (including piping, ductwork, conduit, etc.), all such cutting and patching is considered to be specified as a part of the section requiring the cutting and patching, but shall also comply with the requirements of this Section.
- D. CONTRACTOR shall verify and check all areas to be cut and patched and shall coordinate the work of the various trades involved.
- G. Unless specifically designated otherwise, existing work cut, altered or revised to accommodate new work shall be patched to duplicate undisturbed adjacent finishes, colors, textures and profiles. New work in existing portions shall also be finished to match adjacent existing work unless noted otherwise.

1.03 SUBMITTALS

- A. Submit written request in advance of cutting or alteration which affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather-exposed or moisture-resistant element.
 - 3. Efficiency, maintenance or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of DISTRICT or separate CONTRACTOR.

B. Include in request:

- 1. Identification of Project.
- 2. Location and description of affected work.
- 3. Necessity for cutting or alteration.

- 4. Alternatives to cutting and patching.
- 5. Description of proposed work and products to be used.
- 6. Effect on work of District or separate CONTRACTOR.
- 7. Written permission of affected separate CONTRACTOR.
- 8. Date and time work will be executed.
- C. Obtain approval of ARCHITECT before proceeding with any cutting and patching:

PART 2 PRODUCTS

2.01 MATERIALS

A. Primary Products: Those required for original installation, unless specifically approved otherwise

PART 3 EXECUTION

3.01 EXAMINATION

- A. Inspect existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. Confirm status and current warranties and guarantees.
- B. After uncovering existing work, inspect conditions affecting performance of work.
 - 1. Prior to cutting, boring or drilling through new or existing structural members or elements including reinforcing bars, CONTRACTOR shall prepare detailed drawings for review by the ARCHITECT and approval by the Division of the State Architect (DSA). Agency approvals shall be obtained by the ARCHITECT, not CONTRACTOR.
- C. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Provide temporary support to ensure structural integrity of the work. Provide devices and methods to protect other portions of Project from damage.
- B. Provide protection from elements for areas which may be exposed by uncovering work.
- C. Maintain excavations free of water.
- D. Where the Work requires sandblasting of existing surfaces in order to receive new materials secured by cementitious, adhesive or chemical bond, completely remove existing finishes, stains, oil, grease, bitumen, mastic and adhesives or other substances deleterious to the new bonding and/or fastening of new Work. Utilize wet sand blasting for interior surfaces and for exterior surfaces where necessary to prevent objectionable production of dust.

3.03 PERFORMANCE

- A. Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay. Carefully remove existing Work to be salvaged and/or reinstalled. Protect and store for reuse in the Work. Verify compatibility and suitability of existing substrates before starting the Work.
- B. The word "cutting" as used in the Contract Documents includes, but is not limited to, cutting, drilling, chopping, and other similar operations and the word "patching" includes, but is not limited to, patching, rebuilding, reinforcing, repairing, refurbishing, restoring, replacing, or other similar operations.
- C. **Cutting:** Cut existing construction using methods least likely to damage elements retained or adjoining Work. Where possible, review proposed procedures with the original installer; comply with the original installer's recommendations.
 - 1. In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Cut through concrete and masonry using a cutting machine, such as a carborundum saw or a diamond-core drill. Saw cut reinforcing bars and paint ends with bituminous paint except where bonded into new concrete or masonry.
 - 4. Comply with requirements of applicable Division 2 Sections where cutting and patching requires excavating, backfill, and/or recompaction.
 - 5. Woodwork: Cut and or remove to a panel or joint line.
 - 6. Sheet Metal: Remove back to joint, lap, or connection. Secure loose or unfastened ends or edges and seal watertight.
 - 7. Glass: Remove cracked, broken, or damaged glass and clean rebates and stops of setting materials.
 - 8. Plaster: Cut back to sound plaster on straight lines, and back bevel edges of remaining plaster. Trim existing lath and prepare for new lath.
 - 9. Gypsum Wallboard: Cut back on straight lines to undamaged surfaces with at least two opposite cut edges centered on supports.
 - 10. Acoustical ceilings: Remove hanger wires and related appurtenances where ceilings are not scheduled to be installed.
 - 11. Tile: Cut back to sound tile and backing on joint lines.

- 12. Flooring: Completely remove flooring and clean backing of prior adhesive. Carefully remove wood flooring for patching and repairing of existing wood flooring scheduled to remain.
- C. **Patching**: Patch with durable seams that are as invisible as possible. Comply with required tolerances.
 - Where feasible, inspect and test patched areas to demonstrate integrity of the installation. Verify conditions of existing substrates prior to executing Work.
 - 2. Restore exposed finishes of patched areas and extend finish restoration into retaining adjoining construction in a manner that will eliminate all evidence of patching and refinishing.
 - 3. Concrete: Maintain cut edges in a moist condition for twenty-four (24) hours prior to the placement of new concrete. In lieu of this an epoxy adhesive may be provided. Finish placed concrete to match existing unless noted otherwise. Concrete shall have a compressive strength of 3,000 psi where installed to repair and/or match existing improvements, unless noted otherwise.
 - 4. Metal Fabrications: Items to remain exposed shall have their edges cut and ground smooth and rounded.
 - 5. Sheet Metal: Replace removed or damaged sheet metal items as required for new Work.
 - 6. Glass: Install matching glass and re-seal exterior window assemblies.
 - 7. Lath and Plaster: Install new lath materials to match existing and fasten to supports at 6" centers. Provide a 6" lap where new lath to adjoins existing lath. Fasten new lath as required for new Work. Restore paper backings as required. Apply a bonding agent on cut edges of existing plaster. Apply three coat plaster of the type, thickness, finish, texture, and color to match existing.
 - 8. Gypsum Wallboard: Fasten cut edges of wallboard. Install patches with at least two opposite edges centered on supports and secure at 6" centers. Tape and finish joints and fastener heads. Patching shall be non-apparent when painted or finished.
 - 9. Acoustical Ceilings: Comply with the requirements for new Work specified in related sections of the Contract Documents.
 - 10. Resilient Flooring: Completely remove flooring and prepare substrate for new material.
 - 11. Paint: Prepare areas to be painted as specified for painting specific surfaces in the painting and coatings Sections of the Specifications.
- D. Fit work air tight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.

- E. At penetrations of fire-rated walls, partitions, ceiling or floor construction, completely seal voids with fire-rated devices or material in accordance with Section 07270, to full thickness of the penetrated element.
- F. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

3.05 SLEEVES AND HANGERS

- A. Provide conduit, outlets, piping sleeves, boxes, inserts or other materials or equipment necessary to be built into work.
- B. In the event delays occur in delivery of sleeves or other materials, arrange to have boxes or other forms set at locations where piping or other material is to pass through or into slabs or other work.
- C. Upon subsequent installation of sleeves or other material, install fill materials to completely seal voids with fire-rated devices or moisture-resistant material, to full thickness of the penetrated element. Necessary expenditures incurred for boxing out or filling shall be without extra cost to the DISTRICT.

END OF SECTION

SECTION 01 74 19 CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 GENERAL

1.01 WASTE MANAGEMENT REQUIREMENTS

- A. Comply with the requirements Section 5.408 of the California Green Building Standards Code.
 - Recycle and/or salvage for reuse a minimum of 50 percent of the nonhazardous construction and demolition waste in accordance with Section 504.8.1.1, 5.408.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.
- B. District requires that this project generate the least amount of trash and waste possible.
- C. Employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.
- D. Minimize trash/waste disposal in landfills; reuse, salvage, or recycle as much waste as economically feasible.
- E. Required Recycling, Salvage, and Reuse: The following may not be disposed of in landfills or by incineration:
 - 1. Aluminum and plastic beverage containers.
 - 2. Corrugated cardboard.
 - 3. Wood pallets.
 - 4. Clean dimensional wood: May be used as blocking or furring.
 - 5. Land clearing debris, including brush, branches, logs, and stumps; see Section 31 10 00 Site Clearing for use options.
 - a. Comply with California Green Code (CGC) 5.408.3; Excavated soil and land clearing debris: 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled.
 - 1) Exception: Reuse, either on-or off-site, of vegetation or soil contaminated by disease or pest infestation.
 - 6. Concrete: May be crushed and used as riprap, aggregate, sub-base material, or fill
 - 7. Bricks: May be used on project if whole, or crushed and used as landscape cover, sub-base material, or fill.
 - 8. Concrete masonry units: May be used on project if whole, or crushed and used as sub-base material or fill.
 - Asphalt paving.
 - 10. Metals, including packaging banding, metal studs, sheet metal, structural steel, piping, reinforcing bars, door frames, and other items made of steel, iron, galvanized steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
 - 11. Glass.
 - 12. Gypsum drywall and plaster.

- 13. Carpet, carpet cushion, carpet tile, and carpet remnants: DuPont (http://flooring.dupont.com) and Interface (www.interfaceinc.com) conduct reclamation programs.
- 14. Roofing.
- 15. Paint.
- 16. Plastic sheeting.
- 17. Rigid foam insulation.
- 18. Windows, doors, and door hardware.
- 19. Plumbing fixtures.
- 20. Mechanical and electrical equipment.
- 21. Fluorescent lamps (light bulbs).
- 22. Acoustical ceiling tile and panels.
- 23. Materials which could be hazardous and subject to special disposal regulations include but are not limited to the following:
 - a. Lead-Based Paint
 - b. Asbestos: Found in older pipe insulation, asphalt floor tiles, linoleum, insulation, etc.
 - c. Polychlorinated Biphenyls (PCBs):
 - 1) Found in electrical oil filled equipment manufactured prior to 1978 such as transformers, switches and fluorescent lamp ballasts.
 - 2) Also found in adhesive, sealant, caulk, glazing putty, roofing material, pesticide vehicle, ink, paper, fabric dye, gaskets, and hydraulic fluid.
 - d. HVAC Refrigerants: Containing Fluorinated and Chlorinated compounds.
 - e. Drinking Fountain Refrigerants: Containing Fluorinated and Chlorinated compounds.
 - f. Fluorescent Light Tubes: Contain mercury.
 - g. EXIT signs and Smoke Detectors: May contain unregulated, radioactive tritium. Required to be returned to manufacturer.
 - h. Contaminated Soils.
 - i. Pressure Treated Lumber.
- F. Contractor shall submit periodic Waste Disposal Reports; all landfill disposal, recycling, salvage, and reuse must be reported regardless of to whom the cost or savings accrues; use the same units of measure on all reports.
 - Contractor's quantitative reports for construction waste materials as a condition of approval of progress payments.
- G. Contractor shall develop and follow a Waste Management Plan designed to implement these requirements. CalGreen Section 5.408.1.1.
- H. The following sources may be useful in developing the Waste Management Plan:
 - California Recycling Department, at www.bsc.ca.gov/Home/CALGreen.aspx.
 - 2. General information contacts regarding construction and demolition waste:
 - a. EPA Construction and demolition (C&D) debris website: www.epa.gov/epawaste/conserve/imr/cdm/.
 - b. Directory of Wood-Framed Building Deconstruction and Reused Building Materials Companies: www.fpl.fs.fed.us/documnts/fplgtr/fpl_gtr150.pdf.
 - c. Additional resources to be developed by Contractor with assistance from District and Contractor, as requested.

- 3. Recycling Haulers and Markets: The source list below contains local haulers and markets for recyclable materials. This list is provided for information only and is not necessarily comprehensive; other haulers and markets are acceptable.
 - a. CAL-MAX: www.calrecycle.ca.gov/calmax/.
 - 1) A free service designed to help businesses find markets for nonhazardous materials they have traditionally discarded.
 - b. General Recycling/Reuse Centers: For information on qualified local solid waste haulers contact the California Department of Resources Recycling and Recovery - CalRecycle. The website lists wastes recycling facilities in counties throughout the State of California.
 - 1) http://www.calrecycle.ca.gov/default.asp
- I. Methods of trash/waste disposal that are not acceptable are:
 - 1. Burning on the project site.
 - 2. Burying on the project site.
 - 3. Dumping or burying on other property, public or private.
 - 4. Other illegal dumping or burying.
 - 5. Incineration, either on- or off-site.
- J. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, state and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

1.02 RELATED REQUIREMENTS

- A. Section 01 30 00 Administrative Requirements: Additional requirements for project meetings, reports, submittal procedures, and project documentation.
- B. Section 01 52 00 Construction Facilities: Additional requirements related to trash/waste collection and removal facilities and services.
- C. Section 01 60 00 Product Requirements: Waste prevention requirements related to delivery, storage, and handling.
- D. Section 01 70 00 Execution and Closeout Requirements: Trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.
- E. Section 31 10 00 Site Clearing: Handling and disposal of land clearing debris.

1.03 DEFINITIONS

- A. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the
- B. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
 - 1. Debris that is not hazardous as defined in California Code of Regulations, Title 22, Section 66261.3 et seq.
 - 2. This term includes, but is not limited to, asphalt concrete, Portland cement concrete, brick, lumber, gypsum wallboard, cardboard and other associated packaging, roofing material, ceramic tile, carpeting, plastic pipe, and steel.

- 3. The debris may be commingled with rock, soil, tree stumps, and other vegetative matter resulting from land clearing and landscaping for construction or land development projects.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Diversion: Avoidance of demolition and construction waste sent to landfill or incineration. Diversion does not include using materials for landfill, alternate daily cover on landfills, or materials used as fuel in waste-to-energy processes.
- E. Enforcement Agency (EA). Enforcement agency as defined in CA Public Resources Code 40130.
- F. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.
- G. Landfill, Inert waste or Inert Disposal Facility:
 - 1. A disposal facility that accepts only inert waste such as soil and rock, fully cured asphalt paving, uncontaminated concrete (including fiberglass or steel reinforcing rods embedded in the concrete), brick, glass, and ceramics, for land disposal.

H. Landfill, Class III:

- 1. A landfill that accepts non-hazardous resources such as household, commercial, and industrial waste, resulting from construction, remodeling, repair, and demolition operations.
- 2. A Class III landfill must have a solid waste facilities permit from the California Integrated Waste Management Board (CIWMB) and is regulated by the Enforcement Agency (EA).
- I. Mixed Debris: Loads that include commingled recyclable and non-recyclable materials generated at the construction site.
- J. Mixed Debris Recycling Facility: A processing facility that accepts loads of commingled construction and demolition debris for the purpose of recovering re-usable and recyclable materials and disposing the non-recyclable residual materials.
- K. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.
- L. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.
- M. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
- N. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.
- O. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- P. Recycling Center: A facility that receives only C&D material that has been separated for reuse prior to receipt, in which the residual (disposed) amount of waste in the material is less than 10% of the amount separated for reuse by weight.
- Q. Return: To give back reusable items or unused products to vendors for credit.
- R. Reuse: To reuse a construction waste material in some manner on the project site.
- S. Salvage: To remove a waste material from the project site to another site for resale or reuse by others.

- T. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.
- U. Separated for Reuse:
 - 1. Materials, including commingled recyclables.
 - 2. Separated or kept separate from the solid waste stream for the purpose of:
 - a. Additional sorting or processing those materials for reuse or recycling.
 - In order to return them to the economic mainstream in the form of raw material for new, reused, or reconstituted products.
 - b. Products shall meet the quality standards necessary to be used in the marketplace.
 - c. Includes materials that have been "source separated".

V. Solid Waste:

- 1. All putrescible and nonputrescible solid, semisolid, and liquid wastes, including:
 - a. Garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes.
 - b. Abandoned vehicles and parts thereof.
 - c. Discarded home and industrial appliances.
 - d. Dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste.
 - e. Manure, vegetable or animal solid and semisolid wastes.
 - f. Other discarded solid and semisolid wastes.
- 2. "Solid waste" does not include hazardous waste, radioactive waste, or medical waste as defined or regulated by State law.
- W. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.
 - Materials, including commingled recyclables, that have been separated or kept separate from the solid waste stream at the point of generation, for the purpose of additional sorting or processing of those materials for reuse or recycling in order to return them to the economic mainstream in the form of raw materials for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace.
- X. Toxic: Poisonous to humans either immediately or after a long period of exposure.
- Y. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- Z. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.
- AA. Waste Hauler: A company that possesses a valid permit from the local waste management authority to collect and transport solid wastes from individuals or businesses for the purpose of recycling or disposal in the locality.

1.04 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Submit Waste Management Plan within 30 calendar days after receipt of Notice to Proceed, or prior to any trash or waste removal, whichever occurs sooner; submit projection of all trash and waste that will require disposal and alternatives to landfilling.
 - 1. Submit four copies of CWMP for review.

- a. Contractor's Construction Waste and Recycling Plan must be approved by the Architect and Construction Manager prior to the start of Work.
- 2. Approval of the Contractor's CWMP shall not relieve the Contractor of responsibility for adequate and continuing control of pollutants and other environmental protection measures.
- C. Waste Management Plan: Include the following information:
 - 1. Analysis of the trash and waste projected to be generated during the entire project construction cycle, including types and quantities.
 - 2. Landfill Options: The name, address, and telephone number of the landfill(s) where trash/waste will be disposed of, the applicable landfill tipping fee(s), and the projected cost of disposing of all project trash/waste in the landfill(s).
 - 3. Landfill Alternatives: List all waste materials that will be diverted from landfills by reuse, salvage, or recycling.
 - a. List each material proposed to be salvaged, reused, or recycled.
 - b. List the local market for each material.
 - 4. Meetings: Describe regular meetings to be held to address waste prevention, reduction, recycling, salvage, reuse, and disposal.
 - Materials Handling Procedures: Describe the means by which materials to be diverted from landfills will be protected from contamination and prepared for acceptance by designated facilities; include separation procedures for recyclables, storage, and packaging.
 - 6. Transportation: Identify the destination and means of transportation of materials to be recycled; i.e. whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler.
 - 7. Recycling Incentives: Describe procedures required to obtain credits, rebates, or similar incentives.
- D. Waste Disposal Reports: Submit at specified intervals, with details of quantities of trash and waste, means of disposal or reuse, and costs; show both totals to date and since last report.
 - 1. Submit updated Report with each Application for Progress Payment; failure to submit Report will delay payment.
 - Inert materials shall achieve a construction waste diversion rate of at least 95 percent.
 - These materials include, but are not limited to, concrete, asphalt and rock.
 - 2) Earthwork is not included.
 - 3) Excavated soil shall not be included in any of the calculations used to ensure compliance with this specification section.
 - b. The overall diversion rate must be based on weight.
 - c. The diversion rate of individual materials can be measured in either weight or volume, but the rate shall be converted into the units selected for calculating the overall diversion rate.
 - All individual material diversions must be converted to a consistent set of units when calculating the overall diversion rate for the all reports and submittals required for the Work.
 - d. Conversion rate numbers shall be based on standard conversion rate data for construction projects provided by the California Integrated Waste

Management Board (CIWMB). This data is available at the following internet location, http://www.calrecycle.ca.gov/LGCentral/Library/dsg/ICandD.htm.

