

# **ADDENDUM NO. 4**

**PROJECT:** 

CUSD District Office Expansion Phase II Date: 1118/2024

Clovis, CA

TETER Project No.: A 12560 D

DSA File No.: NA

**CLIENT:** 

Clovis Unified School District 1450 Herndon Ave.

Clovis, CA 93611 DSA Appl. No.: NA

The following additions, deletions and revisions to the plans, specifications and Addenda shall become a part of the plans and specifications. It is the responsibility of the General Contractor to submit the information contained in this addendum to all subcontractors and suppliers. The Bidder shall acknowledge receipt of the Addendum in the Bid Proposal. (Addendum number of pages: 8 pages + 38 attachments = 198 total pages).

# **PROJECT MANUAL:**

- 4 01: PROJECT MANUAL, Specification Section 00 07 00 "GENERAL CONDITIONS", revise as follows:
  - A. Remove Specification Section 00 07 00 "GENERAL CONDITIONS", and replace with attached, to the project manual (75 pages).
- 4 02: PROJECT MANUAL, Specification Section 07 41 13 "INSULATED METAL ROOF PANELS", revise as follows:
  - A. Add specification Section 07 41 13 "INSULATED METAL ROOF PANELS" to the project manual (10 pages).
- 4 03: PROJECT MANUAL, Specification Section 26 00 00 "SUMMARY OF ELECTRICAL WORK", revise as follows:
  - A. Remove Specification Section 26 00 00 "SUMMARY OF ELECTICAL WORK", and replace with attached, to the project manual (5 pages).
- 4 04: PROJECT MANUAL, Specification Section 28 07 50 "FIRE SPRINKLER MONITORING SYSTEM", revise as follows:
  - A. Remove Specification Section 28 07 50 "FIRE SPRINKLER MONITORING", and replace with attached, to the project manual (3 pages).
- 4 05: PROJECT MANUAL, Specification Section 28 13 00 "ACCESS CONTROL SYSTEM", revise as follows:
  - A. Remove Specification Section 28 13 00 "ACCESS CONTROL SYSTEM", and replace with attached, to the project manual (12 pages).

# 4 – 06: PROJECT MANUAL, - "APPENDIX", revise as follows:

- A. Remove and replace "SUMMARY OF WORK" with attached "SUMMARY OF WORK" (43 pages)
- B. Add Pre-Bid RFI Log with responses (11 pages)

# **DRAWINGS:**

# 4 – 07: DRAWINGS, SHEET 1 OF 35 – "COVER SHEET", revise as follows:

- A. Remove Sheet 1 of 35 in its entirety and replace with attached. (1 pages).
- B. Site Benchmark and datum conversion added.

# 4 – 08: DRAWINGS, SHEET 4 OF 35 – "PARTIAL TOPOGRAPHY SURVEY", revise as follows:

- A. Remove Sheet 4 of 35 in its entirety and replace with attached. (1 pages).
- B. The storm drain pipe that stubs into the site from the west has been revised to show a cap at the end of the pipe in lieu of a manhole. The manhole has been added to the phase 2 scope of work.

# **4 – 09: DRAWINGS, SHEET 5 OF 35 – "PARTIAL TOPOGRAPHY SURVEY"**, revise as follows:

- A. Remove Sheet 5 of 35 in its entirety and replace with attached. (1 pages).
- B. The location of the sewer stub into the site has been revised to reflect the phase 1 as-built location.

# 4 – 10: DRAWINGS, SHEET 6 OF 35 – "PARTIAL DEMOLITION PLAN", revise as follows:

- A. Remove Sheet 6 of 35 in its entirety and replace with attached. (1 pages).
- B. The storm drain pipe that stubs into the site from the west has been revised to show a cap at the end of the pipe in lieu of a manhole.

# 4 – 11: DRAWINGS, SHEET 7 OF 35 – "PARTIAL DEMOLITION PLAN", revise as follows:

- A. Remove Sheet 7 of 35 in its entirety and replace with attached. (1 pages).
- B. The location of the sewer stub into the site has been revised to reflect the phase 1 as-built location.

# 4 – 12: DRAWINGS, SHEET 8 OF 35 – "PARTIAL SITE PLAN", revise as follows:

- A. Remove Sheet 8 of 35 in its entirety and replace with attached. (1 pages).
- B. The bike rack (keynote 11) was deleted. Keynote numbers were updated accordingly.

# 4 – 13: DRAWINGS, SHEET 9 OF 35 – "PARTIAL SITE PLAN", revise as follows:

- A. Remove Sheet 9 of 35 in its entirety and replace with attached. (1 pages).
- B. The bike rack (keynote 11) was deleted. Keynote numbers were updated accordingly.
- C. The concrete and curb ramp just south of the EV charging stalls has been revised.

- **4 14: DRAWINGS, SHEET 10 OF 35 "PARTIAL HORIZONTAL CONTROL PLAN"**, revise as follows:
  - A. Remove Sheet 10 of 35 in its entirety and replace with attached. (1 pages).
  - B. Additional points and dimensions have been added for clarity.
- **4 15: DRAWINGS, SHEET 11 OF 35 "PARTIAL HORIZONTAL CONTROL PLAN"**, revise as follows:
  - A. Remove Sheet 11 of 35 in its entirety and replace with attached. (1 pages).
  - B. Additional points and dimensions have been added for clarity.
- **4 16: DRAWINGS, SHEET 12 OF 35 "PARTIAL HORIZONTAL CONTROL PLAN"**, revise as follows:
  - A. Remove Sheet 12 of 35 in its entirety and replace with attached. (1 pages).
  - B. Additional points and dimensions have been added for clarity.
- 4 17: DRAWINGS, SHEET 13 OF 35 "PARTIAL GRADING AND DRAINAGE PLAN", revise as follows:
  - A. Remove Sheet 13 of 35 in its entirety and replace with attached. (1 pages).
  - B. 58' linear feet of 24" storm drain pipe and a manhole have been added to tie into the phase 1 storm drain system.
  - C. Points for light pole bases have been added throughout the site.
- **4 18: DRAWINGS, SHEET 14 OF 35 "PARTIAL GRADING AND DRAINAGE PLAN"**, revise as follows:
  - A. Remove Sheet 14 of 35 in its entirety and replace with attached. (1 pages).
  - B. An additional manhole has been added between the existing Type-D inlet and the 12" pipe that runs north and stubs into the phase 3 area of work.
  - C. Grades along the western edge of the parking lot have been revised to coordinate with the topographic survey.
  - D. Points have been added for light pole bases throughout the site.
- 4 19: DRAWINGS, SHEET 15 OF 35 "PARTIAL UYILITY PLAN", revise as follows:
  - A. Remove Sheet 15 of 35 in its entirety and replace with attached. (1 pages).
  - B. Sewer invert elevations have been revised to coordinate with the plumbing plans.
- 4 20: DRAWINGS, SHEET 16 OF 35 "PARTIAL UYILITY PLAN", revise as follows:
  - A. Remove Sheet 16 of 35 in its entirety and replace with attached. (1 pages).
  - B. The location of the sewer tie in point has been revised to coordinate with the phase 1 asbuilt location.

# 4 – 21: DRAWINGS, SHEET 19 OF 35 – "SITE DETAILS", revise as follows:

A. Eliminated detail A/19 in its entirety and all references to this detail from the project documents.

# 4 – 22: DRAWINGS, SHEET 20 OF 35 – "SITE DETAILS", revise as follows:

- A. Remove Sheet 20 of 35 in its entirety and replace with attached. (1 pages).
- B. Revised detail A/20
  - a. Refer to keynote 3, the number of post clips has been revised to 5 post clips for each 6' post.
  - b. Refer to keynote 6; the number of tension bands has been revised to 5 tension bands for each 6' post.
- C. Revise detail B/20
  - a. Keynote 13 has been revised to reference Locinox Mammoth 180 Self Closing Hinges.
  - b. Refer to Fence and Gate Notes, note 3: The required mow strip thickness at gate openings has been revised to 6".

# 4 – 23: DRAWINGS, SHEET 21 OF 35 – "SITE DETAILS", revise as follows:

- A. Remove Sheet 21 of 35 in its entirety and replace with attached. (1 pages).
- B. Revise detail D/21
  - a. The fire access lock box has been revised to meet the City of Clovis standards.

# **4 – 24: DRAWINGS, SHEET A100 – "SITE PLAN"**, revise as follows:

- A. Revise keynote 32.51 as follows: "GATE, PER CITY OF CLOVIS FIRE DEPT. STANDARD #1.5, REFER TO CIVIL DRAWINGS.".
- B. Revise keynote 32.52 as follows: "AUTOMATIC GATE, PER CITY OF CLOVIS FIRE DEPT. STANDARD #1.5, REFER TO CIVIL DRAWINGS.".

# 4 – 25: DRAWINGS, SHEET A200 – "BLDG. A – OFFICE BLDG – FLOOR PLAN", revise as follows:

A. Refer to Lobby A101. Remove floor logo, keynote 9.57 from scope of work.

# **4 – 26:** DRAWINGS, SHEET A300 – "BLDG. A – OFFICE BLDG – EXTERIOR ELEVATIONS", revise as follows:

A. Revise keynote 8.51 to read "LOUVER 4'-0" x 1'-4", PAINT TO MATCH ADJACENT.".

# 4 – 27: DRAWINGS, SHEET A700 – "BLDG. A,B,C & D - DOOR SCHEDULES", revise as follows:

A. Remove Sheet A700 in its entirety and replace with attached. (1 pages).

# 4 – 28: DRAWINGS, SHEET A750 – "FINISH SCHEDULE", revise as follows:

Remove Sheet A870 in its entirety and replace with attached. (1 pages).

- 4 29: **DRAWINGS, SHEET A861 – "INTERIOR DETAILS"**, revise as follows:
  - A. Eliminated detail 26/A861 in its entirety and all references to this detail from the project documents. (1 pages).
- 4 30: DRAWINGS, SHEET A870 - "VERTICAL SYSTEM DETAILS", revise as follows:
  - B. Add supplemental drawling AD4-01 to sheet A870. (1 pages).
- 4 31: DRAWINGS, SHEET P001 - "PLUMBING SCHEDULES, LEGENDS AND NOTES -PLUMBING SCHEDULE", revise as follows:
  - A. Revise Domestic Booster Pump BP-1 as follows: FLOWTHERM FMV 2.1-1LH, 1 HP, MULTISTAGE VARIABLE SPEED DUPLEX PRESSURE BOOSTER W/XL PANEL, DESIGN FLOW RATE 60 GPM, DISCHARGE PRESSURE 65 PSI, AVAIL SUCTION PRESSURE 45 PIS, REQD PRESSURE BOOST 20 PSI, DUPLEX 5eSVG-3 PUMPS, 1HP, 208V/3PH SINGLE POINT POWER, 8.52 FLA. PROVIDE WESSELS FXA-85 HYDRO PNEUMATIC TANK.
- 4 31: DRAWINGS, SHEET P800 - "PLUMBING DETAILS - DETAIL 12", revise as follows:
  - A. Revise pumps, P-1 & P-2 to be GOULDS ESV MULTI-STAGE PUMP MODEL 5SVG-3.
- 4 32: DRAWINGS, SHEET M001 - "MECHANICAL SCHEDULES, LEGEND AND NOTES - VRF **INDOOR UNIT SCHEDULE – BUILDING A", revise as follows:** 
  - A. Revise Accessory Note 1 as follows: Provide interface kit for 3<sup>rd</sup> party thermostat. Provide Distech ECY CDIY-STATRWWB-00 thermostat to match Phase 1 project.
- DRAWINGS, SHEET M001 "MECHANICAL SCHEDULES, LEGEND AND NOTES", add 4-33: the following:
  - A. HVAC Energy Management Controls Scope: Controls Contractor to provide complete energy management system for all equipment scheduled for Building A. System to include, but not limited to, building level controllers, unitary controllers, start/stop scheduling, monitoring of alarms, wiring, electrical power and conduit as needed for a full operating system. Controls Contractor shall be responsible for programming and graphics integration with the Districts existing graphical user interface. Coordinate with Electrical Contractor. Mechanical Contractor and Division 23 for all work.

Controls Contractor shall coordinate with Electrical Contractor regarding connection of the outdoor lighting systems through BACnet/IP protocols. Refer to Electrical Drawings for locations and quantities of exterior lighting control timeclocks at each building.

EMS Controls scope to include Distech EC-BOS8 JACE supervisory controller (Licensed for 25 devices and 18 month SMA) for BACnet integration of VRF system, Single-zone Indoor/Outdoor Unit Split systems and exhaust fans into District EMS Controls network. Provide Distech ECY CDIY-STATRWWB-00 thermostats for VRF fan coils. 3rd party thermostat interface kits for each fan coil to be provided by VRF manufacturer. Exhaust fan controls to include Distech Eclypse BACnet IP controller in NEMA1 enclosure with start/stop scheduling and status monitoring. Single-zone Split System controls to include

start/stop and setpoint scheduling and alarm/status monitoring through unit BACnet interface. Supervisory Control Panel to include flush mounting of VRF control screen in panel door. ERV units to be provided with BACnet communication cards for interlock of ODU's and integration to EMS.

- 4 34: DRAWINGS, SHEET E100 "SITE PLAN ELECTRICAL", revise as follows:
  - A. Remove and replace Sheet E100 in its entirety. (1 pages).
- 4 35: DRAWINGS, SHEET E200 "BLDG. A OFFICE BLDG. POWER PLAN FIRST FLOOR", revise as follows:
  - A. Remove and replace Sheet E200 in its entirety. (1 pages).
- 4 36: DRAWINGS, SHEET E201 "BLDG. A OFFICE BLDG. POWER PLAN SECOND FLOOR", revise as follows:
  - A. Remove and replace Sheet E201 in its entirety. (1 pages).
- 4 37: DRAWINGS, SHEET E210 "BLDG. B SHOP BLDG. POWER PLAN", revise as follows:
  - A. Remove and replace Sheet E210 in its entirety. (1 pages).
- 4 38: DRAWINGS, SHEET E220 "BLDG. C SHOP BLDG. POWER PLAN", revise as follows:
  - A. Remove Sheet E220 in its entirety and replace with attached. (1 pages).
- 4 39: DRAWINGS, SHEET E230 "BLDG. D SHOP BLDG. POWER PLAN", revise as follows:
  - A. Remove Sheet E200 in its entirety and replace with attached. (1 pages).
- 4 40: DRAWINGS, SHEET E500 "BLDG A OFFICE BLDG FIRE ALARM PLAN FIRST FLOOR", revise as follows:
  - A. Remove E500 in its entirety from the bid documents and all references to it.
- 4 41: DRAWINGS, SHEET E501 "BLDG A OFFICE BLDG FIRE ALARM PLAN SECOND FLOOR", revise as follows:
  - A. Remove E501 in its entirety from the bid documents and all references to it.
- **4 42: DRAWINGS, SHEET E510 "BLDG B SHOPS BLDG FIRE ALARM PLAN"**, revise as follows:
  - A. Remove E510 in its entirety from the bid documents and all references to it.
- **4 43:** DRAWINGS, SHEET E520 "BLDG C SHOPS BLDG FIRE ALARM PLAN", revise as follows:
  - A. Remove E520 in its entirety from the bid documents and all references to it.

- A. Remove E530 in its entirety from the bid documents and all references to it.

DRAWINGS, SHEET E530 - "BLDG D - SHOPS BLDG - FIRE ALARM PLAN", revise as

- 4 45: DRAWINGS, SHEET E700 "SINGLE LINE DIAGRAM", revise as follows:
  - A. Remove Sheet E700 in its entirety and replace with attached. (1 pages).
- **4 46: DRAWINGS, SHEET E701 "FEEDER SCHEDULE"**, revise as follows:

4 – 44:

follows:

- A. Remove Sheet E701 in its entirety and replace with attached. (1 pages).
- **4 47: DRAWINGS, SHEET E710 "FIRE ALARM LEGENDS, NOTES & SCHEDULE"**, revise as follows:
  - A. Remove E710 in its entirety from the bid documents and all references to it.
- 4 48: DRAWINGS, SHEET E711 "BLDG A OFFICE BLDG FIRE ALARM RISER DIAGRAM & CALULATIONS", revise as follows:
  - A. Remove E711 in its entirety from the bid documents and all references to it.
- 4 49: DRAWINGS, SHEET E712 "BLDG A OFFICE BLDG FIRE ALARM CALULATIONS", revise as follows:
  - A. Remove E712 in its entirety from the bid documents and all references to it.
- 4 50: DRAWINGS, SHEET E721 "BLDG C SHOP BLDG FIRE ALARM RISER DIAGRAM & CALULATIONS", revise as follows:
  - A. Remove E721 in its entirety from the bid documents and all references to it.
- 4 51: DRAWINGS, SHEET E722 "BLDG B & C SHOP BLDG FIRE ALARM CALULATIONS", revise as follows:
  - A. Remove E711 in its entirety from the bid documents and all references to it.
- 4 52: DRAWINGS, SHEET E731 "BLDG D SHOP BLDG FIRE ALARM RISER DIAGRAM & CALULATIONS", revise as follows:
  - A. Remove E731 in its entirety from the bid documents and all references to it.
- 4 53: DRAWINGS, SHEET E732 "BLDG D SHOP BLDG FIRE ALARM RISER CALULATIONS", revise as follows:
  - A. Remove E732 in its entirety from the bid documents and all references to it.

# **ADDENDUM NO. 4**

CUSD District Office Expansion Phase II
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4 – 54: DRAWINGS, SHEET E802 – "PANEL SCHEDULE", revise as follows:

B. Remove Sheet E802 in its entirety and replace with attached. (1 pages).

4 – 55: DRAWINGS, SHEET E804 – "PANEL SCHEDULE", revise as follows:

A. Remove Sheet E804 in its entirety and replace with attached. (1 pages).

4 – 56: DRAWINGS, SHEET E806 – "PANEL SCHEDULE", revise as follows:

A. Remove Sheet E806 in its entirety and replace with attached. (1 pages).

# **END OF ADDENDUM 004**

Aya Shitanishi Architect of Record

# **GENERAL CONDITIONS FOR CONTRACTS ON CONSTRUCTION MANAGEMENT PROJECTS**

#### **ARTICLE 1. DEFINITIONS**

The following terms have the following meanings, notwithstanding that any such terms may be elsewhere defined in the Contract Documents. Any terms not expressly defined in this Article but defined in other portions of the Contract Documents have the respective meanings so given.

- (a) Action of the Governing Board is a vote of a majority of the membership in a lawful meeting.
- (b) Addenda are the changes in plans specifications, drawings, and Contract Documents which have been authorized in writing by the DISTRICT or ARCHITECT, and which alter, explain, or clarify the Contract Documents prior to the bid deadline. The Plan Review Agency responsible for plan review and approval will also review and approve the Addenda.
- (c) Approval means written authorization by ARCHITECT or DISTRICT, as appropriate, for specific applications. Approvals required by the Plan Review Agency shall mean written authorization by that agency.
- (d) ARCHITECT The individual, or the assigned representative, who was retained by DISTRICT to prepare the bid documents: i.e., the construction plans and specifications. As used in these General Conditions, ARCHITECT may be a licensed Architect, Mechanical Engineer, Electrical Engineer, Civil Engineer or any other design professional licensed in the State of California to provide design services.
- (e) **As shown**, **as indicated**, and **as detailed** refer to drawings accompanying the specification.
- (f) **As Directed, Accepted, Rejected, Approved** or others of similar meaning which authorize any exercise of judgment shall be distinctly understood to mean that such power to direct, accept, reject, and approve shall be vested only in DISTRICT and/or the ARCHITECT, as appropriate.
- (g) **Building** Includes all structures, drives, and walks, steps, approaches and site.
- (h) Called For As called for, shown, noted, and/or indicated in the specifications and/or drawings.
   (SEE ARTICLE 20, Drawings & Specifications)
- (i) Contract All of the Contract Documents for CONTRACTOR's part of the Project
- (j) Contract Documents includes collectively: to the extent applicable to the Project: Notice Calling for Bids/Notice to Contractors, Instructions to Bidders, Bid Form, Bid Bond or other statutory bid security, Request for Proposal, Request for Qualifications, Prime Bidder Good Faith Effort Worksheet, Prime Bidder Certificate, Pre-Construction Services Agreement, Roof Project Certification, Designation of Subcontractors, Workers' Compensation Certificate, Drug- Free Workplace Certification, Iran Contracting Act Certification, Change Orders, Shop Drawing Transmittals, any Information required of CONTRACTOR, any pre-qualification forms submitted pursuant to Public Contract Code Section 20111.5, Sufficient Funds Declaration, Non-collusion Declaration, Faithful Performance Bond, Payment Bond, Insurance Certificates, Additional Insured Endorsements, Declarations Pages, Guarantees, Warranties, Fingerprinting Notice and Acknowledgement, Independent Student Contact Form, DVBE documentation, any Escrow Agreement, CONTRACTOR's Certificate Regarding Non-Asbestos Containing Materials, General Conditions, any Special

Conditions, Plans, Drawings, Specifications, the Owner-Contractor Agreement (between DISTRICT and CONTRACTOR) and all modifications, addenda and amendments thereto, Site Lease, Sublease, and Lease and Sublease Agreement.

- (k) **Contract Sum** The total amount payable by the DISTRICT to the CONTRACTOR as stated in the Agreement, including authorized adjustments, for performance of the work. Can also be referred to as the Contract Cost.
- (I) **Contract Time –** The duration of the work as defined in the Agreement.
- (m) CONSTRUCTION MANAGER –individual and/or assigned representative who has been retained by the DISTRICT to provide leadership to the construction process through services to the DISTRICT, including but not limited to, the issuing and maintenance of the Construction Management Bid Schedule (CMBS) and any updates required by approved CONTRACTOR submitted time extension requests, cost control and general construction coordination, and payment application processing and reporting to the DISTRICT. CONTRACTOR or DISTRICT are those mentioned as such in the Agreement. They are treated throughout the Contract Documents as if they are of singular number and neutral gender.
- (n) The word **CONTRACTOR**, as used herein shall be understood to mean a PRIME CONTRACTOR(s) having a direct contractual relationship with the DISTRICT
- (o) **Days** Days shall be considered calendar days.
- (p) Deferred Approvals Deferred Approvals are items identified in the drawings and/or specifications that require the CONTRACTOR to prepare drawings and/or calculations and other data for submission to the Plan Review Agency for formal review and approval into the Contract Documents. For Deferred Approvals requiring a structural engineer's stamp and calculations, a structural engineer licensed in the State of California shall be utilized in the submittal process. The CONTRACTOR shall pay all costs associated with the preparation and approval of the deferred approvals.
- (q) **Delay Days** Delay Days shall be considered working days. Assuming a 5-day workweek, delay days shall be converted into calendar days by a factor of 1.4. Hence 10 Delay Days = 14 Calendar Days. Delay Days will be evaluated and identified as one of the three categories listed below. Excusable delays will create adjustments in the contract time. Compensable delays will create adjustments in both the contract sum and contract time. In the event of concurrent delays, no delay damages are recoverable by either the DISTRICT or the CONTRACTOR and no extension of time shall be granted for concurrent delays. Concurrent delays shall be evaluated using schedule updates, daily reports, notices, and any other records of delaying events. In the event of a delay, the CONTRACTOR shall provide a "Notice of Delay" within 24 hours of the *delaying* event, and submit a schedule depicting the delay with all substantiating documentation within **seven (7) days** of the *delaying* event.

Excusable & Compensable	Excusable & Non- Compensable	<u>Inexcusable</u>
Delays caused by the DISTRICT, the	<ol> <li>Declared State of Emergency</li> <li>Strikes or labor shortages</li> </ol>	Delays caused by the CONTRACTOR,
ARCHITECT, or the DISTRICT'S forces or	3. Acts of God	Subcontractor(s), materialmen

separate contractors	4.	Fires, war, Acts of government & pestilence	or suppliers, including concurrent delays

- DISTRICT or Owner As indicated in the Bid Form, Notice to Contractors and the AGREEMENT.
- (s) Equipment and/or Furnishing Modifiers:
  - **F.B.O.** Where the indication "F.B.O." is noted on the drawings or listed in the specifications, such item(s) are shown or listed for information and will be "Furnished by OWNER or OTHERS" and installed by CONTRACTOR. The CONTRACTOR shall verify all dimensions and details necessary for the proper installation.
  - **N.I.C.** Where the indication "N.I.C." is noted on the drawings or listed in the specifications, such item(s) are shown or listed for the purpose of general information and is/are "Not in Contract". Installation and connection to services for such work are not in the contract however, coordination is required by CONTRACTOR for utility service locations and/or connection types.
  - **I.C.** "IN CONTRACT": All item(s) shown or listed in the drawings and specifications are in the Contract and are part of the work. The naming of any item(s) shall mean to provide the item(s), that is furnishing (including all incidental and accessory items thereto) and installing (including all labor necessary to achieve full and complete functioning of the item(s) according to the best practices of the trades involved). When and if the indication "I.C." is noted on the drawings or listed in the specifications, such a designation is listed only for clarity, in order to set the item(s) apart from the "F.B.O." and "N.I.C." item(s).
- (t) **Locality** in which the work is performed means the city and/or county in which the public work is done.
- Materials Materials incorporated in the work or used or consumed in the performance of the work.
- (v) **Plan Review Agency** is the agency responsible for the review and approval of the Plans, Specifications, Addenda, Substitution Requests (if appropriate), Change Orders and the like.
- (w) Project is the total construction which may include construction by DISTRICT and includes construction by separate contractors. Planned undertaking as outlined in Bid & Contract Documents.
- (x) Reserved
- (y) **Provide** shall include "provide complete in place," that is, "furnish and install."
- (z) **Safety Orders** are those issued by the Division of Industrial Safety and OSHA safety and health standards for construction.
- (aa) **Shop Drawings and Submittals** They are generally treated throughout the Contract Documents as if they are one and the same.

- (bb) **Similar** Shall be taken in its general sense and not meaning identical, and all details of such work shall be in proper relation to the location and connection of other parts of the work.
- (cc) **Standards**, **Rules**, and **Regulations** referred to are recognized printed standards and shall be considered as one and a part of these specifications within limits specified.
- (dd) **Subcontractor**, as used herein, includes those having a direct contractual relationship with CONTRACTOR and one who furnishes material worked to a special design according to plans, drawings, and specifications of this work, but does not include one who merely furnishes material not so worked.
- (ee) **Surety** is the person, firm, or corporation that executes as surety the CONTRACTOR's Bid Security, faithful performance bond and/or payment bond.
- (ff) **Work** of the CONTRACTOR or Subcontractor includes labor or materials (including, without limitation, equipment and appliances) or both, incorporated in, or to be incorporated in the construction covered by the Contract, including, but not limited it, punch list items, The Work shall constitute a "work of improvement" under Civil Code section 8050 and Public Contract Code section 7107.
- (gg) Workers include laborers, workers, and mechanics.
- (hh) CONSTRUCTION ADMINISTRATION DOCUMENTS: Terms, uses and protocols. Notwithstanding any other provisions in the General Conditions, the following terms and definitions shall be used by all Architects, Engineers and Contractors and shall conform to "Kahua" terms. Architects, Engineers and Contractors shall utilize the Kahua software program to enter and process all Administration documents, including but not limited to those listed below, payment-related documents and other documents referenced throughout. The Kahua software, log-in credentials and training for the Kahua software program will be provided by the District upon request.
- (1) **RFI –** The term "RFI" shall mean Request for Information. An RFI is a written instrument prepared by the CONTRACTOR and submitted to the CONSTRUCTION MANAGER. An RFI shall be considered a tool for requesting additional information, above and beyond that which is available in the Contract Documents and all reference standards, and fulfilling the Contract coordination requirements for which CONTRACTOR is obligated to perform. The RFI shall not be used for requesting design and/or material substitutions.

Prior to issuing an RFI the CONTRACTOR, Subcontractor, material suppliers and the like shall thoroughly review the Contract Documents and refer to all reference standards for the information sought.

When submitting an RFI, the document shall specify the date issued and the date the information is needed by. However, the contractual response time shall be **fourteen (14) days** from the date the ARCHITECT receives the RFI, unless more time is needed under the circumstances. The CONTRACTOR shall plan its work and submit questions in sufficient time to accommodate the response time. If the Contract requires a CPM schedule, the CONTRACTOR shall include in the RFI the CPM Activity Number and the originating Subcontractor.

The CONTRACTOR shall make efforts to coordinate the Work in a timely fashion, so as to alleviate priority RFI's. If the RFI is considered a priority, the CONTRACTOR shall state the

word "Priority" on the document, and the CONTRACTOR shall provide weekly RFI Priority Schedules to the CONSTRUCTION MANAGER. The CONTRACTOR shall issue and maintain weekly RFI Priority Schedules.

The RFI Priority Schedule shall include a listing of pending requests, including the most current request, and rank the RFI's in order of priority. The ARCHITECT shall endeavor to respect the CONTRACTOR's requested order of priorities and requested response dates.

The ARCHITECT and/or Engineer's response to an RFI shall be considered a Supplemental Instruction (SI) in which the Contract Sum and/or Time is not altered. If the RFI response alters the Contract Sum and/or Time, a Construction Change Directive (CCD) or a Request for Proposal (RFP) may be issued for the changed condition(s).

Should the CONTRACTOR determine the response to the RFI creates changes in the Contract Sum and/or Time, the CONTRACTOR shall submit a change order request (COR) to the CONSTRUCTION MANAGER for review, along with a Time Extension Request (if required).

- (2) **SI –** The term "SI" shall mean Supplemental Instruction. The SI is a written instrument prepared by the ARCHITECT and submitted to the CONTRACTOR through the CONSTRUCTION MANAGER. The SI can order changes in the work that do not affect the Contract Sum and/or Time. Supplemental Instructions can also be made in a RFI response by issuing a formal SI document or by written letter from the ARCHITECT'S office.
- (3) RFP The term "RFP" shall mean Request for Proposal. The RFP is a written instrument prepared by the ARCHITECT and submitted to the CONTRACTOR. The RFP is a request for changes in the Contract Sum and/or Time; for potential changed Contract conditions for which the Contract Sum and/or Time may or may not be affected. As appropriate, the CONTRACTOR shall provide the full and complete terms of the request in a Change Order Request (COR) within ten (10) days of receipt of the RFP. If the RFP results in added time the CONTRACTOR shall provide a Time Extension Request within the same ten (10) days. If the DISTRICT accepts the full terms of the RFP, the RFP shall be incorporated into a Construction Change Directive (CCD) and/or a Change Order (CO), and the approved Time Extension, if any, shall become incorporated into the next monthly schedule update to reflect the time impact(s).
- (4) CCD The term "CCD" shall mean Construction Change Directive. The CCD is a written instrument prepared by the ARCHITECT and submitted to the CONTRACTOR through the CONSTRUCTION MANAGER. The CCD is a written order directing a change in the work and stating the required pricing method, if any, in the Contract Sum, and the Contract Time adjusted to reflect a previously approved Time Extension Request, if any. The CCD, without invalidating the Contract, may order changes in the work within the general scope of the Contract, consisting of additions, deletions, or other revisions within. The CCD shall become effective when the ARCHITECT, the CONSTRUCTION MANAGER, the CONTRACTOR, and the OWNER have signed the CCD.
- (5) COR The term "COR" shall mean Change Order Request. The COR is a written instrument prepared by the CONTRACTOR and submitted to the CONSTRUCTION MANAGER. The COR is the CONTRACTOR's method for requesting the full and complete terms for changes in the Contract Sum and/or Time, if any. All of the terms of the COR need to be identified, and without reservations, so that the DISTRICT and/or ARCHITECT can consider the full impact of the COR. The provisions and format of the request are identified under CHANGES AND EXTRA WORK. ARCHITECT shall endeavor to respond to the COR on or within fourteen (14) days of receipt.

(6) CO – The term "CO" shall mean Change Order. The Change Order shall state the change in work and the Contract Sum and/or Time adjustments, if any. RFP's and/or CCD's may be incorporated into a Change Order, after any adjustments in the Contract Sum and/or Time have been reviewed and accepted by the DISTRICT and ARCHITECT. The Change Order, and items contained therein, cannot be incorporated into the progress payments until the Change Order has been fully executed and accepted by the Governing Board. Upon the Governing Board's approval, the ARCHITECT will issue the fully executed Change Order to the Plan Review Agency responsible for plan review and approval for written approval of the Change Order.

#### **ARTICLE 2. STATUS OF CONTRACTOR**

- (a) CONTRACTOR is and shall at all times be deemed to be an independent CONTRACTOR and shall be wholly responsible for the manner in which it performs the services required of it by the terms of the Contract Documents. Nothing herein contained shall be construed as creating the relationship of employer and employee, or principal and agent, between the DISTRICT and CONTRACTOR or any of CONTRACTOR's agents, employees, or subcontractors. CONTRACTOR assumes exclusively the responsibility for the acts of its employees and Subcontractors as they relate to the services to be provided during the course and scope of their employment. CONTRACTOR, its agents, employees and subcontractors shall not be entitled to any rights or privileges of DISTRICT employees and shall not be considered in any manner to be DISTRICT employees. DISTRICT shall be permitted to monitor the activities of the CONTRACTOR to determine compliance with the terms of the Contract Documents.
- (b) CONTRACTOR (including all subcontractors) is required by law to be licensed and regulated by the Contractors' State License Board. Any CONTRACTOR not so licensed is subject to penalties under the law, and the contract will be considered void pursuant to Section 7028.7 of the Business and Professions Code. Any questions concerning a CONTRACTOR may be referred to the Registrar, Contractors' State License Board, 9821 Business Park Drive, Sacramento, CA 95827.

# ARTICLE 3. CHANGE IN NAME AND NATURE OF CONTRACTOR'S LEGAL ENTITY

(a) Before CONTRACTOR makes any change in the name or legal nature of the CONTRACTOR's entity, CONTRACTOR shall first notify the DISTRICT in writing and cooperate with DISTRICT in making such changes as the DISTRICT may request in the Contract Documents regarding possible change in Ownership, Principals or Officers.

# ARTICLE 4. CONTRACTOR'S SUPERVISION, PROSECUTION AND PROGRESS

(a) During progress of the work, CONTRACTOR shall keep on the work site a competent superintendent satisfactory to DISTRICT, who shall remain on the work site during the performance of the CONTRACTOR's work and for the necessary coordination thereof. Before commencing the work herein, CONTRACTOR shall give written notice to CONSTRUCTION MANAGER of the name, qualifications and experience of such superintendent. If the superintendent is found unsatisfactory by DISTRICT, CONTRACTOR shall replace the superintendent with one acceptable to the DISTRICT. Superintendent shall not be changed or removed from the work except with written consent of DISTRICT, unless a superintendent proves to be unsatisfactory to CONTRACTOR and ceases to be in its employ, in which case, CONTRACTOR shall notify the CONSTRUCTION MANAGER in writing and replace said superintendent with one acceptable to the DISTRICT. Superintendent shall represent

CONTRACTOR and all directions given to superintendent shall be as binding as if given to CONTRACTOR.

- (b) CONTRACTOR shall supervise and direct the work competently and efficiently, devoting such attention thereto and applying such skills as may be necessary to perform the work in accordance with the Contract Documents. CONTRACTOR shall carefully study and compare all plans, drawings, specifications, and other instructions and shall at once report to ARCHITECT any error, inconsistency or omission which CONTRACTOR or its employees may discover. The CONTRACTOR represents itself to DISTRICT as a skilled, knowledgeable, and experienced CONTRACTOR. The CONTRACTOR shall be liable to the DISTRICT for damage resulting from errors, inconsistencies, or omissions in the Contract Documents that the CONTRACTOR knew about or that an experienced CONTRACTOR would have recognized and which CONTRACTOR did not report.
- (c) The CONTRACTOR shall verify all indicated dimensions before ordering materials or equipment, or before performing work. The CONTRACTOR shall take field measurements, verify field conditions, and shall carefully compare such field measurements and conditions and other information known to the CONTRACTOR with the Contract Documents before commencing work. Errors, inconsistencies or omissions discovered shall be reported to the CONSTRUCTION MANAGER and DISTRICT and ARCHITECT at once. Upon commencement of any item of work, the CONTRACTOR shall be responsible for dimensions related to such item of work and shall make any corrections necessary to make work properly fit at no additional cost to DISTRICT. This responsibility for verification of dimensions is a non-delegable duty and may not be delegated to Subcontractors or agents.
- (d) Omissions from the plans, drawings or specifications, or the mis-description of customary and usual details of work which are manifestly necessary to carry out the Work or which are customarily performed, shall not relieve the CONTRACTOR from performing such omitted or mis-described Work, but they shall be reported and performed as if fully and correctly set forth and described in the plans, drawings and specifications.
- (e) The CONTRACTOR shall be solely responsible for the means, methods, techniques, and procedures of construction. The CONSTRUCTION MANAGER is responsible for the construction schedule and overall sequence of construction. CONTRACTOR must promptly review, comment and accept in writing the construction schedule and the overall sequence of construction. The CONTRACTOR is responsible for its own sequences that may occur within a given CPM activity or sets of CPM activities, for which there will be no changes in the given activity duration(s) unless otherwise approved by the CONSTRUCTION MANAGER and incorporated into a monthly schedule update. The CONTRACTOR shall insure that the finished work complies with the Contract Documents.
- (f) Pursuant to Public Contract Code section 6109, no CONTRACTOR may perform work on a public works project with a subcontractor who is ineligible to perform work on the project pursuant to sections 1777.1 or 1777.7 of the Labor Code.
- (g) It is the responsibility of the CONTRACTOR to coordinate work included in their contract with that of other trades prior to detailing, installation or fabrication of the material or equipment. The CONTRACTOR shall provide coordination and/or layout documents for use by the CONTRACTOR and other trades in coordinating the work.
- (h) DISTRICT shall have the right, but not the obligation, to require the removal from the work of any superintendent, staff member, agent, or employee of the CONTRACTOR, any subcontractor, material or equipment supplier, etc., for cause.

#### **ARTICLE 5. SUBCONTRACTORS**

- (a) CONTRACTOR agrees to bind every Subcontractor by terms of the Contract Documents as far as such terms are applicable to Subcontractor's work. If CONTRACTOR subcontracts any part of the work, CONTRACTOR shall be as fully responsible to DISTRICT for acts and omissions of any Subcontractor and of persons either directly or indirectly employed by any Subcontractor, as it is for acts and omissions of persons directly employed by CONTRACTOR. Nothing contained in Contract Documents shall create any contractual relation between any Subcontractor and DISTRICT, nor shall the Contract Documents be construed to be for the benefit of any Subcontractor.
- (b) DISTRICT's consent to any Subcontractor shall not in any way relieve CONTRACTOR of any obligations under the Contract Documents and no such consent shall be deemed to waive any provision of the Contract Documents.
- (c) CONTRACTOR must submit with its bid, a Designation of Subcontractors pursuant to the Subletting and Subcontracting Fair Practices Act. If CONTRACTOR specifies more than one Subcontractor for the same portion of work or fails to specify a Subcontractor, and such portion of the work exceeds one-half of one percent of the total bid, CONTRACTOR agrees that it is fully qualified to perform and shall perform such work itself, unless CONTRACTOR provides for substitution or addition of Subcontractors. Substitution or addition of Subcontractors shall be permitted only as authorized under the Subletting and Subcontracting Fair Practices Act, California Public Contract Code Section 4100, et. seq.
- (d) In accordance with California Business and Professions Code Section 7059, if CONTRACTOR is designated as a "specialty CONTRACTOR" (as defined in Section 7058 of the Public Contract Code), all of the work to be performed outside of the CONTRACTOR's license specialty shall be performed by a licensed Subcontractor in compliance with the Subletting and Subcontracting Fair Practices Act, California Public Contract Code Section 4100, et seq.
- (e) A copy of each bid sheet, if in writing, or, if not in writing, then a written statement signed by the CONTRACTOR giving the name of the Subcontractor and the terms and conditions of such subcontract, shall be filed with the DISTRICT before the CONTRACTOR begins work. Each subcontract shall contain a reference to the Agreement between the DISTRICT and the CONTRACTOR and the terms of that Agreement and all parts of the Contract Documents shall be made a part of such subcontract insofar as applicable to the work covered thereby. Each subcontract will provide for termination in accordance with the Article entitled DISTRICT'S RIGHT TO TERMINATE AGREEMENT of these General Conditions. Each subcontract shall provide for its annulment by the CONTRACTOR at the order of the ARCHITECT if in the ARCHITECT's opinion the Subcontractor fails to comply with the requirements of the Contract Documents insofar as the same may be applicable to this work. Nothing herein contained shall relieve the CONTRACTOR of any liability or obligation hereunder.
- (f) The CONTRACTOR agrees that the State and DISTRICT have the right to review, obtain and copy all records pertaining to performance of the contract. The CONTRACTOR agrees to provide the State or the DISTRICT with any relevant information requested and shall permit the State or the DISTRICT access to its premises upon reasonable notice for purposes of interviewing employees and inspecting records. The CONTRACTOR agrees to maintain such records for a period of three years after final payment under the contract.

- (g) Each subcontract agreement for a portion of the work is assigned by the CONTRACTOR to the DISTRICT provided that:
  - A. Assignment is effective only after termination of the Contract Documents with the CONTRACTOR by the DISTRICT for cause and only for those subcontract agreements which the DISTRICT accepts by notifying the Subcontractor in writing; and
  - B. Assignment is subject to the prior rights of the surety, if any, obligated under any bond relating to the Contract Documents.

#### **ARTICLE 6. PROHIBITED INTERESTS**

(a) No official of DISTRICT who is authorized in such capacity and on behalf of DISTRICT to negotiate, make, accept, or approve, or to take part in negotiating, making, accepting or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with construction of the work may be or become directly or indirectly interested financially in this work or in any part thereof. No officer, employee, ARCHITECT, attorney, engineer, CONSTRUCTION MANAGER or inspector of or for DISTRICT who is authorized in such capacity and on behalf of DISTRICT to exercise any executive, supervisory or other similar functions in connection with construction of work may be or become directly or indirectly interested financially in this work or in any part thereof. CONTRACTOR shall receive no compensation and shall repay DISTRICT for any compensation received by CONTRACTOR hereunder, should CONTRACTOR aid, abet or knowingly participate in violation of this Article.

#### **ARTICLE 7. DISTRICT'S INSPECTOR**

- (a) One or more Inspector(s), including special inspectors, as required, will be employed by DISTRICT in accordance with the requirements of Title 24, Part 1 of the California Code of Regulations and will be assigned to the Project. Duties of an Inspector are specifically defined in Section 4-342 of Title 24, 2007 California Administrative Code.
- (b) No work shall be performed by the CONTRACTOR solely upon the instructions or comments by the Inspector. The Inspector has no authority to interpret the Contract Documents or order extra work and any extra work performed without the written instruction of the DISTRICT shall be at CONTRACTOR's sole cost and expense and there will be no delay damages incurred by DISTRICT for such work.
- (c) No work shall be carried on except with the knowledge and under the inspection of the Inspector(s). The Inspector shall have free and adequate access to any or all parts of work at any time. CONTRACTOR shall furnish Inspector reasonable opportunities and equipment necessary for obtaining such information as may be necessary to keep Inspector fully informed respecting progress and manner of work and character of materials. Inspection of work shall not relieve CONTRACTOR from any obligation to fulfill the Contract Documents. The DISTRICT shall have authority to stop work whenever provisions of the Contract Documents are not being complied with and such noncompliance is discovered. CONTRACTOR shall instruct its employees accordingly.

# **ARTICLE 8a. ARCHITECT'S STATUS**

- (a) The ARCHITECT
  - 1) The ARCHITECT shall be one of the DISTRICT's representatives during construction and shall observe the progress and quality of the work on behalf of the DISTRICT.

ARCHITECT shall have the authority to act on behalf of DISTRICT only to the extent expressly provided in the Contract Documents. ARCHITECT shall have authority to stop work whenever such stoppage may be necessary in ARCHITECT's reasonable opinion to insure the proper execution of the Contract Documents.

- 2) The ARCHITECT shall be, in the first instance, the judge of the performance of the work. ARCHITECT shall exercise authority under the Contract Documents to enforce CONTRACTOR's faithful performance.
- 3) The ARCHITECT shall have all authority and responsibility established by law, including Title 24 of the California Code of Regulations. The ARCHITECT has the authority to enforce compliance with the Contract Documents and the CONTRACTOR shall promptly comply with instructions from the ARCHITECT or an authorized representative of the ARCHITECT.
- 4) On all questions related to the quantities, the acceptability of material, equipment or workmanship, the execution, progress or sequence of work, the interpretation of plans, specifications or drawings, and the acceptable performance of the CONTRACTOR, the decision of the ARCHITECT, in consultation with the CONSTRUCTION MANAGER, shall govern and shall be precedent to any payment unless otherwise ordered by the Governing Board. The progress and completion of the work shall not be impaired or delayed by virtue of any question or dispute arising out of or related to the foregoing matters and the instructions of the ARCHITECT relating thereto.
- 5) General supervision and direction of the work by the ARCHITECT shall in no way imply that the ARCHITECT or its representatives are in any way responsible for the safety of the CONTRACTOR or its employees or that the ARCHITECT or its representatives will maintain supervision over the CONTRACTOR's construction methods or personnel other than to ensure that the quality of the finished work is in accordance with the Contract Documents.

#### **ARTICLE 8b. CONSTRUCTION MANAGER'S STATUS**

- (a) The CONSTRUCTION MANAGER
  - The CONSTRUCTION MANAGER shall provide leadership and management for the construction process and overall sequence of the work. CONSTRUCTION MANAGER shall have the authority to act on behalf of DISTRICT to the extent expressly provided for in the Contract Documents.
  - 2) The CONSTRUCTION MANAGER shall maintain the overall scheduling of the project.
  - 3) The CONSTRUCTION MANAGER shall maintain and monitor the processing of shop drawings, RFI's, RFP's, CCD's, COR's, and CO's.
  - 4) The CONSTRUCTION MANAGER shall review CONTRACTOR pay requests and process same through ARCHITECT and DISTRICT.
  - 5) The CONSTRUCTION MANAGER shall be responsible for the general sequences of construction and overall coordination of construction. The CONTRUCTION MANAGER shall resolve disputes and coordination issues between separate Contracts.

#### ARTICLE 9. NOTICE OF TAXABLE POSSESSORY INTEREST

(a) The terms of the Agreement may result in the creation of a possessory interest. If such a possessory interest is vested in a private party to the Agreement, the private party may be subjected to the payment of property taxes levied on such interest.

#### **ARTICLE 10. ASSIGNMENT OF ANTITRUST ACTIONS**

- (a) Public Contract Code Section 7103.5 provides:
  - (1) In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the CONTRACTOR or Subcontractor offers and agrees to assign to the awarding body (DISTRICT) all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the CONTRACTOR, without further acknowledgment by the parties.
  - (2) CONTRACTOR, for itself and all Subcontractors, agrees to assign to DISTRICT all rights, title, and interest in and to all such causes of action CONTRACTOR and all Subcontractors may have under the Contract Documents. This assignment shall become effective at the time DISTRICT tenders final payment to the CONTRACTOR, and CONTRACTOR shall require assignments from all Subcontractors to comply herewith.

#### **ARTICLE 11. OTHER CONTRACTS**

- (a) CONTRACTOR is aware that this Project may be split into several phases, and has multiple prime and or separate contracts. DISTRICT reserves the right to let other contracts in connection with this work, and it shall be the duty of the CONTRACTOR to actively schedule and coordinate its work with the DISTRICT's forces, DISTRICT's Contractor(s) and or other multiple prime contractors. No extra costs or delays shall be considered as a result of any such scheduling, coordination and cooperation. CONTRACTOR shall afford other contractors reasonable opportunity for introduction and storage of their materials and execution of their work and shall properly connect and coordinate its work with such other contractors.
- (b) If any part of CONTRACTOR's work depends for proper execution or results upon work of any other Contractor, the CONTRACTOR shall inspect and promptly report to CONSTRUCTION MANAGER in writing any defects in such work that renders it unsuitable for such proper execution and results. CONTRACTOR will be held accountable for damages to DISTRICT for that work which it failed to inspect or should have inspected. CONTRACTOR's failure to inspect and report shall constitute its acceptance of other CONTRACTOR's work as fit and proper for reception of its work, except as to defects which may develop in other CONTRACTOR's work after execution of CONTRACTOR's work.
- (c) To insure proper execution of its subsequent work, CONTRACTOR shall measure and inspect work already in place and shall at once report to the ARCHITECT in writing any discrepancy between executed work and Contract Documents.
- (d) It is the obligation of CONTRACTOR to ascertain to its own satisfaction the scope of the work and nature of any other contracts that have been or may be awarded by DISTRICT in prosecution of the Project to the end that CONTRACTOR may perform its Contract in the light of such other contracts, if any. Items included in one or more scopes of work that appear to be

duplicate inclusions shall be included in both scopes of work. The DISTRICT at its discretion may elect to remove a duplicate item from a scope of work with an appropriate contract adjustment.

- (e) Nothing herein contained shall be interpreted as granting to CONTRACTOR exclusive occupancy at the site. CONTRACTOR shall not cause any unnecessary hindrance or delay to any other contractor working on the Project. If simultaneous execution of any contract for the Project is likely to cause interference with performance of some other contract or contracts, CONSTRUCTION MANAGER shall decide which contractor shall cease work temporarily and which contractor shall continue or whether work can be coordinated so that contractors may proceed simultaneously at no additional cost to the DISTRICT.
- (f) If the Project is split into phases and / or bid packages then CONTRACTOR has made allowances for any delays or damages which may arise from coordination with contractors for other phases or packages. If any delays should arise from a contractor working on a different phase or package, CONTRACTOR's sole remedy for damages, including delay damages, shall be against the contractor who caused such damage and not the DISTRICT. CONTRACTOR shall provide access to contractors for other phases or packages as necessary to prevent delays and damages to contractors working on other phases or packages.

#### **ARTICLE 12. OCCUPANCY**

- (a) DISTRICT reserves the right to occupy and use buildings and/or portions of the site at any time before completion, and such occupancy shall not constitute final acceptance of any part of work covered by the Contract Documents, nor shall such occupancy extend the date specified for completion of the work. The warranty period for the work will begin upon recording of the notice of completion
- (b) The DISTRICT and the CONTRACTOR shall agree in writing to the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the work, insurance, the period for correction of the work. Immediately prior to such partial occupancy or use, the DISTRICT, the CONTRACTOR, the CONSTRUCTION MANAGER and the ARCHITECT shall jointly inspect the area to be occupied or portion of the work to be used in order to determine and record the condition of the work.

# ARTICLE 13. DISTRICT'S RIGHT TO TERMINATE AGREEMENT

If the CONTRACTOR refuses or fails to complete the work or any separable part thereof with such diligence as will insure its completion within the time specified or any permitted extension thereof, or fails to complete said work within such time, or if the CONTRACTOR should file a petition for relief as a debtor, or should relief be ordered against CONTRACTOR as a debtor under Title 11 of the United States Code, or if CONTRACTOR should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of its insolvency, or if it should refuse or should fail to supply enough properly skilled workers or proper materials to complete the work in the time specified, or if CONTRACTOR should fail to make prompt payment to Subcontractors for materials or labor, or disregard laws or ordinances or instructions of DISTRICT, or if CONTRACTOR or its Subcontractors should otherwise violate any provision of the Contract Documents, then DISTRICT may, without prejudice to any other right or remedy, serve written notice upon CONTRACTOR and its surety of DISTRICT's intention to terminate the Contract. Such notice shall contain the reasons for such intention to terminate. Unless within ten (10) days after the service of such notice such condition shall cease or such violation shall cease and arrangements satisfactory to DISTRICT for the correction thereof have been made, the Contract shall cease and terminate. In such case,

CONTRACTOR shall not be entitled to receive any further payment until the work is finished to DISTRICT's satisfaction.

- (b) In the event of any such termination, DISTRICT shall immediately serve written notice thereof upon surety and CONTRACTOR, and surety shall have the right to take over and perform the Contract, provided, however, that if surety within seven (7) days after service upon it of notice of termination does not give DISTRICT written notice of its intention to take over and perform the Contract, or does not commence performance thereof within fifteen (15) days after service of the notice of termination by DISTRICT on surety, DISTRICT may take over the work and prosecute it to completion by Agreement or by any other method it may deem advisable for the account and at the expense of CONTRACTOR, and CONTRACTOR and its surety shall be liable to DISTRICT for any excess cost or other damages occasioned by the DISTRICT thereby. Time is of the essence in the Contract. If the DISTRICT takes over the work as hereinabove provided, the DISTRICT may, without liability for so doing, take possession of and utilize in completing the work such materials, supplies, equipment and other property belonging to the CONTRACTOR as may be on the site of the work and necessary therefore.
- (c) If the expense of finishing the work, including compensation for additional architectural, managerial, temporary service and administrative services, exceeds the unpaid balance of the Agreement, CONTRACTOR shall pay the difference to DISTRICT. Expense incurred by DISTRICT as herein provided, and damage incurred through CONTRACTOR's default, shall be certified to DISTRICT by ARCHITECT. If the unpaid balance under the Agreement shall exceed the expense of finishing the work, including compensation for additional architectural, managerial, temporary service and administrative services, such excess shall be paid to CONTRACTOR.
- (d) In the event that sufficient funds are not appropriated to complete the work or the DISTRICT determines that sufficient funds are not available to complete the work, DISTRICT may terminate or suspend the completion of the work at any time by giving written notice to the CONTRACTOR. In the event that the DISTRICT exercises this option, the DISTRICT shall pay for any and all work and materials completed or delivered onto the site, and the value of any and all work then in progress and orders actually placed which cannot be canceled up to the date of notice of termination. The value of work and materials paid for shall include a factor of 15% for the CONTRACTOR's overhead and profit and there shall be no other costs or expenses paid to CONTRACTOR. All work, materials and orders paid for pursuant to this provision shall become the property of the DISTRICT.
- (e) DISTRICT may, without cause, order CONTRACTOR in writing to suspend, delay or interrupt the work in whole or in part for such period of time as DISTRICT may determine. Adjustment shall be made for increases in the cost of performance of the Contract caused by suspense, delay or interruption.
- (f) The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to the DISTRICT.

# **ARTICLE 14. BONDS**

(a) Unless otherwise specified in the Special Conditions and within ten (10) days of the Notice of Award of the Contract, CONTRACTOR shall furnish a surety bond in an amount equal to **one hundred percent (100%)** of the Contract Sum as security for faithful performance of the Contract Documents and shall furnish a separate bond in an amount equal to **one hundred** 

**percent (100%)** of the contract price as security for payment to persons performing labor and furnishing materials in connection with the work. Bonds shall be in the form set forth in these Contract Documents. If CONTRACTOR fails to furnish the required bonds, DISTRICT may terminate the Contract for cause.

- (b) To the extent, if any, that the Contract Sum is increased in accordance with the Contract Documents, CONTRACTOR shall cause the amount of the performance and payments bonds to be increased accordingly and shall promptly deliver satisfactory evidence of such increase to DISTRICT. To the extent available, the bonds shall further provide that no change or alteration of the Project Documents (including, without limitation, an increase in the Contract Sum, as referred to above), extensions of time, or modifications of the time, terms, or conditions of payment to CONTRACTOR will release the surety.
- (c) Only bonds executed by admitted surety insurers as defined in Code of Civil Procedure section 995.120 shall be accepted. The surety insurers must, unless otherwise agreed to by DISTRICT in writing, at the time of issuance of the bonds, have a rating not lower than "A-" as rated by A.M. Best Company, Inc. or other independent rating companies. DISTRICT reserves the right to approve or reject the surety insurers selected by CONTRACTOR and to require CONTRACTOR to obtain bonds from surety insurers satisfactory to OWNER.

#### **ARTICLE 15. SUBSTITUTION OF SECURITIES**

- (a) Pursuant to the requirements of Public Contract Code Section 22300, upon CONTRACTOR's request, DISTRICT will make payment to CONTRACTOR of any earned retention funds withheld from payments under the Contract Documents if CONTRACTOR deposits with the DISTRICT or in escrow with a California or federally chartered bank acceptable to DISTRICT, securities eligible for the investment pursuant to Government Code Section 16430 or bank or savings and loan certificates of deposit, upon the following conditions:
  - (1) CONTRACTOR shall be the beneficial owner of any securities substituted for monies withheld and shall receive any interest thereon.
  - (2) All expenses relating to the substitution of securities under Section 22300 and under this Article, including, but not limited to DISTRICT's overhead and administrative expenses, and expenses of the escrow agent shall be the responsibility of the CONTRACTOR.
  - (3) If CONTRACTOR chooses to enter into an escrow agreement, such agreement shall be satisfactory to DISTRICT, which agreement shall be in the form provided as part of the Contract Documents and which shall allow for the conversion to cash to provide funds to meet defaults by the CONTRACTOR including, but not limited to, termination of the CONTRACTOR's control over the work, stop notices filed pursuant to law, assessment of liquidated damages or amounts to be kept or retained under the provisions of the Contract Documents.
  - (4) Securities, if any, shall be returned to CONTRACTOR only upon satisfactory completion of the work.
- (b) To minimize the expense caused by such substitution of securities, CONTRACTOR shall, prior to or at the time CONTRACTOR requests to substitute security, deposit sufficient security to cover the entire amount to be then withheld and to be withheld under the General Conditions of the Contract Documents. Should the value of such substituted security at any time fall below the amount for which it was substituted, or any other amount which the DISTRICT determines

to withhold, CONTRACTOR shall immediately and at CONTRACTOR's expense deposit additional security qualifying under Section 22300 until the total security deposited is no less than equivalent to the amount subject to withholding under the Contract Documents.

- In the alternative, under Section 22300, the CONTRACTOR may, prior to submittal of first (c) application of payment, request DISTRICT to make payment of earned retentions directly to the escrow agent at the expense of the CONTRACTOR. Also at the CONTRACTOR's expense, the CONTRACTOR may direct investment of the payments in securities, and the CONTRACTOR shall receive interest earned on such investment upon the same conditions as provided for securities deposited by CONTRACTOR. Upon satisfactory completion of the Project, CONTRACTOR shall receive from the escrow agent all securities, interest and payments received by escrow agent from DISTRICT pursuant to the terms of Section 22300. If CONTRACTOR elects to receive interest on moneys withheld in retention by DISTRICT, CONTRACTOR shall, at the request of any subcontractor, make that option available to the subcontractor regarding any monies withheld in retention by the CONTRACTOR from the subcontractor. If the CONTRACTOR elects to receive any interest on any monies withheld in retention by the Owner, then the subcontractor shall receive the identical rate of interest received by the Contractor on any retention monies withheld from the subcontractor by the CONTRACTOR, less any actual pro rata costs associated with administering and calculating that interest. In the event the interest rate is a fluctuating rate, the rate for the subcontractor shall be determined by calculating the interest rate paid during the time that retentions were withheld from the subcontractor. If the CONTRACTOR elects to substitute securities in lieu of retention, then, by mutual consent of the CONTRACTOR and subcontractor, the subcontractor may substitute securities in exchange for the release of monies held in retention by CONTRACTOR. This shall apply only to those subcontractors performing more than five percent (5%) of the CONTRACTOR'S total bid. The CONTRACTOR shall not require any subcontractor to waive any provision of this section.
- (d) If any provision of this Article shall be found to be illegal or unenforceable, then, notwithstanding, the remainder of this Article shall remain in full force and effect, and only such provision shall be deemed stricken.

# ARTICLE 16. LIABILITY, PROPERTY, FIRE, BUILDER'S RISK AND OTHER INSURANCE REQUIREMENTS

If this box \(\mathbb{\omega}\) is checked, then (1) the DISTRICT's Owner-Controlled Insurance Program ("OCIP") applies to the Project and (2) attached as Exhibit "I" to these General Conditions is a description of OCIP and its insurance requirements, which apply in place of each of the following provisions of this Article 16, and all of Articles 17 and 18, unless otherwise provided in said Exhibit.

(a) Liability and Property Insurance. Before the commencement of the work, within ten (10) days of the Notice of Award of the Contract, and within limits acceptable to DISTRICT, the CONTRACTOR shall purchase from and maintain such commercial general liability insurance per occurrence for bodily injury, personal injury and property damage as set forth in the Contract Documents and automobile liability insurance per accident for bodily injury and property damage combined single limit as set forth in the Contract Documents as will protect the CONTRACTOR from claims set forth below, which may arise out of or result from the CONTRACTOR's operations under the Contract and for which the CONTRACTOR may be legally liable, whether such operations are by the CONTRACTOR, by a Subcontractor, by Sub-

subcontractor, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- (1) Claims for damages because of bodily injury (including emotional distress), sickness, disease, or death of any person other than the CONTRACTOR's employees. This coverage shall be provided in a form at least as broad as Insurance Services Office (ISO) Form CG 0001 11188;
- (2) Claims for damages arising from personal or advertising injury in a form at least as broad as ISO Form CG 0001 11188;
- (3) Claims for damages because of injury or destruction of tangible property, including loss of use resulting therefrom, arising from operations under the Contract Documents;
- (4) Claims for damages because of bodily injury, death of a person, or property damage arising out of the ownership, maintenance, or use of a motor vehicle, all mobile equipment, and vehicles moving under their own power and engaged in the work; and
- (5) Claims involving blanket contractual liability applicable to the CONTRACTOR's obligations under the Contract Documents, including liability assumed by and the indemnity and defense obligations of the CONTRACTOR and the Subcontractors; and
- (6) Claims involving Operations/Premises, Completed Operations/Products, Independent Contractors' coverage, and Broad Form property damage, without any exclusions for collapse, explosion, demolition, underground coverage, and excavating. Coverage for completed operations must be at least as broad as CG 2010 11185.
- (b) If commercial general liability insurance or another insurance form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the project location (with the ISO CG 2501 or insurer's equivalent endorsement provided to the DISTRICT) or the general aggregate limit shall be twice the required occurrence limit.
- (c) Any deductible or self-insured retention must be declared to and approved by the DISTRICT. At the option of the DISTRICT, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the DISTRICT, its Board of Trustees, members of its Board of Trustees, officers, employees, agents and volunteers; or the CONTRACTOR shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.
- (d) **Subcontractor Insurance Requirements.** The CONTRACTOR shall require its Subcontractors and any Sub-subcontractors to take out and maintain similar public liability insurance and property damage insurance in like amounts.
- (e) **DISTRICT Insurance.** The DISTRICT shall be responsible for purchasing and maintaining its usual liability insurance or self-insurance. Optionally, the DISTRICT may purchase and maintain other insurance for self-protection against claims that may arise from operations under the Contract Documents.
- (f) Additional Insured Endorsement Requirements. The CONTRACTOR shall name, on any policy of insurance, the DISTRICT, the ARCHITECT, the CONSTRUCTION MANAGER, and their respective officers, employees and agents as additional insured's. Subcontractors shall name the CONTRACTOR, the DISTRICT, and the ARCHITECT, the CONSTRUCTION MANAGER, and their respective officers, employees and agents as additional insureds. The

Additional Insured Endorsement included on all such insurance policies shall state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance, which is applicable to the loss, such other insurance shall be excess to any policy of insurance required herein. The amount of the insurer's liability shall not be reduced by the existence of such other insurance.

- (g) **Consent of Insurer**. Partial occupancy or use in accordance with the Contract Documents shall not commence until the DISTRICT's insurance company providing property insurance has consented to such partial occupancy or use by endorsement or otherwise. The DISTRICT and the CONTRACTOR shall take reasonable steps to obtain consent of the insurance company and shall, without mutual consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse, or reduction of the insurance.
- (h) **Other Insurance**. The CONTRACTOR shall provide all other insurance required to be maintained under applicable laws, ordinances, rules, and regulations.
- (i) Compliance. In the event of the failure of any contractor to furnish and maintain any insurance required by this Article, the CONTRACTOR shall be in default under the Contract. Compliance by CONTRACTOR with the requirement to carry insurance and furnish certificates, policies, Additional Insured Endorsement and Declarations Page evidencing the same shall not relieve the CONTRACTOR from liability assumed under any provision of the Contract Documents, including, without limitation, the obligation to defend and indemnify the DISTRICT and the ARCHITECT.
- (j) Builder's Risk/"All Risk" Insurance /Course of Construction Insurance. The DISTRICT has Builder's Risk / "All Risk" Insurance / Course of Construction insurance on all insurable work included under the Contract Documents. The DISTRICT's Builder's Risk / "All Risk" Insurance / Course of Construction Insurance provides coverage for the DISTRICT ONLY and not the CONTRACTOR or any other party.

# Article 17. PROOF OF CARRIAGE OF INSURANCE

- (a) Subject to Article 16 above, CONTRACTOR shall not commence work nor shall it allow any Subcontractor to commence work under the Contract Documents until all required insurance certificates, Additional Insured Endorsements, and Declarations Pages have been obtained and delivered in duplicate to and approved by DISTRICT. Such insurance shall be with an insurance company or companies lawfully authorized to do business in California as admitted insurers, with a minimum financial rating of A-, as rated by the most current edition of Best's Key Rating Guide, published by A.M. Best Company.
- (b) Subject to Article 16 above, Certificates and insurance policies shall include the following:
  - (1) A clause stating:
    - "This policy shall not be non-renewed, canceled, or reduced in required limits of liability or amounts of insurance until notice has been mailed to DISTRICT stating the date of cancellation or reduction. The date of cancellation or reduction may not be less than thirty (30) days after date of mailing notice."
  - (2) Language stating in particular those insured, extent of insurance, location and operation to which insurance applies, expiration date, to whom cancellation and reduction notice will be sent, and length of notice period for cancellation and reduction of insurance.

- (3) Language stating that the DISTRICT, CONSTRUCTION MANAGER and ARCHITECT, and their respective officers, agents and employees are named additional insured under the policy described and that such insurance policy shall be primary to any insurance or self-insurance maintained by the DISTRICT, and any other insurance carried by the DISTRICT with respect to the matters covered by such policy shall be excess and non-contributing.
- (c) Subject to Article 16 above, the CONTRACTOR and its Subcontractors shall produce a certified copy of any required insurance policy upon written request of the DISTRICT.
- (d) Subject to Article 16 above, in case of CONTRACTOR's failure or refusal to provide the required insurance, the DISTRICT may, at DISTRICT's option, take out and maintain, at the expense of the CONTRACTOR, such insurance in the name of CONTRACTOR or Subcontractor, as the DISTRICT may deem proper and may deduct the cost of taking out and maintaining such insurance from any sums which are due or to become due to the CONTRACTOR under the Contract Documents.

### **ARTICLE 18. WORKERS' COMPENSATION INSURANCE**

- (a) Subject to Article 16 above, in accordance with the provisions of Section 3700 of the California Labor Code, the CONTRACTOR and every Subcontractor shall be required to secure the payment of compensation to its employees.
- Subject to Article 16 above, the CONTRACTOR shall provide, during the term of the Contract, (b) workers' compensation insurance for all of its employees engaged in work under the Contract Documents on or at the site of the Project, and, in case any of its work is sublet, the CONTRACTOR shall require the Subcontractor similarly to provide workers' compensation insurance for all the latter's employees engaged in work under the subcontract. Any class of employee or employees not covered by a Subcontractor's insurance shall be covered by the CONTRACTOR's insurance. In case any class of employees engaged in work under the Contract Documents on or at the site of the Project is not protected under the workers' compensation laws, the CONTRACTOR shall provide, or shall cause a Subcontractor to provide, adequate insurance coverage for the protection of such employees not otherwise protected before the commencement of the work. The CONTRACTOR shall file with the DISTRICT certificates of its insurance as required under this Article and in compliance with Labor Code section 3700. A thirty (30) day notice shall be provided to DISTRICT before the cancellation or reduction of any such insurance of CONTRACTOR or Subcontractor. CONTRACTOR shall submit proof of insurance and shall provide endorsements on the forms provided by the DISTRICT or on forms approved by the DISTRICT. Such endorsements shall be submitted concurrently with the Contract Documents and within ten (10) days of the Notice of Award of the Contract.
- (c) Subject to Article 16 above, prior to commencing work, the CONTRACTOR shall sign and file with the DISTRICT the certificate required by the Labor Code section 1861, acknowledging the requirement to insure against liability for workers' compensation and promising to comply with this requirement before commencing work under the contract, and continuing to comply thereafter. The form of this certificate is included below.

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(d) Form of Workers' Compensation Certificate.

#### **WORKERS' COMPENSATION CERTIFICATE**

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

Date	<del></del>
	Name of Contractor
	By: Signature
	Print Name
	Title

(In accordance with Article 5 [commencing at Section 1860], Chapter 1, Part 7, Division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any work under the contract.)