- 2. Submit Report on a form acceptable to District.
- 3. Landfill Disposal: Include the following information:
 - a. Identification of material.
 - b. Amount, in tons or cubic yards, of trash/waste material from the project disposed of in landfills.
 - c. State the identity of landfills, total amount of tipping fees paid to landfill, and total disposal cost.
 - d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
- 4. Recycled and Salvaged Materials: Include the following information for each:
 - Identification of material, including those retrieved by installer for use on other projects.
 - b. Amount, in tons or cubic yards, date removed from the project site, and receiving party.
 - c. Transportation cost, amount paid or received for the material, and the net total cost or savings of salvage or recycling each material.
 - Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
 - e. Certification by receiving party that materials will not be disposed of in landfills or by incineration.
- 5. Material Reused on Project: Include the following information for each:
 - a. Identification of material and how it was used in the project.
 - b. Amount, in tons or cubic yards.
 - c. Include weight tickets as evidence of quantity.
- 6. Other Disposal Methods: Include information similar to that described above, as appropriate to disposal method.

PART 2 PRODUCTS

2.01 PRODUCT SUBSTITUTIONS

- A. See Section 01 60 00 Product Requirements for substitution submission procedures.
- B. For each proposed product substitution, submit the following information in addition to requirements specified in Section 01 60 00:
 - 1. Relative amount of waste produced, compared to specified product.
 - 2. Cost savings on waste disposal, compared to specified product, to be deducted from the Contract Sum.
 - Proposed disposal method for waste product.
 - 4. Markets for recycled waste product.

PART 3 EXECUTION

3.01 WASTE MANAGEMENT PROCEDURES

A. See Section 01 30 00 for additional requirements for project meetings, reports, submittal procedures, and project documentation.

- B. See Section 01 52 00 for additional requirements related to trash/waste collection and removal facilities and services.
- C. See Section 01 60 00 for waste prevention requirements related to delivery, storage, and handling.
- D. See Section 01 70 00 for trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.

3.02 WASTE MANAGEMENT PLAN IMPLEMENTATION

- A. Manager: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.
- B. Communication: Distribute copies of the Waste Management Plan to job site foreman, each subcontractor, District, and Architect.
- C. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.
- D. Meetings: Discuss trash/waste management goals and issues at project meetings.
 - 1. Pre-bid meeting.
 - 2. Pre-construction meeting.
 - 3. Regular job-site meetings.
- E. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.
 - 1. As a minimum, provide:
 - a. Separate area for storage of materials to be reused on-site, such as wood cut-offs for blocking.
 - b. Separate dumpsters for each category of recyclable.
 - Recycling bins at worker lunch area.
 - 2. Provide containers as required.
 - 3. Provide temporary enclosures around piles of separated materials to be recycled or salvaged.
 - 4. Provide materials for barriers and enclosures that are nonhazardous, recyclable, or reusable to the maximum extent possible; reuse project construction waste materials if possible.
 - 5. Locate enclosures out of the way of construction traffic.
 - 6. Provide adequate space for pick-up and delivery and convenience to subcontractors.
 - 7. If an enclosed area is not provided, clearly lay out and label a specific area onsite.
 - 8. Keep recycling and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.
- F. Hazardous Wastes: Separate, store, and dispose of hazardous wastes according to applicable regulations.
- G. Recycling: Separate, store, protect, and handle at the site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.

- H. Reuse of Materials On-Site: Set aside, sort, and protect separated products in preparation for reuse.
- I. Salvage: Set aside, sort, and protect products to be salvaged for reuse off-site.

3.03 DISPOSAL OPERATIONS AND WASTE HAULING

- A. Remove waste materials from Project Site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except for items or materials to be salvaged, recycled, or otherwise reused.
 - 2. Except as otherwise specified, do not allow waste materials that are to be disposed of to accumulate on site.
 - 3. Use a permitted waste hauler or Contractor's trucking services and personnel. To confirm valid permitted status of waste haulers, contact the local solid waste authority.
 - 4. Become familiar with the conditions for acceptance of new construction, excavation and demolition materials at recycling facilities, prior to delivering materials.
 - 5. Deliver to facilities that can legally accept new construction, excavation and demolition materials for purpose of re-use, recycling, composting, or disposal.
 - 6. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 7. Do not burn or bury waste materials on or off site. Appropriate on-site topical application of ground gypsum or wood, or use of site paving as granulated fill is considered reuse, not waste.

3.04 PLAN AND REPORT FORMS

A. See suggested forms on the following pages.

SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This Section includes administrative and procedural requirements for Contract Closeout, including but not limited to, the following:
 - 1. Completion Procedures
 - 2. Project Record Documents
 - 3. Operation and Maintenance Manuals
 - 4. Orientation and Instruction of DISTRICT'S Personnel
 - 5. Warranties and Guarantees
 - 6. Spare Parts and Materials
 - 7. Final Cleaning
- B. Additional closeout requirements for specific Work activities are included in the appropriate Sections in Divisions 02 through 16.

1.02 RELATED SECTIONS

- A. Price and Payment Procedures
- B. Submittals
- C. Construction Progress Schedule
- D. Construction Facilities
- E. Temporary Controls
- F. Warranties
- G. Project Record Documents

1.03 COMPLETION PROCEDURES

- A. Substantial Completion and Partial Occupancy:
 - 1. Conform to Title 24, Part 1, Section 4-336 CCR, Requirements for Verified Reports and Closeout Procedures.
 - In conjunction with the IOR, prepare a list of items to be completed or corrected. List may be developed by areas, when approved by the ARCHITECT or DISTRICT REPRESENTATIVE.

- Within a reasonable time after receipt of the list, the ARCHITECT or DISTRICT REPRESENTATIVE will inspect to determine status of completion.
- 4. Should the ARCHITECT or DISTRICT REPRESENTATIVE determine that Work is not substantially complete:
 - a. The ARCHITECT or DISTRICT REPRESENTATIVE will promptly notify the CONTRACTOR in writing, giving the reasons for his determination.
 - b. CONTRACTOR shall remedy the deficiencies and notify the ARCHITECT or DISTRICT REPRESENTATIVE when Work is ready for re-inspection.
 - c. The ARCHITECT or DISTRICT REPRESENTATIVE will re-inspect the Work.
- 5. When the ARCHITECT or DISTRICT REPRESENTATIVE concurs that work is substantially complete:
 - a. The ARCHITECT or DISTRICT REPRESENTATIVE will prepare a
 "Certificate of Substantial Completion", accompanied by the
 CONTRACTOR's list of items to be completed or corrected as
 verified by the ARCHITECT.
 - b. The ARCHITECT or DISTRICT REPRESENTATIVE will submit the Certificate to the DISTRICT and to the CONTRACTOR for their written acceptance of the responsibilities assigned to them in the Certificate.

B. Final Completion:

- 1. Verify the Work is complete.
- 2. Prepare and submit a notice that Work is ready for final inspection and acceptance.
- Certify that:
 - a. Work has been inspected by all governing agencies and is in compliance with all governing regulations.
 - b. Work has been inspected for compliance with the Contract Documents.
 - c. Work has been completed in accordance with the Contract Documents.
 - d. Equipment and systems have been tested as required and are operational.
 - e. Work is completed and ready for final inspection.

- 4. The DISTRICT REPRESENTATIVE will make an inspection to verify status of completion.
- 5. Should the DISTRICT REPRESENTATIVE determine the Work is incomplete or defective:
 - a. The DISTRICT REPRESENTATIVE will promptly notify the CONTRACTOR in writing, listing incomplete or defective work.
 - b. CONTRACTOR shall remedy the deficiencies promptly and notify the DISTRICT REPRESENTATIVE when ready for re-inspection.
- 6. When the DISTRICT REPRESENTATIVE determines the Work is acceptable under the Contract Documents, he will request the CONTRACTOR to make closeout submittals.
- C. Submit all closeout documents, including but are not limited to:
 - 1. Project Record Documents.
 - 2. Operation and Maintenance Manuals (for all items requiring special knowledge for operation or for maintenance, listed in pertinent Sections of these Specifications), and for other items when so approved by the DISTRICT REPRESENTATIVE.
 - Warranties and Guarantees.
 - 4. Keys and Keying Schedule.
 - 5. Spare parts, materials, extra stock to be turned over to the DISTRICT.
 - 6. Evidence of payment and release of liens, when requested by DISTRICT.
 - 7. List of subcontractors, service organizations and principal vendors, including names, addresses and telephone numbers, where they may be contacted for emergency service at all times, including nights, weekends and holidays.
- D. Final Payment:

Submit a Final Payment Request, showing all adjustments to the Contract Sum.

1.04 VERIFIED REPORTS

A. Construction progress of the Work shall be reported to DSA via a duly verified report in accordance with Sections 4-336 and 4-343 of the California Building Standards Administrative Code.

1.05 OPERATION AND MAINTENANCE MANUALS

A. Prior to Substantial Completion, submit three (3) sets of Operation and Maintenance (O&M) Manuals and one (1) electronic copy to the ARCHITECT for

DISTRICT's records. Organize O&M data into sets of manageable size. Bind properly indexed data in individual, heavy-duty, 2"-3", 3-ring, durably covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder.

- 1. Emergency instructions
- 2. Manufacturer's operating and maintenance instructions, including any seasonal adjustments
- 3. Spare parts list
- 4. Copies of warranties
- 5. Wiring diagrams
- 6. Recommended "turn-around" cycles
- 7. Inspection procedures
- 8. Shop Drawings and Product Data
- 9. Fixture lamping schedule

1.06 ORIENTATION AND INSTRUCTION OF DISTRICT'S PERSONNEL:

- A. Instruct the DISTRICT's personnel in proper operation and maintenance of all systems, equipment and similar items, which were provided as part of the work. Provide maintenance and inspection schedules that conform to manufacturer's recommendations. Provide instruction by manufacturers' representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:
 - 1. Maintenance manuals
 - 2. Record documents
 - 3. Spare parts and materials
 - Tools
 - 5. Lubricants
 - 6. Fuels
 - 7. Identification systems
 - 8. Control sequences
 - 9. Hazards
 - 10. Cleaning
 - 11. Warranties and bonds
 - 12. Maintenance agreements and similar continuing commitments
- B. CONTRACTOR shall provide a schedule to the DISTRICT for approval for each of the instruction periods required.
 - Organize the instruction sessions into group sizes and schedule the elapsed time for instruction in a manner to provide complete coverage of the subject matter. Video tape each session and provide DISTRICT with two (2) copies.
- C. Instruction sessions will be held in a DISTRICT designated area on the project site and at DISTRICT's convenience. Amount of time required for each session

shall be as specified in individual sections, but in no case less than the time needed to fully convey the information needed by DISTRICT personnel for operating and maintaining the products.

- D. Instructors shall be qualified by the product manufacturer in the subject matter presented at each session.
 - 1. Submit names of instructors and qualifications to the Architect and DISTRICT for approval, 30 days prior to each scheduled session.
 - 2. Substitution of instructors will not be permitted without prior approval of Architect or DISTRICT.
- E. As part of instruction for operating equipment, demonstrate the following procedures:
 - 1. Start-up
 - 2. Shutdown
 - 3. Emergency operations
 - 4. Noise and vibration adjustments
 - 5. Safety procedures
 - 6. Seasonal adjustments
 - 7. Economy and efficiency adjustments
 - 8. Effective energy utilization measures
- F. Schedule and provide seasonal or periodic training sessions when specified in technical sections of the Specifications.

1.07 WARRANTIES AND GUARANTEES

- A. Manufacturer's warranties and guarantees notwithstanding, warrant entire Work against defects in materials and workmanship for twelve (12) months from date of Substantial Completion. Warranties and guarantees between CONTRACTOR and manufacturers and CONTRACTOR and suppliers shall not affect warranties or guarantees between CONTRACTOR and DISTRICT.
- B. Execute and assemble documents from subcontractors, suppliers and manufacturers.
- C. Submit prior to final Application for Payment.
- D. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within ten (10) days after acceptance, listing date of acceptance as start of warranty period.

1.08 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual specification Sections.
- B. Deliver to project site location as directed by DISTRICT.

1.09 FINAL CLEANING

- A. Final cleaning is provided by Contractor.
- B. Each CONTRACTOR shall leave his finished work in clean condition, including following as applicable:
 - 1. Remove labels that are not permanent labels.
 - Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
 - Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
 - 4. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

END OF SECTION

SECTION 01 78 36

WARRANTIES AND BONDS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preparation and submittal of warranties and bonds.
- B. Time and schedule of submittals.

1.02 RELATED SECTIONS

- A. Contract Closeout Procedures.
- B. Product Requirements
- C. Materials and Equipment
- Technical Specifications Sections: Warranties required for specific products or Work.

1.03 WARRANTY REQUIREMENTS

- A. Warranties or bonds shall provide for replacement or reconstruction of failed or defective Work to an acceptable condition complying with the requirements of the Contract Documents. Work shall be restored at no cost to the District regardless of whether the District has benefited from use of the Work for a portion of its anticipated useful service life.
- B. Provide warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item or work.
- C. When a designated portion of the Work is partially used and/or occupied by the DISTRICT, submit properly executed warranties within ten (10) days of the Partial Use or Occupancy of the designated portion of the Work
- D. Verify that documents are in proper form, contain full information and are notarized.
- F. DISTRICT Recourse: Expressed warranties made to DISTRICT are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which DISTRICT can enforce such other duties, obligations, rights, or remedies.

1.04 FORM OF SUBMITTALS

A. Prepare duplicate binders, commercial quality, 8-1/2 x 11 inch, three-ring side binders with hardback, cleanable, plastic covers.

- B. Label cover and spine of each binder with typed or printed title WARRANTIES AND BONDS, with title of Project. Number separate volumes in order.
- C. Table of Contents: Typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification Section in which specified and the name of the product or work item.
- D. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. Use paper of durable, long-lasting quality. List Subcontractor, supplier, and manufacturer, with name, address and telephone number of responsible principal.

1.05 TIME OF SUBMITTALS

- A. Except for specifically authorized exceptions, the date for beginning the period of warranty shall be the Date of Substantial Completion.
- B. For equipment or component parts of equipment put into service during construction with District's permission, submit documents within ten (10) days after acceptance.
- C. Make other submittals within ten (10) days after Date of Substantial Completion prior to final Application for Payment.
- D. For items of Work when acceptance is delayed beyond Date of Substantial Completion, submit within ten (10) days after acceptance, listing the date of acceptance as the beginning of the warranty period.

END OF SECTION

GUARANTEE

	the requirements	of the Contract Docur	_, which we have installed for SAN ROJECT NAME has been performed ments and that the work as installed				
The undersigned agrees to repair or replace any or all of such work that may prove to be defective in workmanship or material together with any other adjacent work which may be displaced in connection with such replacement within a minimum period of ONE (1) YEAR (see individual trade specifications for more stringent requirements) from the date of acceptance of the above-mentioned project by SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT , ordinary wear and tear and unusual abuse or neglect excepted.							
In the event of the undersigned's failure to comply with the above mentioned conditions within a reasonable period of time, as determined by the District, but not later than ten (10) working days after being notified in writing by the District, the undersigned authorizes the District to proceed to have said defects repaired and made good at the expense of the undersigned, who will pay the costs and charges therefore upon demand.							
		PRIME CONTRACTO	DR .				
		SIGNED:					
		NAME					
Representatives to be contacted for service subject to terms of contract:							
NAME:							
ADDRESS:							
 -							
PHONE #:							

CONTRACTOR'S CERTIFICATE REGARDING ASBESTOS MATERIAL

This form	is to be submitted at the time final billing is provided.
	"I certify that all the materials and supplies installed under this
	(Name of Contract)
	contract are free of asbestos-containing materials."
Date	
Official N	ame of Contractor
Ву	
	
Title	
<u> </u>	
Signature	

END OF SECTION

SECTION 01 78 39

PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.07 SECTION INCLUDES

A. This Section includes administrative and procedural requirements for preparing, maintaining, and submitting Project Record Documents.

1.08 RELATED SECTIONS

- A. Price and Payment Procedures
- B. Submittals
- C. Closeout Procedures
- D. Field Engineering

1.09 PROJECT RECORD DOCUMENTS

- A. CONTRACTOR shall prepare and maintain record documents throughout the course of construction, as specified herein.
- B. Provide access to record documents for ARCHITECT, IOR and CM reference during normal working hours.
- C. Do not use project record documents for construction purposes. Protect record documents from deterioration and loss.
- D. Record in concise and neat manner, concurrent with construction progress, and at least on a weekly basis, all actual revisions to the work:
 - 1. Changes made on the Drawings, including Clarification Drawings.
 - 2. Changes made to the Specifications.
 - 3. Changes made by Addenda.
 - 4. Changes made by Instruction Bulletins.
 - 5. Change Orders or other authorized Modifications to the Contract.
 - 6. Revisions made to shop drawings, product data and samples.
- E Record Drawings shall be a clean, clear electronic files of Drawings and Shop Drawings. File type shall be determined by DISTRICT. Mark the set with red erasable pencil to show the actual installation where the installation varies substantially from the Work as originally shown. Indicate which Drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Drawings. Provide detailed and accurate field dimensions for concealed elements that would be difficult to measure and record at a later date.

- 1. Mark new information, including details, that is important to DISTRICT but was not shown on Drawings or Shop Drawings.
- 2. Show measured depths of foundations in relation to finish first floor datum.
- 3. Show measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements. Identify drains and sewers by invert elevation.
- 4. Verify surveyor's Record Drawings with CONTRACTOR'S utilities locations and depths markups.
- Show measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work. Identify ducts, dampers, valves, access doors and control equipment wiring.
- 6. Show field changes of dimension and detail.
- 7. Note related Change Order or Construction Directive numbers on each affected sheet.
- 8. Organize Record Drawing sheets into manageable sets. Bind sets with durable-paper cover sheets; print suitable titles, dates, and other identification on the cover of each set.
- F. Record Specifications: Maintain a complete copy of the Specifications, including Addenda, Change Orders and Construction Directives issued during construction. Legibly mark at each Section description of actual products installed if different from that specified, including:
 - 1. Manufacturer's name, trade name, product model and number and supplier.
 - 2. Authorized product substitutions or alternates utilized.
 - 3. Changes made by Addenda and Modifications.
- G. Record Product Data: Maintain a copy of each Product Data submittal. Note related Change Orders and Construction Directives and mark-up of record drawings and Specifications.
 - Mark these documents to illustrate significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the Project site and from the manufacturer's installation instructions and recommendations.
 - 2. Provide detailed and accurate information regarding concealed products and portions of Work that cannot otherwise be readily discerned later by direct observation.

- H. <u>Record Samples</u>: Immediately prior to Substantial Completion, CONTRACTOR shall meet with ARCHITECT and DISTRICT at the Project site to determine which Samples are to be transmitted to DISTRICT for record purposes. Comply with DISTRICT instructions regarding delivery to DISTRICT storage area.
- I. <u>Miscellaneous Records</u>: Refer to other Specification sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date of Final Completion, complete and compile miscellaneous records and place in good order. Identify miscellaneous records properly and bind or file, ready for continued use and reference. Submit to ARCHITECT for DISTRICT records.

END OF SECTION

Division 02 Specifications

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SECTION 26 05 00 ELECTRICAL GENERAL PROVISIONS

PART 1 - GENERAL

1.1 SCOPE

- 1.1.1 Work Included: All labor, materials, appliances, tools, equipment, facilities, transportation and services necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this Section, complete, as shown on the Drawings and/or specified herein. Work includes, but is not necessarily limited to, the following:
- .1 Examine all other sections for work related to those other sections and required to be included as work under this section.
 - .2 General provisions and requirements for electrical work.

1.2 SUBMITTALS

1.2.1 General

- .1 Review of Contractors submittals are for general conformance with the design concept of the Project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the Plans and Specifications. Contractor is responsible for quantities; dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of work with that of all other trades and satisfactory performance of their work.
- .2 The Contractor shall review each submittal in detail for compliance with the requirements of the Contract Documents prior to submittal to the Architect. The Contractor shall "Ink Stamp" and sign each item of the submittal with a statement "CERTIFYING THE SUBMITTAL HAS BEEN REVIEWED BY THE CONTRACTOR AND COMPLIES WITH ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS".
- .3 Where the Construction Documents indicate specific Manufacturer(s) for any given product, it shall be considered a substitution if the Contractor proposes to use any Manufacturer other than those specifically named. The Contractor shall clearly and specifically identify each individual proposed substitution or proposed deviation from the requirements of the Contract Documents with a statement "THIS ITEM IS A SUBSTITUTION".

1.2.2 Material Lists and Shop Drawings:

- .1 Submit material list, Equipment Manufacturers, and Shop Drawings for approval within 35 days of award of Contract. Give name of Manufacturer and where applicable, brand name, type and/or catalog number of each item. Listing of more than one Manufacturer for any one item of equipment, or listing items "as specified", without both make and model or type designation, is not acceptable. The right is reserved to require submission of samples of any material whether or not particularly mentioned herein.
- .2 Shop Drawings shall be submitted in completed bound groups of materials (i.e., all lighting fixtures or all switchgear, etc.). Shop Drawing shall be prepared by Factory Authorized Representatives. Departure from the above procedure will result in resubmittals and delays.

- .3 Submittals which are intended to be reviewed as substitution or departure from the Contract Documents must be specifically noted as such or the requirements of the Contract Documents will prevail regardless of the acceptance of the submittal.
- .4 Shop Drawings shall include dimensioned plans, elevations, details, wiring diagrams and descriptive literature of components parts where applicable.
- .5 The Contractor shall verify dimensions of equipment and be satisfied as to fit and that they comply with all Code requirements relating to clear working space about electrical equipment prior to submitting Shop Drawings for approval.
- Shop Drawings shall include the Manufacturer's projected days for shipment from the factory of completed equipment, after the equipment is released for production by the Contractor. It shall be the responsibility of the Contractor to insure that all material and equipment is ordered and installed in time to provide an orderly progression of the work, and to allow full occupancy and full operation of the facility at the scheduled completion date. The Contractor shall notify the Architect of any changes in delivery which would affect the Project completion date.
- 1.2.3 The Contractor shall be responsible for incidental, direct and indirect costs resulting from the substitution of specified Contract Materials or Work.

1.2.4 Maintenance and Operating Manuals

- .1 The Contractor shall furnish three copies of typewritten maintenance and operating manuals for all electrical equipment, fire alarm equipment, sound system equipment, etc., to the District and instruct District's Personnel in correct operation of all equipment at completion of Project.
- .2 Maintenance and operating manuals shall be bound in three-ring, hard-cover, plastic binders and shall be delivered to the District with letter of transmittal, carbon copy to the Architect.
- 1.2.5 Portable or Detachable Parts: The Contractor shall retain in his possession, and shall be responsible for all portable and detachable parts or portions of the installation such as fuses, keys, locks, adapters, locking clips, and inserts until final completion of contract work. These parts shall then be delivered to the District or his Authorized Representative and an itemized receipt obtained, with copies of receipt sent to the Architect.

1.2.6 Record Drawings

- .1 Provide and maintain in good order at the job site a complete set of Electrical Contract prints. Changes to the Contract to be clearly recorded on this set of prints. No pay request by the Contractor will be granted without verification that the jobsite prints are up-to-date and current with the Project Construction. At the end of the Project, the Contractor shall transfer all changes to one set of transparencies to be delivered unfolded to the Architect. Transparency Drawings shall be prepared in an organized and clearly legible fashion by persons skilled in drafting techniques.
- .2 The actual location and elevation of all buried lines, boxes, monuments, vaults, stub outs and other provisions for future connections shall be referenced to the building lines or other clearly established base lines and to approved bench marks. All measurements shall be witnessed by the Job Inspector who shall make his own record of the dimensions. Before the Inspector signs the Record Drawings, he shall check his own dimensions against those on the Drawings. If any necessary dimensions are omitted from the Record Drawings, the Contractor shall, at his own expense, do all excavation required to expose the buried work and to establish the correct locations.

- .3 The Contractor shall keep the "Record" prints up to date and current with all work performed.
- .4 A mandrel shall be pulled through each conduit upon completion of the duct bank. All mandrelling must be done in the presence of the Job Inspector.

1.3 GENERAL SUMMARY OF ELECTRICAL WORK

- 1.3.1 The Specifications and Drawings are intended to cover a complete installation of systems. The omission of expressed reference to any item of labor or material for the proper execution of the work in accordance with present practice of the trade shall not relieve the Contractor from providing such additional labor and materials.
- 1.3.2 Refer to the Drawings and shop Drawings of other trades for additional details which affect the proper installation of this work. Diagrams and symbols showing electrical connections are diagrammatic only. Wiring diagrams do not necessarily show the exact physical arrangement of the equipment.
- 1.3.3 Before submitting a bid, the Contractor shall familiarize himself with all features of the Drawings and existing site which may affect the execution of the work. No extra payment will be allowed for failure to obtain this information.
- 1.3.4 If there are omissions or conflicts between the Drawings and Specifications, clarify these points with the Architect before submitting bid.

1.4 LOCATIONS OF EQUIPMENT

- 1.4.1 The Drawings indicate diagrammatically the desired locations or arrangements of conduit runs, outlets, equipment, etc., and are to be followed as closely as possible. Proper judgment must be exercised in executing the work so as to secure the best possible installation in the available space and to overcome local difficulties due to space limitations or interference of structure conditions encountered.
- 1.4.2 Where outlets are placed on a wall, locate symmetrically with respect to each other and other features or finishes on the wall.
- 1.4.3 In the event changes in the indicated locations or arrangements are necessary, due to developed conditions in the building construction or rearrangement of furnishings or equipment, such changes made without cost, providing the change is ordered before the conduit runs, etc., and work directly connected to same is installed and no extra materials are required.
- 1.4.4 Lighting fixtures in mechanical spaces are shown in their approximate location only. Do not install light outlets or fixtures until mechanical piping and duct work is installed, and then install lights in a location to provide best lighting.
- 1.4.5 The locations of existing utilities, building, equipment and conduit shown on the Drawings is approximate. Verify exact locations and routing of existing systems in the field. Include all costs in Contract price for adjustment required to accommodate existing conditions.
- 1.4.6 Coordinate and cooperate in every way with other trades in order to avoid interference and assure a satisfactory job.

1.5 AIR CONDITIONING, HEATING, PLUMBING EQUIPMENT WIRING

Provide electrical work, materials, and control components required for proper operation of the air conditioning, heating, and plumbing systems.

1.6 QUALITY ASSURANCE

- 1.6.1 Work and materials in full accordance with the latest Rules and Regulations of the California Code of Regulations Title 24, Part 3 "California Electrical Codes", Title 8 "Division of Industrial Safety", the National Life Safety Code, and other applicable Federal and State Laws and Regulations, California Building and Fire code.
- 1.6.2 All material and equipment shall be new and shall be delivered to the site in unbroken packages. All material and equipment shall be listed and labeled by Underwriters Laboratories or other recognized testing laboratories, where such listings are available. Comply with all installation requirements and restrictions pertaining to such listings.
- 1.6.3 Work and material shown on the Drawings and in the Specifications are new and included in the Contract unless specifically indicated as existing or N.I.C. (Not in Contract).
- 1.6.4 Keep a copy of all applicable Codes available at the job site at all times while performing work under this Section. Nothing in Plans or Specifications shall be construed to permit work not conforming to the most stringent of Codes.

1.7 CLEANING EQUIPMENT, MATERIALS, AND PREMISES

All parts of the equipment shall be thoroughly cleaned of dirt, rust, cement, plaster, etc., and all cracks and corners scraped out clean. Surfaces to be painted shall be carefully cleaned of grease and oil spots and left smooth, clean, and in proper condition to receive paint finish.

1.8 JOB CONDITIONS - PROTECTION

Protect all work, materials and equipment from damage from any cause whatever and provide adequate and proper storage facilities during the progress of the work. All electrical equipment shall be stored in a weather-tight structure. Provide for the safety and good condition of all the work until final acceptance of the work by the District and replace all damaged or defective work, materials, and equipment before requesting final acceptance.

1.9 CUTTING AND PATCHING

Perform cutting and patching of the construction work which may be required for the proper installation of the electrical work. Patching shall be of the same material, thickness, workmanship and finish as existing and accurately match surrounding work to the satisfaction of the Architect. Cutting of structural members shall not be done without notifying the Architect and obtaining DSA approval.

1.10 IDENTIFICATION

- 1.10.1 Panelboards, terminal cabinets, circuit breakers, disconnect switches, starters, relays, time switches, contactors, pushbutton control stations, and other apparatus used for the operation or control of feeders, circuits, appliances, or equipment shall be properly identified by means of descriptive nameplates or tags permanently attached to the apparatus and wiring.
- 1.10.2 Nameplates shall be engraved laminated phenolic. Shop Drawings with dimensions and format shall be submitted to the Architect before installation. Attachment to equipment shall be with escutcheon pins, rivets, self-tapping screws or machine screws. Self-adhering or adhesive backed nameplates shall not be used.
- 1.10.3 Plates: All cover and device plates shall be furnished with engraved or etched designations under any one of the following conditions:

- .1 Three gang or larger gang switches.
- .2 Keyed and/or locking switches.
- .3 Pilot light switches.
- .4 Switches in locations from which the equipment or circuits controlled cannot be readily seen.
- .5 Manual motor starting switches.
- .6 Switches which serve other than lighting loads.
- .7 Where so indicated on the Drawings.
- .8 As required on all control circuit switches, such as heater controls, etc.
- .9 Where receptacles are other than standard duplex receptacles to indicate voltage and phase.
- 1.10.4 Provide black-on-white laminated plastic nameplates engraved in minimum ¼-inch high letters to correspond with the designations on the Drawings. Provide other or additional information on nameplates where indicated.
- 1.10.5 For equipment containing or operating on circuits of more than 240 volts nominal, provide red-on-white laminated warning signs engraved in ½-inch high letters to read: "CAUTION 480 (or as applicable) VOLTS AUTHORIZED PERSONNEL ONLY".

1.10.6 Wire and Cable Identification

- .1 Provide identification on individual wire and cable including sign systems, fire alarm, electrical power systems (each individual phase, neutral and ground), empty conduit pull ropes, and control circuit.
- .2 Identification shall be provided at each termination location, splice location, pullbox, junction box and equipment enclosure.
 - a. Individual wire and cable larger than #6 AWG or 0.25 inch diameter shall be provided with polypropylene identification tag holders, with yellow polypropylene tags interchangeable black alphanumeric characters. Character height 0.25 inch or TECH Products "EVERLAST" Series. Attach identification tags with plastic "tie" wraps, minimum of two for each tag. As manufactured by Almetek Industries "EZTAG" Series.
 - b. Individual wire and cable #6 AWG and smaller or smaller than 0.25 inch diameter, shall be provided with water and oil resistant, flexible, pressure sensitive machine embossed plastic tags that wrap a minimum of 360 degrees around the wire/cable diameter. The entire tag shall then be covered with a clear flexible waterproof plastic cover wrapped a minimum of 540 degrees around the wire/cable diameter and completely covering the identification.
 - c. Each identification tag location shall indicate the following information: circuit number, circuit phase, source termination and destination termination equipment name (or outlet number as applicable).
- 3. Install identification after installation/pulling of wire/cable is complete, to prevent loss or damage to the identification.
- 1.10.7 Cardholders and cards shall be provided for circuit identification in panelboards. Cardholders shall consist of a metal frame retaining a clear plastic cover permanently attached to the inside of panel

door. List of circuits shall be typewritten on card. Circuit description shall include name or number of circuit, area, and connected load.

1.10.8 Junction and pull boxes shall have covers marked with circuit numbers according to panel schedule. Data shall be lettered in a conspicuous manner with a color contrasting to finish.

1.11 TESTING

- 1.11.1 The Contractor shall obtain an independent NETA certified Testing Laboratory that will provide all instrumentation and tests on the electrical system and equipment as hereinafter described and further directed by the Architect. The test shall be performed after the completion of all electrical systems. All tests shall be recorded and documented and submitted to the Architect for review.
- 1.11.2 The Testing Laboratory shall meet Federal OSHA criteria for accreditation of Testing Laboratories Title 29 Part 1907. Membership in the National Electrical Testing Association shall constitute proof of meeting aid criteria, for testing of electrical system.
 - .1 Test for Phase to Ground Condition:
 - a. Open new feeder breaker serving this project.
 - b. Isolate the system neutral from ground.
 - c. Close all new submain disconnects.
 - d. Close all new branch feeder circuit breakers.
 - e. Measure the resistance of each phase to ground. A properly calibrated "megger" type test instrument to be used. The test voltage shall be 500 volts.
 - f. Record all readings after 1-minute duration and document into a complete report.
- .2 Isolating Grounds: In the event that low resistance grounds are found in the system, they shall be isolated and located by testing each circuit individually as outlined above. Make proper corrections to restore the resistance values to an acceptable value.
- 1.11.3 Method of obtaining ground resistance shall be in accordance with the latest edition of the James G. Biddle (Plymouth Meeting, Pennsylvania) manual published on this subject.
- 1 Perform "fall-of-potential" tests on each new grounding electrode of system per IEEE Standard No. 81, Section 8.2.1.5. When suitable locations for test rods are not available, a low resistance dead earth or reference ground will be utilized.
- .2 Perform the two-point method test per IEEE Standard No. 81, Section 8.2.1.1, to determine the ground resistance at each ground bus in distribution boards and distribution panels and transformer neutrals.
- 1.11.4 All instrumentation and personnel required for testing shall be furnished by the Contractor.
- 1.11.5 The testing, calibrating and setting of all circuit breakers, device protection relays, and adjustable settings shall be by an independent Testing Laboratory. Set as recommended by the respective Manufacturer and coordination study so as to be coordinated with other protection devices within the electrical design. Four bound and tabulated copies of the test and settings shall be sent to the Architect.

- 1.11.6 Ampere and voltage measurements:
- .1 Take and record ampere and line voltage measurements under full load on all new panel feeders, and air conditioning feeders provided in the Contract. Record measurements at the equipment tested and submit to the Architect for review.
 - .2 Ampere voltage readings shall be:
 - a. Phase A-B, A-C, and B-C.
 - b. Phase A-Neutral, B-Neutral, and C-Neutral.
- .3 The ampere and voltage readings shall be not less than 20 minutes duration for each test. Record and submit the measured minimum, maximum and 20 minute average for each ampere and voltage value and test location. Voltage and ampere measurements shall occur at the connected load end of each respective feeder, not at the source of supply end of each feeder.
 - .4 Test equipment shall be accurate within plus or minus 1-percent.