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(e) Subject to Article 16 above, if the CONTRACTOR fails to maintain worker's compensation insurance, the DISTRICT may take out such insurance, and deduct and retain the amount of the premium for such insurance from any sums due the CONTRACTOR.

#### ARTICLE 19. INTENTIONALLY LEFT BLANK

#### **ARTICLE 20. DRAWINGS AND SPECIFICATIONS**

- (a) Drawings and Specifications are intended to delineate and describe the Project and its component parts to such a degree as will enable a skilled and competent CONTRACTOR to intelligently bid upon the work, coordinate the work and to carry out the work to a successful conclusion. If, as and to the extent that Public Contract Code section 1104 is deemed to apply after the Award of Contract, CONTRACTOR shall not be required to assume responsibility for the completeness and accuracy of architectural or engineering plans and specifications, notwithstanding any other provision in the Contract Documents, except to the extent that CONTRACTOR discovered or should have discovered and reported any errors and omissions to the ARCHITECT or DISTRICT, as the result of any review of the plans and specifications by CONTRACTOR required by the Instructions to Bidders or other Contract Documents, whether or not actually performed by CONTRACTOR.
- (b) Drawings and Specifications are intended to comply with all laws, ordinances, rules and regulations of constituted authorities having jurisdiction, and where referred to in the Contract documents, these laws, ordinances, rules and regulations shall be considered as a part of the Contract within the limits specified. The CONTRACTOR shall bear all expenses of correcting work done contrary to applicable laws, ordinances, rules and regulations if the CONTRACTOR performed the work (1) without first consulting the CONSTRUCTION MANAGER AND ARCHITECT for further instructions regarding the work, or (2) disregarded the CONSTRUCTION MANAGER and/or ARCHITECT's instructions regarding the work.
- (c) Questions regarding interpretation of drawings and specifications shall be clarified by the ARCHITECT; provided, however, that in the event ARCHITECT determines that CONTRACTORS requests for information (RFI's) are not justified or do not reflect adequate competent supervision, coordination, and / or knowledge by the CONTRACTOR or his/her Subcontractors, CONTRACTOR shall be required to pay ARCHITECT'S and/or CONSTRUCTION MANAGER's reasonable and customary fees in processing and responding to such requests. Should the CONTRACTOR commence work or any part thereof without seeking clarification, and/or performing its own coordination obligations, the CONTRACTOR waives any claim for extra work or damages as a result of any ambiguity, conflict or lack of information.
- (d) Figured dimensions on drawings shall govern, but work not dimensioned or mis-described shall be as directed. Work not particularly shown, mis-described or specified shall be the same as similar parts that are shown or specified. Large scale drawings shall take precedence over smaller scale drawings as to shape and details of construction. Specifications shall govern as to materials, workmanship, and installation procedures. Drawings and specifications are intended to be fully cooperative and to agree. If through the process of Contract required coordination, CONTRACTOR observes that drawings and specifications are in conflict, CONTRACTOR shall promptly notify the CONSTRUCTION MANAGER in writing, and any necessary changes shall be adjusted as provided in the Article entitled Changes and Extra Work; provided, however, that the specification calling for the higher quality material or workmanship shall prevail without additional cost to DISTRICT.

- (e) Materials or work described in words, which so applied, have a well known technical or trade meaning shall be deemed to refer to such recognized standards.
- (f) It is not the intention of the Contract Documents to go into detailed descriptions of any materials and/or methods commonly known to the trade under "trade name" or "trade term." The mere mention or notation of such "trade name" or "trade term" shall be considered a sufficient notice to CONTRACTOR that it will be required to complete the work so named with all its incidental and accessory items according to the best practices of the trade.
- (g) The naming of any material and/or equipment shall mean furnishing and installing, including all incidental and accessory items thereto and/or labor necessary to achieve full and complete functioning of the material and/or equipment according to the best practices of the trade(s) involved, unless specifically noted otherwise.
- (h) section left blank - -
- (i) **Electronic copies** as provided for herein related to shop drawings, submittals, and close-out documents shall be in the following formats: All small document copies (8-1/2x 11) shall be .pdf format, and all large document copies shall be in .tif format.

### **ARTICLE 21. OWNERSHIP OF DRAWINGS**

(a) All plans, drawings, designs, specifications, and other incidental Architectural and engineering work or materials and other Contract Documents and copies thereof furnished by DISTRICT are DISTRICT's property. They shall not be used in other work and shall be returned to DISTRICT on request at completion of work, and may be used by DISTRICT as it may require, without any additional costs to DISTRICT. Electronic copies of the documents will not be provided except with expressed written consent of the DISTRICT and / or the CONSULTANTS.

# **ARTICLE 22. DETAIL DRAWINGS AND INSTRUCTIONS**

- (a) In case of ambiguity, conflict, or lack of information, ARCHITECT shall furnish additional instructions by means of drawings or otherwise, as necessary for proper execution of the work. All such drawings and instructions shall be consistent with Contract Documents, true developments thereof, and reasonably inferable therefrom. Such additional instructions shall be furnished with reasonable promptness, provided that CONTRACTOR informs the CONSTRUCTION MANAGER of the relationship of the request to the critical path of construction. Refer to the term, use and protocol of an RFI defined in the Article entitled "Definitions".
- (b) Work shall be executed in conformity therewith and CONTRACTOR shall do no work without proper drawings and instructions.
- (c) The ARCHITECT will furnish necessary additional details to more fully explain the work, which details shall be considered as part of the Contract Documents.
- (d) Should any details be more elaborate, in the opinion of the CONTRACTOR, than scale drawings and specifications warrant, CONTRACTOR shall give written notice thereof to the ARCHITECT within twenty-one (21) days of receipt. In case no notice is given to the ARCHITECT within twenty-one (21) days, it will be assumed the details are reasonable development of the scale drawings. In case notice is given, then it will be considered, and if found justified, the ARCHITECT will either modify the drawings or shall recommend to DISTRICT a change order for the extra work involved.

(e) All parts of the described and shown construction shall be of the best quality of their respective kinds and the CONTRACTOR is hereby advised to use all diligence to become fully involved as to the required construction and finish, and in no case to proceed with the different parts of the work without obtaining first from the ARCHITECT such directions and/or drawings as may be necessary for the proper performance of the work.

#### **ARTICLE 23. SHOP DRAWINGS**

- Commensurate with the requirements of the Project schedule, and within fifteen (15) days, or as required by construction schedule of the Notice to Proceed for each bid package, the CONTRACTOR shall submit to CONSTRUCTION MANAGER four (4) hard copies and one electronic copy, checked, coordinated and approved by CONTRACTOR, of all shop or setting list drawings, schedules, and materials list required for the work: If this project consists of any remodel / modernization work, field dimensions require verification prior to the preparation of the Shop Drawings. ARCHITECT shall review such drawings, schedules and materials list only for conformance with the design concept of the work and compliance with information given in Contract Documents, and return as approved or disapproved with guidance as to required corrections within fourteen (14) days, unless more time is needed for the review. CONTRACTOR shall make any corrections required by ARCHITECT. Submit four (4) final hard copies and 1 electronic copy of the shop drawing with architect's markings to the CONSTRUCTION MANAGER, and furnish such other copies as may be needed for construction /coordination with other trades within fourteen (14) days or as required by the Contract Schedule. ARCHITECT's approval of such drawings, schedules, or materials list shall not relieve CONTRACTOR from responsibility for deviations unless CONTRACTOR has in writing called ARCHITECT's attention to such deviations at time of submission and secured ARCHITECT's written approval, nor shall it relieve CONTRACTOR from responsibility for errors in shop drawings or schedules.
  - (1) The ARCHITECT is entitled to additional review time to review complex and difficult submittals, including but not limited to structural steel shop drawings, mechanical equipment, electrical equipment, and special system components and parts. The CONTRACTOR shall breakout critical submittals into separate packages so as to expedite the review process of an individual item. The coordination of the overall submittal packages shall be the responsibility of the CONTRACTOR.
  - (2) Shop Drawings requiring "Deferred Approval" require a substantial amount of time for agency review and approval. Deferred Approvals generally require re-submittal to the approving Plan Review Agency. The Contractor shall apply its skill and knowledge to expedite the Deferred Approval(s) from preparation to approval. The Contractor shall submit the shop drawings / submittals so as not to delay the Project schedule. Notwithstanding anything to the contrary herein, the CONTRACTOR shall make submittals of all Deferred Approvals to the ARCHITECT within fifteen (15) days, or as required by construction schedule of the Notice to Proceed. ARCHITECT shall review such Deferred Approval submittals, shall endeavor to obtain review by the Plan Review Agency, and shall return as approved or disapproved with guidance as to the required corrections within sixty (60) days, unless further time is needed under the circumstances. If resubmittals are required, ARCHITECT shall endeavor to review and return the resubmittal within sixty (60) days. CONTRACTOR shall allow sufficient time in its scheduling for corrections and resubmittals of Deferred Approval items in conformance with these requirements.
- (b) All submittals of shop drawings, catalog cuts, data sheets, schedules and material lists shall be complete and shall conform to contract drawings and specifications. The Contractor shall

prepare layout and coordination drawings to demonstrate the accuracy and fit of the materials and work.

- The term "shop drawing" as used herein shall be understood to include, but not be limited to, (c) coordination efforts by CONTRACTOR, detail design calculations for the development of the shop drawing, fabrication and installation drawings, lists, graphs and operating instructions.
- (d) Shop drawings shall be submitted at a time sufficiently early to allow review of same by the Plan Review Agency (if required), and the ARCHITECT, and to accommodate the rate of construction progress required under the Contract Documents. CONTRACTOR will be required to pay ARCHITECT's reasonable and customary fees in order to expedite review of shop drawings which are not submitted in a timely fashion. CONTRACTOR may be assessed \$100 a day for each day it is late in submitting a show drawing or sample.
- All shop drawing submittals shall be accompanied by an accurately completed transmittal form (e) using the format found herein, or as approved by the DISTRICT. Any shop drawing submittal not accompanied by such a form, or where all applicable items on the form are not completed, will be returned for resubmittal. The CONTRACTOR may authorize a material or equipment supplier to deal directly with the ARCHITECT with regard to shop drawings. However, ultimate responsibility for the accuracy and completeness of the information contained in the submittal shall remain with the CONTRACTOR.
- Normally, a separate transmittal form shall be used for each specific item, scheduled activity (f) task, or class of material or equipment for which a submittal is required. However, due to the critical nature of a submittal, a submittal can be broken into separate sub-submittals in order to obtain the review of a more critical portion(s) of a submittal prior to the review of other subsubmittals. The transmittal form shall include the CPM Activity/ Submittal/Task Number, Early Start (ES), Early Finish (EF), Late Finish (LF) and the float for the activity. Transmittal of shop drawings on various items using a single transmittal form will be permitted only when the items taken together constitute a manufacturer's "package" or are so functionally related that expediency indicates review of the group or package as a whole. At its option, the CONTRACTOR or Supplier, may obtain from the ATCHITECT quantities of the shop drawing transmittal form at reproduction cost.
- CONTRACTOR's review and approval of shop drawings and submittals shall include the following stamp:

"The CONTRACTOR has reviewed and approved not only the field dimensions but the construction criteria and has also made written notation regarding any information in the shop drawings or submittal that does not conform to the Contract Documents. This shop drawing or submittal has been coordinated with all other shop drawings and submittals received to date by the CONSTRUCTION MANAGER and this duty of coordination has not been delegated to the Owner's separate Contractor's, Subcontractors, material suppliers, the ARCHITECT, or the engineers on this project.

Signature of CONTRACTOR"

Within thirty five (35) days after receipt of shop drawings, the CONSTRUCTION MANAGER (h) will endeavor to return one or more prints of each drawing to CONTRACTOR with ARCHITECT'S comments noted thereon. The CONTRACTOR shall make a complete and acceptable submittal to the CONSTRUCTION MANAGER for review by the ARCHITECT by the second submission of drawings. The DISTRICT shall withhold funds due the CONTRACTOR to

cover additional costs of the ARCHITECT'S review beyond the second submission and any other costs incurred by DISTRICT.

- (i) If prints of the shop drawing are returned to the CONTRACTOR marked "NO EXCEPTIONS TAKEN," formal revision of said drawing will not be required. If prints of the drawing are returned to the CONTRACTOR marked "MAKE CORRECTIONS NOTED," formal resubmittal of said drawings will not be required. If prints of the drawing are returned to the CONTRACTOR marked "REVISE AND RESUBMIT," the CONTRACTOR shall revise said drawing and shall resubmit four (4) copies plus on (1) electronic copy of the revised drawing to the CONSTRUCTION MANAGER. If prints of the drawing are returned to the CONTRACTOR marked "REJECTED RESUBMIT," the CONTRACTOR shall resubmit four (4) new copies plus on (1) electronic copy of the drawing to the CONSTRUCTION MANAGER. Submittals being resubmitted for revisions or submitted due to previous rejection, the CONTRACTOR shall provide a written response indicating the nature of the correction(s) and/or cloud the revised item(s). All submittals returned "rejected" or "revise and resubmit" shall be copied and distributed as noted in section (a) of this Article.
- (j) Fabrication of an item shall not be commenced before the ARCHITECT has reviewed the pertinent shop drawings and returned copies to the CONTRACTOR marked with "NO EXCEPTIONS TAKEN," or "MAKE CORRECTIONS NOTED." Revisions indicated on shop drawings shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as the basis of claims for extra work. The review of such drawings by the ARCHITECT will be limited to checking for general agreement with the Contract Documents, and shall in no way relieve the CONTRACTOR of responsibility for errors or omissions contained therein, nor shall such review operate to waive or modify any provision contained in the Contract Documents. Fabricating dimensions, quantities of material, applicable code requirements, and other contract requirements shall be the CONTRACTOR's responsibility. Coordinate integral and adjacent materials with other contracts prior to final shop drawings and fabrication.
- (k) No work represented by required shop drawings shall be purchased or commenced until the applicable submittal has been approved. The work shall conform to the approved shop drawings and all other requirements of the Contract Documents. The CONTRACTOR shall not proceed with any related work which may be affected by the work covered under shop drawings until the applicable shop drawings have been approved, particularly where piping, machinery, and equipment and the required arrangements and clearances are involved.
- (I) Except where the preparation of a shop drawing is dependent upon the approval of a prior shop drawing, all shop drawings pertaining to the same class or portion of the work shall be submitted simultaneously.
- (m) Calculations of a structural nature must be approved by the Plan Review Agency.
- (n) THE CONTRACTOR SHALL HAVE NO CLAIM FOR DAMAGES OR EXTENSION OF TIME DUE TO ANY DELAY RESULTING FROM THE CONTRACTOR HAVING TO MAKE THE REQUIRED REVISIONS TO SHOP DRAWINGS UNLESS REVIEW BY THE ARCHITECT IS DELAYED BEYOND THE TIME PROVIDED HEREIN AND THE CONTRACTOR CAN ESTABLISH THAT THE ARCHITECT'S DELAY IN REVIEW ACTUALLY RESULTED IN A DELAY IN THE CONTRACTOR CONSTRUCTION SCHEDULE. CONTRACTOR SHALL NOT BE ENTITLED TO ANY CLAIM FOR DAMAGES RESULTING FROM THE PLAN REVIEW AGENCY REVIEW. HOWEVER, DISTRICT MAY CONSIDER AN EXTENSION OF TIME DUE TO ANY DELAY CAUSED BY THE PLAN REVIEW AGENCY REVIEW.

## ARTICLE 24. SURVEY, LAYOUT AND FIELD ENGINEERING

- (a) The CONTRACTOR performing the Work shall provide all layout necessary to complete the Work. Layout shall include coordination drawings as well as the physical performance of the layout by the CONTRACTOR.
- (b) Surveys to determine location of property lines and corners will be supplied by DISTRICT. Surveys to determine locations of construction, grading, site utilities and site work, shall be provided by the CONTRACTOR.
- (c) "Record Drawings" of site development shall be prepared by the CONTRACTOR, indicating revisions to the grading and the underground utility locations (horizontal and vertical locations) on the RECORD DRAWINGS provided by the CONTRACTOR as required to provide accurate as-built information. All other record drawing information including but not limited to building and hardscape shall be noted on the contract documents. The CONSTRUCTION MANAGER shall, at its option, confirm all grades and utility locations are accurate prior to final payment to the CONTRACTOR.

# ARTICLE 25. SOILS INVESTIGATION REPORT & CLAIMS FOR CONCEALED OR UNKNOWN CONDITIONS

- (a) When a soils investigation report has been obtained from test holes at the site, such report is available for the CONTRACTOR's use in preparing its bid and work under the Contract Documents. Any information obtained from such report or any information given on drawings as to surface and subsurface soil condition or to elevations of existing grades or elevations of underlying rock is approximate only. If, during the course of work under the Contract Documents, CONTRACTOR encounters subsurface or latent conditions that differ materially from those indicated in the soils investigation report, then CONTRACTOR shall notify the CONSTRUCTION MANAGER immediately upon discovery of the condition.
- (b) If, during the course of work under the Contract Documents, CONTRACTOR encounters subsurface or otherwise concealed physical conditions, that differ materially from those indicated in the Contract Documents, or unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in contract activities of the character provided for in the Contract Documents, then CONTRACTOR shall notify the DISTRICT of the discovery of the condition before the condition is materially changed, disturbed and/or covered. CONTRACTOR shall submit notice of possible claim for additional time and/or cost, no later than three (3) days after the first observance of the conditions.
- (c) WARNING: DISTRICT DOES NOT WARRANT THE SOILS AT THE PROJECT SITE. SOILS INVESTIGATION REPORT IS PROVIDED FOR CONTRACTOR'S INFORMATION ONLY. DISTRICT DOES NOT WARRANT THE SOILS CONDITIONS OF THE SITE AND CONTRACTOR IS FULLY RESPONSIBLE TO ASCERTAIN SITE CONDITIONS FOR THE PURPOSES OF DETERMINING CONSTRUCTION MEANS AND METHODS PRIOR TO COMMENCING CONSTRUCTION.

# **ARTICLE 26. TESTS AND INSPECTIONS**

(a) Tests and inspections will comply with California Code of Regulations Title 24, Part 1, Section 4-335.

(b) If the Contract Documents, DISTRICT's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, CONTRACTOR shall give notice in accordance with such authority of its readiness for observation or inspection at least two (2) working days prior to being tested or covered up. If inspection is by authority other than DISTRICT, CONTRACTOR shall inform the DISTRICT's Inspector of the date fixed for such inspection. CONTRACTOR shall secure required certificates of inspection. Observations by DISTRICT's Inspector shall be promptly made, and where practicable, at source of supply. If any work should be covered up without approval or consent of DISTRICT's Inspector, it must be uncovered for examination and satisfactorily reconstructed at CONTRACTOR's expense in compliance with the Contract Documents. Costs of retests, and re-inspection of any materials or work found to be not in compliance with the Contract Documents shall be paid for by the DISTRICT and deducted from the Contract. Other costs for test and inspection shall be paid by the DISTRICT.

#### **ARTICLE 27. TRENCHES**

- (a) CONTRACTOR shall provide adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life and limb in trenches and open excavation that conform to applicable safety standards.
- (b) If the Contract involves the excavation of any trench or trenches five feet or more in depth, the CONTRACTOR shall, in advance of excavation, submit to the DISTRICT or to whomever DISTRICT designates a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the Shoring System Standards established by the Construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer employed by the CONTRACTOR, and all costs therefore shall be included in the price named in the Agreement for completion of the work as set forth in the Contract Documents. In no case shall such plan be less effective than that required by the Construction Safety Orders. No excavation of such trench or trenches shall be commenced until said plan has been accepted by CAL-OSHA and a CAL-OSHA permit for such plan delivered to the DISTRICT. Labor Code Section 6705; Health and Safety Code Section 17922.5).
- (c) If the Contract Documents involve the digging of trenches or excavations that extend deeper than five (5) feet below the surface, the following shall apply:
  - (1) The CONTRACTOR shall promptly, and before the following conditions are disturbed, notify the DISTRICT, in writing, of any:
    - (A) Material that the CONTRACTOR believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.
    - (B) Subsurface or latent physical conditions at the site different from those indicated by information about the site made available to bidders prior to the deadline for submitting bids.
    - (C) Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.

- (2) The DISTRICT shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the CONTRACTOR's cost of, or the time required for, performance of any part of the work shall issue a change order under the procedures described in the Contract Documents.
- (3) In the event a dispute arises between the DISTRICT and the CONTRACTOR, whether the conditions materially differ or involve hazardous waste, or cause a decrease or increase in the CONTRACTOR's cost of, or time required for, performance of any part of the work, the CONTRACTOR shall not be excused from any scheduled completion date provided for by the Contract Documents, but shall proceed with all the work to be performed under the Contract Documents. The CONTRACTOR shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the contracting parties (Public Contract Code section 7104).

#### **ARTICLE 28. DOCUMENTS ON JOBSITE**

(a) CONTRACTOR shall keep on the job site at all times one legible copy of all Contract Documents, including and annotated with addenda and change orders, and all approved drawings, plans, schedules and specifications. Said documents shall be kept in good order and available to ARCHITECT, ARCHITECT'S representatives, and all authorities having jurisdiction. CONTRACTOR shall be acquainted with and comply with the provisions of said regulations as they relate to the work. (See particularly the duties of CONTRACTOR, 24 Cal. Code of Regulations Sec. 4-343.) CONTRACTOR shall also be acquainted with and comply with all California Code of Regulations provisions relating to conditions on the work, particularly Titles 8 and 17.

## **ARTICLE 29. STATE AUDIT**

(a) Pursuant to and in accordance with the provisions of Government Code Section 8546.7, or any amendments thereto, all books, records and files of the DISTRICT, the CONTRACTOR, or any Subcontractor connected with the performance of the Contract Documents involving the expenditure of public funds in excess of Ten Thousand Dollars (\$10,000.00), including, but not limited to, the costs of administration of the Contract Documents, shall be subject to the examination and audit of the State Auditor at the request of the DISTRICT or as part of any audit of the DISTRICT for a period of **three (3) years** after final payment is made under the Agreement.

## **ARTICLE 30. SUBSTITUTIONS**

- (a) CONTRACTOR shall follow all instructions and requirements set forth in INSTRUCTIONS TO BIDDERS, for compliance with this Article. All substitution requests related to structural items, fire safety issues, life safety issues and accessibility compliance issues shall be reviewed and approved by the Plan Review Agency.
- (b) Whenever in specifications any materials, process, service or equipment is indicated or specified by brand name, trade name, proprietary name or by name of manufacturer, such specification shall be deemed to be used for the purpose of facilitating description of material, process, service or equipment desired and shall be deemed to be followed by the words "or approved equal," and CONTRACTOR may, unless otherwise stated, offer any material, process, service, or equipment which shall be substantially equal or better in every respect to that so indicated or specified subject to DISTRICT or ARCHITECT approval.

- (c) If material, process, service, or equipment offered by CONTRACTOR is not, in the opinion of ARCHITECT, or DISTRICT, equal or better in every respect to that specified, then CONTRACTOR shall furnish the material, process, service, or equipment specified. The burden of proof as to equality of any material, process, service, or equipment shall rest with CONTRACTOR. This provision authorizing submission of "or equal" substantiating data shall not in any way authorize an extension of time for performance of the Agreement. The DISTRICT'S decision on substitution requests is final and not subject to any appeal, review or reconsideration.
- (d) All materials are mentioned as standards. Should a Contractor or Bidder desire to substitute materials or methods for those specified, the Contractor or Bidder shall follow the guidelines stated herein, and in accordance with the Contract Documents and Public Contract Code Section 3400. Each review of a substitution request by the Architect or its consultants will be billed to the Contractor or Bidder at an hourly rate not to exceed \$150.00 per hour.
- (e) Substitutions can be submitted in two ways:
  - 1) Up to fourteen (14) working days prior to bid opening, or
  - 2) Up to thirty (30) working days after the notice to proceed has been issued for the related contract.
  - (1) Prior to Bid Opening: The Contractor or Bidder must insure that proposed substitutions of materials by the Contractor or Bidder are submitted to the Architect's office a minimum of fourteen (14) working days prior to the bid opening for review and possible approval of any equipment or materials thought to be equal to or better than those specified in the drawings or specifications. An Addendum will be issued at a minimum of seven [7] working days and a maximum of three [3] working days prior to Bid Opening including all equipment and materials deemed equivalent to those specified and approved by the Architect. Submittals will include comparative spec-data of that specified equipment or material and the proposed substitution as indicated on the completed "Substitution Request Form" in accordance with the Contract Documents. Submittals without this information will be automatically rejected.
  - (2) After notice to proceed: Submittals will include comparative spec-data of that specified equipment or material and the proposed substitution as indicated on the completed "Substitution Request Form" in accordance with the Contract Documents. Submittals without this information will be automatically rejected. Substitutions submitted after the thirty (30) day period will not be considered unless the product has been discontinued or the product will be of benefit to the DISTRICT, in the DISTRICT's sole discretion.
- (f) If, after the contract has been awarded, the CONTRACTOR furnishes material, process, service, or equipment more expensive than that specified, any difference in cost of such material, process, service, or equipment so furnished shall be borne by CONTRACTOR. Any engineering, design fees, or approval agencies' fees required to make adjustments in material or work of all trades directly or indirectly affected by the approved substituted items shall be borne entirely by CONTRACTOR. Any difference in cost between an approved substitution that is lower in cost than the originally specified item shall be refunded by CONTRACTOR to DISTRICT.
- (g) Price, fitness and quality being equal with regard to supplies, the DISTRICT may prefer supplies grown, manufactured, or produced in California and next prefer supplies partially manufactured grown, or produced in California, provided the bids of said suppliers or the

prices quoted by them do not exceed by more than 5% of the lowest bids/prices quoted by out of state suppliers, the major portion of the manufacture of the supplies is not done outside of California, and the public good will be served thereby. (Government Code section 4330-4334).

(h) SUBMITTALS shall not be used as a means of requesting a substitution, the procedure for which is defined in this Article 30.

#### **ARTICLE 31. SAMPLES**

- (a) Consistent with the Contract Documents and within fourteen (14) working days following the Notice to Proceed of each bid package, CONTRACTOR shall furnish for approval, all samples as required in specifications together with catalogs and supporting data required by ARCHITECT. This provision shall not authorize any extension of time for performance of the work. ARCHITECT shall review such samples as to conformance with design concept of work and for compliance with information given in the Contract Documents and shall approve or disapprove them within fifteen (15) working days from receipt.
- (b) Unless specified otherwise, sampling, preparation of samples and tests shall be in accordance with the latest standards of the American Society for Testing and Materials.
- (c) Samples shall, upon demand of ARCHITECT or DISTRICT, be submitted for tests or examinations and considered before incorporation into the work. CONTRACTOR shall be solely responsible for delays due to samples not being submitted in time to allow for tests. Acceptance or rejection will be expressed in writing. Work shall be equal to approved samples in every respect. Samples that are of value after testing will remain the property of the CONTRACTOR.

#### **ARTICLE 32. CONSTRUCTION SCHEDULES**

- (a) The DISTRICT will prepare and provide the Construction Management Baseline Schedule (CMBS), Monthly Schedule updates, and the Short-interval-Schedules per (1) through (5) as follows:
  - (1) The DISTRICT will provide the CMBS with the bidding documents. The CONTRACTOR shall use the CMBS when preparing and submitting its price for the work. The CMBS is subject to change during construction, and will be continually updated and adjusted throughout the work as necessary. CONTRACTOR shall provide the CONSTRUCTION MANAGER with the CONTRACTOR's Crew Loading for each activity prior to the commencement of the work.
  - (2) The DISTRICT will use the CMBS for planning, executing and monitoring work progress.
  - (3) The DISTRICT will prepare a monthly schedule updates, which will comport with the monthly billing percentages shown on that month's approved schedule of values form
  - (4) The CONSTRUCTION MANAGER at each weekly coordination meeting will provide short-Interval-Schedules (SIS). The CONTRACTOR shall provide any and all schedule information requested by the CONSTRUCTION MANAGER for producing the SIS.

- (b) CONTRACTOR will exchange scheduling information with Subcontractors and suppliers. CONTRACTOR will order work, equipment and materials with sufficient lead-time to avoid interruption of the work.
- (c) If at any time, the DISTRICT considers the CONTRACTOR's completion date to be behind schedule and in jeopardy, and upon the DISTRICT's request, the CONTRACTOR shall provide a revised schedule for the CONTRACTOR'S affected activities. The revised schedule will show the CONTRACTOR's plan for making-up the schedule delay(s) and shall be input by the CONSTRUCTION MANAGER into the baseline schedule to determine if the plan is adequate for eliminating the schedule delay. The CONTRACTOR shall provide the revised schedule within 3 days of the request. Any activity that cannot be completed by its original completion date or the scheduled date as adjusted by approved time extensions shall be deemed behind schedule. Use of Float by the contractor must be approved by the Construction Manager / DISTRICT prior to its use. Should early start and finish dates not be met, the schedule will be considered "in jeopardy". The contractor shall, within 3 days of request, provide a plan for completing the activities so as not to delay subsequent activities.
- (d) Any activities shown in the contract documents but not specifically noted in the CMBS shall be included in the contract and performed in the proper sequence of work to allow proper execution of the work.

#### **ARTICLE 33. MATERIALS AND WORK**

- (a) Except as otherwise specifically stated in the Contract Documents, CONTRACTOR shall provide and pay for all materials, supplies, tools, equipment, labor, transportation, superintendence, temporary constructions of every nature, and all other services and facilities of every nature whatsoever necessary to execute and complete the work within the specified time.
- (b) Unless otherwise specified, all materials shall be new and the best of their respective kinds and grades as noted or specified, and workmanship shall be of good quality.
- (c) Materials shall be furnished in ample quantities and at such times as to insure uninterrupted progress of work and shall be stored properly and protected as required.
- (d) CONTRACTOR shall, after issuance of the Notice to Proceed by DISTRICT, place orders for materials and/or equipment as specified so that delivery may be made without delays to the work. CONTRACTOR shall, upon demand by the CONSTRUCTION MANAGER, furnish to the CONSTRUCTION MANAGER documentary evidence showing that orders have been placed.
- (e) DISTRICT reserves the right, due to any neglect in not complying with the above instructions, to place orders for such materials and/or equipment as it may deem advisable in order that the work may be completed by the date specified in the Agreement, and all expenses incidental to the procuring of these materials and/or equipment shall be paid for by the CONTRACTOR.
- (f) No materials, supplies, or equipment for work under the Contract Documents shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. CONTRACTOR warrants good title to all material, supplies, and equipment installed or incorporated in the work and agrees upon completion of all work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by it, to DISTRICT free from any claims, liens, or charges. CONTRACTOR further agrees that neither it nor any person, firm, or corporation furnishing any materials or labor for any work covered by

the Contract Documents shall have any right to any lien upon the premises or any improvement or appurtenance thereon, except that CONTRACTOR may install metering devices or other equipment of utility companies or of political subdivisions, title to which is commonly retained by the utility company or political subdivision. In the event of installation of any such metering device or equipment, CONTRACTOR shall advise DISTRICT as to the owner thereof.

- (g) Nothing contained in this Article, however, shall defeat or impair the rights of persons furnishing material or labor under any bond given by CONTRACTOR for their protection or any rights under any law permitting such persons to look to funds due CONTRACTOR in the hand of DISTRICT, and this provision shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing materials or labor when no formal contract is entered into for such materials or labor.
- (h) Materials and/or equipment and the attendant liability for its protection and safety shall remain in the CONTRACTOR until incorporated in the work and accepted by the DISTRICT; no part of the materials and/or equipment shall be removed from its place of storage except for immediate installation in the work; and CONTRACTOR shall keep an accurate inventory of all materials and/or equipment in a manner satisfactory to the DISTRICT or its authorized representative. Refer to the Article entitled SCHEDULE OF VALUES AND PROGRESS PAYMENT APPLICATIONS for material title.

#### **ARTICLE 34. INTEGRATION OF WORK**

- (a) CONTRACTOR shall do all cutting, fitting, patching, and preparation of work as required to make its several parts come together properly, and fit it to receive or be received by work of other contractors; including both the CONTRACTOR's and DISTRICT's forces. In the event of clarifications, the CONTRACTOR shall follow all Supplemental Instructions (SI's) given by the ARCHITECT.
- (b) All costs caused by defective or ill-timed work shall be borne by CONTRACTOR.
- (c) CONTRACTOR shall not endanger any work by cutting, excavating, or otherwise altering work and shall not cut or alter work of any other CONTRACTOR without the written consent of the ARCHITECT. CONTRACTOR shall be solely responsible for protecting existing work on adjacent properties and shall obtain all required permits for shoring and excavations near property lines.
- (d) When modifying existing work or installing new work adjacent to existing work, CONTRACTOR shall match, as closely as conditions of the site and materials will allow, the finishes, textures, and colors of the original work, refinishing new work as required to match existing work, at no additional cost to DISTRICT.

# ARTICLE 35. OBTAINING OF PERMITS, LICENSES AND EASEMENTS

(a) Permits, licenses, and certificates necessary for prosecution of work, shall be secured and paid for by CONTRACTOR, unless otherwise specified. All such permits, licenses, and certificates shall be delivered to the CONSTRUCTION MANAGER before required for the work to be performed or demand is made for the certificate of final payment which ever comes first. CONTRACTOR shall, and shall require Subcontractors to, maintain CONTRACTOR's licenses in effect as required by law.

- (b) Easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by DISTRICT, unless otherwise specified.
- (c) Permits and charges for utility services by serving utilities shall be secured and paid for by DISTRICT, including development and capitol facility fees, Electrical and Gas Rule 16 and/or Rule 20 fees, Cable and Telephone fees.
- (d) If applicable, the DISTRICT shall file a Notice of Intent to comply with the terms of the general permit to discharge storm water associated with construction activity (WQ Order No. 920-08-DWQ). The Notice of Intent must be sent to the following address along with the appropriate payment: California State Water Resources Control Board, Division of Water Quality, Storm Water Permit Unit, P.O. Box 100, Sacramento, CA 95812-0100. The CONTRACTOR may also call the State Water Board's Construction Activity Storm Water Hotline at (916) 341-5272. The Notice of Intent shall be filed prior to the start of any construction activity.