1.12 SERIES RATED EQUIPMENT

Circuit protective devices identified as "Series Rated" or "Current Limiting" (i.e., CLCB - Current Limiting Circuit Breaker; CLF - Current Limiting Fuse; etc.) shall be series rated and tested (UL 489 and CSA5) by the Manufacturer with all equipment and circuit protective devices installed down stream of the identified series rated or current limiting devices. Provide nameplates on all equipment located down stream, including the CLCB and CLF devices, to comply with N.E.C. paragraphs 110-22 and 240-83 "CAUTION SERIES RATED SYSTEM - NEW DEVICE INSTALLATIONS AND REPLACEMENTS SHALL BE THE SAME MANUFACTURER AND MODELS."

1.13 SPARE FUSES

Provide three spare fuses for each size and type to match the installed fuses where the fuses are provided as part of the Contract.

1.14 WALL MOUNTED ELECTRICAL EQUIPMENT

- 1.14.1 Provide multiple horizontal sections of metal "C" channels for support and attaching wall mounted equipment to walls. Channels shall provide "turned lips" at longitudinal edges to hold "lock-in" fasteners and shall comply with ANSI-1008 and ASTM-A569 latest revision. The channels shall be steel hot dip zinc galvanized. As manufactured by Unistrut or Kindorf. Coordinate with details on DSA approved Drawings.
- 1.14.2 The "C" channels shall be positioned horizontally within 3-inches of the top and bottom of each, equipment section cabinet and located behind each equipment vertical section. Provide additional intermediate "C" channels at not less than 36-inches on center between the "top" and "bottom" "C" channel positions, located behind each equipment vertical section.
- 1.14.3 The "C" channels shall be of sufficient length to provide connection to not less than two vertical structural wall framing elements separated by not less than 16 inches; but in no case shall the "C" channel length be less than the width of the respective Equipment Section.
- 1.14.4 Attach the "C" channels to the wall structural elements after the wall, finish surface, installation (including painting) is complete.

- 1.14.5 Attach the "C" channels with fasteners to the building wall framing structural elements as follows: welded to steel framing; bolted to wood framing; cast in place concrete inserts for masonry and concrete construction; drilled "afterset" expansion anchors for existing masonry and concrete construction.
- 1.14.6 Attach the equipment to the "C" channels with threaded and bolted fasteners to "prelocate" and lock into the channel "turned lips" and channel walls.

1.15 ELECTRICAL WORK CLOSEOUT

- 1.15.1 Prepare the following items and submit to the Architect before final acceptance.
 - .1 Two copies of all test results as required under this Section.
 - .2 Two copies of Local and/or State Code Enforcing Authorities' Final Inspection Certificates.
 - .3 Copies of As-Built Record Drawings as required under the General Conditions, pertinent Division One Sections, and Electrical General Provisions.
 - .4 Two copies of all receipts transferring portable or detachable parts to the District when requested.
 - .5 Notify the Architect in writing when installation is complete and that a final inspection of this work can be performed. In the event any defect or deficiencies are found during this final inspection they shall be corrected to the satisfaction of the Architect before final acceptance can be issued.
- 1.15.2 The Contractor shall complete the following work before any electrical equipment is energized:
 - .1 All equipment shall be permanently anchored.
 - .2 All bus connections shall be tightened per Manufacturer's instructions and witnessed by the DSA Inspector.
 - .3 All ground connections shall be completed and identified. Perform and successfully complete all required megger and ground resistance tests.
 - .4 All feeders shall be connected and identified.
 - .5 The interiors of all electrical enclosures including busbars and wiring terminals shall be cleaned of all loose material and debris, paint, plaster, cleaners or other abrasive's overspray removed and equipment vacuumed clean. The DSA Inspector shall observe all interiors before covers are installed.
 - .6 All dry wall work and painting shall be completed within the Electrical Rooms.
 - .7 All doors to electrical equipment rooms shall be provided with locks in order to restrict access to energized equipment.
 - .8 Electrical rooms shall not be used as a Storage Room after power is energized.
 - .9 The coordination study shall be complete, circuit breakers ground relays set, tested, and calibrated accordingly.

END OF SECTION

SECTION 27 10 00.1

Ethernet Cabling

II.A. Supporting Codes and Standards Documents

It is not possible to list all of the applicable Codes and Standards documents. A non-inclusive list of key documents is presented below as a minimum:

- ANSI/EIA/TIA-568-B: Commercial Building Telecommunications Cabling Standard
- ANSI/EIA/TIA-569-A: Commercial Building Standard for Telecom Pathways and Spaces
- ANSI/EIA/TIA-606: Administration Standard for the Telecommunications Infrastructure of Commercial Buildings
- ANSI/EIA/TIA-607: Commercial Building Grounding/Bonding Requirements
- NFPA 70: National Electrical Code
- ISO/IEC 11801: Generic Cabling for Customer Premises
- BICSI :Telecommunications Distribution Methods Manual (TDDM)

The latest revision of each document, and other related documents, is to be considered the one in force at the time of system construction and delivery to SBCUSD. The vendor is required to comply with the applicable documents in content and intent as well.

II.A.1. If any applicable documents are in conflict, then the more stringent requirement shall apply. The Contractor is required to advise the SBCUSD Information Technology (IT) Representative of any conflict that could result in work deficiencies.

II.B. Vendor Requirements

Vendors bidding on SBCUSD work projects shall possess as a minimum the following qualifications:

- 1. A manufacturer's Certified Installer/Contractor agreement in force at the time of bid submittal and throughout the entire construction process. A current support document shall be included in the Contractor's bid response.
- 2. Authorization to facilitate the applicable Manufacturer's System Warranty.
- 3. The contractor shall ensure that at least 50% of all technicians installing a copper system have received a manufacturer's training certificate for copper systems.
- 4. The contractor shall ensure that 100% of the technicians installing a fiber optic system have received a manufacturer's training certificate for fiber optic systems.
- 5. The contactor shall have copies of the technicians' certificates available for inspection by the SBCUSD IT Representative upon request.
- 6. Vendor shall hold in good standing a California C-10 license. Note: a valid California C-7 license in addition is preferred by SBUCSD. Vendor must act as prime, but may utilize subcontractors. A copy of the license(s) is/are to be included in the vendor's bid response.
- 7. The Vendor must have completed a minimum of five projects of similar size and scope for public entities within the past three years.

II.C. Cabling System

All copper and fiber optic components of the cabling system are either to be of a single manufacturer, or of a manufacturer partnership under a system trade name offering a single point of contact for SBCUSD in the event of a warranty claim. The SBCUSD has chosen the Panduit TX6A 10 Gig UTP Copper Cabling solution as the baseline for all equivalents to be measured. Vendors submitting other manufacturer systems for considered must meet this system in physical and electronic performance as well as utility.

II.C.1 Copper System

A. SBCUSD requires a high performing Category 6a system that meets the following system performance guaranteed headroom as a minimum based on worst pairs:

Electrical	TIA/EIA	ISO	
Value	Category 6A	Class EA	
Insertion Loss	3%	3%	
NEXT	3.5 dB	2.5 dB	
PSNEXT	5 dB	4 dB	
PSACR-F	10 dB	10 DB	
Return Loss	3 dB	3 dB	
PSACR-N	6.5 dB	6.5 dB	
PSANEXT	2 dB	2 dB	
PSAACR-F	10 dB	10 dB	

II.C.2 Copper Cable Color Standards for Horizontal Cabling, Jack Inserts and Patch Cords

The following colors are the District Standards for the specific network devices and services listed below:

Red: To be utilized when the project to install cabling has determined that the devices and services are in support of Alarms, Security, Energy Management Systems (EMS), and Environmental monitoring. The District has standardized on the color Red for horizontal cabling and jack inserts and patch cables on both ends of the horizontal cabling must also be Red in color.

II.C.3 Cable

- A. SBCUSD requires all cabling being installed within a building to be plenum rated in all environments. Even though quite desirable, SBCUSD is not aware of a Category 6A indoor/outdoor plenum-rated cable. As a result, SBCUSD is willing to accept an indoor/outdoor CM rated cable as long as the NEC termination and pathway requirements are met. Regardless of environment, the cabling shall be of the same electrical performance as Category 6A and be warranted by the same cabling system manufacturer, as Panduit or equivalent.
- B. Installation of cabling shall be of continuous length from each termination point.
- C. No length of cable shall exceed 285 feet (tested length).
- D. The bend radius of any cable shall not exceed 4 times the diameter of the cable.
- E. Should the cable become *kinked* while being installed, the contractor shall <u>not</u> attempt to repair the cable, but shall remove and replace the entire run. All cable runs are potential inspection items for the SBCUSD IT Representative.
- F. The cable jacket shall be maintained as close to the point of termination as possible.
- G. The cable pairs shall not be untwisted more than 1/2" from the termination point.
- H. All cabling is to be installed in its own pathway and fully supported.
- I. Cabling shall be installed with no more than a 4-foot space between supports.
- J. Cabling can be installed in pathways such as cable tray and ladder racking, as long as the pathway is low-voltage cabling only, the pathway is appropriately bonded to the building grounding system, and the Data System cables are bundled separately from other low voltage cabling.
- K. Underground cabling can be installed inside buildings to the ultimate termination point without transition as long as the cabling is rated for such applications.

II.C.4. Terminations

- A. Jack modules shall be of insulation-displacement termination construction, and may offer mass termination of all four pairs simultaneously. In addition, a jack module must be available as part of the cabling system, and facilitate the same system performance and warranties, that can be utilized in existing workstation outlet faceplates from other manufacturers.
- B. In an effort maximize space, SBCUSD has standardized on a discrete *modular* patch panel system. The system must allow the following:
 - 1. Presentation of 48 individual module ports in a 1U (1.75") rack height.
 - 2. Presentation of 24 individual module ports in a 1U (1.75") rack height.
 - 3. Presentation of 12 individual module ports to be mounted in an 89B type wall bracket.
 - 4. Offer Category 6a connectivity.
 - 5. Offer Category 5e connectivity if required
- C. Cabling shall be dressed cleanly and fully supported via Velcro straps and cabinet/rack supports. All cabling bundles are to be loosely secured with Velcro (hook & loop) straps only. Cable ties are not to be utilized. In addition, Velcro straps must not be spaced at regular intervals but must vary between 4-6 inches at random over the length of the secured cable section.
- D. Cabling slack can be placed in the cabinet/rack area as well as the ceiling areas if fully supported by the proper pathway device. No more than 4 feet per horizontal run shall be stored.
- E. No particular order is required between workstation cabling terminations or Access Point cabling terminations.
- F. The ports are to be populated beginning with port one in sequence, leaving no open ports.
- G. It is not a requirement to fill the unused ports with blanks.

II.C.5. Patch Cords

- A. Small diameter Category 6A patch cords, as manufactured by Panduit (or approved equivalent) shall be provided by the contractor for the outlet or other device termination end as well as the patch panel termination end. The contractor may be asked to install the MDF/IDF/LDF patch cords in instances where the existing Edge switches are not being replaced, as part of the SBCUSD cabinet redressing requirement. These patch cords for the most part shall be either 8" in length or 12" in length as required with preference given to the 8" length where it can be used without strain.
- B. Small diameter Category 6A patch cords, as manufactured by Panduit (or approved equivalent), utilized for all patching shall be of appropriate length and engaged into the associated terminated jack, then coiled and left to be engaged into the device at the appropriate time.
- C. As a space saving effort, SBCUSD requires the diameter of the patch cable shall not exceed .150" as manufactured by Panduit (or approved equivalent).
- D. The connector end of the patch cord shall provide a *tangle-free latch* design as manufactured by Panduit (or approved equivalent).
- E. A Category 6A small diameter, tangle-free latch design patch cord for devices in lengths appropriate for the specific workstation shall be delivered to SBCUSD. The SBCUSD IT Representative will confirm the quantities and lengths required per site. At no time shall a patch cord exceeding 5 meters be required.

II.C.8. Cable Management

- A. As part of SBCUSD's efforts to maximize cabinet/rack space utilization, no new horizontal cable management devices shall be installed. See Cabinets/Racks Redressing Requirements.
- B. Rear cable management devices to support cables to the point of termination are to be utilized. A towel bar style bracket is acceptable as long as the cables are neatly and securely attached via Velcro straps.
- C. Vertical wire management may be utilized when appropriate.

II.C.9. Labeling

- A. All workstation outlets, Access Points, and patch panel termination ports are to be labeled with the SBCUSD standard labeling system.
- B. The standard labeling system is as follows:
 - 1. The patch panel termination location followed by the port number

Example: IDF-A1 to port 07 A1-07 (workstation cable)

Example: IDF-A1 to port 07 A1-W07 (Access Point cable)

C. A wrap around label shall be installed at each end of the cable no more than 4 inches from the point of termination presenting the same alphanumeric scheme.

II.C.10 Warranty

- A. Installers must be Panduit/General certified and be able to provide the Certification Plus System Warranty for 25 years.
- B. Installer Requirements
 - a. Certification Plus System Warranties are only available when installed by a Panduit ONESM Partner accredited with the Deploy competency as of the date of installation. Such Partners must meet various criteria imposed by Panduit to achieve such status, including maintaining minimum levels of trained technicians and sales staff, and having a RCDD or Panduit-approved equivalent on staff.
- C. Issuing the Warranty Certificate
 - a. Once the structured cabling system has been installed, registered, and validated by Panduit, a Certification Plus System Warranty Certificate will be issued to the end user, providing the confidence and security in the newly installed Panduit structured cabling system.

IIC.11 Acceptance of Installed Cabling

A. Cabling installer MUST provide Fluke (or equivalent) test results for each cable drop installed, showing the overall length of the horizontal cabling and the Pass/Fail status of the cable being tested. Fail results would require the installer to re-terminate both ends and re-test until it passes. Should re-termination fail to resolve the issue, then the installer must re-pull that run of cable.

END OF SECTION 27 10 00.1

SECTION 28 13 53.11 IP NETWORK COMPATIBLE INTERCOM (IX SYSTEM)

GENERAL

- 1.1 SECTION INCLUDES
 - A. IP Video Intercom. (Aiphone IX Series s system)
- 1.2 RELATED SECTIONS
 - A. Section 27 10 00.1 Ethernet Cabling
- 1.3 REFERENCES
 - A. Standards Institute (ANSI/TIA/EIA) 568 Commercial Building Telecommunications Cabling Standard.
 - B. International Organization for Standards (ISO) 9001:2000 Quality Management Systems Requirements.

1.4 SYSTEM DESCRIPTION

- A. IP Network Compatible Video Intercom System: A network-based communication and security system featuring video entry security, internal communication, emergency stations, and paging. All units and app in the systems shall be able to unlock doors remotely on a network, view and assist onsite visitors from an offsite location, broadcast emergency announcements, and communicate using a PoE network.
 - 1. Power Source: Power over Ethernet (802.3af).
 - 2. Network Interface: 10 BASE-T / 100 BASE-TX Ethernet CAT 6a (RJ-45).
 - 3. Network Protocols: IPv4, IPv6, TCP, UDP, SIP, HTTP, HTTPS, MJPEG, RTSP, RTP, RTCP, IGMP, MLD, SMTP, DHCP, NTP, DNS.
 - 4. Bandwidth Usage:
 - a. G.711: 64Kbps x 2 per video call.
 - b. 64Kbps per monitor.
 - c. H.264: 24Kbps ~ 2,048Kbps.
 - 5. Communication: Hands-free (VOX), push-to-talk (simplex), or handset (full-duplex).
 - 6. Video Display: 7 inches color LCD.
 - 7. Camera: Type:
 - a. 1/4 inch (6 mm) color CMOS.
 - b. View Area: 2 feet 2 inches (660 mm) vertical x 3 feet 1 inch (940 mm) horizontal at 20 inches (508 mm).
 - c. Resolution: VGA or higher
 - 8. Video Stream: ONVIF Profile S.
 - 9. Door Release: Programmable Form C dry contact, 24V AC/ DC, 500mA (which requires 24V DC power supply).
 - a. District standard electric strike: HES model 9600 Series 24 V DC.
 - 10. Power Source for electric strike: Atop AD1048-24FS 48W/24DIN-Rail 24V DC.

- 11. Wire Type: CAT-6a. (District standard: Panduit)
- 12. Distance:
 - a. Base Bid to include up to 100 l. f. of cabling
 - b. Maximum allowable to any station to Network Node: not to exceed 330 feet (100 meters).

1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Submit the following:
 - 1. Wiring Diagrams: Indicate wiring for each item of equipment and interconnections between items of equipment.
 - 2. Include manufacturer's names, model numbers, ratings, power requirements, equipment layout, device arrangement, complete wiring point-to-point diagrams, and conduit layouts.
- D. Installation and Operation Manuals:
 - 1. Submit manufacturer's installation and operation manual, including operation instructions and component wiring diagrams.
 - 2. Provide detailed information required for Owner to properly operate equipment.
- E. Warranty: Submit manufacturer's standard warranty.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: ISO 9001:2008 certified company.
- B. Installer Qualifications: Factory trained and experienced with system installations of scope and size required for the Project.
- C. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- D. Storage: Store materials in clean, dry area indoors in accordance with manufacturer's instructions.
- E. Handling: Protect materials during handling and installation to prevent damage.

1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. IP Video Intercom System: IX Series Intercom System as manufactured by Aiphone Corporation. Web site:www.aiphone.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.1 Request for Substitution.