#### ARTICLE 36. INTENTIONALLY LEFT BLANK

#### ARTICLE 37. EXISTING UTILITY LINES; REMOVAL, RESTORATION

- (a) Pursuant to Government Code Section 4215, the DISTRICT assumes the responsibility for removal, relocation, and protection of utilities located on the construction site at the time of commencement of construction that are not identified in the Contract Documents. The CONTRACTOR shall be compensated for the costs of locating, repairing damage not due to the failure of the CONTRACTOR to exercise reasonable care, and removing or relocating existing main or trunkline utility facilities not indicated in the Contract Documents with reasonable accuracy, and for equipment on the Project necessarily idled during such work. The CONTRACTOR shall not be assessed for liquidated damages for delay in completion of the work caused by failure of the DISTRICT to provide for removal or relocation of existing main or trunkline utility facilities.
- (b) The CONTRACTOR shall be responsible for removal, relocation, and protection of (1) existing main or trunkline utilities located on the construction site at the time of commencement of construction that are identified in the Contract Documents, and (2) all utilities, other than existing main or trunkline utilities, located on the construction site at the time of commencement of construction.
- (c) This Article shall not be construed to preclude assessment against the CONTRACTOR for any other delays in completion of the work. Nothing in this Article shall be deemed to require the DISTRICT to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the construction site can be inferred from the presence of other visible facilities, such as buildings, meter junction boxes, on or adjacent to the site of the construction
- (d) As part of the work to be performed, CONTRACTOR shall provide the notices and proceed in accordance with Government Code Sections 4216.2, 4216.3 and 4216.4 (available at http://www.Digalert.com), and shall pay all fees charged pursuant to Government Code Section 4216, et seq.
- (e) Prior to any underground excavation and/or trenching (example: disturbance of the site of any kind, demolition of any form, trenching, digging, removing of concrete, or scraping of grass etc.) within the CONTRACTOR's scope of work, the CONTRACTOR, shall notify CONSTRUCTION MANAGER and shall (1) visit the construction site, examine the building(s), if any, and any

work that may have been done thereon, and assess the presence of visible facilities on or adjacent to the construction site that would indicate the presence of underground utilities on the construction site; (2) review the plans and specifications, all applicable "as built" documents, and all other applicable Contract Documents, to ascertain the existence and location of underground utilities not identified in the Contract Documents; and (3) perform pothole testing as necessary to ascertain the existence and location of underground utilities not identified in the Contract Document

If the CONTRACTOR at any time discovers utility facilities not identified in the Contract Documents, or any errors or omissions in the plans and specifications, "as built" documents, or other Contract Documents, the CONTRACTOR shall immediately notify the DISTRICT in writing.

- (f) Should the CONTRACTOR damage a utility service, CONTRACTOR shall provide both the DISTRICT and the ARCHITECT with notice. The DISTRICT shall have the authority to repair the damaged service, or the DISTRICT and/or ARCHITECT can direct CONTRACTOR to repair the damaged service. In the event CONTRACTOR damages a service(s) that is not the DISTRICT's responsibility to remove, relocate, and protect pursuant to subsection (a), or the CONTRACTOR does not take reasonable care as described in subsection (e), CONTRACTOR shall repair service at no cost to the DISTRICT. CONTRACTOR is required to schedule, notify and coordinate with "U.S.A. Locates" for the location(s) of all off-site services and/or service connections.
- (g) The DISTRICT will provide the CONTRACTOR the DISTRICT's Locate Utilities Request Form to ensure successful scheduling and documentation of requests for locating of underground utilities to prevent damage to DISTRICT utilities and property during the construction process. Failure to comply by CONTRACTOR which results in damage to DISTRICT utilities and property shall obligate CONTRACTOR to make necessary repairs to damaged utilities and/or property at no cost to the DISTRICT.

# ARTICLE 38. WORK TO COMPLY WITH APPLICABLE LAWS AND REGULATIONS

- (a) CONTRACTOR shall give all notices and comply with all laws, ordinances, rules, and regulations applicable to the work as indicated and specified. All work shall be performed in conformance with all applicable laws, ordinances, rules, and regulations, including but not limited to California Code of Regulations, Title 24, Parts 1 through 5, Part 7, Part 9 and Title 19.
- (b) If CONTRACTOR observes that plans, drawings or specifications are at variance with any applicable law, ordinance, rule, or regulation, CONTRACTOR shall promptly notify CONSTRUCTION MANAGER in writing and any changes deemed necessary by the ARCHITECT shall be adjusted as provided for at ARTICLE 59, CHANGES AND EXTRA WORK. If CONTRACTOR performs any work which it knew, or through exercise of reasonable care should have known, to be contrary to any laws, ordinances, rules or regulations, and without such notice to CONSTRUCTION MANAGER, CONTRACTOR shall bear all costs arising therefrom. Where plans, drawings or specifications state that materials, processes, or procedures must be approved by the Plan Review Agency, State Fire Marshal (SFM), or other body or agency, CONTRACTOR shall be responsible for satisfying the requirements of such bodies or agencies.

**ARTICLE 39. ACCESS TO WORK** 

(a) DISTRICT and its representatives shall at all times have access to the work wherever it is in preparation or progress. CONTRACTOR shall provide safe and proper facilities for such access so that DISTRICT's representatives may perform their functions.

#### **ARTICLE 40. TIMELY PAYMENTS BY CONTRACTOR**

(a) Contractor shall pay to each of its Subcontractors, not later than the 10th day following each payment to CONTRACTOR by DISTRICT the respective amounts allowed CONTRACTOR on account of work performed by the respective Subcontractors to the extent of such Subcontractor's interest therein.

ARTICLE 41. INTENTIONALLY LEFT BLANK

ARTICLE 42. INTENTIONALLY LEFT BLANK

ARTICLE 43. INTENTIONALLY LEFT BLANK

#### **ARTICLE 44. CLEANING UP**

- 1) CONTRACTOR shall at all times keep work site free from CONTRACTOR-generated debris such as waste, rubbish, and excess materials and equipment caused by this work, at the least on a daily basis. CONTRACTOR shall not leave debris under, in, or about the work site. Upon completion of CONTRACTOR's work, CONTRACTOR shall clean all interior and exterior materials installed by CONTRACTOR, and any areas and surfaces where debris and/or overspray has collected as a direct or indirect result of the CONTRACTOR's work. If the project consists of any street improvements (paving / gutter and/or sidewalk surfaces), drain inlets and any pipeline facilities, such work shall also be free of any debris and sediments. CONTRACTOR shall be responsible for removing all hazardous waste from the job-site in containers provided by CONTRACTOR.
- 2) CONTRACTOR will provide dumpsters for the collecting and disposal of non-hazardous CONTRACTOR-generated waste from the work EXCEPT as noted in the Contract Documents. CONTRACTOR shall be responsible for placing waste into such dumpsters. If CONTRACTOR fails to clean up, the DISTRICT shall do so and all of the costs thereof shall be charged to the CONTRACTOR.
- 3) The DISTRICT shall provide final cleaning after the CONTRACTOR's clean up has been completed and if not satisfactory to the DISTRICT, CONTRACTOR will be billed any cost incurred by DISTRICT. Contractors final cleaning shall include all clean up as described in the summary or scope of work.

# **ARTICLE 45. PATENTS, ROYALTIES, AND INDEMNITIES**

(a) The CONTRACTOR shall hold and save the DISTRICT and its governing board, officers, agents, and employees harmless from liability of any nature or kind, including cost and expense, for or on account of any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the Contract, including its use by the DISTRICT, unless otherwise specifically provided in the Contract Documents, and unless such liability arises from the sole negligence or willful misconduct of the CONTRACTOR.

#### **ARTICLE 46. GUARANTEE**

- (a) CONTRACTOR warrants that the work (which includes any equipment furnished by CONTRACTOR as part of the materials) shall:
  - (1) Be free from defects in workmanship and material; Be free from defects in any design performed by CONTRACTOR;
  - (2) Be new, and conform and perform to the requirements stated in the specifications and where detail requirements are not so stated, shall conform to applicable industry standards; and
  - (3) Be suitable for the use stated in the specifications.
- (b) The warranty period for discovery of defective work shall commence on the date stamped on the Notice of Completion verifying County recordation and continue for the period set forth in the specifications or for one year if not so specified. If, during the warranty period, the work is not available for use due to defective work, such time of unavailability shall not be counted as part of the warranty period. The warranty period for corrected defective work shall continue for a duration equivalent to the original warranty period.
- (c) DISTRICT shall give CONTRACTOR prompt written notice after discovery of any defective work. CONTRACTOR shall correct any such defective work, as well as any damage to any other part of the work resulting from such defective work, and shall provide repair, replacement, or reimbursement, at its sole expense, in a manner approved by the DISTRICT and with due diligence and dispatch as required to make the work ready for use (without impact to the DISTRICT's operations) by DISTRICT, ordinary wear and tear, unusual abuse or neglect excepted. Such corrections shall include, but not be limited to, any necessary adjustments, modifications, changes of design (unless of DISTRICT's design), removal, repair, replacement or reinstallation, and shall include all necessary parts, materials, tools, equipment, transportation charges and labor as may be necessary, and cost of removal and replacement of work shall be performed at a time and in such a manner so as to minimize the disruption to DISTRICT's use of the work.
- (d) In the event of failure of CONTRACTOR or Surety to commence and pursue with diligence any such repairs or replacements within **five (5) days** after being notified in writing, DISTRICT is hereby authorized to proceed to have defects repaired or replaced and made good at the expense of the CONTRACTOR and the Surety who hereby agree to pay any costs and charges therefore immediately on demand.
- (e) If, in the opinion of the DISTRICT, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the DISTRICT or to prevent interruption of operations of the DISTRICT, the DISTRICT will attempt to give the written notice required by this Article. If the CONTRACTOR or Surety cannot be contacted or neither complies with the DISTRICT's requirements for correction within a reasonable time as determined by the DISTRICT, the DISTRICT may, notwithstanding the provisions of this Article, proceed to make such correction or provide such attention and the costs of such correction or attention shall be charged against the CONTRACTOR and Surety. Such action by the DISTRICT will not relieve the CONTRACTOR and Surety of the guarantees provided in this Article or elsewhere in the Contract Documents.
- (f) This Article does not in any way limit the guarantees on any items for which a longer guarantee is specified or on any items for which a manufacturer gives a guarantee for a longer period.

CONTRACTOR shall furnish to DISTRICT, two (2) hard copies plus 3 electronic copies on compact disc, and all appropriate guarantee or warranty certificates upon completion of the work or upon request by DISTRICT.

- (g) All guarantees required under this Article shall be in writing on the Guarantee form included in the Contract Documents, or as furnished by the DISTRICT.
- (h) CONTRACTOR shall provide to DISTRICT two (2) hard copies plus 3 electronic copies of instruction and maintenance manuals for all items that require same.
- (i) The rights and remedies outlined in this Article are in addition to all others available to the DISTRICT.

#### ARTICLE 47. DUTY TO PROVIDE COMPETENT WORKERS

- (a) CONTRACTOR and Subcontractors shall at all times enforce strict discipline and good order among their employees and shall not employ on the Work any person not skilled or competent in the work assigned to such person. It shall be the responsibility of CONTRACTOR to ensure compliance with this Article.
- (b) Any person in the employ of the CONTRACTOR or Subcontractors whom DISTRICT or ARCHITECT or Construction Manager may deem incompetent, troublesome or otherwise undesirable shall be excluded from the work site and shall not again be employed on it except with the written consent of DISTRICT.

#### ARTICLE 48. EMPLOYMENT OF LABOR/PREVAILING WAGE RATES

- (a) The Project is a public work, the Work shall be performed as a public work and pursuant to California Labor Code Section 1770 et seq., the Director of Industrial Relations has determined the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which the Work is to be performed, for each craft, classification or type of worker needed for the Project. Per diem wages shall be deemed to include employer payments for health and welfare, pension, vacation, apprenticeship or other training programs, and similar purposes. Copies of the rates are on file at DISTRICT's principal office. The rate of prevailing wage for any craft, classification or type of workmanship to be employed on this Project is the rate established by the applicable collective bargaining agreement which rate so provided is adopted by this reference and shall be effective for the life of this Contract or until the Director of the Department of Industrial Relations determines that another rate be adopted. It shall be mandatory upon the CONTRACTOR and on any Subcontractor to pay not less than the said specified rates to all workers employed in the execution of this Agreement.
- (b) The CONTRACTOR and any Subcontractor under the CONTRACTOR as a penalty to DISTRICT shall forfeit not more than Fifty Dollars (\$50.00) for each calendar day or portion thereof for each worker paid less than the stipulated prevailing rates for such work or craft in which such worker is employed. The difference between such stipulated prevailing wage rates and the amount paid to each worker for each calendar day or portion of a calendar day for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the CONTRACTOR or Subcontractor.

- (c) Nothing contained herein shall be deemed to supersede any applicable laws, orders, or regulations issued by competent authority governing wages, hours of work of the employment of labor, nor to condone any violation of such laws, orders, or regulations.
- (d) CONSTRUCTION MANAGER shall post at appropriate conspicuous weatherproof points on the site of the Project a schedule showing the Prevailing Wage Determinations published by the Director of the California Department of Industrial Relations, which are applicable to the Project.
- (e) The CONTRACTOR and each Subcontractor shall keep or cause to be kept an accurate record for work on this Project showing the names, addresses, social security numbers, work classification, straight time and overtime hours worked and occupations of all laborers, workers and mechanics employed by them in connection with the performance of the Contract or any subcontract, and showing also the actual per diem wage paid to each of such workers, which records shall be open at all reasonable hours to inspection by DISTRICT, its officers and agents and to the representatives of the Division of Labor Law

Enforcement of the State Department of Industrial Relations. CONTRACTOR and each Subcontractor shall comply with Labor Code section 1776. The CONTRACTOR and each subcontractor shall furnish a certified copy of all payroll records directly to the Labor Commissioner monthly or more frequently, if so specified in the Contract and in a format the Labor Commissioner prescribes.

- (f) For public works contracts awarded on and after January 1, 2015, those public works projects shall be subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- (g) The CONTRACTOR shall be responsible for ensuring that the labor standards provisions are followed by its Subcontractors, and shall be responsible for the Labor Code violations of its Subcontractors.
- (h) It is the policy of the DISTRICT to strictly enforce the public works prevailing wage requirements set for in the California Labor Code. To that end, the CONTRACTOR and Subcontractors found to be repeat violators of the Labor Code are subject to debarment from bidding on, or being awarded, any public works construction contract to the extent provided by law.
- (i) As of March 1, 2015, the CONTRACTOR and any proposed Subcontractors shall not be qualified to submit a bid or to be listed in a bid or GMP proposal for the Project unless currently registered and qualified under California Labor Code section 1725.5 to perform public work as defined by Division 2, Part 7, Chapter 1 (§§1720 et seq.) of the Labor Code.
- (j) As of April 1, 2015, the CONTRACTOR and any proposed Subcontractors shall not be qualified to enter into, or engage in the performance of, the Contract unless currently registered and qualified under Labor Code section 1725.5 to perform public work.

#### **ARTICLE 49. HOURS OF WORK**

- (a) As provided in Article 3 (commencing at Section 1810) Chapter 1, Part 7, Division 2 of the Labor Code, eight (8) hours of labor shall constitute a legal day's work. The time of service of any worker employed at any time by the CONTRACTOR or by any Subcontractor on any subcontract under the Contract upon the work or upon any part of the work contemplated by the Contract shall be limited and restricted by the Contract to eight (8) hours per day, and forty (40) hours during any one week, except as hereinafter provided. Notwithstanding the provisions hereinabove set forth, work performed by employees of CONTRACTOR in excess of eight (8) hours per day and forty (40) hours during any one week, shall be permitted upon this public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half times the basic rate of pay.
- (b) The CONTRACTOR shall keep and shall cause each Subcontractor to keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by CONTRACTOR in connection with the work or any part of the work contemplated by the Contract Documents. The record shall be kept open at all reasonable hours to the inspection of the DISTRICT and to the Division of Labor Standards Enforcement, Department of Industrial Relations. Daily reports shall be transmitted to the CONSTRUCTION MANAGER, using the form provided in the Specification Section entitled "FORMS AND REPORTS", or on a form provided by the DISTRICT.

- (c) Pursuant to Labor Code Section 1813, the CONTRACTOR or subcontractor shall pay to the DISTRICT a penalty of twenty-five Dollars (\$25) for each worker employed in the execution of this Contract by the CONTRACTOR or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of Article 3 (commencing at Section 1810), Chapter 1, Part 7, Division 2 of the Labor Code. Regular work hours are deemed to be 7:00 a.m. to 3:30 p.m. Monday through Friday excluding holidays.
- (d) Any work performed after regular working hours, or on Saturdays, Sundays or other holidays shall be performed without additional expense to DISTRICT, unless DISTRICT has agreed to pay CONTRACTOR the premium portion of the overtime rate.
- (e) Should overtime work be required due to delays caused by CONTRACTOR, CONTRACTOR will be responsible for the costs associated with Supervision and Inspection by the DISTRICT. These costs will be deducted from the Contract Sum.

#### **ARTICLE 50. PAYROLL RECORDS**

- (a) Pursuant to the provisions of Labor Code Section 1776, the CONTRACTOR shall keep and shall cause each Subcontractor performing any portion of the work under the Contract Documents to keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by CONTRACTOR in connection with the work. CONTRACTOR to provide CONSTRUCTION MANAGER appropriate Certified Payroll Records to meet DIR reporting requirements, and may be required to update said records to DIR website for PWC-100 reporting. Each payroll record shall contain or be verified by a written declaration that is made under penalty of perjury, stating both of the following:
  - (1) The information contained in the payroll record is true and correct.
  - (2) The employer has complied with the requirements of sections 1771, 1811 and 1815 for any work performed by his or her employees on the public works project.
- (b) The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the CONTRACTOR on the following basis:
  - (1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.
  - (2) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the DISTRICT, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.
  - (3) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection upon request by the public or copies thereof made; provided, however, that a request by the public shall be made through either the DISTRICT, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the CONTRACTOR, Subcontractors, and the entity through which the

request was made. The public shall not be given access to the records at the principal office of the CONTRACTOR.

The form of certification shall be as follows:
I, (Name-print), the undersigned, am
(position in business) with the authority to act for and on behalf of
(Name of business and/or
CONTRACTOR), certify under penalty of perjury that the records or copies thereof submitted and consisting of
(description, number of pages) are the originals or true, full and correct copies of the originals which depict the payroll record(s) of the actual disbursements by way of cash, check, or whatever form to the individual or individuals named.
Dated:
Signature:
ITPACTOR or subcontractor shall file a partified copy of the payroll records enumerated in

(c) CONTRACTOR or subcontractor shall file a certified copy of the payroll records enumerated in subdivision (a) with the entity that requested the records within ten (10) days after receipt of a written request. In the event that the CONTRACTOR or subcontractor fails to comply within the 10-day period, the CONTRACTOR or subcontractor shall, as a penalty to the DISTRICT, forfeit twenty-five Dollars (\$25) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. Contractor is not subject to a penalty assessment pursuant to this provision due to the failure of a subcontractor to comply.

Any copy of payroll records made available for inspection as copies and furnished upon request to the public by the DISTRICT, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of the CONTRACTOR awarded the Contract or the subcontractor performing the Contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (29 U.S.C. Sec. 175a) shall be marked or obliterated only to prevent disclosure of an individual's name and social security number. A joint labor management committee may maintain an action in a court of competent jurisdiction against an employer who fails to comply with Labor Code section 1774. The court may award restitution to an employee for unpaid wages and may award the joint labor management committee reasonable attorney's fee and costs incurred in maintaining the action. An action may not be based on the employer's misclassification of the craft of a worker on its certified payroll records. Nothing stated herein limits any other available remedies for a violation.

(e) The CONTRACTOR shall inform the DISTRICT of the location of the payroll records enumerated under subdivision (a), including the street address, city and county, and shall, within five (5) working days, provide a written notice of a change of location and address.

# **ARTICLE 51. APPRENTICES**

(4)

(a) The CONTRACTOR acknowledges and agrees that, if the Contract Documents involves a dollar amount greater than or a number of working days greater than that specified in Labor Code Section 1777.5, the provisions of Labor Code Section 1777.5 govern the Contract Documents. It shall be the responsibility of the CONTRACTOR to ensure compliance with this Article and with Labor Code Section 1777.5 for all apprenticing occupations.

- (b) Apprentices of any crafts or trades may be employed and, when required by Labor Code Section 1777.5, shall be employed provided they are properly registered in full compliance with the provisions of the Labor Code.
- (c) Every such apprentice shall be paid the prevailing wage paid to apprentices under the regulations of the craft or trade at which he or she is employed, and shall be employed only at the work of the craft or trade to which he or she is registered.
- (d) Only apprentices, as defined in Section 3077, who are in training under apprenticeship standards and written apprentice agreements under Chapter 4 (commencing at Section 3070), Division 3 of the Labor Code, are eligible to be employed on public works. The employment and training of each apprenticeship shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which he or she is training or the rules and regulations of the California Apprenticeship Council.
- (e) Pursuant to Labor Code Section 1777.5, the CONTRACTOR, and any Subcontractors employing workers in any apprenticeship craft or trade, in performing any work under the Contract Documents shall apply to the applicable joint apprenticeship committee for a certificate approving the CONTRACTOR or Subcontractor under the applicable apprenticeship standards for the employment and training of apprentices.
- (f) Every CONTRACTOR and Subcontractor shall submit contract award information to the applicable joint apprenticeship committee, which shall include an estimate of journeyman hours to be performed under the Contract Documents, the number of apprentices to be employed and the approximate dates the apprentices will be employed.
- (g) If the CONTRACTOR or Subcontractor willfully fails to comply with Labor Code Section 1777.5, then, upon a determination of noncompliance by the Chief of the Division of Apprenticeship Standards, it:
  - (1) may be denied the right to bid on any subsequent project for one year from the date of such determination and for a period of three years for any second or subsequent violation:
  - (2) shall forfeit as a penalty to the DISTRICT one hundred dollars (\$100) per day for each calendar day of noncompliance, which shall be withheld from any payment due or to become due under the terms of this Agreement, and which may also be reduced or changed by the Chief to apprentice employment rather than a penalty; and
  - (3) shall forfeit as a penalty to the DISTRICT three hundred dollars (\$300) per day for each calendar day of noncompliance.
- (h) The CONTRACTOR and all Subcontractors shall comply with Labor Code Section 1777.6, which section forbids certain discriminatory practices in the employment of apprentices.
- (i) CONTRACTOR shall become fully acquainted with the law regarding apprentices prior to commencement of the work. Special attention is directed to Sections 1777.5, 1777.6, and 1777.7 of the Labor Code, and Title 8, California Code of Regulations, Section 200 et seq. Questions may be directed to the State Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, California. The responsibility of compliance with the sections in Article 51 is with the CONTRACTOR.

# **ARTICLE 52. - FIRST AID**

(a) The CONTRACTOR shall maintain emergency first aid treatment for CONTRACTOR's workers on the Project which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C.A., Sec. 651 et seq.).

# **ARTICLE 53. PROTECTION OF PERSONS AND PROPERTY**

- (a) The CONTRACTOR shall be responsible for all damages to persons or property that occur as a result of its fault or negligence in connection with the prosecution of the Contract Documents and shall take all necessary measures and be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance by the DISTRICT. The CONTRACTOR shall remove all mud, water, or other elements as may be required for the proper protection and prosecution of its work. CONTRACTOR shall provide such heat, covering, and enclosures as are necessary to protect all work, materials, equipment, appliances, and tools against damage by weather conditions. All work shall be solely at the CONTRACTOR's risk with the exception of damage to the work caused by "acts of God" as defined in Public Contract Code Section 7105.
- (b) CONTRACTOR shall take, and require Subcontractors to take, all necessary precautions for the safety of workers and shall comply with all applicable federal, state, local and other safety laws, standards, orders, rules, regulations, and building codes to prevent accidents or injury to persons on, about, or adjacent to the work site and to provide a safe and healthful place of employment. CONTRACTOR shall furnish, erect, properly maintain at all times, and remove as required by other scheduled activities, as directed by CONSTRUCTION MANAGER or ARCHITECT or as required by the conditions and progress of work, all necessary safety devices, safeguards, construction canopies, signs, audible devices for protection of the blind, safety rails, belts and nets, barriers, lights, and watchmen for protection of workers and the public and shall post danger signs warning against hazards created by such features in the course of construction, as it relates to the CONTRACTOR's scope of work. CONTRACTOR shall designate a responsible employee, whose duty shall be to post information regarding protection and obligations of workers and other notices required under occupational safety and health laws, to comply with reporting and other occupational safety requirements, and to protect the life, safety and health of workers. CONTRACTOR shall report the name and position of the person so designated in writing to DISTRICT. CONTRACTOR shall correct any violations of safety laws, standards, orders, rules, or regulations. Upon the issuance of a citation or notice of violation by the Division of Occupational Safety and Health, the CONTRACTOR at CONTRACTOR's expense shall correct such violation immediately.
- (c) In an emergency affecting safety of person or of work or of adjoining property, CONTRACTOR, without special instruction or authorization from ARCHITECT or DISTRICT, is hereby permitted to act, at its discretion, to prevent such threatened loss or injury; and CONTRACTOR shall so act if so authorized or instructed by ARCHITECT or DISTRICT. Any compensation claimed by CONTRACTOR on account of emergency work shall be determined by written agreement with the DISTRICT.
- (d) CONTRACTOR shall take adequate precautions to protect existing roads, sidewalks, curbs, pavements, utilities, adjoining property and structures (including, without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by construction operations.
- (e) CONTRACTOR shall (unless waived by the DISTRICT in writing):

- (1) When performing new construction on existing sites, become informed and take into specific account the maturity of the students on the site; and perform work which may interfere with school routine before or after school hours; enclose working area with a substantial barricade; and arrange work to cause a minimum amount of inconvenience and danger to students and faculty in their regular school activities.
- (2) Provide substantial barricades around any shrubs or trees indicated to be preserved.
- (3) Deliver materials to the building area over the route designated by CONSTRUCTION MANAGER.
- (4) When directed by DISTRICT, take preventive measures to eliminate objectionable dust caused by CONTRACTOR's work. Should the contractor not maintain proper dust control the DISTRICT will provide dust control with all costs being the responsibility of the CONTRACTOR.
- (5) Enforce all instructions of DISTRICT and ARCHITECT regarding signs, advertising, fires, and smoking and require that all workers comply with all regulations while on construction site.
- (6) Take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed by accident, an approved civil engineer at no cost to the DISTRICT shall replace them.

#### **ARTICLE 54. NON-DISCRIMINATION**

(a) In the performance of the terms of this Agreement, CONTRACTOR agrees that it will not engage in nor permit such Subcontractor as it may employ to engage in unlawful discrimination in employment of persons because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons.

# ARTICLE 55. SCHEDULE OF VALUES AND PROGRESS PAYMENT APPLICATIONS

- (a) CONTRACTOR shall furnish on a form approved by DISTRICT:
  - (1) Within ten (10) days of Notice to Proceed and commensurate with the specification section entitled SCHEDULE OF VALUES, provide a detailed preliminary estimate giving a complete breakdown of Contract Price for each area of the work and/or site, which shall include all Subcontractor/supplier agreements showing the dollar amounts of these agreements to justify the schedule of values, and showing separate line items for the material cost(s) and installation cost(s).
  - (2) A periodic itemized estimate of work done for purpose of making partial payments thereon.
  - (3) Within **ten (10) days** of a request by DISTRICT, a schedule of estimated monthly payments which shall be due CONTRACTOR under the **Contract Documents**.
- (b) Values employed in making up any of these schedules are subject to the ARCHITECT's written approval and will be used only for determining the basis of partial payments and will not be considered as fixing a basis for additions to or deductions from contract price.
  - (1) Unless otherwise agreed in writing, payment for CONTRACTOR's mobilization costs shall be cost loaded as follows:

Contract Completion Percentage Payment for Mobilization Percentage

When 5% of the Contract Sum is billed, then... 50% of mobilization cost can be billed. When 10% of the Contract Sum is billed, 25% of mobilization cost can be billed.

then...

When 20% of the Contract Sum is billed, 20% of mobilization cost can be billed.

then...

When 50% of the Contract Sum is billed, 5% of mobilization cost can be billed.

then...

- (c) Materials included in the progress payments shall be stored properly and protected as required to prevent damage, including but not limited to, rust, dents, scratches, and decay. Materials stored on-site and subject to payment, shall be gated and secured to prevent theft and/or vandalism. When the CONTRACTOR requests payment for materials not incorporated in the work, the following terms and conditions shall apply:
  - (1) For permanent materials delivered to the project site, or stored in an approved location off-site, an allowance of one hundred percent (100%) of the material costs plus freight charges as invoiced and less retention may be made. The allowance will be based upon validated invoices or bills for such materials, including freight charges, and a copy thereof shall be made a part of the documented records for the work. All permanent materials approved for payment will have been tested by the DISTRICT for compliance with the requirements of the Contract Documents. Payment will only be made for permanent materials that conform to the requirements of the Contract Documents.
  - (2) No allowance shall be made for fuels, form lumber, falsework, temporary structures or other materials of any kind that will not become an integral part of the finished contraction.
  - (3) All permanent materials, for which an allowance is requested, shall be stored in an approved manner where damage is not likely to occur. If any of the store materials are lost or become damages in any manner, CONTRACTOR shall be responsible for repairing or replacement of such damaged materials. The value of the lost or damaged materials permanent materials shall be deducted from the CONTRACTOR's subsequent progress payments until replacement has been accomplished.
  - (4) Permanent materials, for which payment has been made, either wholly of partially, shall not be removed from the approved location until such time that it is incorporated into the work, unless approved by the DISTRICT and/or the ARCHITECT.
  - (5) The following must accompany the written request for payment of stored materials, if required by the DISTRICT:
    - (A) Consent of the Surety specifying the material type and the bid items in which the material is to be used.
    - (B) Validating invoices showing that payment for the material has been made.
    - (C) A notarized statement from CONTRACTOR attesting that the invoices, as submitted do not include charges and/or fees for placing, handling, erecting or any other charges and/or markups other than the actual material cost, sales tax(es) if applicable, and freight charges.
    - (D) Bill of lading showing delivery of the material.
    - (E) Inspection test reports, and certifications if required by the Contract Documents.
    - (F) CONTRACTOR shall obtain a negotiable warehouse receipt, endorsed over to DISTRICT for materials and/or equipment stored in an off-site warehouse. Certificate of insurance clearly indicating that the materials or equipment is fully

insured against theft, fire, vandalism, malicious mischief, as well as other coverage required under the Contract Documents.

- (6) Nothing in these General Conditions shall be interpreted as requiring DISTRICT to pay for stored materials. DISTRICT shall decide on a case-by-case basis whether it will pay for stored materials. Some factors DISTRICT will consider are: CONTRACTOR's ability to meet the Project Schedule and milestones, the effectiveness of CONTRACTOR's quality control plan, how record drawings are being maintained and kept up, the status of the material submittals, and the on-going cleanliness of the work and the work site. No payment will be made for stored materials that have not been submitted and accepted.
- (7) If the permanent materials are stored off-site, CONTRACTOR must pay DISTRICT's representative's transportation and lodging to see the permanent materials.
- (8) Full title to the materials and/or equipment shall vest with DISTRICT at the time of delivery to the site, warehouse or other storage location.
- Commensurate with the Article entitled PAYMENTS, WAIVER AND RELEASE FORMS and (d) other requirements of the contract, and upon receipt of the CONSTRUCTION MANAGER's approval of the Request for Payment, the DISTRICT will subtract a sum equal to five percent (5%) of the value of the work performed up to the last day of the previous month, less the aggregate of previous payments. The value of the work completed shall be an estimate only. No inaccuracy or error in said estimate shall operate to release the CONTRACTOR, or any surety, from damages arising from such work or from enforcing each and every provision of this Contract, and the DISTRICT shall have the right subsequently to correct any error made in any estimate for payment. The CONTRACTOR shall not be entitled to have any payment requests processed, or be entitled to have any payment made for work performed, so long as any lawful or proper direction given by the DISTRICT concerning the work, or any portion thereof, remains uncomplied with. At any time after the retention held by the DISTRICT totals five percent (5%) of the value of the contract and the DISTRICT's Board, in its sole discretion, finds that satisfactory progress is being made, the DISTRICT may choose not to subtract the retention from remaining payment requests, and upon receipt of the CONTRACTOR'S bonding company letter of approval for such.

DISTRICT shall have the right, if necessary for the protection of the DISTRICT, to issue joint checks made payable to the CONTRACTOR and Subcontractors and/or material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of funds included as part of any such joint payment. However, DISTRICT has no duty to issue joint checks. In no event shall any joint check payment be construed to create any contract between the DISTRICT and a Subcontractor of any tier, any obligation from the DISTRICT to such Subcontractor, or rights in such Subcontractor against the DISTRICT.

#### **ARTICLE 56. CONTRACTOR CLAIMS**

(a) If the CONTRACTOR claims compensation for any damage sustained by reason of the acts of the DISTRICT or its agents, or if the CONTRACTOR disagrees with the DISTRICT's or Architect's decisions regarding a CONTRACTOR's Change Order Request (COR), the CONTRACTOR shall provide written "Notice" to the DISTRICT within five (5) days after sustaining of such damage, or being notified of an adverse decision, and provide within fourteen (14) days of the event the factual basis supporting the claim (unless otherwise specified in writing by the DISTRICT). The written "Notice" shall state the summary points for which the factual bases will support the claim and cite in detail the Contract Documents (including plans and specifications) upon which the claim is to be based. CONTRACTOR's failure to notify the DISTRICT within such a period shall be deemed a waiver and

relinquishment of such a claim. If such notice is given within the specified time, the procedure for its consideration shall be as stated above in these General Conditions. Refer to the Articles entitled, "DEFINITIONS", "DISPUTES - ARCHITECT'S DECISIONS", "CHANGES AND EXTRA WORK", "NOTICE" and "WAIVER AND RELEASE FORMS" for related Contract requirements. The claim, once submitted, shall be a "Certified Claim".

- (b) In addition, on or before the end of the month for which the claim has been filed, the CONTRACTOR shall also file with the DISTRICT the WAIVER AND RELEASE FORMS, for which the claim and the amount of the claim is identified. If the claim is not indicated on the WAIVER AND RELEASE FORMS, CONTRACTOR's claim shall be forfeited and invalidated and it shall not be entitled to consideration for time or payment on account of any such claim.
- (c) Pending final resolution of any Claim, unless otherwise agreed to in writing, the CONTRACTOR shall proceed diligently with performance of the work, and the DISTRICT shall continue to make any undisputed payments in accordance with the Contact Documents.

I,, being the (Must be an officer) of
(CONTRACTOR), declare under penalty of perjury under the laws of the State of
California, and do personally certify and attest that: I have thoroughly reviewed the
attached claim for additional cost and/or extension of time, and know its contents,
and said claim is made in good faith; the supporting data is truthful, accurate and
complete; that the amount requested accurately reflects the adjustment for which the
CONTRACTOR believes the DISTRICT is liable; and further, that I am familiar with
California Penal Code section 72 pertaining to false claims, and further know and
understand that submission or certification of a false claim may lead to fines,
imprisonment and/or other severe legal consequences.
By:
•
CONTRACTOR understands and agrees that any claim submitted without this certification does
not meet the terms of the Contract Documents, that DISTRICT or DISTRICT representatives,
may reject the claim on that basis and that unless CONTRACTOR properly and timely files the

claim with the certification, CONTRACTOR cannot further pursue the claim in any forum. A condition precedent will not have been satisfied.

(e) Failure to request money based on costs, or time extensions, as part of a COR constitutes a complete waiver of CONTRACTOR's right to claim the omitted money or time. All money or time for an issue must be included in the COR at the time submitted.

# **ARTICLE 57. DISPUTES - ARCHITECT'S DECISIONS**

- (a) The ARCHITECT shall, within a reasonable time, make decisions on all claims of the DISTRICT or CONTRACTOR and on all other matters relating to the execution and progress of the work. The decisions of the ARCHITECT shall not be binding, but shall be advisory only.
- (b) Except for tort claims, all claims by the CONTRACTOR for a time extension, payment of money or damages arising from work done by, or on behalf of, the CONTRACTOR pursuant to the Contract Documents, payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or as to the amount of payment which is disputed by the DISTRICT of Three Hundred Seventy Five Thousand Dollars (\$375,000) or less shall be subject to the settlement and arbitration provisions procedures set forth in Public Contract Code Section 20104, et seq. Those sections require that the claim be in writing, include the documents

necessary to substantiate the claim, and be filed on or before the final date of payment, subject to all time limits and notice requirements for filing claims under the Contract Documents.

- (1) For claims less than Fifty Thousand Dollars (\$50,000) the DISTRICT shall respond in writing to written claims within **forty-five** (**45**) **days** of receipt of the claim or may request in writing within **thirty** (**30**) **days** of receipt of the claim additional documentation supporting the claim or relating to any defenses to the claim the DISTRICT may have against the CONTRACTOR. The DISTRICT's written response to the claim shall be submitted to the claimant within **fifteen** (**15**) **days** after receipt of the further documentation or within a time period equivalent to that taken by the CONTRACTOR to provide the additional documentation, whichever is greater.
- For claims over Fifty Thousand Dollars (\$50,000) and less than or equal to Three (2) Hundred Seventy Five Thousand Dollars (\$375,000), the DISTRICT shall respond in writing to all written claims within sixty (60) days of receipt of the claim or may request in writing within thirty (30) days of the receipt of the claim any additional documentation supporting the claim or relating to any defenses to the claim the DISTRICT may have against the CONTRACTOR. The DISTRICT's written response to the claim shall be submitted to the CONTRACTOR within thirty (30) days after receipt of further documentation or within a period of time no greater than that taken by the CONTRACTOR in producing the additional documentation, whichever is greater. If the CONTRACTOR disputes the DISTRICT's written response or the DISTRICT fails to respond within a timely fashion, the CONTRACTOR within fifteen (15) days after the response or failure to respond may demand in writing an informal conference to meet and confer for settlement of the issues in dispute, which conference shall be scheduled within thirty (30) days for settlement of the dispute. If the claim or any portion of the claim remains in dispute following the meet and confer conference, the CONTRACTOR may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the CONTRACTOR submits his or her written claim until the time that the claim is denied as a result of the meet and confer process including any period of time utilized by the meet and confer process. Further, should legal action be pursued, the provisions relating to mediation and arbitration contained in Public Contract Code section 20104.4 shall be followed.
- (c) In the event of a dispute between the parties as to performance of the work, the interpretation of the Contract Documents or payment or nonpayment for work performed or not performed, the parties shall attempt to resolve the dispute via the procedures set forth in this Article. Pending resolution of the dispute, CONTRACTOR agrees to continue the work and/or disputed work diligently to completion. If the dispute is not resolved, CONTRACTOR agrees it will neither rescind the Contract nor stop the progress of the work and/or the disputed work, but CONTRACTOR's sole remedy, following exhaustion of the procedures set forth in this Article, shall be to submit such controversy to determination by a court of the State of California, in Fresno County, having competent jurisdiction of the dispute, after the work has been completed, and not before.
- (d) All meetings and correspondence relative to disputes and claims, which involve offers of good faith and negotiations, are subject to the Evidence Code 1152 exclusions.

#### **ARTICLE 58. PAYMENTS**

(a) Each month, on a date to be determined by DISTRICT, the CONTRACTOR shall be entitled to submit a progress payment invoice for unpaid work provided to the DISTRICT. The invoice

shall be on a form approved and/or provided by the DISRICT, and submitted to the CONSTRUCTION MANAGER for review and processing. Within seven (7) days of submission, the CONSTRUCTION MANAGER will review the CONTRACTOR invoice for legitimacy, and if any corrections or adjustments are required CONTRACTOR shall be required to resubmit the corrected invoice within three (3) days of the request. Upon receipt of the corrected invoice, the CONSTRUCTION MANAGER will verify the corrections and then forward the invoice to the Project Inspector for review. DISTRICT, within thirty (30) days after receipt of the invoice from the CONSTRUCTION MANAGER shall pay CONTRACTOR a sum equal to ninety five percent (95%) of value of the CONTRACTOR invoice. Payments for Change Order items can be included into the CONTRACTOR invoice that is, after the Change Order has been fully executed and approved by the DISTRICT Governing Board and/or authorized representative. CONSTRUCTION MANAGER will endeavor to provide DISTRICT with signed copies of the CONTRACTOR invoice on or before seven (7) days of receipt from CONTRACTOR. Work completed as estimated shall be an estimate only and no inaccuracy or error in said estimate shall operate to release CONTRACTOR or Surety from any damages arising from such work or from enforcing each and every provision of the Contract Documents, and DISTRICT shall have the right subsequently to correct any error made in any estimate for payment. CONTRACTOR SHALL NOT BE ENTITLED TO HAVE ANY PAYMENT ESTIMATES PROCESSED OR BE ENTITLED TO HAVE ANY PAYMENT FOR WORK PERFORMED SO LONG AS ANY LAWFUL OR PROPER DIRECTION CONCERNING WORK, OR ANY PORTION THEREOF, GIVEN BY THE DISTRICT OR ARCHITECT REMAINS UNCOMPLIED WITH BY THE CONTRACTOR.

- (b) DISTRICT has discretion to require from the CONTRACTOR any of the following information with the application for payment:
  - (1) certified payroll covering the period of the prior application for payment;
  - unconditional waivers and releases from all Subcontractors/suppliers for which payment was requested under the prior application for payment;
  - (3) receipts or bills of sale for any items.
  - (4) Signature of the Inspector, confirming that the maintenance of the Record Drawings is being kept up-to-date, and that the Record Drawings are not being used as a construction set.
- (c) Before payment is made hereunder, a certificate in writing shall be signed by the Project Inspector stating the Contract Documents have been adhered to and to confirm the estimates in the certification of application for payment, then submitted to the CONSTRUCTION MANAGER. The CONSTRUCTION MANAGER shall state the work for which the payment is claimed has been performed in general conformance with the terms of the Contract Documents and that the amount stated in the certificate is due under the terms of the Contract Documents, in which the certificate shall be attached to and made a part of the application made and filed with the DISTRICT, provided that if the CONSTRUCTION MANAGER or the Project Inspector shall, within three (3) days after written demand therefore, fail to deliver such certificate to the DISTRICT, the CONTRACTOR may file its application with the DISTRICT without said certificate, but together with such application shall file a statement that demand was made for such certificate and that the same was refused. Thereupon, the DISTRICT will either allow said application as presented or shall reject all or part of it. It is understood, moreover, that the certificate of the CONSTRUCTION MANAGER shall not be conclusive upon the DISTRICT, but shall be advisory only.
- (d) NO PAYMENT BY DISTRICT HEREUNDER SHALL BE INTERPRETED SO AS TO IMPLY THAT DISTRICT HAS INSPECTED, APPROVED, OR ACCEPTED ANY PART OF THE WORK. The final payment of five percent (5%) of the value of the work done under the Contract Documents, if unencumbered, shall be made **thirty-five (35) days** after recording by the

DISTRICT of the Notice of Completion. ACCEPTANCE WILL BE MADE ONLY BY ACTION OF THE GOVERNING BOARD OF DISTRICT.

(e) Unless otherwise provided, on or before making request for final payment of the undisputed amount due under the Contract Documents, CONTRACTOR shall submit to DISTRICT, in writing a summary of all claims for compensation under or arising out of the Contract Documents which were timely filed. The acceptance by CONTRACTOR of the payment of the final amount shall constitute a waiver of all claims against DISTRICT under or arising out of the Contract Documents, except those previously made, in a timely manner and in writing, and identified by CONTRACTOR as unsettled at the time of CONTRACTOR's final request for payment.

#### ARTICLE 59. CHANGES AND EXTRA WORK

- (a) DISTRICT may, as provided by law and without affecting the validity of the Contract Documents, order changes, modifications, deletions and extra work by issuance of written change orders from time to time during the progress of the work, with the contract sum and time being adjusted accordingly. All such work shall be executed under conditions of the original Contract Documents. DISTRICT has discretion to order changes on a "Unit Price", "Negotiated Sum", or "Time and Material" basis with adjustments to time made after CONTRACTOR has justified the impact on the critical path of the work. The following records shall also be kept by CONTRACTOR:
  - (1) CONTRACTOR shall maintain its records in such a manner as to provide a clear distinction between the direct costs of any extra work and/or deductive work and the original Contract work. This requirement pertains to the costs for wholly or partially approved Change Order Requests (COR's), Construction Change Directives (CCD's), Change Orders (CO's) and work CONTRACTOR considered to be potential Change Orders.
  - (2) CONTRACTOR shall furnish within seven (7) days after the Notice to Proceed, a complete listing of CONTRACTORS and Subcontractors hourly labor rates, indicating the direct hourly wage rate, payroll taxes and insurance costs.
- (b) Notwithstanding any other provision in the Contract Documents, the adjustment in the contract sum, if any, and the adjustment in the contract time, if any, set out in a change order shall constitute the entire compensation and/or adjustment in the contract time due CONTRACTOR arising out of the change in the work covered by the change order unless otherwise provided in the change order. The amount of the compensation due CONTRACTOR shall be calculated pursuant to **subparagraph (e)** of this Article. The entire compensation shall not include any additional charges not set forth in **subparagraph (e)** and shall not include delay damages (due to processing of a change order, refusal to sign a change order) indirect, consequential, and incidental costs including any management costs, extended home office and field office overhead, administrative costs and profit other than those amounts authorized under **subparagraph (e)** of this Article.
- (c) In giving instructions, ARCHITECT shall have authority to make minor changes in the work, not involving a change in cost, and not inconsistent with the purposes of the Project. The DISTRICT's authorized representative may authorize changes in work involving a change in cost and/or time. Except in an emergency endangering life or property, no extra work or change shall be made unless pursuant to a written order from DISTRICT, authorized by DISTRICT'S representative, and no claim for addition to contract sum shall be valid unless so ordered.

- (d) If the ARCHITECT determines that work required to be done constitutes extra work outside the scope of the Contract Documents, the ARCHITECT shall issue a request for a detailed proposal (RFP) or issue a Construction Change Directive (CCD) to the CONTRACTOR. CONTRACTOR will respond with a detailed proposal (COR) upon receipt of the RFP or CCD within fourteen (14) days of receipt of such documents. If the work is to be performed by a Subcontractor, CONTRACTOR must include a detailed bid from the Subcontractor.
- (e) Value of any such extra work, change, or deduction shall be determined at the discretion of DISTRICT in one or more of the following ways:
  - (1) By "**Unit Prices**" contained in CONTRACTOR's original bid and incorporated in the Contract Documents or fixed by subsequent "**Negotiated Sum**" agreement between DISTRICT and CONTRACTOR.
  - (2) By cost of labor and material and percentage for overhead and profit ("time and material"). If the value is determined by this method the following requirements shall apply:
    - (A) Daily Reports by CONTRACTOR.
      - General. At the close of each working day, the CONTRACTOR shall submit a daily report to the CONSTRUCTION MANAGER and/or Inspector, on forms approved by the DISTRICT, together with applicable delivery tickets, listing all labor, materials, and equipment involved for that day, and for other services and expenditures when authorized concerning extra work items including any schedule delay days required. An attempt shall be made to reconcile the report daily, and the CONSTRUCTION MANAGER and/or Inspector and the CONTRACTOR shall sign it. In the event of disagreement, pertinent notes shall be entered by each party to explain points that cannot be resolved immediately. Each party shall retain a signed copy of the report. Reports by Subcontractors or others shall be submitted through the CONTRACTOR. The CONSTRUCTION MANAGER shall organize and forward copies of the CONTRACTOR's and Inspector's reports to the ARCHITECT upon the completion of each "Time and Material" activity. ANY REPORTS NOT SUBMITTED IN A TIMELY MANNER AND NOT SIGNED BY THE CONSTRUCTION MANAGER AND/OR INSPECTOR SHALL NOT BE CONSIDERED AS A PART OF THE COSTS CONSIDERED FOR THE CHANGE ORDER. THE CONTRACTOR SHALL NOTIFY THE INSPECTOR AND THE CONSTRUCTION MANAGER PRIOR TO STARTING THE WORK EACH DAY.
      - (ii) Labor. The report shall show names of workers, classifications, and hours worked and hourly rate. Superintendent expenses are not allowed.
      - (iii) Tool and Equipment Rental. No payment will be made for the use of tools which have a replacement value of **\$250** or less or where an invoice is not provided.

Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed listed rates prevailing locally at equipment rental sources, or distributors, at the time the work is performed. The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage,

insurance, and all incidentals. Necessary loading and transportation costs for equipment used on the extra work shall be included.

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

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

- (iv) Equipment. The report shall show type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable, and hourly/daily cost.
- (v) Other Services and Expenditures. Other services and expenditures shall be described in such detail as the DISTRICT may require.

#### (B) Basis for Establishing Costs

- (i) Labor. The costs of labor will be the actual cost for wages prevailing locally for each craft classification or type of workers at the time the extra work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from federal, state or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. The use of labor classifications, which would increase the extra work cost, will not be permitted unless the CONTRACTOR establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.
- (ii) Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available and delivered to the work site in the quantities involved, plus sales tax, freight and delivery. The DISTRICT reserves the right to approve materials and sources of supply, or to supply materials to the CONTRACTOR if necessary for the progress of the work. No markup shall be applied to any material provided by the DISTRICT.
- (iii) Tool and Equipment Rental. No payment will be made for the use of tools which have a replacement value of \$250 or less or where an invoice is not provided.

Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed listed rates prevailing locally at equipment rental source, or distributors, at the time the work is performed. The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. Necessary loading and transportation costs for equipment used on the extra work shall be included. If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the DISTRICT than holding it at the work site, it shall be returned, unless the CONTRACTOR elects to keep it at the work site at no

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

- (iv) Other Items. The DISTRICT may authorize other items, which may be required on the extra work. Such items include labor, services, material and equipment which are different in their nature from those required by the work and which are of a type not ordinarily available from the CONTRACTOR or any of the Subcontractors. Invoices covering all such items in detail shall be submitted with the request for payment.
- (v) Invoices. Vendors' invoices for material, equipment rental, and other expenditures shall be submitted with the request for payment. If invoices or other documentation does not substantiate the request for payment, the DISTRICT may establish the cost of the item involved at the lowest price, which was current at the time of the report.
- (3) The following form for "EXTRA WORK and/or DEDUCTIVE WORK" and the "OVERHEAD & PROFIT (O&P) PERCENTAGE SCHEDULE" shall be used as applicable by the DISTRICT and CONTRACTOR to communicate proposed additions and deductions to the Contract Documents. State and City sales taxes and payroll taxes and insurance shall be shown separately and will be allowed on Extra Work and shall be credited on Deductive Work. NOTE THAT THE O&P PERCENTAGE SCHEDULE DOES NOT APPLY TO PROJECTS PERFORMED UNDER THE LEASE-LEASEBACK METHOD OF PROJECT DELIVERY, WHICH PROJECTS HAVE THEIR OWN AGREED-UPON O&P RATES.
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# FORM FOR EXTRA WORK AND/OR DEDUCTIVE WORK

SUBCONTRACTOR WORK (list each if more than one)		ADDITIVE	DEDUCTIVE
1	SUBCONTRACTOR LABOR TOTAL ①	\$	\$
2	SUBCONTRACTOR MATERIAL TOTAL ①,	\$	\$
3	SUBCONTRACTOR EQUIPMENT TOTAL®,	\$	\$
4	<b>SUBTOTAL #1</b> (LINES 1, 2 & 3)	\$	\$
5	SUBCONTRACTOR'S OVERHEAD AND PROFIT FOR SUBTOTAL #1 (LINE 4) ③	\$	\$
6	<b>SUBTOTAL #2</b> (LINES 4 & 5) ③	\$	\$

CONTRACTOR'S WORK		ADDITIVE	DEDUCTIVE	
7	CONTRACTOR LABOR TOTAL ①	\$	\$	
8	CONTRACTOR MATERIAL TOTAL ①,	\$	\$	
9	CONTRACTOR EQUIPMENT TOTAL ①,	\$	\$	
10	<b>SUBTOTAL #3</b> (LINES 7, 8 & 9)	\$	\$	
11	CONTRACTOR'S OVERHEAD AND PROFIT FOR SUBTOTAL #3 (LINE 10) ③	\$	\$	
12	CONTRACTOR'S OVERHEAD AND PROFIT FOR SUBTOTAL #2 (LINE 6) ③			
13	<b>SUBTOTAL #4</b> (LINES 10, 11& 12)	\$	\$	

14	SUM OF SUBTOTALS #2 & #4	\$ \$
15	Contractor's Bond	\$ \$
16	NET TOTAL FOR C.O.R. (5)®	\$

②: Include the cost for taxes.

<sup>3:</sup> Refer to the Overhead and Profit Schedule

<sup>4:</sup> Contractor's bond and liability insurance premium, if in fact actual bonds and insurance are to be purchased. Total costs shall not exceed 2% of the Net Total (line 16). Refer to the O&P Schedule.

<sup>(5)</sup> Includes all direct and indirect costs, including but not limited to, acceleration, cumulative affect of the change(s), expediting the Work, Fragnets, etc.

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NOTE: OVERHEAD AND PROFIT SHALL BE CALCULATED ON THE NET AMOUNT OF THE CHANGE ORDER

#### OVERHEAD & PROFIT (O&P) PERCENTAGE SCHEDULE

- (i) Refer to the O&P Schedule below. The cost of the work does not include the overhead and profit mark-up's.
- (ii) For all work, the CONTRACTOR's Bond and Liability Insurance Premium may be added in onto the "Form for EXTRA WORK and/or DEDUCTIVE WORK."
- (iii) The O&P Schedule shall be used for "Negotiated Sum" and/or "Time and Materials" work. Unit Price work shall not have the overhead and profit mark-up applied to the work, on the basis that the Unit Price includes overhead and profit margins.

	Work by Subcontractor less than or equal to \$2,500	Work by Subcontractor more than \$2,500	Work by CONTRACTOR less than or equal to \$2,500	Work by CONTRACTOR more than \$2,500
Subcontractor Overhead & Profit	20%	15%		
CONTRACTOR Overhead	10%	5%	15%	10%
& Profit  ###################################	Excluding Bond Premium	Excluding Bond Premium	Excluding Bond Premium	Excluding Bond Premium
Total Overhead and Profit, not to exceed:	30%	20%	15%	10%

- (4) For "Negotiated Sum" and "Time and Material" pricing methods, the specified overhead and profit figures are defined and are agreed to include, but not limited to, the following:
  - (A) Home office administration costs
  - (B) Job site administration costs
  - (C) Small tools (Less than \$250 capital cost per item)
  - (D) Project staff and company vehicles
  - (E) Change Order preparation, procurement and set-up (including all payroll costs and fringe benefits), estimating, supervising, expediting, drafting, and clerical/secretarial services.
  - (F) As-Built Drawing maintenance
  - (G) General Supervision of the work (Direct Supervision may be included)
  - (H) Time & Material documentation procedures
  - (I) The handling, transportation and warehousing of materials other than direct identifiable cost of specific deliveries, or as included in the price of the material.
  - (J) Time Extension request or recovery schedule preparation
- (5) IT IS EXPRESSLY UNDERSTOOD THAT THE VALUE OF SUCH EXTRA WORK OR CHANGES, AS DETERMINED BY ANY OF THE AFOREMENTIONED METHODS, EXPRESSLY INCLUDES ANY AND ALL OF CONTRACTOR'S COSTS AND EXPENSES, BOTH DIRECT AND INDIRECT, RESULTING FROM ADDITIONAL TIME REQUIRED ON THE PROJECT, OR RESULTING FROM DELAYS TO THE PROJECT, INCLUDING BUT NOT LIMITED TO ACCELERATION, CUMULATIVE AFFECT OF THE CHANGE(S), EXPEDITING THE WORK, ETC.

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(f) If the CONTRACTOR should claim that any instruction, request, drawing, specification,

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action, condition, omission, default, or other situation obligates the DISTRICT to pay additional compensation to CONTRACTOR or to grant an extension of time, or constitutes a waiver of any provision in the Contract Documents, the CONTRACTOR shall provide written "Notice" to the DISTRICT within five (5) days after sustaining of such damage, or being notified of an adverse decision, and provide within fourteen (14) days of the event the factual basis supporting the claim (unless otherwise specified). The written "Notice" shall state the summary points for which the factual bases will support the claim and cite in detail the Contract Documents (including plans and specifications) upon which the claim is to be based. CONTRACTOR's failure to notify the DISTRICT within such a period shall be deemed a waiver and relinquishment of such a claim. If such notice is given within the specified time, the procedure for its consideration shall be as stated above in these General Conditions. Refer to the Articles entitled, "DEFINITIONS,"
"CONTRACTOR CLAIMS," "DISPUTES - ARCHITECT'S DECISIONS,"
"NOTICE" and "WAIVER AND RELEASE FORMS" for related Contract requirements. The claim, once submitted, shall be a "Certified Claim."

In addition, on or before the end of the month for which the claim has been filed, the CONTRACTOR shall also file with the DISTRICT the **WAIVER AND RELEASE FORMS**, for which the claim and the amount of the claim are identified. If the claim is not indicated on the **WAIVER AND RELEASE FORMS**, CONTRACTOR's claim shall be forfeited and invalidated and it shall not be entitled to consideration for time or payment on account of any such claim.

(g) If DISTRICT and CONTRACTOR fail to agree to the quantification of costs and/or time to be placed into a Change Order, the DISTRICT at its own discretion may issue a Construction Change Directive (CCD) for those costs and/or time impacts that is deemed appropriate for the changed work conditions. Notwithstanding the lack of agreement upon a Change Order, the CONTRACTOR shall proceed immediately with the changed work upon receipt of a CCD. If CONTRACTOR disputes the CCD, CONTRACTOR may make a claim pursuant to the Article entitled "DISPUTES."

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#### ARTICLE 60. COMPLETION

- (a) Statutory definitions of "completion" and "complete" shall apply for those statutory purposes. For accrual of liquidated damages, Claim and warranty purposes, "completion" and "complete" mean the point in the Project where (1) Contractor has fully and correctly performed all Work in all parts and requirements, including corrective and punch list work, and (2) DISTRICT's representatives have conducted a final inspection that confirmed this performance. "Substantial" or any other form of partial or non-compliant performance of the Work shall not constitute "completion" or "complete" under the Contract Documents.
- (b) The DISTRICT shall accept completion of the Contract and have the Notice of Completion recorded when the entire Work including CONTRACTOR's punch list(s) and ARCHITECT's final review comments shall have been completed to the satisfaction of the DISTRICT. The Work may only be accepted as complete by action of the DISTRICT's Governing Board.
- (c) However, the DISTRICT, through action by the Governing Board, at its sole option, may accept completion of the Contract and have the Notice of Completion recorded when the entire Work including individual portions of the Work shall have been completed to the satisfaction of the DISTRICT, except for minor corrective and/or incomplete items.
- (d) A final walk through to determine completion of the Contract and to record the Notice of Completion shall occur only upon a valid claim by CONTRACTOR that the Project is complete except for minor corrective and/or incomplete items. Any erroneous claims of completion by CONTRACTOR resulting in a premature walk through shall be at CONTRACTOR's sole cost and expense and DISTRICT shall make adjustments to the contract price by reducing the amount thereof to pay for any costs incurred by the DISTRICT due to the erroneous claims by the CONTRACTOR that the Project is complete. Minor corrective and/or incomplete items shall be identified in the final walk through of the Project.
- (e) If the CONTRACTOR fails to complete the minor corrective and/or incomplete items prior to the expiration of the **thirty-five (35) day** period immediately following recording of the Notice of Completion, the DISTRICT shall withhold from the final payment an amount equal to **150% of the estimated cost**, as determined by the DISTRICT, of each item until such time as the item is completed. At the end of such **thirty-five (35) day** period, if there are items remaining to be corrected and/or completed, the DISTRICT may elect to proceed as provided in the Article entitled "ARTICLE **64**. PAYMENTS WITHHELD."

(f) Regardless of the cause therefore, the CONTRACTOR may not maintain any claim or cause of action against the DISTRICT for damages incurred as a result of its failure or inability to complete its work in a shorter period than established in the Contract Documents, the parties stipulating that the period set forth in the Contract Documents is a reasonable time within which to perform the Work.

#### ARTICLE 61. FAILURE TO PERFORM / DELAYED PERFORMANCE OF WORK

- (a) If CONTRACTOR defaults or neglects to carry out the Work in accordance with the requirements of the Contract Documents, the DISTRICT may, after providing two (2) working days written notice to CONTRACTOR, without prejudice to any other remedy it may have, order the CONTRACTOR to stop the Work or any portion thereof, until the cause for such order has been eliminated. The right of the DISTRICT to stop the Work shall not give rise to a duty on the part of the DISTRICT to exercise this right for the benefit of the CONTRACTOR or any other person or entity. The DISTRICT shall adjust the Contract Sum by reducing the amount thereof by the cost of correcting such deficiencies. If DISTRICT in its sole discretion decides not to correct work not done in accordance with the Contract Documents, it may instead reduce the Contract Sum in an amount commensurate with the damages caused by the deficiencies.
- (b) DISTRICT shall not be liable for any delays or damages related to the time required to obtain government approvals.
- (c) Costs, expenses and damages caused by delays, improperly timed activities, defective construction, or damages to another contractor's work shall be borne by the party responsible. Should CONTRACTOR cause damage to the work or property of any separate contractor, or cause any delay to any such contractor, the CONTRACTOR shall defend, indemnify, and hold DISTRICT harmless for such damage or delay, DISTRICT may backcharge CONTRACTOR for delay or damage to another contractor's work or damage to another contractor's property.

# **ARTICLE 62. CORRECTION OF WORK**

- (a) If it is found at any time, before or after completion of the Work, that the CONTRACTOR has varied from the drawings and/or specifications and/or Contract Documents, in materials, quality, form or finish, or in the amount or value of the materials and labor used, the ARCHITECT shall make a recommendation:
  - (1) that all such improper Work should be removed, remade and replaced, and all Work disturbed by these changes be made good at the CONTRACTOR's expense ("Option 1"); or

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(2) that the DISTRICT deduct from any amount due CONTRACTOR, the sum of money equivalent to the difference in value between the Work performed and that called for by the drawings and specifications and Contract Documents ("Option 2"). ARCHITECT shall determine such difference in value.

The DISTRICT may, at its option, choose either Option 1 or Option 2.

(b) In the event that the District chooses Option 1, CONTRACTOR shall promptly remove all Work identified by DISTRICT as failing to conform to the drawings, specifications, and Contract Documents, whether incorporated or not. CONTRACTOR shall promptly replace and reexecute its own Work to comply with the drawings, specifications, and Contract Documents without additional expense to DISTRICT and shall bear the expense of making good all Work of other contractors destroyed or damaged by such removal or replacement.

If CONTRACTOR does not remove such Work within a reasonable time, fixed by written notice, DISTRICT may remove it and may store the material at CONTRACTOR's expense. If CONTRACTOR does not pay expenses of such removal within **ten (10) days'** time thereafter, DISTRICT may, upon **ten (10) days** written notice, deduct the amount of the removal and repair from the Contract amount.

#### ARTICLE 63. EXTENSION OF TIME - LIQUIDATED DAMAGES

- (a) The CONTRACTOR and DISTRICT hereby agree that the exact amount of damages for failure to complete the work within the time specified is extremely difficult or impossible to determine. CONTRACTOR shall be assessed the sum as set forth in the **Agreement**, as liquidated damages for each and every day the work required under the Contract Documents remains unfinished past the time for completion, as set forth in the **Agreement**, and any extensions of time granted by the DISTRICT to the CONTRACTOR under the terms of the Contract Documents. The CONTRACTOR will pay to the DISTRICT or DISTRICT may retain from amounts otherwise payable to the CONTRACTOR, said amount for each day after failure to meet the requirements of the contract completion as scheduled in the Agreement. For purposes of this article, the work shall be considered "complete" in accordance with the provisions of Article entitled "COMPLETION", except that the work may be considered complete without formal acceptance by the DISTRICT Governing Board so long as the Governing Board, at its next regularly scheduled meeting, accepts the work.
- (b) CONTRACTOR shall not be charged for liquidated damages, as set forth above, because of any delays in completion of work which are not the fault or negligence of CONTRACTOR, including but not restricted to acts of God as set forth herein. As soon as CONTRACTOR become aware of the delay and no later than **fourteen (14) days** from the commencement of the delay, CONTRACTOR shall notify DISTRICT in writing of causes of delay in accordance with the Contract scheduling specifications. CONTRACTOR shall provide documentation and justification to substantiate the delay and its relation to the Project's critical path. Extension of time shall apply only to that portion of work affected by the delay, and shall not apply to other portions of work not so affected.

#### **ARTICLE 64. PAYMENTS WITHHELD**

(a) In addition to any amount which DISTRICT may retain under the Article entitled "COMPLETION" and the Article entitled "PAYMENTS," DISTRICT may withhold a sufficient

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amount or amounts of any payment or payments otherwise due to CONTRACTOR, which in DISTRICT's judgment may be necessary to cover:

- (1) Payments which may be past due and payable for just claims against CONTRACTOR or any Subcontractors, or against and about the performance of work, including, without limitation, payments made pursuant to the Article entitled "TIMELY PAYMENTS BY CONTRACTOR."
- (2) The cost of defective work, which CONTRACTOR has not remedied.
- (3) Liquidated damages assessed against CONTRACTOR.
- (4) Penalties for violation of labor laws and / or deficient certified payroll.
- (5) The cost of materials ordered by the DISTRICT pursuant to the Article entitled "MATERIALS AND WORK."
- (6) The cost of completion of the Contract if there exists a reasonable doubt that the Contract can be completed for the balance then unpaid to CONTRACTOR.
- (7) Damage caused by CONTRACTOR to another contractor or Subcontractor.
- (8) Site clean-up as provided in the Article entitled "CLEANING UP."
- (9) Payments to indemnify, defend, or hold harmless the DISTRICT.
- (10) Any payments due to the DISTRICT including but not limited to payments for failed tests, utilities or imperfections.
- (11) Extra services for ARCHITECT, including but not limited to, services rendered in the evaluation of CONTRACTOR substitution requests, Requests For Information (RFI's), Change Order Requests (COR's) and Claims.
- (12) Extra services for the INSPECTOR including but not limited to re-inspection required due to CONTRACTOR's failed tests or installation of unapproved or defective materials and CONTRACTOR's requests for inspection and CONTRACTOR's failure to attend the inspection.
- (13) Record Documents and other Contract required documents.
- (14) Submission of daily reports and completeness thereof.
- (15) Breach of any provision of the Contract Documents.
- (16) Stop Payment Notices. For any stop payment notice, the DISTRICT shall withhold the amount stated in the stop payment notice plus an amount to provide for the public entity's reasonable cost of any litigation pursuant to the stop payment notice. For any stop payment notice action the parties resolve before judgment is entered, DISTRICT has the right to permanently withhold for any reasonable cost of litigation for that stop payment notice, even if it exceeds the amount originally withheld by DISTRICT for the estimated reasonable cost

of litigation. However, if (1) the CONTRACTOR at its sole expense provides a bond or other security satisfactory to the DISTRICT in the amount of at least one hundred twenty-five percent (125%) of the claim, in a form satisfactory to the DISTRICT, which protects the DISTRICT against such claim, and (2) the DISTRICT chooses to accept the bond, then DISTRICT would release the stop payment notice funds withheld to the CONTRACTOR, except that DISTRICT may permanently withhold for any reasonable cost of litigation. Any stop payment notice release bond shall be executed by a California admitted, fiscally solvent surety, completely unaffiliated with and separate from the surety on the payment and performance bonds, that does not have any assets pooled with the payment and performance bond sureties

- (b) If the above grounds are in the opinion of the DISTRICT removed by or at the expense of CONTRACTOR, payment shall be made for amounts withheld because of them.
  - (c) DISTRICT may apply such withheld amount or amounts to payment of such claims or obligations at its discretion. In so doing, DISTRICT shall make such payments on behalf of CONTRACTOR. If any payment is so made by DISTRICT, then such amount shall be considered as a payment made under contract by DISTRICT to CONTRACTOR and DISTRICT shall not be liable to CONTRACTOR for such payments made in good faith. Such payments may be made without prior judicial determination of claim or obligations. DISTRICT will render CONTRACTOR an accounting of such funds disbursed on behalf of CONTRACTOR.
  - (d) As an alternative to payment of such claims or obligations, DISTRICT, in its sole discretion, may reduce the total contract price or set-off the amount against payments due.

# **ARTICLE 65. EXCISE TAXES**

- (a) If under federal excise tax law any transaction hereunder constitutes a sale on which a federal excise tax is imposed and the sale is exempt from such excise tax because it is a sale to a state or local government for its exclusive use, the DISTRICT, upon request, will execute documents necessary to show:
  - (1) That the DISTRICT is a political subdivision of the State for the purposes of such exemption and
  - (2) That the sale is for the exclusive use of the DISTRICT. No excise tax for such materials shall be included in any bid price.