2.2 SYSTEM DESIGN

- A. Master Station(s): Provide one master station at each campus.
 - Aiphone Model IX-MV7-HW Provide one per campus at designated location.
- B. Audio Video Door Stations:
 - 1. Model IX-DA Surface Mount: Provide one per campus at designated location.

or

- 2. Model IX-DF Flush Mount: Provide one per campus at designated location.
- 3. Option: Model IX-DV Surface Mount.
- C. Signage:
 - 1. At each Door Station/Wall Box Contractor shall provide weatherproof signage. Signage: "ASSISTANCE" (English) and "ASISTENCIA" (Spanish).
- D. Functional Components: As indicated on the drawings or as required to complete system.
 - Video Master Station Model IX-MV7-HW:
 - a. An IP addressable video master station with a 7 inch color LCD monitor. It can be wall or desk mounted (desk stand included. This station requires a 802.3af compliant Power-over-Ethernet network.
 - 2. Audio/Video Door Station: Model IX-DA, IX-DF, or IX-DV
 - a. Station connects to a PoE network using CAT-6a cable.
 - 3. Optional Components (Unit price items to be used at District option):
 - a. RY-IP44 IP Programmable Relay Adaptor:
 - b. 45 Degree Mullion Mounting Bracket Model KMB-45:
 - Stainless Steel Security Lock Box Model LB-SDVF: for IX-DF, IX-DF-HID, & IX-DF-RP10.
 - d. Stainless Steel Enclosure Model SBX-ISDVF:
 - 18-Guage stainless steel enclosure designed for surface mounting the IX-DF door stations.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive integrated security and communication system.
- B. Notify District of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

3.2 PREPARATION

A. Verify the following compliance before starting installation.

- 1. The unit turns inoperative during power failure.
- 2. Keep the intercom wires at least 1 foot (30 cm) away from strong electrical wiring (AC 100-240 V) including, in particular, wiring for inverter electrical appliances. Noise and malfunction could result.
- 3. If a strong light shines on the main unit screen, the picture may turn white or only silhouettes will be visible.
- 4. Other manufacturer's devices (such as sensor, detectors, door releases) used with this system, comply with the manufacturer's installation requirements.
- 5. The LCD panel is manufactured with very high precision techniques, inevitably will have a very small portion of its picture elements always lit or not lit at all. This is not considered a unit malfunction. Please be aware of this in advance.

3.3 INSTALLATION

- A. Install integrated security and communication system in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Mount equipment plumb, level, square, and secure. For video entrance stations and video door stations, comply with manufacturer's design requirements to provide optimum picture quality of station monitoring.

3.4 SET-UP AND ADJUSTING

A. Adjust integrated security and communication system for proper operation in accordance with manufacturer's instructions.

3.5 DEMONSTRATION AND TRAINING

- A. Demonstration:
 - Demonstrate that integrated security and communication system functions properly.
 - 2. Perform demonstration at final system inspection by qualified representative of manufacturer.
- B. Instruction and Training:
 - 1. Provide instruction and training of Owner's personnel as required for operation of integrated security and communication system.
 - 2. Provide hands-on demonstration of operation of system components and complete system, including user-level program changes and functions.
 - 3. Provide instruction and training by qualified representative of manufacturer.
 - 4. Provide DVD copy of video recorded training session(s)

3.6 PROTECTION

 Protect installed integrated security and communication system from damage during construction.

END OF SECTION

SECTION 01 02 00

SUMMARY OF WORK

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Summary of the work of these Contract Documents for the construction of:

ML King MS Library and Administration Renovation (Mod.2)

Architect's Name: John Sergio Fisher and Associates

1.02 GENERAL

- A. Work under this Contract includes furnishing all labor, materials, services and transportation which is required for completion of the Project at the ML King MS school site in accordance with the Contract Documents.
- B. The Contract Time for completion shall be that shown in the Construction Progress Schedule.
 - Once the CONTRACTOR has received a notice to proceed, the CONTRACTOR shall complete the work within 12 calendar months from receipt of the notice to proceed. It is expressly understood that time is of the essence.
- C. At the ML King MS school site, the work is to be performed within a portion of an active school campus. All work shall be conducted in a manner that does not impact the health and safety of school staff, students, site workers and project personnel, adjacent property owners, and/or the general public. Contractor shall at all times employ safety practices and environmental controls which take into consideration the fact that work is being performed on an active school campus. All work shall be performed in a manner which maximizes safety.
- D. Contract Drawings: The Drawings provided with and identified in the Project Manual are the Drawings referenced in the Agreement.
 - 1. The location, extent and configuration of the required construction and improvements are shown and noted on Drawings.
 - a. The Drawings are referenced in the Agreement.
 - b. An index of Drawings is included in the set of Drawings.
 - Drawings are arranged into series according to design discipline. Such
 organization and all references to trades, subcontractor, specialty
 contractor or supplier shall not control the Contractor in dividing the Work
 among subcontractors or in establishing the extent of the Work to be
 performed by any trade.
 - 3. Where the terms "as shown", "as indicated", "as noted", "as detailed", "as scheduled", or terms of like meaning, are used in the Drawings or

Specifications, it shall be understood that reference is being made to the Drawings referenced in the Agreement.

- 4. Where reference to the word "plans" is made anywhere in Drawings, Specifications and related Contract Documents, it shall be understood to mean the Drawings referenced in the Agreement.
- E. Contractor's Safety Performance Requirement: SBCUSD places safety and safe work practices at a premium, especially in regard to operations on active District campuses.
- F. All work shall be performed in a manner that minimizes impact to the environment, minimizes waste and maximizes the amount of salvageable material recovered throughout the project(s).
- G. All work shall be performed in a manner that minimizes noise and vibration impacts to the adjacent classrooms, school operations and surrounding neighborhood. In some cases, loud or high vibration activities may have to be rescheduled to accommodate school instructional or testing activities. Such activities may require work on weekends or during holiday breaks. Cost of rescheduling and of off hours work shall be at Contractor's expense. Holiday break periods for the 2019-2020 school year are as follows:

MLK Day: 1/20/20
 Lincoln's Birthday: 2/10/20
 President's Day: 2/17/20

■ Spring Break 3/23/20 – 4/3/20

Memorial Day: 5/25/20

Summer Break: Begins 6/9/20, Ends 8/3/20

Labor Day 9/7/20
 October 2nd 10/2/20
 Veteran's Day 11/11/20

Thanksgiving 11/26/20 – 11/27/20
 Winter Break: 12/18/20-1/8/20

- H. All work shall be performed in a manner that protects existing infrastructure, landscaping, and other structures designated to remain.
- I. All work shall be performed in a manner that meets the District's expectation for safe work execution, as well as adherence to schedule and project budget.

1.03 Background

- A. M. L. King Middle School Library and Administration Renovation (mod. 2):
 - 1. The ML King campus is located within a predominantly residential community. The ML King Library and Administration work site is a smaller subset of the MLK MS campus, located at 1250 N. Medical Center Drive.
 - 2. The scope shall also include temporary fencing and signage as required to designate staff and separate visitor parking areas, student drop off, as well as contractor's laydown areas. Areas shall be fenced and demarcated to safely

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route and protect student, staff, visitors, construction site personnel and the general public.

- 3. Administration building interior renovation: The project is a tenant improvement to existing reception / administration offices and library / media center building approximately 4500 sf; Renovating three (3) existing restrooms.
- 4. Administration building exterior renovation: Renovate all building facades; Remove and replace the existing storefront and doors; Provide sun control elements at the south façade; Create new planters; Provide new steel fence around existing electrical units.
- 5. Administration building systems renovations: Replacement of entire mechanical systems, lighting, and renovation of electrical power and data systems.

1.04 EXISTING CONDITIONS

Certain information relating to existing surface and subsurface conditions and structures is available to bidders but will not be part of the Contract Documents, as follows:

- A. Hazardous Materials Report: See "Limited Lead, Asbestos and Hazardous Materials Assessment Report M. L. King Middle School" of September 6, 2019, by EFI Global, Inc.
 - 1. Asbestos containing thermal system insulation identified on pipe elbows above the ceiling of the library and media center will have been removed by others prior to the start of modernization efforts.
 - 2. Asbestos containing felt paper beneath the hop mop roofing material was identified on the building's western canopy. This material is not to be disturbed during the modernization effort.
 - 3. Lead containing pink ceramic tile in the north east area of the building has been removed by others prior to the start of modernization efforts.
 - Contractor to use Lead safe practices where any disturbance of surfaces are required where trace quantities of lead paint are found in door and door frame in nurse's office and in grey and white paint in Offices 1 and 2 of old plan (brick walls).
 - 5. Survey included in contract documents.

1.05 BIDDER'S INVESTIGATIONS

- A. Bidder's Investigation: Bidder shall visit site and become familiar with site conditions at the project site.
 - 1. Bidder may, at Bidder's own expense and prior to bidding, make soil surveys and investigations Bidder considers necessary, following written notification to and approval by the District representative.
 - 2. Bidder assumes risk that soil and underground conditions may be other than that indicated in soil investigation data.

B. Procedures:

- 1. Obtain authorization from authorized District Representative prior to start of borings or subsurface investigations.
- 2. Immediately upon completion of Bidder's subsurface investigation, return site areas affected by investigations to condition existing prior to start of Bidder subsurface investigations as directed by District Representative.

1.06 WORK COMPONENTS

The following work components are required by the Contract, Technical Specifications and Bid Proposal Exhibits and text of this RFP:

A. Activities Prior to Start of On-site Work

- 1. Obtain any and ALL permits necessary to perform the scope of work.
- Prepare and file all required notifications, including but not limited to South Coast Air Quality Management District (SCAQMD) Rule 1403 required notifications. SCAQMD Notifications must be filed at least 10 days before the start of work.
 - a. SCAQMD must be notified, using their online web application, prior to any work activities taking place for (a) renovations that impact ACM (except for renovations involving less than 100 square feet total of ACM surface area);
 (b) all renovations involving the clean-up of damaged or disturbed ACM; and
 (c) all demolitions. Pre-registration with SCAQMD is required to use the web app.
 - b. Please refer to SCAQMD Rule 1403 (http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1403.pdf) for all current requirements, and the Rule 1403 Frequently Asked Questions page (http://www.aqmd.gov/docs/default-source/compliance/Asbestos-Demolition-/1403-frequently-asked-questions.pdf) for more information.
- 3. Submit and fully adhere to Contractor's health and safety plan in full compliance with CalOSHA, SCAQMD, and project specifications. Site work may not proceed until this plan is delivered to and accepted by District.
- 4. The District previously contracted a survey of asbestos, lead-based paint and other hazardous wastes to confirm presence of these materials. (See "Limited Lead, Asbestos and Hazardous Materials Assessment Report – M. L. King Middle School" of September 6, 2019, by EFI Global, Inc.)
- 5. Identify and procure the services of licensed waste haulers and properly permitted Waste Disposal/Management Facilities for the transportation and disposal of all material generated during hazardous materials abatement and demolition activities.
- 6. Submit a detailed work schedule for the project for review and acceptance by District.
- 7. Contractor shall erect perimeter site fencing with fabric screen prior to initiation of any other site work as per specifications and drawings.
- B **Hazardous Material Abatement and/or Mitigation** activities are to include abatement of but are not limited to the following materials as listed in sections 1.06 B.1, 2, and 3 below:
 - 1. Asbestos Containing Materials (ACMs)
 - Asbestos was detected in the following locations:

- a. ML King Library and Administration Building:
 - i. Pink ceramic tile countertop in Administration V.P. Office NE corner and related grout was assumed to be asbestos containing. This has been abated under separate contract.
 - Roofing felt paper on exterior covered walkways was found to contain 3% chrysotile asbestos. This material is not to be disturbed during the modernization effort.
- 2. Lead-Based Paint (LBP) and Lead containing items;

Lead was detected above concentrations greater than 1.0 mg/cm2 in the following:

 Pink ceramic tile countertop in Administration V.P. Office NE corner was shown to be lead containing. This material has since been removed by others.

2. Other Hazardous Materials.

- a. Most of the fluorescent light fixtures have previously been removed in the subject
 M. L. King building(s). Any remaining fluorescent fixture shall be handled as follows:
 - i. All lighting ballasts which are not clearly marked "No PCBs" or "PCB Free" shall be assumed to contain PCBs, and shall be removed intact, packaged, and disposed of appropriately as hazardous waste. All other ballasts may be incinerated or recycled at an appropriate disposal site.
 - ii. All fluorescent tubes will be disposed as universal waste. Remaining bulbs will be disposed according to applicable regulations.
- b. Smoke detectors were observed in the subject building(s).
 - i. Smoke detectors designated to be removed shall be disassembled by Contractor and categorized as either ionization detector (radioactive) or photoelectric detectors, which can be completed by checking for the required radioactive stickers on the baseplates. Photoelectric detectors may be discarded as construction debris. Ionization detectors will require appropriate off-site disposal per appropriate regulations.

c. Exit signs

 Contractor shall disassemble signs to confirm whether they are paper, electric or tritium. Paper and electric may be disposed as construction debris. Tritium shall be disposed off-site according to regulations.

3. Campus Systems to Remain Operational

- a. Various campus systems and utilities are to remain operational during the demolition and construction effort.
 - i. All campus utilities shall remain operational throughout the project, including but not limited to:
 - 1. Electrical service
 - 2. Water
 - 3. Irrigation
 - Storm drains

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- 5. Sewer
- 6. Natural gas
- 7. Telephone
- 8. Data (Ethernet and or cable service)
- ii. Fire Alarm Systems shall remain operational. The campus uses two fire alarm systems. The main fire alarm control panel(s) for these systems are located within the Administration office and shall be protected in place and remain operational during the demolition and construction efforts.
 - 1. In the event of any alarm condition, Contractor shall allow District and/or fire personnel immediate access to fire alarm control panel(s).
- iii. Campus synchronized clock and bells system shall remain operational. The main panel(s) for this system are located within the Administration office and shall be protected in place and remain operational during the demolition and construction efforts.
 - 1. In the event that campus administration staff need to adjust bell schedules, Contractor shall allow District personnel access to the bell system control panel(s).
- iv. The campus public address amplifier shall be relocated by Contractor from the Administration Office to the Electrical Room within the Administration/Library Building and reconnected to maintain operational status. Contractor shall install new conduit for microphone cable running from Amplifier location in Electrical Room to new microphone location at workstation in Administration Office (room #106).
- Data switches, equipment and data cabling from Electrical Room to other campus buildings shall remain operational throughout the duration of the project.

4. Demolition

- a. All employees engaged in demolition activities shall be instructed regarding the contents of the Contractor's Health & Safety Plan(s).
- Any/all demolition shall be performed in a manner that emphasizes and maximizes the safety of students, staff, area residents as well as project personnel and support staff.
- c. Demolition shall be performed in a manner that does not encroach upon or cause damage to adjacent properties and structures.
- d. Demolition shall be performed in a manner that facilitates safe and efficient handling and load out of materials for disposal.
- e. The sequence of Demolition, material stockpiling, loadout, transport, and disposal shall be performed in a manner that promotes a smooth workflow to meet schedule milestones.
- f. Contactor shall take measures to protect in place adjacent trees and landscaping designated to remain.

5. Construction

- a. All employees engaged in construction activities shall be instructed regarding the contents of the Contractor's Health & Safety Plan(s).
- b. Any/all construction shall be performed in a manner that emphasizes and maximizes the safety of students, staff, area residents as well as project personnel and support staff.
- c. Any/all construction shall be performed in full compliance with project plans, specifications, and documents.
- d. Any/all construction shall be performed in full compliance with regulatory requirements.

1.07 SEQUENCING OF WORK

- 1. Proper regulatory notifications must be filed, Health & Safety plans be submitted, and permits be secured prior to commencing site work. Proof of filing of regulatory agency notifications will be required prior to start of work.
- 2. Installation of perimeter fencing and screening must be completed prior to initiation of other site activities.
- Any required Hazardous Materials Abatement work must be completed, inspected and approved by the District representative and/or District consultant prior to the start of any demolition.

1.08 PERMITS, LICENSES AND FEES

A. Permits:

- 1. For Work included in the Contract, Contractor shall obtain all permits from authorities having jurisdiction including but not limited to City of San Bernardino, serving utility companies and other state and local regulatory agencies.
- 2. District will reimburse Contractor for amount charged for such permits, without mark-up.

B. Licenses and certifications:

- 1. Contractor shall obtain and pay all licenses and certifications associated with project demolition, abatement and construction activities, such as business licenses, contractors' licenses and vehicle and equipment licenses.
- 2. All costs for licenses shall be included in the Contract Sum.

C. Assessments:

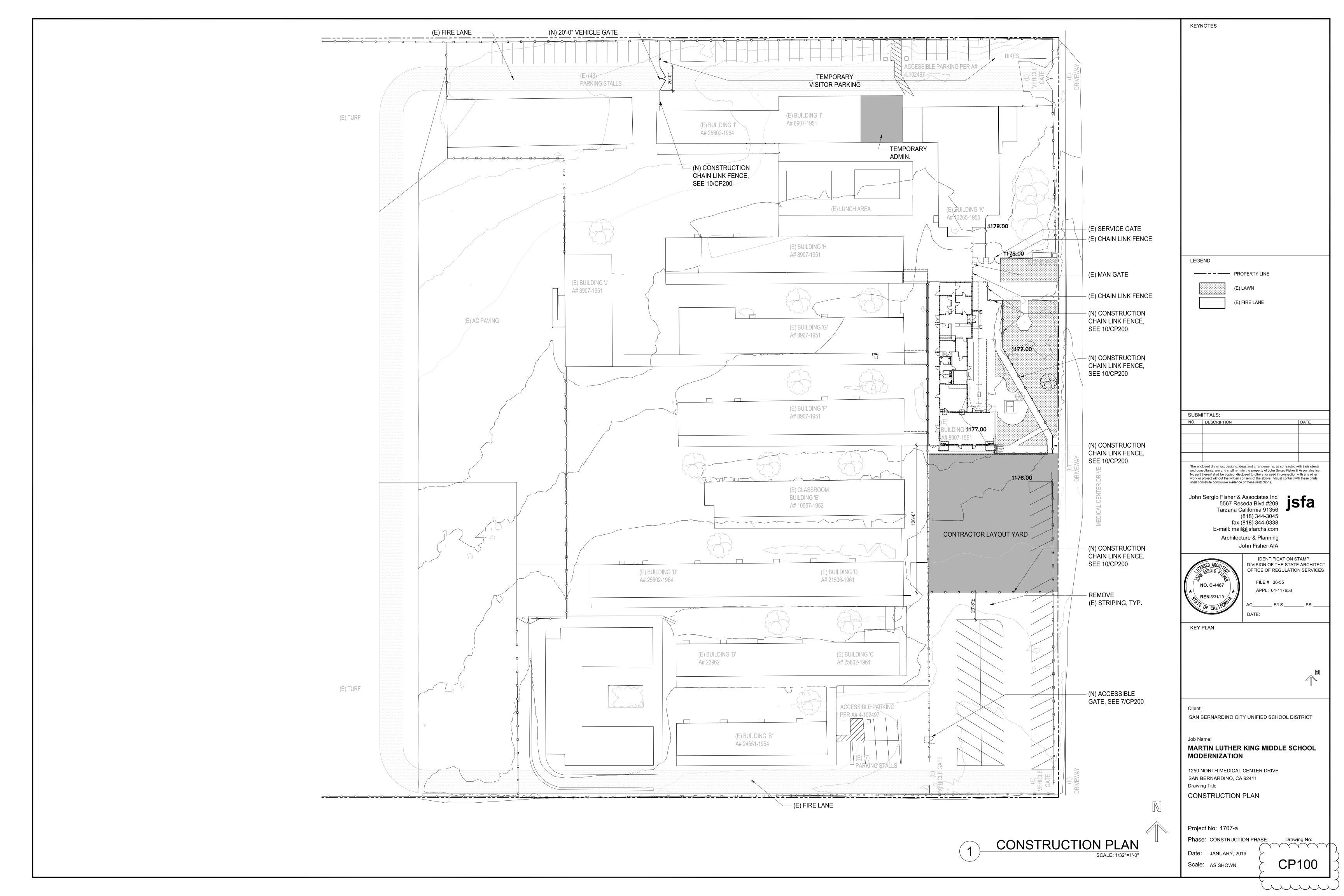
 District will pay all assessments and utility service connection fees. Costs of assessments shall not be included in the Contract Sum.

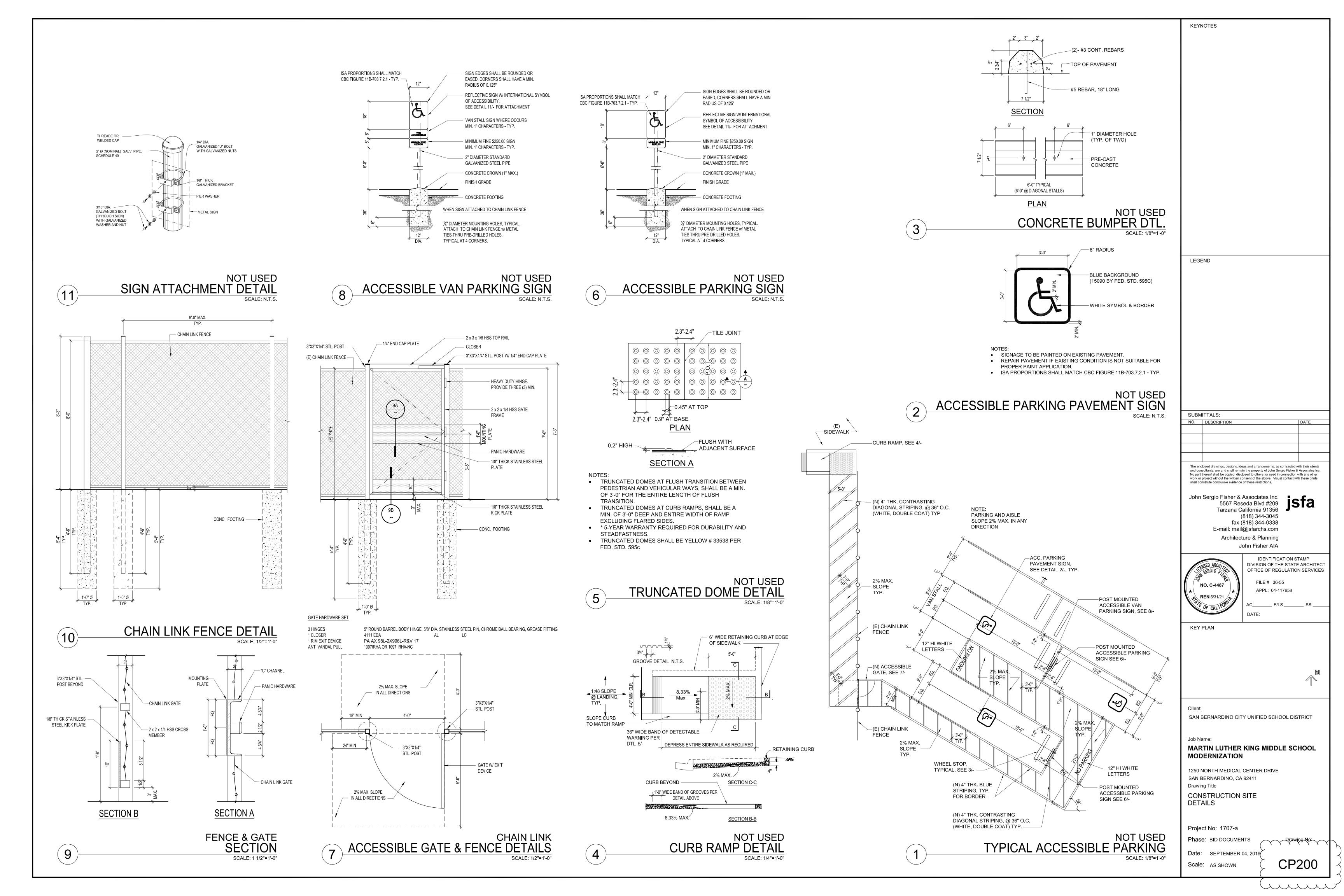
D. Test and Inspection Fees:

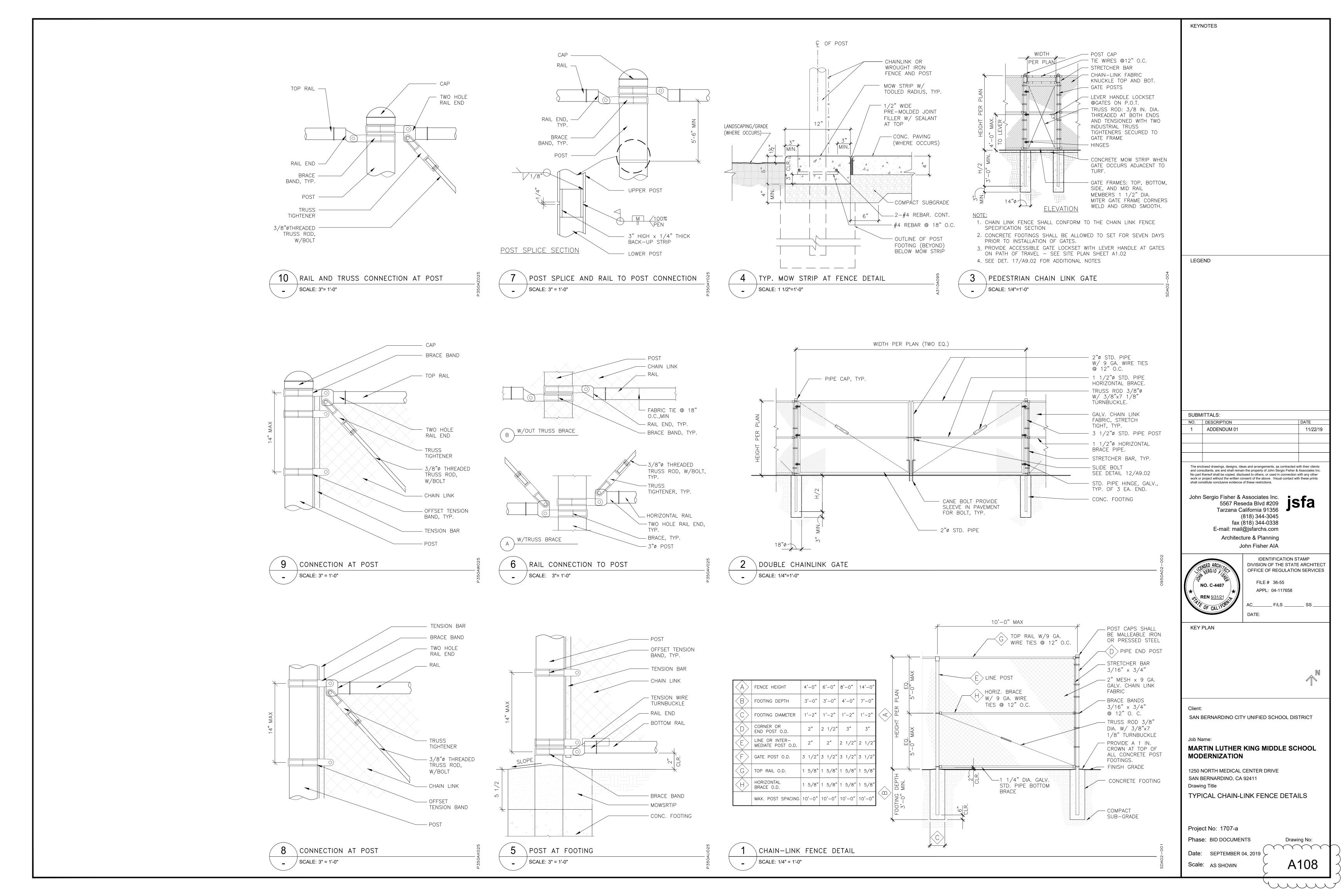
- Contractor shall pay all fees charged by authorities having jurisdiction and from serving utility companies and agencies, for tests and inspections conducted by those authorities, companies and agencies.
- 2. District will reimburse Contractor for actual amount of such fees, without mark-up.

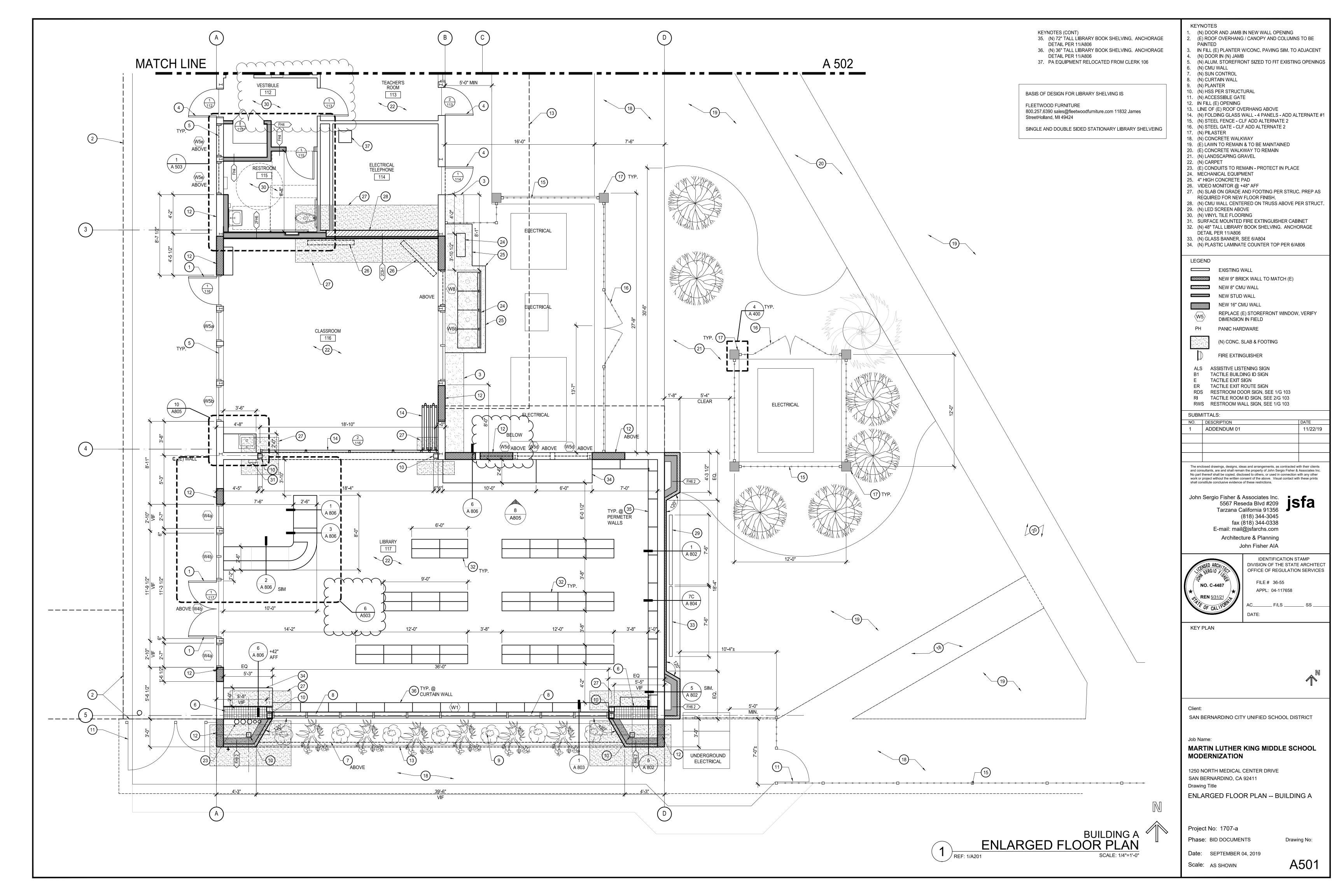
3. Refer to Section 01 40 00 - Quality Requirements for additional information on tests and inspections and responsibility for payment of fees.