#### **ARTICLE 66. NO ASSIGNMENT**

(a) The CONTRACTOR shall not assign, transfer, convey, sublet or otherwise dispose of the Contract or of its rights, title or interest in or to the same or any part thereof. If the CONTRACTOR assigns, transfers, conveys, sublets or otherwise disposes of the Contract or its right, title or interest therein, or any part thereof, such attempted or purported assignment, transfer, conveyance, sublease or other disposition shall be null, void and of no legal effect whatsoever; and the Contract may, at the option of the DISTRICT, be terminated, and the DISTRICT shall thereupon be relieved and discharged from any and all liability and obligations growing out of the same to the CONTRACTOR, and to its purported assignee or transferee.

#### **ARTICLE 67. NOTICE**

- (a) Any notice from one party to the other or otherwise under the Contract shall be in writing and shall be dated and signed by party giving such notice or by a duly authorized representative of such party. Any such notice shall not be effective for any purpose whatsoever unless served in one of the following manners, and copied to the ARCHITECT:
  - (1) If notice is given to DISTRICT, by personal delivery thereof to DISTRICT or by deposit in the United States mail, enclosed in a sealed envelope addressed to DISTRICT, and sent by registered or certified or overnight mail with postage prepaid;
  - (2) If notice is given to CONTRACTOR, by personal delivery thereof to said CONTRACTOR or to CONTRACTOR's superintendent at the site of the Project, or by deposit in the United States mail, enclosed in a sealed envelope addressed to said CONTRACTOR at its regular place of business or at such address as may have been established for the conduct of work under the Contract, and sent by registered or certified or overnight mail with postage prepaid;
  - (3) If notice is given to the surety or other persons, by personal delivery to such surety or other person or by deposit in the United States mail, enclosed in a sealed envelope, addressed to such surety or person at the address of such surety or person last communicated by the surety or other person to the party giving notice, and sent by registered or certified or overnight mail with postage prepaid.

# **ARTICLE 68. NO WAIVER**

(a) The failure of the DISTRICT in any one or more instances to insist upon strict performance of any of the terms of the Contract or to exercise any option herein conferred shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon any such terms or option on any future occasion.

#### ARTICLE 69. NON-UTILIZATION OF ASBESTOS MATERIAL

- (a) The CONTRACTOR will be required to execute and submit a Certificate regarding Non-Asbestos Containing Materials.
- (b) Should asbestos containing materials be installed by the CONTRACTOR in violation of this certification, or if removal of asbestos containing materials is part of the work, decontamination and removal will meet the following criteria:
  - (1) Decontamination and removal of work found to contain asbestos or work installed with asbestos containing equipment shall be done only under the supervision of a qualified consultant, knowledgeable in the field of asbestos abatement and accredited by the Environmental Protection Agency (EPA).
  - (2) The asbestos removal CONTRACTOR shall be an EPA accredited CONTRACTOR qualified in the removal of asbestos and shall be chosen and approved by the asbestos consultant who shall have sole discretion and final determination in this matter.
  - (3) The asbestos consultant shall be chosen and approved by the DISTRICT who shall have sole discretion and final determination in this matter.

- (4) The work will not be accepted until asbestos contamination is reduced to levels deemed acceptable by the asbestos consultant.
- (c) Cost of all asbestos removal, including, but not necessarily limited to the cost of the asbestos removal CONTRACTOR, the cost of the asbestos consultant, analytical and laboratory fees, time delays and additional costs as may be incurred by the DISTRICT shall be borne entirely by the CONTRACTOR.
- (d) Hold Harmless: Interface of work with work containing asbestos shall be executed by the CONTRACTOR at his/her risk and at his/her discretion with full knowledge of the currently accepted standards, hazards, risks and liabilities associated with asbestos work and asbestos containing products. By execution of the Agreement, the CONTRACTOR acknowledges the above and agrees to hold harmless the DISTRICT, its Governing Board, employees, agents, and ARCHITECT and assigns for all asbestos liability which may be associated with this work. The CONTRACTOR further agrees to instruct its employees with respect to the above mentioned standards, hazards, risks and liabilities.

#### **ARTICLE 70. STUDENT SAFETY ALLOWANCES**

- (a) Requirements for Contact with Students: Contractor shall comply with Education Code section 45125.2 and this Article. If Contractor's employee(s), agent(s) or subcontractor(s) will have more than limited contact with students, then Contractor must take one or more of the following steps:
  - (1) Install a physical barrier at the worksite to limit contact with pupils.
  - (2) Have an employee, who the Department of Justice has ascertained has not been convicted of a violent or serious felony, continually monitor and supervise employees. The entity shall verify in the Independent Contractor Student Contact Form to the DISTRICT that the employee charged with monitoring and supervising its employees has no such convictions.
  - (3) Arrange for surveillance by personnel with DISTRICT approval.
- (b) If CONTRACTOR is providing the services in an emergency or exceptional situation, CONTRACTOR is not required to comply with Education Code section 45125.2. An "emergency or exceptional" situation is one in which pupil health or safety is endangered or when repairs are needed to make a facility safe and habitable. DISTRICT shall determine whether an emergency or exceptional situation exists.
- (c) DISTRICT Processing to Department of Justice: If Contractor is required to receive verification for an employee, agent or subcontractor from the Department of Justice pursuant to this Article or the Education Code, the DISTRICT may, at its sole discretion, assist Contractor by processing Contractor's request to the Department of Justice using the DISTRICT's fingerprinting hardware and materials. The DISTRICT will charge for such assistance at its standard rates charged to its own employees.
- (d) Verification of Compliance Under Penalty of Perjury: Contractor shall certify under penalty

of perjury, on a form provided by the DISTRICT, compliance with this Article prior to performing any work in which any employee, agent or subcontractor will have more than limited contact with students.

- (e) Indemnification and Hold Harmless Agreement: It shall be Contractor's sole responsibility to ensure compliance with Education Code sections 45125.1 and 45125.2 and this Article. In addition to and without limiting any other indemnity promise made in this contract, Contractor agrees to defend, indemnify and hold harmless the DISTRICT for and from any and all actual or potential claims of any kind or description seeking to hold the DISTRICT, its employees or its agents responsible for violation of Education Code sections 45125.1 or 45125.2, or any other violation arising out of duties imposed by Education Code sections 45125.1 or 45125.2, arising out of Contractor's employee's, agent's or subcontractor's contact with students. Contractor's indemnification obligation shall include, without limitation, judgments, settlements, contributions, payments, fines and penalties, as well as the costs of investigating and complying with equitable decrees or governmental directives. The defense obligation shall include, without limitation, legal fees, litigation expenses, and investigative costs.
- (f) Definitions:
  - (1) A "violent felony" is any felony listed in subdivision (c) of section 667.5 of the Penal Code.
  - (2) A "serious felony" is any felony listed in subdivision (c) of section 1192.7 of the Penal Code.
  - (3) An "emergency or exceptional situation" is, as determined by the DISTRICT in its sole discretion, a situation in which pupil health or safety is endangered or when repairs are needed to make a school facility safe and habitable.

# **ARTICLE 71. ALLOWANCES**

- (a) The following costs shall be included in all allowances;
  - (1) Cost of the product to CONTRACTOR or Subcontractor, less applicable trade discounts
  - (2) Delivery to the site
  - (3) Applicable taxes
- (b) CONTRACTOR costs included in the Contract Sum include, but are not limited to;
  - (1) Arrangement of product(s) shipping and handling at site, including unloading, uncrating, and storage.
  - (2) Protection of products from the elements and from damage
  - (3) Labor for installation, adjustments and finishing products
  - (4) Product warranties
  - (5) Scheduling changes and updates
  - (6) Other expenses required to complete installation
  - (7) CONTRACTOR and Subcontractor(s) overhead and profit
- (c) The adjustments in costs will be made if the net cost is more or less than the specified amount of the allowance. The net cost of the adjustment shall be the amount of the difference between the specified allowance and the actual cost of the material, with the exception of a not-toexceed 15% mark-up for overhead and profit. The Contract Sum will be adjusted by Change Order.
  - (1) Submit any claims for anticipated additional costs, or other expenses caused by the selection the allowance, prior to execution of the work.
  - (2) Submit documentation for actual additional costs, or other expenses caused by the selection the allowance, prior to execution of the work.
  - (3) Failure to submit claims within the designated time will constitute a waiver of claims for additional costs.
- (d) DISTRICT will separately bid the materials, subject to the specified allowances. The successful bidder will be assigned to CONTRACTOR, and shall be considered a Subcontractor to the CONTRACTOR. Upon assignment, the CONTRACTOR shall all make the necessary submittals, prepare necessary shop drawings and coordinate all related work. CONTRACTOR shall make all necessary adjustments and revisions to the schedule for such allowances and Subcontractor assignments.

# **ARTICLE 72. WAIVER AND RELEASE FORMS**

(a) Commensurate with the statutes of Public Contract Code section 7100, provisions in public works contracts with public entities which provide that acceptance of a payment otherwise due a CONTRACTOR is a waiver of all claims against the public entity arising out of the work performed under the contract or which condition the right to payment upon submission of a release by the CONTRACTOR of all claims against the public entity arising out of performance

of the public work are against public policy and null and void. This section shall not prohibit a public entity from placing in a public works contract and enforcing a contract provision which provides that payment of undisputed contract amounts is contingent upon the CONTRACTOR furnishing the public entity with a release of all claims against the public entity arising by virtue of the public works contract related to those amounts. Disputed contract claims in stated amounts may be specifically excluded by the CONTRACTOR from the operation of the release.

- (b) Neither the OWNER nor original CONTRACTOR by any term of their contract, or otherwise, shall waive, affect, or impair the claims and liens of other persons whether with or without notice except by their written consent, and any term of the contract to that effect shall be null and void. Any written consent given by any claimant pursuant to this subdivision shall be null, void, and unenforceable unless and until the claimant executes and delivers a waiver and release. Such a waiver and release shall be binding and effective to release the OWNER, construction lender, and surety on a payment bond from claims and liens only if the waiver and release follows substantially one of the forms set forth in this section and is signed by the claimant or his or her authorized agent, and, in the case of a conditional release, there is evidence of payment to the claimant. Evidence of payment may be by the claimant's endorsement on a single or joint payee check that has been paid by the bank upon which it was drawn or by written acknowledgment of payment given by the claimant.
- (c) No oral or written statement purporting to waive, release, impair or otherwise adversely affect a claim is enforceable or creates any estoppel or impairment of a claim unless:
  - (1) It is pursuant to a waiver and release prescribed herein, or
  - (2) The claimant had actually received payment in full for the claim.
- (d) This section does not affect the enforceability of either an accord and satisfaction regarding a bona fide dispute or any agreement made in settlement of an action pending in any court provided the accord and satisfaction or agreement and settlement make specific reference to the stop notice, or bond claims.
- (e) The waiver and release given by any claimant hereunder shall be null, void, and unenforceable unless it follows the text of the following forms in the appropriate circumstances. Each waiver form shall be printed in type equal in size or larger than the largest type on other documents signed by the claimant.
- (e.1) Where the claimant is required to execute a waiver and release in exchange for, or in order to induce the payment of, a progress payment and the <u>claimant is not, in fact, paid in exchange</u>

  for the waiver and release or a single payee check or joint payee check is given in exchange for the waiver and release, the waiver and release shall follow the following form

# Upon receipt by the undersigned of a check from: (Maker of Check) in the sum of: $\frac{}{}$ (Amount of Check) payable to: \_ (Payee or Payees of Check) and when the check has been properly endorsed and has been paid by the bank upon which it is drawn, this document shall become effective to release any mechanic's lien, stop notice, or bond right the undersigned has on the job of located at: (OWNER) (Job Description) to the following extent. This release covers a progress payment for labor, services, equipment, or material furnished to through: (Your Customer) (Date) only and does not cover any retentions retained before or after the release date;

CONDITIONAL WAIVER AND RELEASE UPON "PROGRESS PAYMENT"

extras furnished before the release date for which payment has not been received; extras or items furnished after the release date. Rights based upon work performed or items furnished under a written change order which has been fully executed by the parties prior to the release date are covered by this release unless specifically reserved by the claimant in this release. This release of any mechanic's lien, stop notice, or bond right shall not otherwise affect the contract rights, including rights between parties to the contract based upon a rescission, abandonment, or breach of the contract, or the right of the undersigned to recover compensation for furnished labor, services, equipment, or material covered by this release if that furnished labor, services, equipment, or material was not compensated by the progress payment. Before any recipient of the document relies on it, said party should verify evidence of payment to the undersigned.

(Company Name)	(Date)
By:(Title)	

3. Claim for: In the amount of: \$
Where the claimant is required to execute a waiver and release in exchange for, or in ordered to execute a waiver and release in exchange for, or in ordered to execute a waiver and release in exchange for, or in ordered to experiment of, a progress payment and the claimant asserts in the waiver it has, in factorized the progress payment, the waiver and release shall follow the following form:  UNCONDITIONAL WAIVER AND RELEASE UPON "PROGRESS PAYMENT"  The undersigned has been paid and has received a progress payment in the sum
Where the claimant is required to execute a waiver and release in exchange for, or in ordenduce payment of, a progress payment and the claimant asserts in the waiver it has, in faceen paid the progress payment, the waiver and release shall follow the following form:  UNCONDITIONAL WAIVER AND RELEASE UPON "PROGRESS PAYMENT"  The undersigned has been paid and has received a progress payment in the sum
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nduce payment of, a progress payment and the claimant asserts in the waiver it has, in fapeen paid the progress payment, the waiver and release shall follow the following form:  UNCONDITIONAL WAIVER AND RELEASE UPON "PROGRESS PAYMENT"  The undersigned has been paid and has received a progress payment in the sum
The undersigned has been paid and has received a progress payment in the sum
(Your Customer)
on the job of: located at:
(OWNER) (Job Description)
and does hereby release any mechanic's lien, stop notice, or bond right that the undersigned has on the above referenced job to the following extent. This release covers a progress payment for labor, services, equipment, or materials furnished to
through:

**Exclusions**: Listing of Claims, of which Notice has been given:

In the amount of: \$\_

1. Claim for:\_\_

Version: 2/11/2016

(e.2)

fully executed by the parties prior to the release date are covered by this release unless specifically reserved by the claimant in this release. This release of any mechanic's lien, stop notice, or bond right shall not otherwise affect the contract rights, including rights between parties to the contract based upon a rescission, abandonment, or breach of the contract, or the right of the undersigned to recover compensation for furnished labor, services, equipment, or material covered by this release if that furnished labor, services, equipment, or material was not compensated by the progress payment.

(Company Name)	(Date)
By:	
(Title)	
Exclusions: Listing of Claims, of whi	
1. Claim for:	In the amount of: \$
2. Claim for:	In the amount of: \$
3. Claim for:	In the amount of: \$
4. Claim for:	In the amount of: \$
5. Claim for:	In the amount of: \$
YOU HAVE NOT BEEN PAID. IF YO	LE AGAINST YOU IF YOU SIGN IT, EVEN IF OU HAVE NOT BEEN PAID, USE A
YOU HAVE NOT BEEN PAID. IF YO CONDITIONAL RELEASE FORM."  Where the claimant is required to execute th	OU HAVE NOT BEEN PAID, USE A cute a waiver and release in exchange for, or in order
YOU HAVE NOT BEEN PAID. IF YO CONDITIONAL RELEASE FORM."  Where the claimant is required to execute induce the payment of, a final payment.	OU HAVE NOT BEEN PAID, USE A  cute a waiver and release in exchange for, or in order and the claimant is not, in fact, paid in exchange for check or joint payee check is given in exchange for
YOU HAVE NOT BEEN PAID. IF YO CONDITIONAL RELEASE FORM."  Where the claimant is required to execute induce the payment of, a final payment waiver and release or a single payer of waiver and release, the waiver and release.	OU HAVE NOT BEEN PAID, USE A  cute a waiver and release in exchange for, or in order and the claimant is not, in fact, paid in exchange for check or joint payee check is given in exchange for
YOU HAVE NOT BEEN PAID. IF YOU CONDITIONAL RELEASE FORM."  Where the claimant is required to execute induce the payment of, a final payment waiver and release or a single payee of waiver and release, the waiver and release.  CONDITIONAL WAIVER	OU HAVE NOT BEEN PAID, USE A  cute a waiver and release in exchange for, or in order and the claimant is not, in fact, paid in exchange for check or joint payee check is given in exchange for the lease shall follow the following form:
Where the claimant is required to execute induce the payment of, a final payment waiver and release or a single payer waiver and release, the waiver and release.  CONDITIONAL WAIVER  Upon receipt by the undersigned of a	Cute a waiver and release in exchange for, or in order and the claimant is not, in fact, paid in exchange for check or joint payee check is given in exchange for the lease shall follow the following form:  AND RELEASE UPON "FINAL PAYMENT"
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Where the claimant is required to execute induce the payment of, a final payment waiver and release or a single payee of waiver and release, the waiver and release. The waiver and release or a single payee of waiver and release, the waiver and release or a single payee of waiver and release, the waiver and release or a single payee of waiver and release, the waiver and release or a single payee of waiver and release, the waiver and release or a single payee of waiver and release, the waiver and release or a single payee of waiver and release or a single payee	cute a waiver and release in exchange for, or in order and the claimant is not, in fact, paid in exchange for the check or joint payee check is given in exchange for the lease shall follow the following form:  AND RELEASE UPON "FINAL PAYMENT"  a check from  payable to:  erly endorsed and has been paid by the bank and shall become effective to release any

Before any recipient of this document to the undersigned.	on the job, except for disputed claims for   S  nent relies on it, the party should verify evidence
(Company Name)	(Date)
By:(Title)	
Exclusions: Listing of Claims, of	which Notice has been given:
1. Claim for:	_ In the amount of: \$
2. Claim for:	In the amount of: \$
3. Claim for:	In the amount of: \$
4. Claim for:	In the amount of: \$
5. Claim for:	In the amount of: \$
furnished to:(Your Customer)	
furnished to:(Your Customer) on the job of:	located at:
furnished to:(Your Customer)	· ·
furnished to: (Your Customer)  on the job of: (OWNER)  and does hereby waive and relea	located at:
furnished to: (Your Customer)  on the job of: (OWNER)  and does hereby waive and relea any right against a labor and mate	located at: (Job Description) se any right to a mechanic's lien, stop notice, or erial bond on the job, except for disputed claims
furnished to: (Your Customer)  on the job of: (OWNER)  and does hereby waive and relea any right against a labor and mate for extra work in the amount of \$	located at: (Job Description)  se any right to a mechanic's lien, stop notice, or erial bond on the job, except for disputed claims  (Date)
furnished to:(Your Customer)  on the job of:(OWNER)  and does hereby waive and relea any right against a labor and mate for extra work in the amount of \$	located at: (Job Description)  se any right to a mechanic's lien, stop notice, or erial bond on the job, except for disputed claims  (Date)
furnished to: (Your Customer)  on the job of: (OWNER)  and does hereby waive and relea any right against a labor and mate for extra work in the amount of \$	located at: (Job Description)  se any right to a mechanic's lien, stop notice, or erial bond on the job, except for disputed claims  (Date)  of which Notice has been given: In the amount of: \$
furnished to: (Your Customer)  on the job of: (OWNER)  and does hereby waive and relea any right against a labor and mate for extra work in the amount of \$	located at: (Job Description) se any right to a mechanic's lien, stop notice, or erial bond on the job, except for disputed claims  (Date)  of which Notice has been given: In the amount of: \$

of: \$

"NOTICE: THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE FORM."

#### **ARTICLE 73. INDEMNIFICATION**

(a) Scope: Prime Contractor

(To the fullest extent permitted by law, CONTRACTOR shall defend, indemnify, and hold harmless the DISTRICT, ARCHITECT, ARCHITECT's consultants, the Project Inspector, the State of California, and their respective agents, employees, officers, volunteers, Boards of Trustees, members of the Boards of Trustees, and directors, from and against claims, damages, losses, and expenses (including, but not limited to attorneys' fees and costs including fees of consultants) arising out of or resulting from: performance of the Work (including, but not limited to) the CONTRACTOR's or its Subcontractors' use of the site; the CONTRACTOR's or its Subcontractors' construction of the Work or failure to construct the Work, or any portion thereof; the use, misuse, erection, maintenance, operation, or failure of any machinery or equipment, including but not limited to scaffolds, derricks, ladders, hoists, and rigging supports, whether or not such machinery or equipment was furnished, rented, or loaned by any of the indemnitees; or any act, omission, negligence, or willful misconduct of the CONTRACTOR or its Subcontractors or their respective agents, employees, material or equipment suppliers, invitees, or licensees but only to the extent caused in whole or in party by the acts or omissions of the CONTRACTOR, its Subcontractors, anyone directly or indirectly employed by any of them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in party by a party identified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity, which would otherwise exist as to a party, person, or entity described in this paragraph.

(b) Scope: Subcontractors

To the fullest extent permitted by law, the Subcontractors shall defend, indemnify, and hold harmless the DISTRICT, CONSTRUCTION MANAGER, ARCHITECT, ARCHITECT's consultants, the Project Inspector, the State of California, and their respective agents, employees, officers, volunteers, Boards of Trustees, members of the Boards of Trustees, and directors, from and against claims, damages, losses, and expenses (including, but not limited to attorneys' fees and costs including fees of consultants) arising out of or resulting from: performance of the Work (including, but not limited to) the Subcontractors' use of the site; the Subcontractors' construction of the Work or failure to construct the Work, or any portion thereof; the use, misuse, erection, maintenance, operation, or failure of any machinery or equipment, including but not limited to scaffolds, derricks, ladders, hoists, and rigging supports, whether or not such machinery or equipment was furnished, rented, or loaned by any of the indemnitees; or any act, omission, negligence, or willful misconduct of the Subcontractors or their respective agents, employees, material or equipment suppliers, invitees, or licensees but only to the extent caused in whole or in party by the acts or

omissions of the Subcontractors, anyone directly or indirectly employed by any of them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in party by a party identified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity, which would otherwise exist as to a party, person, or entity described in this paragraph.

#### (c) Joint and Several Liability

In the event more than one Subcontractor is connected with an accident or occurrence covered by this indemnification, then all such Subcontractors shall be jointly and severally responsible to each of the indemnities for indemnification, and the ultimate responsibility among such indemnifying Subcontractors for the loss and expense of any such indemnification shall be resolved without jeopardy to any indemnitee. The provisions of the indemnity provided for herein shall not be construed to indemnify any Indemnitee for its own negligence if not permitted by law or to eliminate or reduce any other indemnification or right which any indemnitee has by law or equity.

# (d) No Limitation

The CONTRACTOR's and the Subcontractors' obligation to indemnify and defend the indemnitees hereunder shall include, without limitation, any and all claims, damages, and costs: for injury to persons and property (including loss of use), and sickness, disease or death of any person; for breach of any warranty, express or implied; for failure of the CONTRACTOR or a Subcontractor to comply with any applicable governmental law, rule, regulation, or other requirement; and for products installed in or used in connection with the Work.

# ARTICLE 74. GOVERNING LAW AND VENUE

(a) The Contract Documents shall be governed by the law of the State of California. Venue for an actions concerning or arising out of the Contract Documents or the Work shall be in Superior Court of the State of California in and for the County of Fresno.

#### ARTICLE 75. TERMINATION BY DISTRICT FOR CONVENIENCE

- (a) DISTRICT may, at any time, terminate the Contract for the DISTRICT'S convenience and without cause.
- (b) Upon receipt of written notice from the DISTRICT of such termination for the DISTRICT's convenience, CONTRACTOR shall:
  - (1) Cease operations as directed by the DISTRICT in the notice;
  - (2) Take actions necessary, or that the DISTRICT may direct, for the protection and preservation of the Work; and
  - (3) Except for work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

(c) In case of such termination for the DISTRICT's convenience, the CONTRACTOR shall be entitled to receive payment for work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the work not executed.

#### ARTICLE 76. MUTUAL TERMINATION FOR CONVENIENCE

- (a) The CONTRACTOR and the DISTRICT may mutually agree in writing to terminate the Contract for convenience. The CONTRACTOR shall receive payment for all Work performed to the date of termination.
- (b) The CONTRACTOR may terminate the Contract if the Work is stopped for a period of thirty (30) consecutive days through no act or fault of the CONTRACTOR, a Subcontractor, a Sub- subcontractor, their agents, or employees, or any other persons performing portions of the Work for whom the CONTRACTOR is contractually responsible, for only the following reasons:
  - (1) issuance of an order of a court or other public authority having jurisdiction which requires all work to be stopped;
  - (2) an act of government, such as a declaration of national emergency, making material unavailable which requires all work to be stopped;
  - (3) if repeated suspensions, delays, or interruptions by the DISTRICT constitute in the aggregate more than 100 percent (100%) of the total number of days scheduled for completion, or one hundred twenty (120) days in any three hundred sixty-five (365) day period, whichever is less.

If one of the above reasons exists, the CONTRACTOR may, upon written notice of seven (7) additional days to the DISTRICT, terminate the Contract and recover from the DISTRICT payment for work executed and for reasonable costs verified by the Architect with respect to materials, equipment, tools, construction equipment, and machinery, including reasonable overhead, profit, and damages.

If the Work is stopped for a period of sixty (60) consecutive days through no act or fault of the CONTRACTOR, Subcontractor, Sub-Subcontractor, their agents or employees, or any other persons performing portions of the Work for whom the CONTRACTOR is contractually responsible because the DISTRICT has persistently failed to fulfill the DISTRICT's obligations under the Contract Documents with respect to matters essential to the progress of the Work, the CONTRACTOR may, upon written notice of seven (7) additional days to the DISTRICT, terminate the Contract and recover from the DISTRICT payment for work executed and for reasonable costs verified by the Architect with respect to materials, equipment, tools, construction equipment, and machinery, including reasonable overhead, profit, and damages.

- (c) The DISTRICT may terminate the Contract if the CONTRACTOR:
  - (1) refuses or fails to supply enough properly skilled workers or proper materials;
  - (2) fails to make payment to Subcontractors for materials or labor in accordance with Business and Professions Code section 7108.5:

- (3) disregards laws, ordinances, rules, regulations, or orders of a public authority having jurisdiction; or
- (4) otherwise is in substantial breach of a provision of the Contract Documents.
- (d) When any of the above reasons exist, the DISTRICT may, without prejudice to any other rights or remedies of the DISTRICT and after giving the CONTRACTOR and the CONTRACTOR's surety, if any, written notice of seven (7) days, terminate the Contract and may, subject to any prior rights of the surety:
  - (1) take possession of the site and of all material, equipment, tools, and construction equipment, and machinery thereon owned by the CONTRACTOR;
  - (2) accept assignment of subcontracts; and
  - (3) complete the Work by whatever reasonable method the DISTRICT may deem expedient.

If the DISTRICT terminates the Contract for one of the reasons stated above, the CONTRACTOR shall not be entitled to receive further payment until the Work is complete.

(e) If the unpaid balance of the Contract Sum exceeds costs of completing the Work, including compensation for professional services and expenses made necessary thereby, such excess shall be paid to the CONTRACTOR. If such costs exceed the unpaid balance, the CONTRACTOR shall pay the difference to the DISTRICT. The amount to be paid to the CONTRACTOR, or DISTRICT, as the case may be, shall be certified by the Architect upon application. This payment obligation shall survive completion of the Work.

# SECTION 074113 INSULATED METAL ROOF PANELS

#### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

A. Foamed-insulation-core standing seam metal roof panels, with related metal trim and accessories.

#### 1.2 RELATED REQUIREMENTS

- A. Division 01 Section "Sustainable Design Requirements" for related LEED general requirements.
- B. Division 05 Section "Cold-Formed Metal Framing" for cold-formed metal framing supporting metal panels.
- C. Division 07 Section "Metal Wall and Roof Panels" for factory-formed metal wall, roof, and soffit panels.
- D. Division 07 Section "Sheet Metal Flashing and Trim" for sheet metal copings, flashings, reglets and roof drainage items in addition to items specified in this Section.
- E. Division 07 Section "Roof Hatches" for roof hatches, smoke vents, equipment curbs, and equipment supports.
- F. Division 07 Section "Joint Sealants" for field-applied Joint Sealants.
- G. Division 13 Section "Metal Building Systems" for steel framing supporting metal panels.

#### 1.3 REFERENCES

- A. American Society of Civil Engineers (ASCE): www.asce.org/codes-standards:
  - 1. ASCE 7 Minimum Design Loads for Buildings and Other Structures.
- B. ASTM International (ASTM): <a href="https://www.astm.org">www.astm.org</a>:
  - 1. ASTM A 653 Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - 2. ASTM A 755 Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
  - 3. ASTM A 792 Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
  - 4. ASTM A 924 General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
  - 5. ASTM C 1363 Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus
  - 6. ASTM D 1621 Compressive Properties of Rigid Cellular Plastics.
  - 7. ASTM D 1622 Apparent Density of Rigid Cellular Plastics.
  - 8. ASTM D 6226 Standard Test Method for Open Cell Content of Rigid Cellular Plastics
  - 9. ASTM C 518 Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.

- 10. ASTM D 2244 Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
- 11. ASTM D 4214 Test Methods for Evaluating Degree of Chalking of Exterior Paint Films.
- 12. ASTM E 72 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.
- 13. ASTM E 84 Test Methods for Surface Burning Characteristics of Building Materials.
- 14. ASTM E 1592 Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference.
- 15. ASTM E 1646 Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference.
- 16. ASTM E 1680 Standard Test Method for Rate of Air Leakage through Exterior Metal Roof Panel Systems.
- 17. ASTM E 1980 Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces.
- C. Cool Roof Rating Council (CRRC): <a href="https://www.coolroofs.org/productratingprogram.html">www.coolroofs.org/productratingprogram.html</a>:
  - 1. CRRC-1-2016 CRRC Product Rating Program.
- D. FM Global (FM): www.fmglobal.com:
  - 1. ANSI/FM 4471 Approval Standard for Class 1 Panel Roofs.
  - 2. ANSI/FM 4880 American National Standard for Evaluating Insulated Wall and Roof/Ceiling Assemblies.
- E. Green Seal (GS) www.greenseal.org
  - GS-11 Green Seal Standard for Paints and Coatings, Edition 3.2, October 26, 2015.
    - US Green Building Council (USGBC): www.usgbc.org:

# 1.4 QUALITY ASSURANCE

- A. Manufacturer/Source: Provide metal panel assemblies and accessories from a single manufacturer approved under an accredited third-party quality control program
- B. Manufacturer Qualifications: Approved manufacturer listed in this Section with minimum ten years' experience in the manufacturing of similar products and successful use in similar applications.
  - 1. Approval of Comparable Products: Submit the following in accordance with project substitution requirements, within time allowed for substitution review:
    - a. Product data, including certified independent test data indicating compliance with requirements.
    - b. Samples of each component.
    - c. Sample submittal from similar project.
    - d. Project references: Minimum of five installations not less than five years old, with Owner and Architect contact information.
    - e. Sample warranty.
    - f. Certificate from an accredited third-party Quality Control Program.

- 1.5 Substitutions following award of contract are not allowed except as stipulated in Division 01 General Requirements
- 1.6 Approved manufacturers must meet separate requirements of Submittals Article.
  - A. Installer Qualifications: Experienced Installer with minimum of five years' experience with successfully completed projects of a similar nature and scope.
    - 1. Installer's Field Supervisor: Experienced mechanic [certified by metal panel manufacturer] supervising work on site whenever work is underway.

# 1.7 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Prior to erection of framing, conduct preinstallation meeting at site attended by Owner, Architect, metal panel installer, metal panel manufacturer's technical representative, inspection agency, and related trade contractors.
  - 1. Coordinate building framing in relation to metal panel system.
  - 2. Coordinate openings and penetrations of metal panel system.
  - 3. Coordinate work of Division 07 Sections "Roof Specialties" and "Roof Accessories" and openings and penetrations and manufacturer's accessories with installation of metal panels.

#### 1.8 ACTION SUBMITTALS

- A. Product Data: Manufacturer's data sheets for specified products.
- B. Shop Drawings: Show layouts of metal panels. Include details of each condition of installation, panel profiles, and attachment to building. Provide details at a minimum scale 1-1/2-inch per foot of edge conditions, joints, fastener and sealant placement, flashings, openings, penetrations, curbs, vents, snow guards, lightning arresting equipment, and special details. Make distinctions between factory and field assembled work.
  - 1. Include data indicating compliance with performance requirements.
  - 2. Indicate points of supporting structure that must coordinate with metal panel system installation.
  - 3. Include structural data indicating compliance with performance requirements and requirements of local authorities having jurisdiction.
- C. Samples for Initial Selection: For each exposed product specified including sealants. Provide representative color charts of manufacturer's full range of colors.
- D. Samples for Verification:
  - 1. Provide 12-inch long section of each metal panel profile.
  - 2. Provide color chip verifying color selection.

# 1.9 INFORMATIONAL SUBMITTALS

- A. Product Test Results: Indicating compliance of products with requirements.
- B. Qualification Information: For Installer firm and Installer's field supervisor.
- C. Accreditation Certificate: Indicating that manufacturer is accredited under an accredited third-party quality control program, including IAS AC472 and based upon chapter 17 of the International Building Code (IBC).
- D. Warranty:

- 1. Submit manufacturer's written two (2) year limited warranty providing panels to be free from defects in materials and workmanship, beginning from the date of substantial completion excluding coil coatings (paint finishes) that are covered under a separate warranty.
- 2. The installation contractor shall issue a separate warranty against defects in installed materials and workmanship, beginning from the date of substantial completion of the installation.

#### 1.10 CLOSEOUT SUBMITTALS

- A. Maintenance data.
- B. Manufacturer's Warranty: Executed copy of manufacturer's warranty.

# 1.11 DELIVERY, STORAGE, AND HANDLING

- A. Protect products of metal panel system during shipping, handling, and storage to prevent staining, denting, deterioration of components, or other damage. Protect panels and trim bundles during shipping. Protect painted surfaces with a protective covering before shipping.
  - 1. Deliver, unload, store, and erect metal panels and accessory items without misshaping panels or exposing panels to surface damage from weather or construction operations.
  - 2. Store in accordance with Manufacturer's written instructions. Provide wood collars for stacking and handling in the field.
  - 3. Shield foam insulated metal panels from direct sunlight until installation.