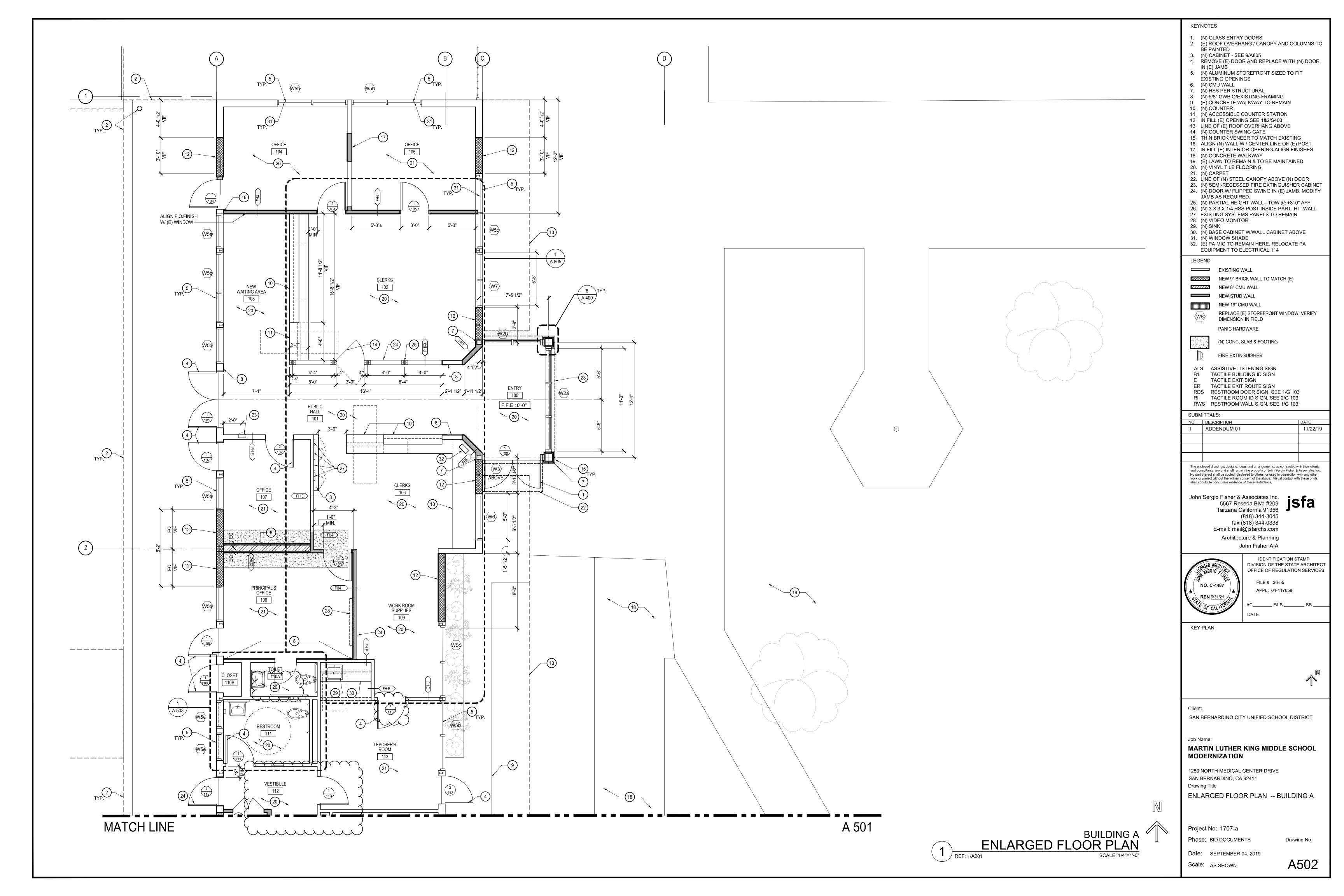
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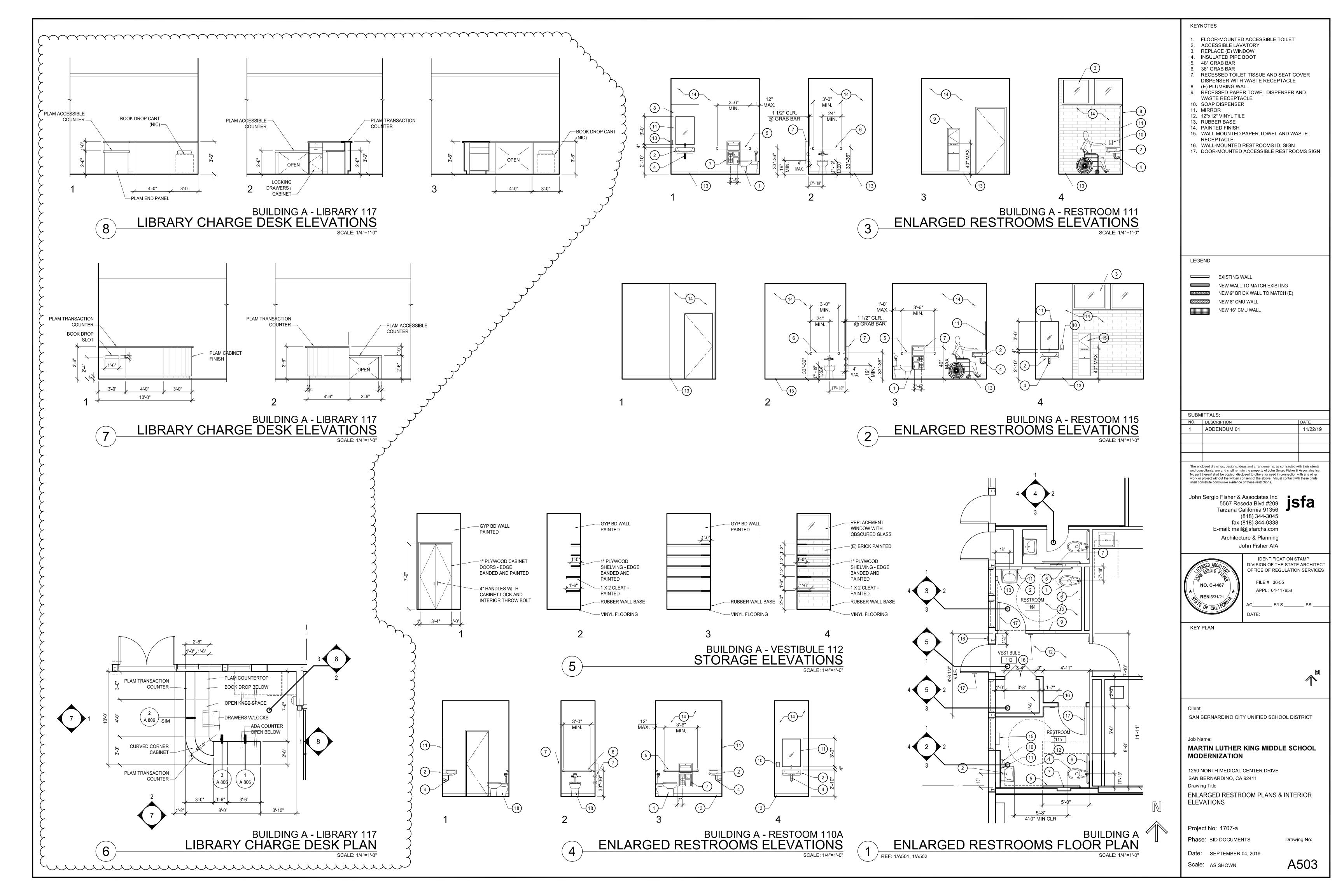


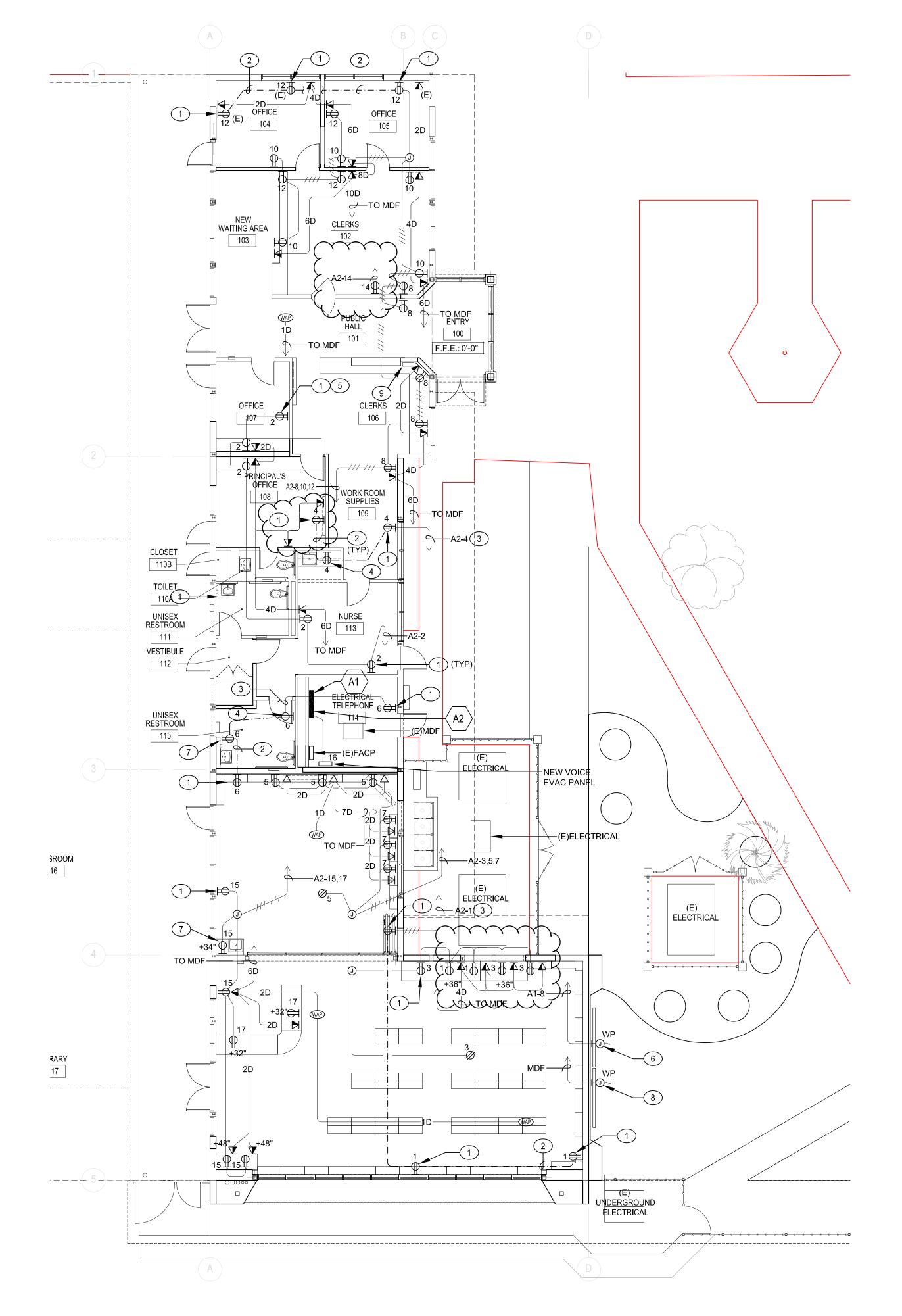












KEYNOTES 1) REPLACE (E) WITH (N)20A, 125V DUPLEX RECEPTACLÉ & PLATÉ COVER. 2 PULL OUT (E) WIRES & PROVIDE (N) #12 WIRES. QUANTITY AS SHOWN IN SYMBOL LIST. 3 INTERCEPT (E)CONDUIT & PROVIDE (N) HOMERUN TO PANELBOARD. 4 REPLACE (E)WITH (N) GFCI 20A, 125V DUPLEX RECEPTACLE & PLATE COVER. (5) INTERCEPT (E)CONDUITS & RE-ROTUE AS SHOWN. 6 WP J-BOX FOR SCHOOL SIGN. (N) GFCI 20A, 125V DUPLEX RECEPTACLE 8 AESON CUSTOM QUATE 1579 KED WALL SIGN - 7'-6" X 5'-0", 4mm PITCH, W/MOUNTING BARS. PROVIDE REQUIRED CABLING TO MDF AND VIDEO PROCESSOR AT CLERK'S WORKSTATION. 9 VIDEO PROCESSOR CAPABLE OF OUTPUTTING HD VIDEO OVER IP[. LEGEND SUBMITTALS: NO. DESCRIPTION 1 ADDENDUM 01 and consultants, are and shall remain the property of John Sergio Fisher & Associates Inc.

No part thereof shall be copied, disclosed to others, or used in connection with any other work or project without the written consent of the above. Visual contact with these prints shall constitute conclusive evidence of these restrictions. John Sergio Fisher & Associates Inc. 5567 Reseda Blvd #209 Tarzana California 91356 John Fisher AIA

(818) 344-3045 fax (818) 344-0338 E-mail: mail@jsfarchs.com Architecture & Planning



IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES FILE#

11/22/19

APPL: 04-117658

KEY PLAN



SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

MARTIN LUTHER KING MIDDLE SCHOOL **MODERNIZATION**

1250 NORTH MEDICAL CENTER DRIVE SAN BERNARDINO, CA 92411 Drawing Title

BUILDING A POWER AND DATA PLAN

Project No: 1707-a

PACIFIC ENGINEERS GROUP Consulting Electrical Engineers

E14126

2740 W. Magnolia Blvd., Suite 205
Burbank, CA 91505
(818) 748-1758
FAX (818) 763-9180 Y18-011

Phase: CONSTRUCTION DOCUMENTS Drawing No:

Date: DECEMBER 12, 2018 Scale: 1/8" = 1'-0"

E010

BUILDING A - POWER AND DATA PLAN

ARCHITECTURAL

A000	EXISTING CAMPUS PLAN
A001	EXISTING & DEMOLITION SITE PLAN
A002	EXISTING & DEMOLITION FLOOR PLAN
A003	EXISTING & DEMOLITION ROOF PLAN
A004	EXISTING & DEMOLITION REFLECTED CEILING PLAN
A005	EXISTING & DEMOLITION EXTERIOR ELEVATIONS
A006	EXISTING & DEMOLITION SECTIONS
A100	PROPOSED CAMPUS PLAN
A101	PROPOSED SITE PLAN
A102	ENLARGED PARTIAL SITE PLANS
A103	GATE/FENCE ENLARGED PLANS & ELEVATIONS
A104	FENCE ENLARGED PLAN & ELEVATION
A105	GATE/FENCE ENLARGED PLAN & ELEVATIONS
A106	GATE/FENCE ENLARGED PLANS, ELEVATIONS & DETAILS
A107	YENCEYENLARGED PLANS & ELEVATIONS
A108	TYPICAL CHAIN-LINK DETAILS
	,

A201 PROPOSED FLOOR PLAN
A202 PROPOSED ROOF PLAN

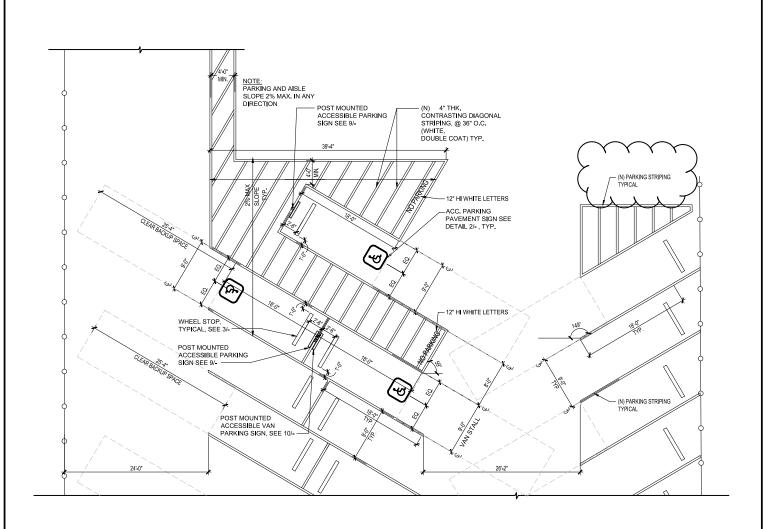
A203 PROPOSED REFLECTED CEILING PLAN

A301 PROPOSED EXTERIOR ELEVATIONS

A311 PROPOSED SECTIONS

A400 WALL TYPE DETAILS

John Sergio Fisher & Associates Inc. JSfa	ADDED SHEET TO	DRAWING INDEX	SK-A	DD-1.0
ARCHITECTS:	SKETCH DETAIL TITLE.:		Sketch No.:	
SAN BERNARDINO, CA 92411		COVER SHEET		CS-1
SCHOOL MODERNIZATION 1250 NORTH MEDICAL CENTER DRIVE	DRAWING TITLE.:		Dwg. Sheet No.:	
MARTIN LUTHER KING MIDDLE	ADD-01		Scale: A	S NOTED
SAN BERNARDINO CITY UNIFIED SCHOOL DIST.	ADDENDUM NO.	APPN: 04-117658	Date:	11/22/19



TYPICAL ACCESSIBLE PARKING & STANDARD STRIPING

11/22/19 Date: ADDENDUM NO. APPN: 04-117658 SAN BERNARDINO CITY UNIFIED SCHOOL DIST. ADD-01 **AS NOTED** MARTIN LUTHER KING MIDDLE Scale: **SCHOOL MODERNIZATION** DRAWING TITLE .: Dwg. Sheet No.: 1250 NORTH MEDICAL CENTER DRIVE **TYPICAL SITE & PARKING DETAILS** SAN BERNARDINO, CA 92411 G106

SKETCH DETAIL TITLE .:

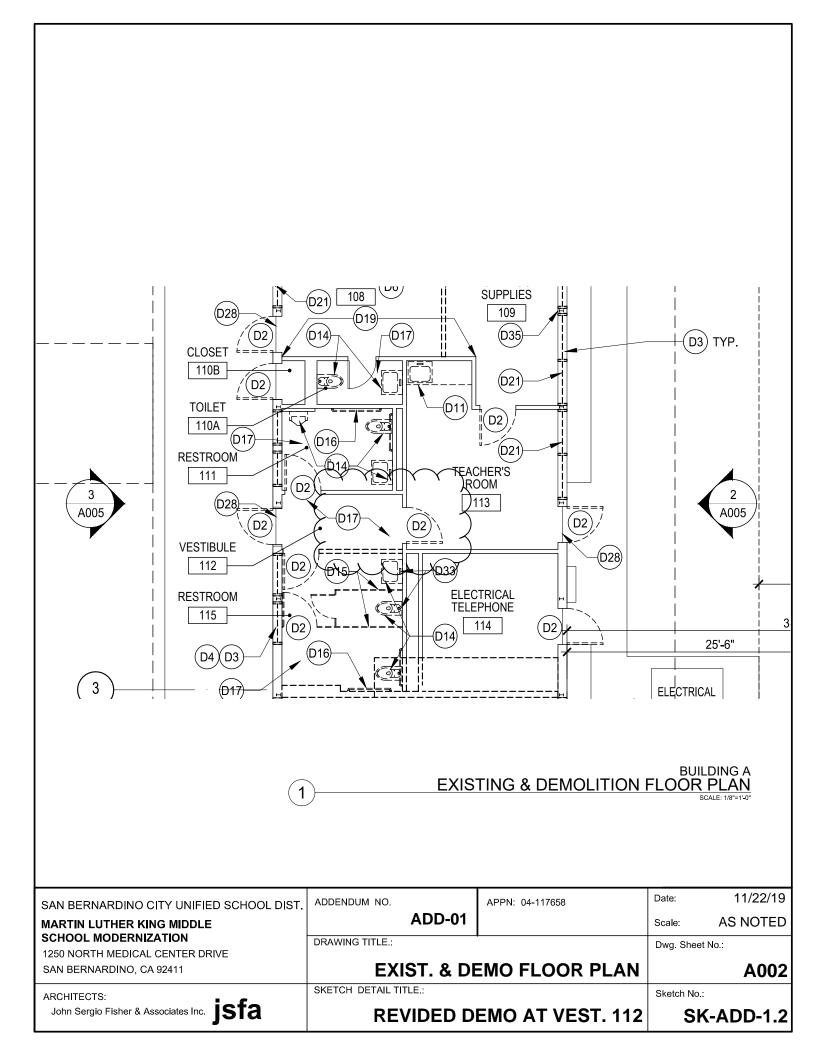
ARCHITECTS:

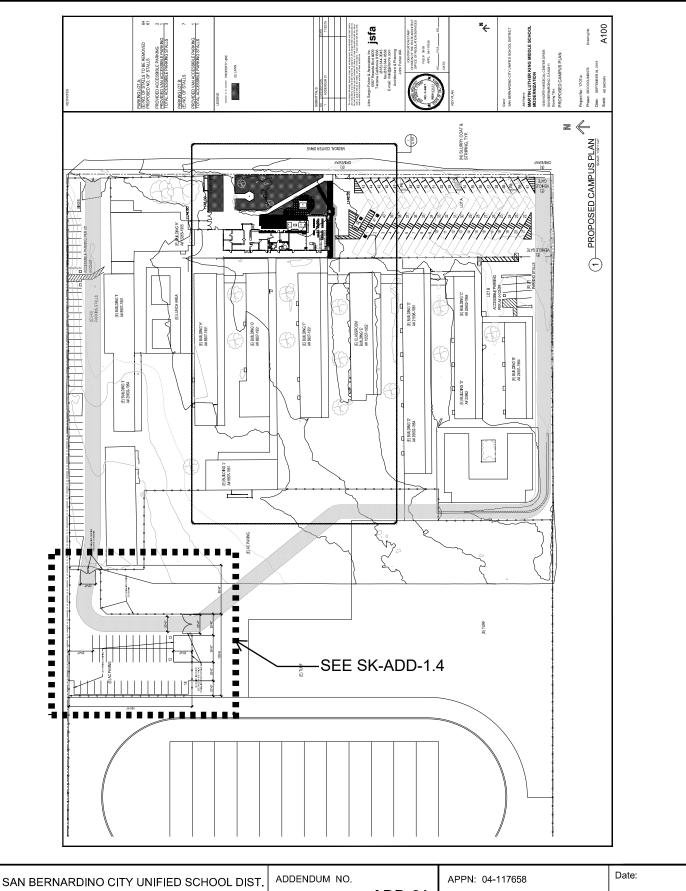
John Sergio Fisher & Associates Inc. **JSfa**

DETAIL 1/G106 ADDED CALLOUT

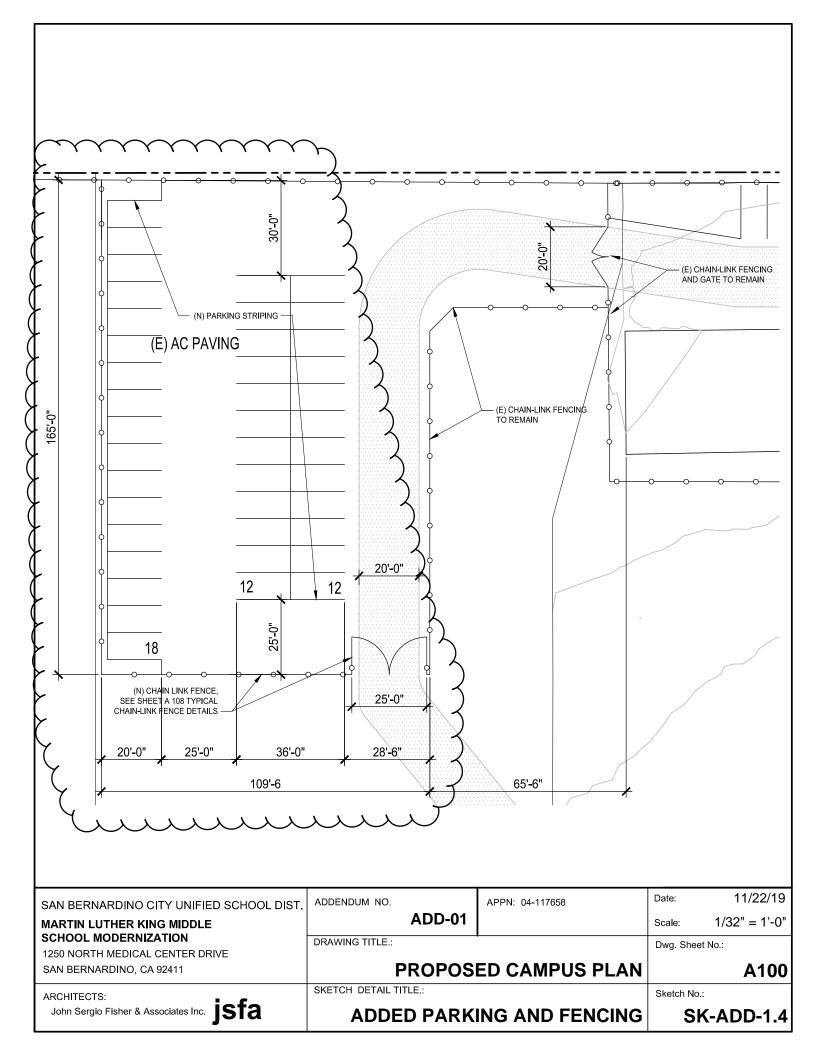
Sketch No.:

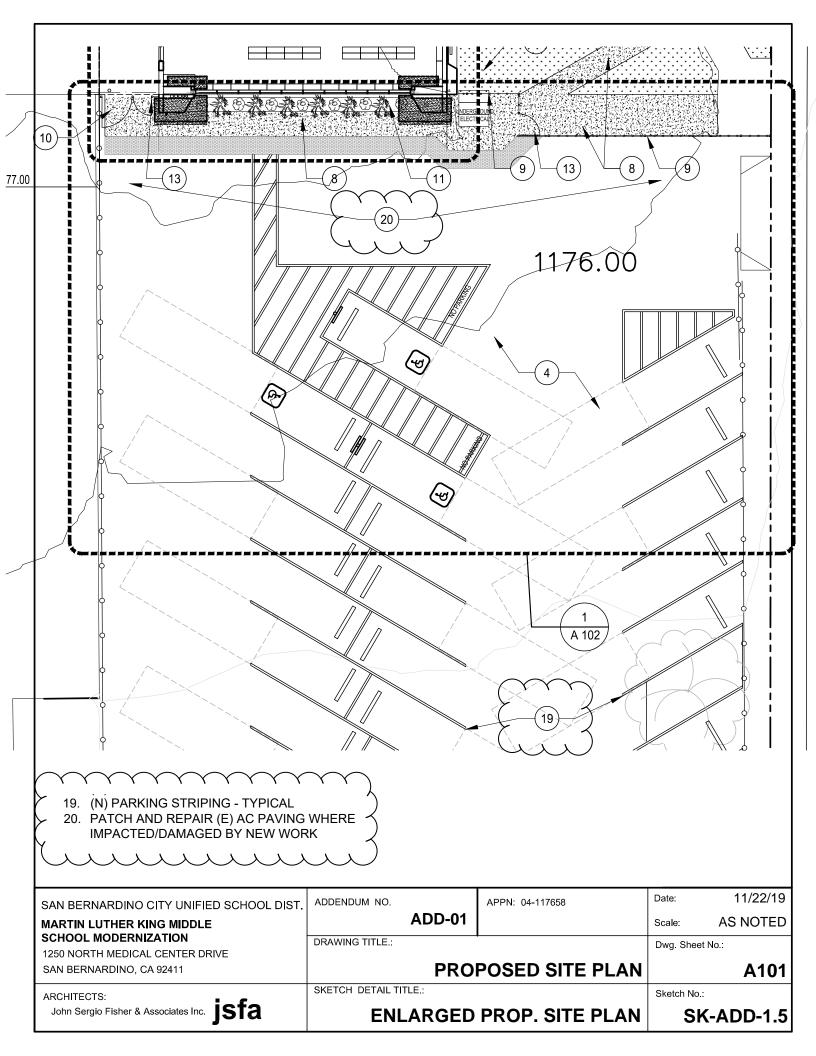
SK-ADD-1.1

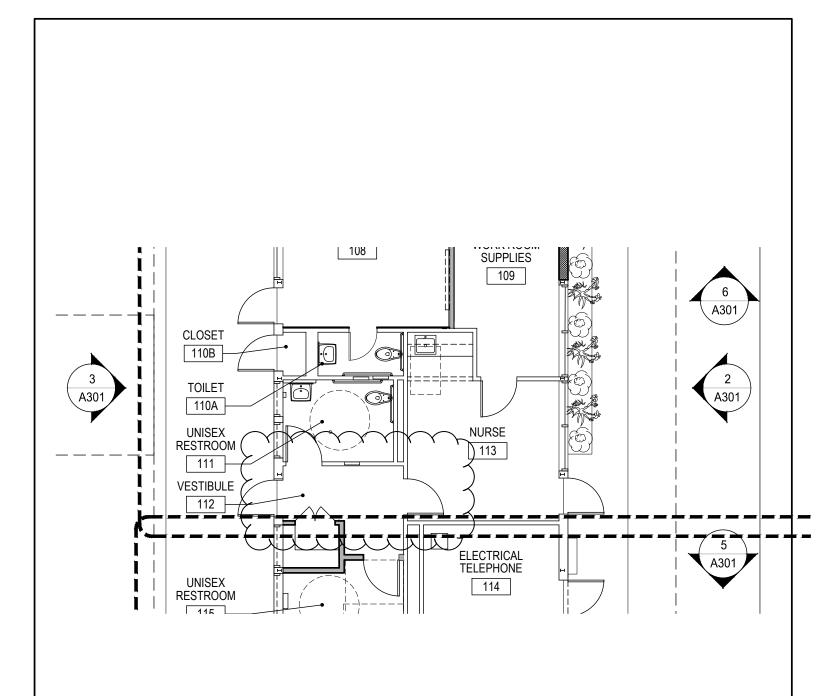




11/22/19 ADD-01 NTS Scale: MARTIN LUTHER KING MIDDLE **SCHOOL MODERNIZATION** DRAWING TITLE .: Dwg. Sheet No.: 1250 NORTH MEDICAL CENTER DRIVE PROPOSED CAMPUS PLAN A100 SAN BERNARDINO, CA 92411 SKETCH DETAIL TITLE .: Sketch No.: ARCHITECTS: John Sergio Fisher & Associates Inc. **JSfa** ADDED PARKING AND FENCING SK-ADD-1.3

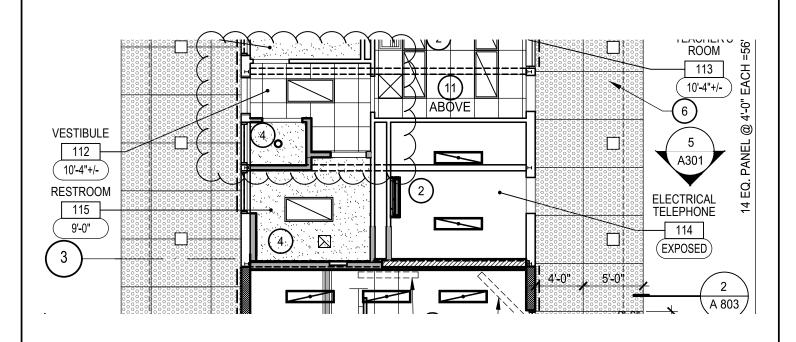






PROPOSED FLOOR PLAN
SCALE: 1/8"=1"-0"

John Sergio Fisher & Associates Inc. JSfa	F	LOOR I	PLAN @ VEST. 112	Sk	(-ADD-1.6
ARCHITECTS:	SKETCH DETAIL TITL	.E.:		Sketch No.	
SAN BERNARDINO, CA 92411		PROPO	SED FLOOR PLAN		A201
SCHOOL MODERNIZATION 1250 NORTH MEDICAL CENTER DRIVE	DRAWING TITLE.:			Dwg. Shee	t No.:
MARTIN LUTHER KING MIDDLE		ADD-01		Scale:	AS NOTED
SAN BERNARDINO CITY UNIFIED SCHOOL DIST.	ADDENDUM NO.		APPN: 04-117658	Date:	11/22/19



PROPOSED REFLECTED CEILING PLAN
SCALE: 1/8"=1-0"

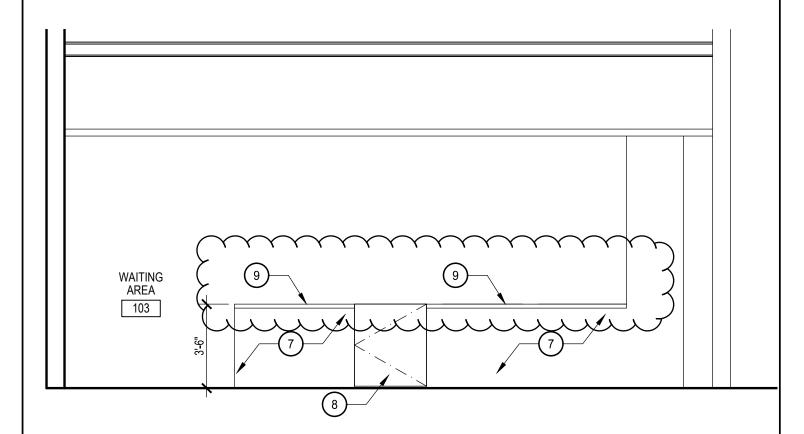
John Sergio Fisher & Associates Inc. JSfa	REF. CLG	PLAN AT VEST 112	SK-	ADD-1.7
ARCHITECTS:	SKETCH DETAIL TITLE::	ENLARGED	Sketch No.:	
SAN BERNARDINO, CA 92411	PROPOSED REF. CEILING PLAN			A203
SCHOOL MODERNIZATION 1250 NORTH MEDICAL CENTER DRIVE	DRAWING TITLE.:		Dwg. Sheet No	D.:
MARTIN LUTHER KING MIDDLE	ADD-01		Scale:	AS NOTED
SAN BERNARDINO CITY UNIFIED SCHOOL DIST.	ADDENDUM NO.	APPN: 04-117658	Date:	11/22/19

DOOR NO.	ROOM NAME	DOOR					
		TYPE	WIDTH	HEIGHT	THICKNESS	MATERIAL	
1/100	ENTRY	F	6'-0"	8'-0"	1 3/4"	ALUM	
1/101	PUBLIC HALL	E	6'-0"	7'-0"	1 3/4"	HM	
1/104	OFFICE	Α	3'-0"	7'-0"	1 3/4"	HM	
2/104	OFFICE	В	3'-0"	7'-0"	1 3/4"	HM	
1/105	OFFICE	В	3'-0"	7'-0"	1 3/4"	HM	
1/107	OFFICE	Α	3'-0"	7'-0"	1 3/4"	HM	
2/107	OFFICE	В	3'-0"	7'-0"	1 3/4"	НМ	
1/108	PRINCIPLE'S OFFICE	Α	3'-0"	7'-0"	1 3/4"	НМ	
2/108	PRINCIPLE'S OFFICE	В	3'-0"	7'-0"	1 3/4"	НМ	
1/110B	CLOSET	В	3'-0"	7'-0"	1 3/4"	НМ	
1/111	RESTROOM	В	3'-0"	7'-0"	1 3/4"	НМ	
1/112	VESTIBULE	А	3'-0"	7'-0"	1 3/4"	НМ	
1/113	TEACHER'S ROOM	A	3'-0"	7'-0"	1 3/4"	НМ	
2/113	TEACHER'S ROOM	(B)	3'-0"	7'-0"	1 3/4"	НМ	
3/113	TEACHER'S ROOM	A	3'-0"	7'-0"	1 3/4"	НМ	
1/114	ELECTRICAL / TELEPHONE	С	3'-0"	7'-0"	1 3/4"	НМ	
1/115	RESTROOM	В	3'-0"	7'-0"	1 3/4"	НМ	
1/116	CLASSROOM	Α	3'-0"	7'-0"	1 3/4"	НМ	
2/116	CLASSROOM	G	V.I.F.	10'-6"	PER MFR.	GLAZ	
1/117	LIBRARY	E	6'-0"	7'-0"	1 3/4"	НМ	

John Sergio Fisher & Associates Inc. JSfa	REV	DOOR SCHEDULE	SK	K-ADD1.8
ARCHITECTS:	SKETCH DETAIL TITLE.:		Sketch No.:	
SAN BERNARDINO, CA 92411	FIN/DOOR/WIN	DOW SCHEDULES		A700
SCHOOL MODERNIZATION 1250 NORTH MEDICAL CENTER DRIVE	DRAWING TITLE.:		Dwg. Sheet N	lo.:
MARTIN LUTHER KING MIDDLE	ADD-01		Scale:	AS NOTED
SAN BERNARDINO CITY UNIFIED SCHOOL DIST.	ADDENDUM NO.	APPN: 04-117658	Date:	11/22/19

KEYNOTES

- 1. PLASTIC LAMINATE COUNTER
- 2. LOWER CABINET
- 3. ADJUSTABLE SHELVES
- 4. ACCESSIBLE SINK
- 5. UPPER CABINET
- 6. (N) P-LAM CABINET @ (E) ELECTRICAL PANELS
- 7. GÝPSUM WALL BOARD 8. 8'-0'W X3'-6'H DOOR
- HARDWOOD WALL CAP



(2)

ENLARGED ELEVATION

SCALE: 1/4"=1'-0"

John Sergio Fisher & Associates Inc. JSfa	ADDE	D WAL	L CAP MATERIAL	SK	(-ADD-1.9
ARCHITECTS:	SKETCH DETAIL TITLE	::		Sketch No.:	
SAN BERNARDINO, CA 92411	CASEWORK DETAILS			A806	
SCHOOL MODERNIZATION 1250 NORTH MEDICAL CENTER DRIVE	DRAWING TITLE.:	•		Dwg. Sheet	t No.:
MARTIN LUTHER KING MIDDLE		ADD-01		Scale:	AS NOTED
SAN BERNARDINO CITY UNIFIED SCHOOL DIST.	ADDENDUM NO.		APPN: 04-117658	Date:	11/22/19

PRE-BID CLARIFICATION FORM (For Contractor's Use)

PROJECT NAME:	MLK Jr. MS Modernization			
PROJECT NUMBER:	F19-05			
TO:	Duke Jackels	EMAIL:	djackels@jsfrachs.com	

DATE:	11/6/19				
FROM:	Digital Net	works Group,	Inc.	EMAIL:	biddesk@digitalnetworksgroup.com
DOCUME	ENT/DIVISION			DRAWING	
NUMBER	:			NUMBER:	

REQUESTED CLARIFICATION:

Are subcontractors/MEPs required to be prequalified for this project, or is it only required for Prime Bidders?

Please confirm, are there any union labor requirements, beyond prevailing wage (PLA, PSA, CBA, CWA, CWSPA, etc.) on this project?

RESPONSE TO CLARIFICATION:

11/8/2019 Broote Dunan SBCUSD!

- 1) gas Subcombactors/ MEPS are reg. To Be prequalified w/ SBCUSO as well as Prime Biddiers.
 - 2) No Union Labor reg 15 beyond prevailing wage.