# 1.12 WARRANTY

- A. Special Manufacturer's Warranty: Submit Manufacturer's two (2) year limited warranty providing panels to be free from defects in materials and workmanship, beginning from the date of substantial completion excluding coil coatings (paint finishes) that are covered under a separate warranty.
- B. The installation contractor shall issue a separate warranty against defects in installed materials and workmanship, beginning from the date of substantial completion of the installation.
- C. Special Panel Finish Warranty: Submit Manufacturer's limited warranty on the exterior paint finish for adhesion to the metal substrate and limited warranty on the exterior paint finish for chalk and fade.
  - 1. Fluoropolymer Two-Coat System:
    - a. Color fading in excess of [5] for copper, silver metallic and bright red; Hunter units per ASTM D 2244.
    - b. Chalking in excess of [6] for copper, silver metallic and bright red or [8] rating per ASTM D 4214.
    - c. Failure of adhesion, peeling, checking, or cracking.
  - 2. Modified Silicone-Polyester Two-Coat System:
    - a. Color fading in excess of [5] for crimson red; Hunter units per ASTM D 2244.
    - b. Chalking in excess of [7] for crimson red or [8] rating per ASTM D 4214.
    - c. Failure of adhesion, peeling, checking, or cracking.

#### PART 2 - PRODUCTS

#### 2.1 MANUFACTURER

- A. Basis of Design Manufacturer: Metl-Span, a Nucor company; Lewisville, Texas Tel: 972.221.6656; Email: info@metlspan.com; Web: metlspan.com
  - 1. Provide basis of design product or comparable product approved by Architect prior to bid. A comparable product by one of the following.
    - a) CENTRIA Architectural Systems.
    - b) MBCI, a division of NCI Building Systems.
    - c) McElroy Metal, Inc.
    - d) Metecno-Morin Corporation, Division of Metecno, Inc.
    - e) Taylor Metal Products.

#### 2.2 PERFORMANCE REQUIREMENTS

- A. General: Provide metal panel system meeting performance requirements as determined by application of specified tests by a qualified testing facility on manufacturer's standard assemblies.
- B. Roof Panel Radiative Property Performance:
  - 1. Solar Reflectance Index:
    - a. **LEED v3.0**: Minimum 78 for roof slopes of 2:12 or less and 29 for roof slopes greater than 2:12 under medium wind conditions, per ASTM E 1980.
    - b. **LEED v4.0**: Minimum SRI requirements per Sustainable Sites Credit, Heat Island Reduction. Table 1:
      - i.) Minimum 82 **initial** SRI for roof slopes of 2:12 or less and 39 **initial** SRI for roof slopes greater than 2:12.
      - ii.) Minimum 64 **aged** SRI for roof slopes of 2:12 or less and 32 **aged** SRI for roof slopes greater than 2:12.
  - 2. **Energy Star Qualified**: Listed on USDOE ENERGY STAR Roof Products Qualified Product List.
  - 3. **Cool Roof Rating Council**: Listed in CRRC Rated Product Directory, with minimum properties as required by applicable Energy efficiency or High-Performance Green Building standard.
- C. Structural Performance: Provide metal panel assemblies capable of withstanding the effects of indicated loads and stresses within limits and under conditions indicated, as determined by ASTM E 72 or ASTM E 1592 applied in accordance with ICC AC 04, Section 4, Panel Load Test Option or Section 5, Panel Analysis Option:
  - 1. Wind Loads: Determine loads based on uniform pressure, importance factor, exposure category, and basic wind speed indicated on drawings.
    - a. Roof Panel Wind Uplift Testing: Certify capacity of metal panels by testing of proposed assembly per ASTM E 72 or ASTM E 1592.
  - 2. Deflection Limits: Withstand inward and outward wind-load design pressures in accordance with applicable building code with maximum deflection of 1/180 of the span with no evidence of failure.

- D. **Roof Panels FM Approvals Listing**: Comply with FM Approvals 4471 as part of a panel roofing system, and that are listed in FM Approvals' "RoofNav" for Class 1 construction.
  - 1. Fire/Windstorm Classification: Class 1A-60
  - 2. Hail Resistance Rating: SH.
- E. Fire Performance Characteristics: Provide metal panel systems with the following firetest characteristics determined by indicated test standard as applied by UL or other testing and inspection agency acceptable to authorities having jurisdiction.
  - 1. Surface-Burning Characteristics: Provide metal panel systems with the following characteristics when tested per ASTM E 84. The core shall have:
    - a. Flame spread index: 25 or less.
    - b. Smoke developed index: 450 or less.
  - 2. Fire Performance of Insulated Roof: Class 1 roof and wall panel per ANSI/FM 4880.
- F. Roof Panel Air Infiltration, ASTM E 1680: Maximum 0.023 cfm/sq. ft. (0.115 L/s per sq. m) at static-air-pressure difference of 12 lbf/sq. ft. (575 Pa).
- G. Roof Panel Water Penetration Static Pressure, ASTM E 1646: No uncontrolled water penetration at a static pressure of 20 lbf/sq. ft. (958 Pa).
- H. Test procedure for susceptibility to leakage of discontinuous roof systems protocol TAS 114: Water applied to a depth of 6" above the lowest section of roof profile. No water infiltration observed during the seven-day test period.
- I. Thermal Movements: Allow for thermal movements from variations in both ambient and internal temperatures. Accommodate movement of support structure caused by thermal expansion and contraction. Allow for deflection and design for thermal stresses caused by temperature differences from one side of the panel to the other.
- J. Thermal Performance: When tested in accordance with ASTM C 518, Measurement of Steady State thermal Transmission, the panels shall provide a k factor of 0.114 btu/sf/hr/deg F at a 35° F (1.67° C) mean temperature.

#### 2.3 INSULATED METAL ROOF PANELS

- A. Standing Seam, Foamed-Insulation-Core Metal Roof Panels: Structural metal panels consisting of an exterior standing seam with an interior tongue and groove joint, coupled with a vapor seal in the standing seam, and provides superior resistance to air and moisture intrusion. Attached with concealed fasteners to the structure.
  - 1. Basis of Design: Metl-Span, CFR Insulated Metal Panel.
  - G-90 Galvanized Coated Steel: ASTM A 653 or Aluminum-Zinc Alloy-Coated Steel: ASTM A 792/A 792M, structural quality, Grade 50, Coating Class AZ50 (Grade 340, Coating Class AZM150), prepainted by the coil-coating process per ASTM A 755/A 755M.
  - 3. **Aluminum-Zinc Alloy-Coated Steel Sheet**: ASTM A 792/A 792M, structural quality, Grade 50, Coating Class AZ55 (Grade 340, Coating Class AZM165) unpainted Galvalume Plus coating.
  - 4. Exterior Face Sheet: 24 gauge coated thickness, with stucco embossed surface.

- 1) Finish: Fluoropolymer two-coat system.
- 2) Color: As selected by Architect from manufacturer's standard colors.
- 5. Interior Face Sheet: 26 gauge coated thickness, with stucco embossed surface Mesa profile.
  - 1) Finish: Polyester two-coat system.
  - 2) Color: As selected by Architect from manufacturer's standard colors.
- 6. Endlaps: Provide panels with factory endlaps, notching, swedging and backer plates; where panel lengths permit.
- 7. Low Eave Treatment: Provide cutback for trim/gutter installation; where panel lengths permit.
- 8. Panel Width: 36 inches as shown on drawings.
- 6. Panel Thickness: 5 inch.
- 7. Insulating Core: Polyurethane with zero ozone depletion potential blowing agent
  - a. Closed Cell Content: 90% or more as determined by ASTM D 6226
  - b. Compressive Strength: As required to meet structural performance requirements and with a minimum of 22 psi as determined by ASTM D 1621
  - c. Shear Strength: As required to meet structural performance requirements and with a minimum of 36 psi as determined by ASTM C 273
  - d. Tensile Strength: As required to meet structural performance requirements and with a minimum of 41 psi ASTM D 1623
  - e. Minimum Density: 2.0 pcf (32 kg/m3) as determined by ASTM D 162.
  - d. **Thermal Resistance (R-Value)**: **43.7** deg. as determined by ASTM C 518 at 35 degrees Fahrenheit mean temperature.
- 8. Heat Transfer Coefficient (U-factor): **0.027** Btu/hr insert corresponding value (W/K \* sq. m) as determined by ASTM C 1363 at 35 degrees Fahrenheit mean temperature. Tested specimen must include at least two engaged side joints.

# 2.4 METAL ROOF PANEL ACCESSORIES

- A. General: Provide complete metal panel assemblies incorporating trim, copings, fasciae, gutters and downspouts, and miscellaneous flashings. Provide required fasteners, closure strips, and sealants as indicated in manufacturer's written instructions.
- B. Flashing and Trim: Match material, thickness, and finish of metal panel face sheet.
- C. Panel Fasteners: Self-tapping screws and other acceptable fasteners recommended by metal panel manufacturer. Provide corrosion-resistant fasteners with heads matching color of metal panels by means of factory-applied coating, with weathertight resilient washers.
- D. Joint Sealers: Provide Tape Mastic Sealants and Concealed Joint Sealants per Section 079200, "Joint Sealants".
- E. **Roof Accessories**: Approved by metal panel manufacturer. Refer to Section 077200 "Roof Accessories" for requirements for curbs, equipment supports, roof hatches, heat and smoke vents, ventilators, and preformed flashing sleeves.
- F. **Roof Curbs**: Compatible with standing seam roof and approved by metal panel manufacture. Refer to Section 077233 "Roof Hatches" for requirements for roof curbs attached to metal roof panels.

# 2.5 FABRICATION

- A. General: Provide factory fabricated and finished metal panels, trim, and accessories meeting performance requirements, indicated profiles, and structural requirements.
- B. Fabricate metal panel joints configured to accept sealant tape providing weathertight seal and preventing metal-to-metal contact and minimizing noise resulting from thermal movement.
- C. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's written instructions, approved shop drawings, and project drawings.

#### 2.6 FINISHES

- A. Finishes, General: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
- B. Exterior Face Sheet Coil-Coated Finish System
  - 1. Fluoropolymer Two-Coat System: 0.2 0.3 mil primer with 0.7 0.8 mil 70 percent PVDF fluoropolymer color coat, [meeting solar reflectance index requirements].
    - a. Basis of Design: Metl-Span, Fluoropolymer.
- C. Interior Face Sheet Coil-Coated Finish System:
  - 1. Polyester Two-Coat System: 0.20 0.25 mil primer with 0.7 0.8 mil color coat
    - a. Basis of Design: Metl-Span, Igloo White

#### PART 3 - EXECUTION

# 3.1 EXAMINATION

- A. Examine metal panel system substrate with Installer present. Inspect for erection tolerances and other conditions that would adversely affect installation of metal panels.
  - Inspect framing that will support insulated metal panels to determine if support components are installed as indicated on approved shop drawings and are within tolerances acceptable to metal panel manufacturer and installer. Confirm presence of acceptable framing members at recommended spacing to match installation requirements of metal panels.
  - 2. Panel Support Tolerances: Confirm that metal panel supports are within tolerances acceptable to metal panel manufacturer but not greater than the following:
    - a. 1/4 inch in 20 foot in any direction.
    - b. 3/8 inch over any single roof plane.
    - c. At Purlin Spacing 7 feet or less: 1/8 inches, out only.
- B. Correct out-of-tolerance work and other deficient conditions prior to proceeding with insulated metal panel installation.

#### 3.2 METAL PANEL INSTALLATION

A. Standing Seamed, Concealed-Fastener Insulated Metal Panels: Install metal panel system in accordance with manufacturer's written instructions, approved shop drawings, and project drawings. Install metal panels in orientation, sizes, and locations indicated.

- Anchor panels and other components securely in place. Provide for thermal and structural movement.
- B. Attach panels to metal framing using clips, fasteners, and sealants recommended for application by metal panel manufacturer.
  - 1. Fasten metal panels to supports with fasteners at each location indicated on approved shop drawings, at spacing and with fasteners recommended by manufacturer.
  - 2. Cut panels in field where required using manufacturer's recommended methods.
  - 3. Provide weatherproof jacks for pipe and conduit penetrating metal panels.
  - 4. Dissimilar Materials: Where elements of metal panel system will come into contact with dissimilar materials, treat faces and edges in contact with dissimilar materials as recommended by metal panel manufacturer.
- C. Attach panel flashing trim pieces to supports using recommended fasteners and joint sealers.
- D. Joint Sealers: Install tape sealers and liquid sealants where indicated and where required for weatherproof performance of metal panel assemblies.
  - 1. Seal panel side and perimeter joints using joint sealers indicated in manufacturer's instructions.
  - 2. Seal roof panel joints utilizing tape sealer and vapor seal bead of non-curing butyl.
  - 3. Prepare joints and apply sealants per requirements of Division 07 Section "Joint Sealants."

#### 3.3 ACCESSORY INSTALLATION

- A. General: Install metal panel accessories with positive anchorage to building and weathertight mounting; provide for thermal expansion. Coordinate installation with flashings and other components.
  - 1. Install components required for a complete metal panel assembly, including trim, copings, flashings, sealants, closure strips, and similar items.
  - 2. Comply with details of assemblies utilized to establish compliance with performance requirements and manufacturer's written installation instructions.
  - 3. Set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently weather resistant.

#### 3.4 FIELD QUALITY CONTROL

A. Testing Agency: Engage an independent testing and inspecting agency acceptable to Architect to perform field tests and inspections and to prepare test reports.

# 3.5 CLEANING AND PROTECTION

- A. Remove temporary protective films immediately in accordance with metal panel manufacturer's instructions. Clean finished surfaces as recommended by metal panel manufacturer.
- B. Replace damaged panels and accessories that cannot be repaired to the satisfaction of the Architect.

# **END OF SECTION**

# SECTION 260000 SUMMARY OF ELECTRICAL WORK

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections shall form a part of this Section, with the same force and effect as though repeated here.

# 1.2 SUMMARY

- A. In general, the Electrical Work described herein consists of the installation of new electrical, lighting and signal systems equipment. All work shall be completed as directed by the Owner's authorized representative, in accordance with the Contract, Specifications and Construction Documents listed below.
  - General Conditions of Contract
  - 2. Specifications:

Section	Title
260000	Summary of Electrical Work
260100	General Conditions for Electrical Work
260500	Basic Electrical Materials and Methods
260526	Grounding
262213	Dry Type Transformers (600V or Less)
262413	Switchboards
262416	Panelboards
265113	Lighting
266100	Lighting Control Systems
270000	Telecommunication Systems
277000	Intercommunications, Clock and Program System
281300	Access Control System
283100	Fire Alarm System
269500	Electrical Acceptance Tests

- 3. Electrical Construction Drawings as listed on the Drawing Index of the Construction Drawing set.
- B. This Section includes all necessary and required work to complete the construction as indicated in the Drawings, called for by notes or schedules, or specified herein. This work includes the furnishing of all permits, labor, supervision, services, materials, tools, equipment, testing, transportation and miscellaneous expenses, and the performance of all operations necessary to or incidental to completion of lawful and operating electrical power, lighting and signal systems, whether or not specifically mentioned.
- C. All work not shown in complete detail shall be installed per the CEC and in conformance with the best standard practice for the trade. Any deviation from the approved Drawings shall be submitted in writing to the Engineer and Owner for approval prior to the installation of the work in question.

- D. This work shall include, but not necessarily be limited to, the following elements:
  - 1. Demolition and Phasing:
    - a. Make temporary feeds and connections to areas and equipment to allow phased construction.

#### 2. Electrical Service:

- a. New electrical service, as shown, complete with underground primary conduit, transformer pad and traffic barriers, splice boxes, and secondary conduit per serving utility company requirements.
- b. Coordinate with utility company to ensure compliance with applicable service standards, specifications, and utility point of connection.

# 3. Telephone Service:

- New Telephone service, as shown, complete with underground vaults, underground conduit, and new MPOE per serving utility company requirements.
- b. Coordinate with utility company to ensure compliance with applicable service standards, specifications, and utility point of connection.

#### 4. Electrical Distribution:

- a. Power distribution system, as shown, complete with switchboards, transformers, panelboards, conduits, feeders, pull boxes, fittings and related equipment and equipment pads.
- b. Trenching, conduits and feeders for electrical power.

#### Grounding

- a. Grounding system including installations of ground rods, ufer grounds, and ground rings, as shown. Connections to water and/or gas piping and building steel.
- b. Provide the following grounding electrodes at the electrical service entrance main switchboard, bonded together to form the grounding electrode system:
  - 1) Concrete encased electrode (Ufer ground) consisting of a minimum of 20 feet of bare copper conductor (size #3/0) encased by a minimum of 2 inches of concrete, located within and near the bottom of the concrete equipment pad that is in direct contact with the earth.
  - 2) Ground rod of copper clad steel, minimum ¾ inch diameter, minimum 10 feet long, driven full length into the earth. If a maximum resistance to ground of 5 ohms cannot be obtained with a single ground rod, provide additional ground rods installed not closer than 6 feet apart until a maximum resistance to ground of 5 ohms is obtained.
- c. Provide the following grounding electrodes at each building, bonded together to form the grounding electrode system:
  - Metal underground water pipe in direct contact with the earth for ten feet or more and electrically continuous to the points of connection of the grounding electrode conductor and the bonding conductors.

- 2) The metal frame of the building, where effectively grounded.
- 3) Concrete encased electrode (Ufer ground) consisting of a minimum of 20 feet of bare copper conductor (size #3/0) encased by a minimum of 2 inches of concrete, located within and near the bottom of a concrete foundation or footing that is in direct contact with the earth.
- 4) Ground rod of copper clad steel, minimum ¾ inch diameter, minimum 10 feet long, driven full length into the earth. If a maximum resistance to ground of 5 ohms cannot be obtained with a single ground rod, provide additional ground rods installed not closer than 6 feet apart until a maximum resistance to ground of 5 ohms is obtained.
- d. Provide a telecommunication main ground bus in each IT room.
- e. Provide testing of grounding system as outlined in Section 269500.

### 6. Signal Distribution:

- a. Trenching, conduits and conductors for signal systems.
- b. Building mounted conduits and conductors for signal systems.
- c. Trenching and conduits for control systems as required by Division 21-25 Specification Sections.

# 7. Building Electrical and Mechanical Systems:

- a. Complete system of branch circuit wiring, conduit and distribution equipment for lighting, receptacles, and power.
- b. Electrical work associated with mechanical equipment, including conduit, conductor, disconnect switches and motor starters.
- c. Furnish roof jacks for the weatherproofing of each electrical conduit penetrating the roof. Roof jacks shall be of the material specified for the specific roofing system and shall be delivered to the general contractor/construction manager for installation by the roofing contractor.
- d. Connection to all equipment as furnished by other Sections of these Specifications or as listed on Drawings as furnished by Owner.

### 8. Lighting:

- a. Provide complete lighting system including fixtures, hangers, lamps, wall switches and lighting controls.
- b. Provide complete Lighting Control System consisting of motion sensors, timer switches and other controls as shown in Drawings.

#### 9. Telecommunication Distribution System

a. Complete Data system per Specification Section 270000 including IDF and MDF racks complete with Switches, Category 6 and Fiber Optic Patch Panels and required Patch Cables, Category 6 Data Cable and Jacks, Fiber Optic Cable, Jacks and Innerduct, access panels, terminal cabinets, conduit, wiring and terminations for a complete working system.

- 10. Access Control System
  - a. Complete Intrusion system per Specification Section 281300 including control panels, door switches, key pads, motion sensors conduit, wiring and terminations for a complete working system.
  - b. Installation of two (2) Type RJ31X Telephone Jacks at Intrusion System Control Panel location and wiring back to Main Telephone Backboard.
- 11. Fire Sprinkler Monitoring System:
  - a. Complete Fire Sprinkler Monitoring System per Specification Section 280750 including Fire Sprinkler Monitoring Control Panels, control devices, monitoring devices, access panels, terminal cabinets, conduit, wiring and terminations and equipment for a complete working system.
- 12. Each system shall be terminated, tested and calibrated by a factory-authorized installer. This same installer shall terminate and test any peripheral equipment required for the operation of the system.
- 13. Equipment Connections
  - a. Provide equipment connections and coordination in accordance with manufacturer's recommendations and product submittals.
  - b. Provide equipment connections and disconnect switches as required for the following equipment:
    - 1) Mechanical equipment.
    - Owner furnished equipment.
- E. Work specifically **excluded** from this Division.
  - 1. Furnishing of motors.
- F. It shall be understood that the existing underground utility infrastructure within the easement is presently active (hot).
- G. Coordinate with the civil engineer to locate the concrete pad and the knock out box in the pad for the high voltage conduits and electrical power circuits.
- H. Furnish, install and connect an underground grounding system, specifically mentioned on drawings as part of this contract, including all necessary materials and connections as required by code and/or as shown on the construction drawing.
- I. Furnish, install and connect all above grade grounding materials and make aboveground connections of underground cables to equipment and/or structural steel as shown on the construction drawings and as required by code.
- J. Furnish, install and connect new conduit, conduit fittings, and seal fittings, expansion fittings and supports. This includes above grade as well as underground.
- K. Size, furnish, and install junction, pull and terminal boxes, in accordance to code requirements and as shown on the construction drawings.
- L. Size, furnish and install all supports required for conduit installation, supports required for the installation of the equipment furnished by this Contractor and equipment furnished by others but installed by this Contractor.

- M. Size and field cut the openings for conduits passing through building walls and/or floors. Close and seal all openings after conduits have been installed and/or removed. Closing shall be compatible with, or of the same material as wall and/or floor.
- N. Furnish and install permanent "DANGER HIGH VOLTAGE" warning signs for the outdoor and indoor switchgear, all unit substations, motor control centers, power distribution panels, and on all doors of all electrical equipment rooms, fenced yards, etc.
- O. Furnish and install markers indicating voltage levels (e.g., 12.47 KV, 277/480V, 120/208V, etc.) for all of the electrical equipment such as motor control centers, local lighting panels, lighting transformers, power panels, switchboards, etc....
- P. Furnish and install new nameplates per specifications on new motor control centers, motors and on all local control stations, control panels, disconnect switches, push button stations, instrument devices, etc.
- Q. Furnish and install wire tags in accordance with the specifications indicating wire number as shown on electrical schematics, one line, three line diagrams and specifications.
- R. Furnish, install and connect all power, control and instrumentation cable, including all necessary cable lugs, connectors and terminations.
- S. Perform all testing per the Specifications and report to Owner's field representative in a timely manner so as not to impede the scheduled completion of the Contract.
- T. Furnish all material, labor and testing equipment necessary to check out and test the complete power distribution, and control systems for all electrical and low voltage equipment in strict accordance with specifications. This shall include check out/start up of systems and/or equipment as directed by Owner.
- U. Prime paint all uncoated carbon steel items furnished by Contractor.
- V. Energize low voltage services after testing equipment and wiring in accordance with manufacturer instructions and specifications.

PART 2 - NOT USED

PART 3 - NOT USED

END OF SECTION 260000

# SECTION 280750 FIRE SPRINKLER MONITORING SYSTEM

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION:

A. This performance specification requires the installation, and connection of a fire sprinkler monitoring system and associated equipment required to form a complete and coordinated fire sprinkler monitoring system that is ready for operation.

#### 1.2 SCOPE:

- A. The fire sprinkler monitoring system shall include, but not be limited to, a control panel, fire water flow alarm device and circuit for electric monitoring, tamper switches at each valve in the fire water system and circuits for electric monitoring, an exterior audible flow alarm, and interior audible flow alarm at a location that is approved by the local authority having jurisdiction, and a sole path wireless cellular dialer capable of reporting supervisory, trouble and water flow signals to a central monitoring station.
- B. The contractor shall monitor each tamper switch at all post indicator valves and/or detector check valves associated with the fire suppression system, and the flow switch at the fire sprinkler riser.
- C. The contractor alone shall bear the responsibility and costs of developing and submitting all documents, and obtaining all approvals for the completed fire sprinkler monitoring system.

#### 1.3 GUARANTEE:

A. All work performed and all material and equipment furnished under this contract shall be free from defects and shall remain so for a period of at least one (1) year from the date of acceptance. The full cost of maintenance, labor and materials required to correct any defect during this one-year period shall be included in the submittal bid.

### 1.4 MAINTENANCE:

- A. Maintenance and testing shall be on a semi-annual basis or as required by the local AHJ. A preventive maintenance schedule shall be provided by the Contractor that shall describe the protocol for preventive maintenance.
- B. Each circuit in the fire sprinkler monitoring system shall be tested semi-annually.

#### 1.5 APPLICABLE CODES AND STANDARDS:

- A. The system shall comply with the following Codes and standards.
  - 1. 2022 California Building Code
  - 2. 2022 California Electrical Code
  - 3. 2022 California Fire Code
  - 4. Local and State Building Codes.
  - 5. All requirements of the Authority Having Jurisdiction (AHJ).

## B. APPROVALS:

- 1. The system shall have proper listing and/or approval from the following nationally recognized agencies:
  - a. UL Underwriters Laboratories Inc.
  - b. FM Factory Mutual Systems

#### PART 2 - PRODUCTS

#### 2.1 EQUIPMENT AND MATERIAL, GENERAL:

- A. All equipment and components shall be new, and the manufacturer's current model. The materials, appliances, equipment and devices shall be tested and listed by a nationally recognized approvals agency for use as part of a protected premises protective signaling system.
- B. All equipment and components shall be installed in strict compliance with manufacturers' recommendations. Consult the manufacturer's installation manuals for all wiring diagrams, schematics and physical equipment sizes before beginning system installation.
- C. All Equipment shall be attached to walls and ceiling/floor assemblies and shall be held firmly in place. Fasteners and supports shall be adequate to support the required load.

# PART 3 - EXECUTION

#### A. INSTALLATION:

- 1. Installation shall be in accordance with the NEC, local and state codes.
- 2. All conduit, junction boxes, conduit supports and hangers shall be concealed in finished areas and may be exposed in unfinished areas.

# B. ACCEPTANCE TESTING AND CERTIFICATION

- 1. Before energizing the cables and wires, check for correct connections and test for short circuits, ground faults, continuity, and insulation.
- 2. Close each sprinkler system flow valve and verify proper supervisory alarm at the control panel.

- 3. Verify activation of all flow switches.
- 4. Check presence and audibility of tone at all audible alarm devices.
- 5. Upon completion of the installation, a test of the entire system shall be performed in the presence of the Inspector of Record and the local authority having jurisdiction. The local Fire Marshal shall be notified and invited to witness the test a minimum of 72 hours prior to the test. Components and functions of the system shall be tested and an Inspection and Testing Record Form shall be generated in accordance with NFPA 72 indicating the proper functioning of each component of the system.
- 6. If devices or other components of the system fail during testing the defective devices or components shall be removed and immediately replaced with functional units and the test shall be repeated.
- 7. The Contractor shall develop and completed a Fire Sprinkler Monitoring System Record of Completion and shall provide the Certification of Completion to the authority having jurisdiction.

#### 3.2 INSTRUCTION:

A. Provide instruction as required for operating the system. "Hands-on" demonstrations of the operation of all system components and the entire system including program changes and functions shall be provided. The Contractor shall provide a typewritten "Sequence of Operation" to the Owner.

**END OF SECTION 280750** 

#### **SECTION 28 13 00**

#### **ACCESS CONTROL SYSTEM**

#### **PART 1 GENERAL**

#### 1.1 RELATED WORK

- A. Division 08 Sections.
- B. Division 26 Sections.
- C. Division 28 Sections:
  - 1. This contractor to be responsible for access controls system.

#### 1.2 WORK INCLUDED

- A. The Contractor shall furnish and install a complete microprocessor-based access control system as specified herein. The system shall include, but not be limited to, all control equipment, power supplies, power circuits, signal initiating and signaling devices, conduit, wire, network cabling, fittings, and all other accessories required to provide a complete and operable system.
- B. Security system devices indicated are for reference and coordination purposes only. The installing contractor shall design and provide a complete system, meeting the requirement of specification, The Contractor shall provide all security system devices required for complete system perimeter coverage acceptable to all governing authorities, Architect and Owner.
- C. The system shall include security for all access into building via card reader and electrified door hardware interface. Card reader access interface must also be provided at locations noted.
  - 1. The Control System shall be the product of a single manufacturer.
  - 2. Tag all conductors or cables at each end.
  - 3. Installation of security panels.
  - 4. Interconnection of security panels.
  - 5. Installation of new security devices.
  - 6. Preconstruction meeting with Owner's personnel, installing technician and project superintendent.
  - 7. Card reader hardware and components.
- D. The contractor shall connect this location to the district monitoring station as designated by the owner.
- E. Additional Responsibilities of the Access control contractor are as follows:
  - Input all Access Control Doors, Door Position switches, Door Release buttons, Keypads and all other devices into SMS and Mapping Feature.
  - 2. Mapping feature shall be programmed for complete monitoring of all devices, as well as complete functionality of Doors. Features shall include but shall not be limited to
    - a. Lock
    - b. Unlock
    - c. Lockdown

- d. Position
- e. Alarm for Propped Door
- f. Alarm for Forced Door
- 3. Package and return all unused door hardware installation components. All components that are turned over to owner must be inventoried by integrator.

#### 1.3 CODES AND STANDARDS

- A. The system shall comply with the applicable Codes and Standards as follows:
  - National Fire Protection Association Standards:
    - a. NFPA 70 National Electric Code.
    - b. NFPA 72 National Fire Alarm Code.
    - c. NFPA 101 Life Safety Code.
  - 2. Local & State Building Codes.
  - 3. Requirements of Local Authorities having Jurisdiction.
  - 4. Underwriters Laboratory Requirements and Listings for use in Security Alarm Systems.
  - 5. Requirements of American Disabilities Act (Public law 101-336).
  - 6. Accessibility Standards.
  - 7. State Fire Marshall.

#### 1.4 QUALITY ASSURANCE

- A. Contractor Qualifications:
  - The installing contractor shall be the authorized representative of the Access Control Manufacturer to sell, install, and service product and all related equipment. The installing contractor shall have represented the security alarm manufacturer's product for at least five years.
  - 2. The installing contractor shall be licensed by the State of California as a security services contractor to design, sell, install, and service security alarm systems.
  - 3. The installing contractor shall provide 24-hour, 365 day per year emergency service with factory trained service technicians.
  - 4. The installing contractor shall have personnel on their staff that has been actively engaged in the business of designing, selling, installing, and servicing security alarm systems for at least ten (10) years.
  - 5. All Contractors must submit to the owner prior to starting any work the factory training certificates for all personnel that will be working on the access control system. No person is allowed to work on the system without proper manufacturer's certification
  - 6. The proposing contractor for this system and the installing contractor of this system shall be of the same organization.
  - 7. Contractor must be a current integrator of solution in the closest major metropolitan area marketplace, have a permanent office located within 120 miles of the project, and be able to include information on current support staff to be able to service this client.
  - 8. The proposing/installing contractor of this system must be an authorized dealer/integrator for the project's specified Access Control System.

#### 1.5 SUBMITTALS

- A. The installing contractor and/or equipment supplier shall provide complete and detailed shop drawings and include:
  - Control panel wiring and interconnection schematics for all devices including intrusion detection points.

- 2. Complete point to point wiring diagrams.
- 3. Riser diagrams.
- 4. Complete floor plan drawings locating all system devices.
- 5. Factory data sheets on each piece of equipment proposed. Pertinent information is to be highlighted. All non-pertinent information is to be removed or crossed out.
- 6. Detailed system operational description. Any specification differences and deviations shall be clearly noted and marked.
- 7. Complete system bill of material.
- 8. Line by line specification review stating compliance or deviation.
- 9. Specification Compliance: A letter shall be provided stating, by section and subsection, that the SCS installer complies with the ENTIRE specification section. If the installer intends to deviate from any portion of the specifications, a detailed explanation of reason in which the installer would like to deviate shall be provided in addition to the specification compliance letter. NO DEVIATIONS SHALL BE ACCEPTABLE UNTIL THEY HAVE BEEN ACCEPTED BY THE PROJECT'S TECHNOLOGY CONSULTANT.
- B. All submittal data will be in bound form with Contractor's name, supplier's name, project name, and state security license number adequately identified.

#### **PART 2 PRODUCTS**

#### 2.1 MANUFACTURERS

- A. The following access control systems are acceptable solutions for this project:
  - 1. Access It! Universal.NET Enterprise. manufactured by RS2 Technologies.
- B. The Security Management System software shall be, SMS Field Hardware as needed
  - 1. System Control Processors SCP shall be EP-2500
  - 2. System Input Output (SIO) units shall be MR-51e or MR-52
  - 3. System Input/output module (SIO) 16 Inputs shall be MR-16IN
  - 4. System Output module (SIO) 16 Outputs MR-16OUT
  - 5. Communications Multiplexer RS-485 shall be MUX-8
- C. Access Control System Enclosure
  - 1. Life Safety Power
  - 2. Model #FP0150/250-2D8P2M8NL4E8M2
  - 3. Number of overall enclosures shall be based upon providing 120% of current project requirements to allow for future growth at each headend location.
  - 4. Power to panel shall be hardwired from 120v. power source to prevent someone from disconnecting the power to the unit.
  - 5. Door power supplies are part of this unit and shall be provided to interface with electrified door hardware.
  - 6. Provide labeling on face of panel for identification of panel as named in the access control software. Typical naming convention is 3 digit initials of campus B(XXX) where X represents initials of building ACP#
  - 7. Provide label on inside of access control panel to indicate electrical panel and circuit number of 120v. power serving panel.
  - 8. Provide dual local batteries for each panel where internal cards are being powered.
  - 9. Contractor to wire internal contact relay to indicate when power loss occurs to panel.
  - 10. Contractor to wire internal relay contact for door latch to indicate when access to the panel has occurred.

- Provide all back plates and mounting hardware required for complete system installation.
- D. SMS Authentication Hardware:
  - 1. AptiQ MT15 Card Readers
  - 2. AptiQ MT11 Mullion mount Card Readers (only to be used on retrofit applications)
  - 3. Readers shall be proximity style readers for all doors scheduled to receive card reader interface.
  - 4. All doors receiving a card reader shall also receive a steel door contact, GE 1078 Series flush mounted to provide door position status back to panel. For doors where flush mount contacts cannot be installed, contractor shall install industrial grade surface mount contact. If there is a pair of doors and one door has electrified hardware, the contractor shall also install a new door contact on the inactive door to also provide status of that door back to system.
  - 5. At all single and pair of doors receiving card readers, contractor shall install a ceiling or wall mounted request to exit (REX) device wired back thru the access control system to indicate when an authorized building exit has occurred. Optex, model OP-08CW.
  - 6. At campus administration building, contractor to provide blue push button for campus lockdown, model: SS2 434 LD-EN with custom label: LOCKDOWN. Pushbutton to be located in front office administration area and be momentary pushbutton style. Once building lockdown is activated, system shall remain in lockdown mode until authorized personnel use system software to place the system back in normal mode. Coordinate with local campus principal on final location of button prior to rough in.

#### 2.2 MANUFACTURED UNITS

- A. System Control Processor (SCP):
  - The System Control Processor (SCP) shall link the SMS Software to all "down-stream" field hardware components (SIOs,). The SCP shall provide full distributed processing of access control / Alarm Monitoring rules and operations. A fully loaded and configured SCP shall respond in less than one-half (0.5) second to grant or deny access to cardholder.
  - The SCP shall continue to function normally (stand-alone) in the event that it loses communication with the SMS software. While in this off-line state, the SCP shall make access granted/denied decisions and maintain a log of the events which occur. Events shall be stored in the SCP local memory, and then uploaded automatically to the SMS database after communication has been restored.
  - 3. In addition, the SCP shall incorporate the following features:
    - a. UL 294, ULC, and CE Certified
    - b. Support for Host Communications Speed of 115,200 bps
    - c. Support Direct Connect, Remote Dial Up, or Local Area Network (LAN)
      Connection
    - d. Support for up to 6 MB of On-Board Memory for the 12 MB for the EP2500
    - e. LAN Support shall utilize RJ45 (10/100baseT) Ethernet Interface
    - f. Flash Memory for real time program updates and overall host communications
    - g. Support 2 wire RS-485 downstream ports, Downstream ports shall be for connecting SIO panels via RS-485 multi-drop wiring configuration
    - h. Memory storage of up to 12 MB for the EP-2500

- i. Initial base memory download between SCP with standard memory from the SMS shall require no more than ten (10) seconds
- j. Support for up to 32 SIO devices
- k. Support of multiple card technologies
- I. Supervised Communications between SCP and SMS Software
- m. AES 256-bit Symmetrical Block Encryption conforming to the FIPS-197 standard between SCP and SMS Software communications driver.
- n. Support of up to eight card formats and facility codes
- o. Support for SEIWG card formats
- p. Integration to other manufacturer's OSDP (Open Supervised Device Protocol), Magnetic (Clock and Data) and Wiegand (Data 1, Data 0) card readers
- q. Uninterruptible Power Supply (UPS) with battery backup (\*\* Specify the amount of Backup Time Required) (Minimum 24-hour battery backup)
- r. 32-bit Microprocessor
- s. Biometric Interface Support
- t. An SCP downstream serial port shall multi-drop up to 32 access control SIO field hardware devices using an RS-485 UL 1076 Grade A communication format allowing a distance of 4,000 feet using Belden 9842 cable or equivalent
- u. 12-24 VDC input power for the EP-2500 and 12 VDC
- v. Issue Code Support for OSDP (Open Supervised Device Protocol), Magnetic (Clock and Data) and Wiegand (Data 1, Data 0) Card Formats
- w. Individual Shunt Times (ADA Requirement)
- x. Up to Nine Digit PIN Codes
- y. Downstream serial RS-485 device support over CAT 5, 6e cable
- z. Status LEDs for normal component and communication status
- B. RoHS ComplianceMR-16IN 16 Input Sub Input/Output module (SIO)
  - The Input Control Module shall provide 16 UL 1076 Grade B, A or AA alarm input zones and monitor / report line fault conditions, alarm conditions, power faults and tampers. Status LEDs shall provide information about the sixteen alarm zone inputs, cabinet tamper, and power fault.
  - 2. In addition, the SIO shall incorporate the following features:
    - a. UL 294, ULC, and CE Certified
    - b. Alarm contact status scanning at up to 180 times per second for each zone
    - c. Eight configuration DIP switches to assign unit addresses and communications speed
    - d. Elevator control support for 64 Floors using floor Tracking
    - e. Variable resistor values for line supervision
    - f. A low power CMOS microprocessor
    - g. Filtered data for noise rejection to prevent false alarms
    - h. Up to 16 Grade B, A, or AA Supervised Inputs in any Combination
    - i. 12 or 24 VDC Input Power
    - j. 2 Form C 5A, 30 VDC Contacts for load switching
    - k. 2 dedicated inputs for tamper and power status
    - I. RoHS Compliance
    - m. Support for RS-485 over CAT 5, 6e cable
- C. MR-16OUT 16 Output Sub Input/output module (SIO):
  - 1. The Output Control Modules shall provide 16 Form-C 5A 30 VDC relay contacts for load switching. The relays shall be configurable for fail-safe or fail-secure operation. Each relay shall support "On" "Off" and "Pulse" operation.
    - a. 12 or 24 VDC input power
    - b. Two dedicated digital inputs for tamper and power failure status

- c. RS-485 communications, multi-dropped (2-wire or 4-wire RS-485)
- d. Up to 16 MR-16OUTs per SCP
- e. Onboard termination jumpers
- f. DIP switch selectable addressing
- g. Status LEDs for communication to the host, heartbeat and relay status
- h. Elevator control, support for 64 floors
- i. RoHS Compliance
- j. Support for RS-485 over CAT 5, 6e cable
- D. MR-52 Reader Sub I/O module (SIO):
  - The MR-52 shall provide a dual interface between the SCP and authentication devices. The MR-52 must operate with any authentication device that produces a standard Wiegand, Magnetic or OSDP (Data 1 / Data 0 or Clock and Data) communication output.
  - 2. In addition, the MR-52 shall incorporate the following features:
    - a. 12 or 24 VDC power supply
    - b. Reader communications (Magnetic Clock/Data, Wiegand Data1/Data0 or OSDP) more than 150 different readers approved for use
    - c. Six Form-C 5 A at 30 VDC relay outputs
    - d. Up to 8 different formats
    - e. Issue code support for Magnetic, Wiegand or OSDP formats
    - f. Door contact supervision (Open/Closed)
    - g. REX push-button monitor (Open/Closed, Supervised or Non-Supervised).
    - h. Strike Control output
    - i. Bi-color status LED support and 2-wire LED support
    - j. Beeper control
    - k. Dedicated tamper and power failure circuits
    - I. Support for offline reader access mode
    - m. Onboard jumpers for termination
    - n. Onboard jumpers for 5 VDC or 12 VDC reader support
    - o. Elevator control, native support for 6 floors without Floor Tracking.
    - p. DIP switch selectable addressing
    - q. UL 294 listed and CE approved
    - r. RoHS Compliance
    - s. Support for RS-485 over CAT 6 cable

### 2.3 COMPONENTS

- A. Enterprise System Server Requirements:
  - The district has an existing server currently installed at the district technology
    office that will handle all new access control systems. The integrator will be
    responsible to coordinate with the district on access to the server to be able
    to configure and commission the access control system.
- B. Panel Licensing:
  - 1. This project to provide an enterprise plus license package for 500 panels to be used for the overall district.
  - 2. The district currently has an ESSL-50 Enterprise Plus License package that should be used to credit back to the manufacturer as part of this licensing update. The licensing should be configured to allow the district to have direct contact with the manufacturer technical support staff in lieu of having to contact the local integrator for support.
- C. API Licensing:

- 1. Integrator to provide RS2 Web / REST API Licensing package as part of this project.
- D. Security Management System Client Workstation:
  - 1. The SMS client interface shall be 100% web based for local user interfaced with username and password support via active directory interface. Client license count shall still be (5) concurrent licenses per elementary school, (8) per Junior High and (10) per High School.
- E. Campus Lockdown Sequence of Operation Remote Interface:
  - 1. Project requires a local lockdown button located in front administration area of a campus which will initiate the campus lockdown for all electrified door hardware once the button is activate. The district also utilizes a remote cloud-based notification system from Catapult which sends a notification signal via IP interface to the local campus which is designed to trigger a remote message to be played on the campus intercom paging system. That interface is handled locally with an Algo, model 8301 paging adapter unit. That paging unit is located in the campus MDF room and has a momentary relay that interfaces to the campus paging system to play the emergency announcement based on what a remote user selected within the Catapult system.
  - 2. This access control project will build on top of the current relay interface. The access control contractor shall install a locking relay module inside the access control enclosure in the MDF room. That locking relay shall receive a signal from the Algo 8301 paging amplifier that will then communicate with the access control system to initiate a campus lockdown the same way as if a local user pushed the lockdown button in the administration area.
  - 3. If the campus was locked down via this remote interface, once the event is over, the campus will be able to place the building back into normal mode via the access control software interface. Once the access control system is placed back into normal mode, the lockdown locking relay shall be reset to normal mode ready to receive the next event.
  - 4. Access control contractor shall provide all interface patch wiring between relays and access control system and provide all relays required for this interface to operate as described.
- F. SMS Software Capabilities:
  - 1. The SMS Software shall support 64,000 card readers, 512,000, input points, detection points, and relay outputs. The SMS database server shall support an unlimited number of cardholders, and visitors, limited only by the available memory on the SCP. The database server shall also support an unlimited number of system events and System Operator transactions in the history file limited only by available hard disk space. Client Workstations shall be limited only by the limitations of the operating system server software.
  - 2. SMS Software Functionality:
    - a. Time Intervals:
      - 1) The SMS shall be capable of creating and storing an unlimited number of Time Intervals, limited only by the available hard drive space.
      - 2) Each Interval may be defined with a 50-character name.
      - 3) Each Interval will consist of a start time, an end time and the selected days the interval is to be active. Selected from a 15 day per week Calendar consisting of Sun thru Sat for 7 days and 8 Holiday Types / Categories which together will produce the 15 day per Interval Week for the individual Time Interval. Time Intervals shall be allowed to belong to any or all Time Zones so that the Time Interval only has to be defined once.

#### b. Time Zones:

- The SMS shall be capable of creating and storing up to two hundred fifty-five (255) time zones. Each time zone shall have a minimum of Twelve (12) Time Intervals. Each Time Interval shall be assignable to each and every Time Zone.
- 2) Each time zone shall be assignable to an alphanumeric name of up to 50 characters. Time zones shall be applied to access levels, card reader modes, alarm inputs, and alarm outputs. Time zones shall be allowed to belong to any or all access levels so that the time zone only has to be defined once.

#### Access Levels:

- a. The SMS shall be capable of defining a minimum of 32,000 access levels with a minimum of 32 access levels per cardholder card. Access Levels shall consist of a combination of card readers and time zones.
- b. Each Access Level shall be assignable to an alphanumeric name using up to 50 characters.
- c. Card readers shall have the ability to be assigned to any or all access levels defined in the SMS. Individual card readers shall be capable of having a distinct time zone assigned to it.
- d. The SMS shall allow a 'First Card Unlock with keypad entry' option to be assigned on a Combination of Time Zone and Allowed Card Group.
- e. Add appropriate doors and time zones to the following access levels for campus.
  - 1) \*\*\*POLICE ONLY\*\*\*
  - 2) ALL ACCESS DISTRICT WIDE 24/7
  - 3) ALL ACCESS DISTRICT WIDE Mon-Fri 6:00am-8:00pm
  - 4) Campus Level (initials) Staff Mon-Fri 6:30am-6:45pm (Elementary)
  - 5) Campus Level (initials) Staff Mon-Fri 6:00am-8:00pm (Junior High/High School)
  - 6) Campus Level (initials) Staff Select Mon-Sun 5:00am-11:00pm
  - 7) Campus Level (initials) Always 24/7
  - 8) Coordinate all times listed above with district and campus time settings.
- 4. Temporary Access Levels shall be enabled at the Site level.
  - a. The SMS shall be capable of assigning Temporary Access Levels inclusive of the 32,000 assignable Access Levels.
  - b. Each Temporary Access Level shall be assignable to an alphanumeric name using up to 50 characters.
  - c. Each Temporary Access Level shall be definable with a start and end date.
  - d. Temporary Access Levels shall be stored in the SCP and functionality shall be maintained in the event of disconnection with the SCP.
- 5. Precision Access is enabled at the Site level and allows each Cardholder to have a Time Zone assigned separately for Access to each Reader.
  6. Holidays:
  - a. The SMS shall provide a minimum of 255 Holiday assignments using an embedded calendar. Holidays shall be assigned an alphanumeric name using up to 50 characters and shall be grouped into eight (8) types of holidays and shall be assignable individually. Access rights, card reader modes, and schedules must be able to be altered when the current date is designated a Holiday.
  - b. Daylight Savings Time changes shall take effect automatically, based on the SMS Server time which may be synchronized using an NTP Server or the NIST Time synchronization.
  - c. The SMS shall support Holiday Ranges that allow a single holiday to span across multiple calendar days.

- 7. First Card Unlock:
  - a. The SMS shall provide a First Card Unlock feature that when configured retards a pre-determined time zone activated unlock command until a valid credential has been presented and granted access to the portal. See appendix A for programming.
- 8. Database Segmentation
  - a. The SMS shall be required to support data Sites (segmentation, partition) whereby each Site (segmentation, partition) shall have its own set of cardholders, field hardware and system parameters (time zones, access levels etc.). This Site (segmentation, partition) shall expand the limitations of the SMS parameters (i.e. access levels and time zones) to the maximum capacity of each parameter multiplied by the number of Sites.

#### 2.4 FIELD DEVICES

- A. Card Access Equipment:
  - For new installations, card readers shall be Schlage MT15 or MT11 mullion style readers to be provided and installed by the access control contractor. Access control contractor shall provide and install all equipment, wiring, reader, software, programming, licenses to ensure full functionality of all devices shown on drawings.
  - 2. For entry doors that have automatic slider doors, access control contractor shall interface with slider door hardware motion detector and interlock slider doors to operate upon card reader swipe authentication.
  - 3. For doors that have ADA motor operated door hardware installed, the auto operator shall activate upon authentication of card reader.
  - 4. Any doors that are magnetically held, shall be interfaced with the building fire alarm system and shall communicate with a relay to release the magnet upon fire alarm activation.
  - 5. Provide Physical Access Input Modules for any additional control points required to be installed to monitor additional locations as indicated on drawings. Provide enclosure for any exposed areas with no ceiling where devices shall be installed.
  - 6. Provide a door contact for each exterior door, and other doors as located on plans. Door Contact shall monitor door position at all times. Program the system to shunt alarm on authenticated card read. Send system into full alarm during forced door. Send system into trouble for Propped door with messaging to designated user groups for all alarm types. At a pair of doors, contractor shall wire each door contact together as one common program point within the access control system.
  - 7. At exposed conditions where flush mount sensor cannot be installed, provide GRI 4405-A, or approved equal at each card reader door location.
  - 8. The contractor shall provide programming to send all data from the system to the preferred after-hours monitoring system.
  - 9. Provide an emergency lockdown button in the reception office on the wall behind the reception desk. The button shall be programmed to send entire campus into lockdown. Program all electronic locks to initiate full building lockdown in 10 seconds or less. Model SS2434LD-EN Blue Lockdown button with cover.
  - 10. Provide a total of cards as indicated (300) 8543 smart cards for each High School, (200) 8543 smart cards for each Junior High School, (100) 8543 smart cards for each Elementary Schools and (100) 8543 smart cards for each support facility. All cards shall be ordered with sequential serial numbers and coordinated with Allegion.
  - 11. Provide all necessary hardware/controller/software/licenses required to operate and manage system effectively for the locations indicated on the drawings.
  - 12. Security contractor is responsible for inputting all database information for initial installation and configuration of system for users that will be using the system at

- the campus or administration building. Contractor shall coordinate names and locations of authorization on system with Owner once system is ready for demonstration.
- 13. The contractor shall provide and install a wall mounted enclosure for all Door Controllers/Gateways/Input Modules that shall be installed. The contractor shall provide enclosure to accommodate 120% of devices that shall be installed for each building. Provide conduit from the Power supply to the enclosure that no cable is exposed. Acceptable panels for consideration are:
  - a. Life Safety Power, Inc. panel.

#### 2.5 WIRING

- A. All Access control wiring shall be green in color, no exceptions.
- B. Wire scheme and conductor quantity shall be as required by the device manufacturer's specifications. Contractor to provide and install shielded cable as required.
- C. All 120v Power shall be furnished by the Division 26 contractor. COORDINATE EXACT LOCATION WITH ELECTRICAL CONTRACTOR PRIOR TO ROUGH-IN.
- D. All Security Conduit as required for a complete installation of this system shall be furnished by the contractor as part of their scope of work. Conduit shall be minimum of 3/4 inch. Conduit shall be painted to match surrounding area where installed, exposed to public view.
- E. Coordination with the Division 26 contractor is the responsibility of the Security Contractor to ensure all conduit is in place for a complete installation.
- F. All systems shall be connected to a dedicated 120VAC circuit and on an emergency power source if available.
- G. Color code of all access control wiring shall be yellow in color.
  - 1. Approved Products:
    - a. Green composite Access Control Cable: (all access control cable shall be homerun from the card reader locations to the headend panel location typically located in local building MDF/IDF.)
    - b. The following manufacturer's equivalent cable shall be acceptable. All cable shall be in a Green/composite construction, minimum conductor size of 18awg, shielded, and must be green in color. NO EXCEPTIONS.
      - 1) Tappan Wire and Cable
      - 2) Genesis
      - 3) Convergent Connectivity Technology CCT
    - c. All cable shall bare the name of the approved manufacturer. NO PRIVATE LABELED CABLE WILL BE ACCEPTED

#### **PART 3 EXECUTION**

#### 3.1 INSTALLATION

- A. All wiring shall be in accordance with the National Electrical Code, Local Codes, and article 760 of NFPA Standard 70. All wiring sizes shall conform to recommendations of the equipment manufacturer, and as indicated on the engineered shop drawings.
- B. All wire shall be UL Listed CL2 for limited energy (300V) applications and shall be installed

in conduit. Limited energy MPP wire may be run open in return air ceiling plenums provided such wire is UL Listed for such applications and is of the low smoke producing fluorocarbon type and complies with NEC Article 760 if so approved by the local authority having jurisdiction.

- C. No other wiring shall be run in the same conduit as access controls wiring.
- D. All wire shall be installed in an approved conduit/raceway system (except where permitted by NEC and the local authority having jurisdiction). Maximum conduit "fill" shall not exceed 40% per NEC.
- E. Minimum conduit size shall be 3/4" EMT. Provide shop drawings for approval prior to installation.
- F. Systems utilizing open wiring techniques with low smoke plenum cable shall provide conduit in all inaccessible locations, inside concealed walls, all mechanical/electrical rooms, or other areas where wiring might be exposed, to public view, or subject to physical damage.
- G. All conduit ends shall have a protective bushing to prevent cable damage. BUSHINGS MUST BE INSTALLED PRIOR TO INSTALLING CABLE. CUTTING BUSHING TO INSTALL AROUND INSTALLED CABLES WILL NOT BE ACCEPTED.
- H. Contractor is required to provide all mapping and software configuration showing reader and door interface locations as well as current camera views that are associated with specific door locations required to operate system.
- I. Provide an extra 18/2 conductor installed from each door contact to the nearest accessible ceiling space above for connection by the intrusion contractor. Spare conductor is to be installed to a junction box, coordinate location with intrusion contractor.

#### 3.2 CABLE PATHWAYS

- A. Cable Support:
  - 1. All wire not installed inside conduit, or a designated cable tray system shall be installed in a dedicated cable support system for the entire run of each cable. Including, but not limited to service loops.
    - a. Approved Cable Support Product: PANDUIT® Corporation J-MOD™, or approved equal, modular support system (sized appropriately for the number of wires being installed. Reference the manufacturer's specifications for the suggested maximum cables per support size.
  - 2. The approved cable support system shall be attached directly to the building steel at a serviceable height. In the event that the building steel is not within 5' of the finished ceiling, the contractor shall provide a dedicated threaded rod extending within 5' of the finished ceiling and mount the j-hook support hook to the treaded rod.
  - 3. J-hook cable support shall be installed at a maximum of 5' on center.
  - 4. All cable installed shall be attached to the j-hook support system with plenum rated Velcro and a plenum rated Velcro tie shall be installed between each J-MOD™ cable support to keep wires neatly bundled throughout the entire run. Tie wraps will only be allowed to be used inside the control panels as required to manage the wires within each type of panel.
  - ABSOLUTELY NO CABLE, NOT INSTALLED IN CONDUIT, WILL BE ALLOWED TO BE ATTACHED DIRECTLY TO THE BUILDING'S STEEL OR SUPPORTED

- IN ANY OTHER METHOD THAN THAT STATED ABOVE.
- 6. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO COORDINATE WITH ALL OTHER TRADES ON THE PROJECT TO ENSURE THAT THE PATHWAY OF THIS SYSTEM DOES NOT INTERFERE WITH THE INSTALLATION OF THE OTHER TRADES AND TO PREVENT THE INSTALLED PRODUCT OF OTHER TRADES FROM PUTTING STRAIN ON THE INSTALLED WIRING.

#### 3.3 TESTING

- A. Submit a written test report from an authorized representative of the equipment manufacturer that the system has been 100% tested and approved. Final test shall be witnessed by Owner, Engineer, Electrical Contractor and performed by the equipment supplier. Final test report must be received and acknowledged by the Owner prior to substantial completion.
- B. Provide instruction as to proper use and operation of system, for the Owner's designated personnel.

#### 3.4 WARRANTY

A. Entire system shall be warranted against defects in materials and workmanship for a period of one (1) year from the date of substantial completion.

#### 3.5 SOFTWARE

A. Provide two electronic copies of the final programming and program software to the Owner's Security Supervisor after final approval.

**END OF SECTION 28 13 00** 



#### SUMMARY OF WORK – (ADM 4)

PART 1 - GENERAL

1.01 SUMMARY

A. General: Construction of BASE BID and Alternate portions of the work for <u>Clovis Unified District</u> <u>Office Expansion Phase 2 – Plant Operations</u>, Clovis, California. BASE BID and Alternate portions of the work are defined as all material, labor, equipment, and services necessary to do all work shown on the drawings and called for in the Specifications.

#### **General Summary of the Project**

The following information applies to all Bid packages and shall be reviewed carefully for inclusion in each bid. Following are critical logistics related to the Project:

- 1. Construction to include Phase 2 of Clovis Unified School District Office Expansion. This phase consists of new construction of (4) steel buildings. Buildings include structural steel and metal stud structure, metal siding, metal roof, and interior finishes. Site work consists of new site utilities, sidewalks, landscaping, and parking lots. The steel buildings are pre-engineered metal buildings and have already been designed. The buildings will be fabricated under another contractor and delivered to the site for installation under this contract. Refer to Steel Building Scope below for additional information.
- 2. This project will start prior to the completion of Phase 1 construction. Access to the site will be available at all times. However, construction activities will be taking place adjacent to this project.
- 3. All work for the project will be performed during the hours of 7:00a.m to 3:30p.m. Utility tie-ins may be required to be performed after hours.
- 4. Submittals and material procurement shall begin immediately upon award or letter of intent from the District.
- 5. Bid packages shall review the project completely prior to bidding the work.
- 6. Any substitution of details or materials must be pre-approved by the Architect, engineers, and DSA.

In addition to the summary of work for each Bid Package, the following will apply and become a part of the contract with each respective Bid package.

#### Storm Water Pollution Prevention Plan and Dust Control

- 1. Storm Water Pollution Prevention Plan (SWPPP) will become a part of the contract with each respective Bid Package. Initial SWPPP will be installed by the Earthwork Bid Package.
- 2. Provide BMP controls for own work, or as included in each bid package.
- 3. All work under each Bid Package shall comply with Air Pollution Control District Standards. Provide dust control and plan for own work.

#### Submittals and material procurement

- 1. Submittals and material procurement shall begin immediately upon award or letter of intent from the District.
- 2. Material procurement is critical and shall be diligently pursued to meet the contract schedule.

#### Contract

1. Please be advised that all successful bidders will be required to enter into a prime contract agreement with Clovis Unified School District.



#### Schedule

- 1. Bid packages shall review the project and schedule and site logistics plan completely prior to bidding the work.
- 2. The bid package will be required to provide a schedule and crew sizing showing how the work will be accomplished within the given time frame

#### **Crew Sizes**

1. All bid packages shall review the schedule and confirm that they can crew the project accordingly prior to submitting a bid. Include with each bid minimum and maximum crew sizes projected for the project.

#### **State Agency Requirements**

1. All work shall comply with OSHA requirements, SWPPP, and Air Pollution Control District.

#### Coordination of work

- 1. Coordination of work during the preconstruction period is equally as critical to resolving all issues prior to the start of work. Bid package shall review the project, coordinate, and question any issues to allow resolution prior to the start of work.
- 2. Review and verify all existing conditions. Property dimensions as shown are based on record information and should be field verified by a property surveyor prior to construction.
- 3. All bid packages shall attend coordination meetings and provide coordination drawings for underground and above ceiling work and for coordination of utilities, openings and other areas that require interface between trades. Note conflicts and provide potential solutions to the architect for review. Coordination and drawing approval must occur prior to excavation (and/or) overhead work. Bid packages shall attend a pre-installation meeting prior to the start of their work onsite. All bid packages shall be available for pre-installation meetings of other bid packages for coordination of related work.
- 4. Provide written request for information through the CM for layout information from related trades for all rough-in, embedded items, openings, and block-outs, etc.
- 5. Request and review all associated shop drawings for coordination and layout purposes prior to installation of related materials.
- 6. Coordinate all work with mechanical, plumbing, and electrical Bid package for shut down of services as needed. (48) hours notice is required prior to all shut down activities.
- 7. Review as-builts & underground locator survey & pothole utilities prior to starting work.

#### **Temporary Utilities:**

- 1. Temporary Construction Power will be provided by the Electrical Bid Package. Temp Construction Power to consist of the following:
  - a. Construction Trailers -
    - Connect to existing main switchgear (installed in Phase 1 scope of work). Install (1) 2" conduit underground from switchgear to construction trailers located in laydown yard. Install (1) 100A 3phase breaker in main switchboard and Install skid @ Construction Trailer with 480V-120/208V transformer and 200A Panel. Make connection at double wide trailers. Provide all conduit, wire, equipment necessary for a complete installation. Remove at completion of project.
  - b. Buildings A, B, C, & D -
    - Connect to existing main switchgear (installed in Phase 1 scope of work). Install (1) 100A 3phase breaker in main switchboard and Install (1) 2" conduit underground from switchgear to Building A. Install skid at Building A with 480V-120/208V transformer and 200A Panel. Provide temp power cords from Building A Panel with 2 spider boxes at the first



floor and 2 spider boxes at the second floor. Provide all conduit, wire, and equipment necessary for a complete installation. Remove at completion of project.

- At Building B, C, & D, run (1) 2" conduit underground to each building.
   Provide temp power to each building:
  - Provide (1) Spider box @ Building B
  - Provide (2) Spider boxes @ Building C (one at each end)
  - Provide (2) Spider Boxes @ Building D (one at each end)
- c. Temporary power boxes shall remain in service until completion of project or until permanent power is available at the buildings. All conduit and equipment shall be removed at completion of project.
- d. Provide inspection, testing and maintenance of temporary power system per OSHA regulations. Secure temporary power boxes from the end of each workday to the start of the next.
- e. Any additional power needed beyond what is described above shall be provided by the bid package in need.
- f. Lighting for own work areas to be provided by each package. Egress Lighting to be provided by electrical package. Locations per Electrical SOW.
- 2. Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.
- 3. Portable Toilets will be provided by the Construction Manager.

#### **Site Logistics:**

- Only company vehicles are allowed in the construction area. Personal vehicles will be confined to the designated parking lot on site. See access plan for specifics. No tool drop-off by personal vehicles will be allowed. Bid package to make provisions for transport or tool distribution needs.
- 2. Storage areas will be confined to the areas designated by the CM (see access plan). Staging areas around the building shall be coordinated with the CM. Storage onsite will be controlled due to limited space available.

#### General Items to be provided by each bid package:

- 1. Contact Underground Service Alert, and CUSD a minimum of (48 Hour Prior to Excavating or Digging).
- 2. Protect all work, new and existing, from damage until acceptance by owner.
- 3. Provide water and shade for own crews.
- 4. Furnish all access to roof for own work.
- 5. Provide dewatering for own work.
- 6. Furnish and install own floor protection (i.e., Tarps, plastic, plywood, etc.)
- 7. Furnish and install all physical layout for own work.
- 8. Each bid package will be responsible for removal from the site of all debris and spoils generated by each bid package. Daily clean up is required. Coordinate dumpster location with Construction Manager prior to setting. Comply with requirements of the plans and specifications for recycled content and reporting.
- 9. Secure all ladders and lifts each evening.
- 10. Provide protection of all roofing when own work requires access on the roofing systems.
- 11. Provide caution tape and/or barriers for open area work and traffic control.
- 12. Each bid package will be responsible for their wash out, wash out area as designated by the CM.
- 13. Provide hoisting/rigging for own work.
- 14. Review as-builts & underground locator survey & pothole utilities prior to starting work.
- 15. Contractors shall be responsible for encroachment permits and inspection fees related to the encroachment permits only. All other permits and fees will be paid by the District.
- 16. Contractors shall comply with codes listed in project plans.



- 17. Reference building commissioning specification for building systems to be commissioned.
- 18. Any substitution of details or materials must be pre-approved by the Architect, engineers, and DSA. All substitution requests must be submitted to MWC prior to bid. This Bid Package is responsible for all costs and time delays required for substitution approval.
- 19. Contractors shall schedule deliveries of equipment and materials separately for their installation in each building with CM. Materials shall not be stored on-site until the respective installation activity begins at each building. If warehousing of contractor equipment or materials is necessary, the contractor shall secure a bonded location and include such cost within the base bid amount.
- Provide protection for workers during own work activities at elevated installations per OSHA regulations.
- 21. Furnish and install street cleaning for own scope of work as necessary. Any mud/debris will need to be cleaned up immediately as needed by the Bid Package responsible.
- 22. Provide copy of daily reports to Construction Manager each day work is performed on site.
- 23. Provide copy of weekly safety meeting sign in sheet to Construction Manager each week work is performed on site.
- 24. Provide copy of IIPP to the Construction Manager.

#### DISTRICT PROVIDED SURVEY & UNDERGROUND LOCATING (FOR REFERENCE ONLY)

Provide Field Engineering/Survey Services per the following for Site and Offsite work:

#### **Specific Requirements**

- 1. Provide move-ins for each section of work as listed on the Project Baseline Schedule.
- 2. Calc trenching near footings to be outside angle of repose.
- 3. Furnish and install all survey for onsite work.
- 4. Verify digital files provided by design team are the bid set documents prior to use.
- 5. Verify and stake property dimensions prior to construction.
- 6. Stake limit of second phase of construction.
- 7. Provide UG utility coordination and attend coordination meetings. Provide color coded clash detection drawing. Confirm there are no clashes between utilities nor trees, fence posts, poles, etc. Provide solutions to conflicts,

#### **Earthwork:**

- 1. Stake construction access roads, construction laydown yard, Temporary power panel location, and construction trailer locations to confirm locations do not conflict with new utilities or electrical service.
- 2. Establish a minimum of two permanent horizontal and vertical control points on the site, remote from the building area. Referenced to data established by survey control points.
- 3. Staking for over excavation limits of Building pads.
- 4. Staking of parking lot curbs with offset determined by concrete bid package.
- 5. Staking of streets, swales, and grade breaks.
- 6. Certify site grades after completion of rough grading.
- 7. Certification of site grades at project completion.

#### **Under Ground Utilities:**

- 1. Staking of all electrical and low voltage vaults, boxes, and fixtures horizontal and vertical.
- 2. Staking of all storm drain lines (manholes) and drain inlets, sewer lines and cleanouts (50'); domestic water, fire water, Irrigation service and backflow, vaults, EV charging stations, (as required for excavation and installation horizontal and vertical) at the site.



- 3. All valve locations.
- 4. Stake all site lighting and camera poles.
- 5. Stake all fire Hydrants, check valves, FDC, and PIV locations.
- 6. Stake all irrigation sleeves, and irrigation services.
- 7. Stake all lateral tees and POC's at all Buildings for all utilities.
- 8. Certify rough grade after each utility installation.
- Coordinate and stake for temp construction power pathways (see attached temp power plan)
- 10. Provide UG utility coordination and attend coordination meetings.

#### **Site Concrete Work:**

1. Staking for all concrete walks, curbs, gutters, mowstrips, signs, walls, equipment pads, bike racks/lockers (ADM 4), etc. except concrete that can be determined off the edge of buildings.

#### Fencing:

- 1. Staking of chain link and ornamental fences and gates.
- 2. Staking for CMU fencing and trash enclosure.
- 3. Staking of fence mow strips horizontal and vertical.

#### **Buildings:**

- 1. Provide 1 permanent horizontal and vertical control point at each building.
- 2. Staking for building corners determined by concrete bid package.
- Provide survey for all building grid lines at building pad, reference points and radiuses as required.
- 4. Certify Building pads.
- Certify steel column anchor bolts prior to concrete placement horizontal and vertical.

#### **Documents:**

- 1. Cut sheets and reference drawings for all stake items.
- 2. Clash detection coordination study prior to site utility installation.
- 3. Color coded as-builts snapped off buildings.

#### **Underground Locating:**

1. Provide GPR underground locating for phase 2 portion of site. Provide dimensioned color coded document at completion of scan showing all utilities found.

#### **End of Survey Scope**

#### DOF-01 – Earthwork, Paving, and Demolition

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

#### **Specification Sections**

DIVISION 00 DIVISION 01

000000 CURCUREA CE

023000 SUBSURFACE INVESTIGATION

311100 SITE CLEARING

312000 EARTHWORK

312005 TRENCHING

315000 EXCAVATION SUPPORT AND PROTECTION

321216 ASPHALT PAVING

321218 ASPHALT PAVING SEALING



321700 PAVING SPECIALTIES
441113 FUGITIVE DUST CONTROL (AS APPLIES)
Geotechnical Report

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- 1. Furnish and install all layout for own work from survey provided by the district. See survey scope of work for reference. This bid package will be responsible for all additional layout not performed by the survey contractor.
- 2. There will be one wash-out area for each bid package as designated by the Construction Manager. Each bid package will be responsible for removal from the site of all debris generated by each bid package.
- 3. Provide all backfill of excavations to original sub-grade for work included in this bid package.
- 4. Provide all power for own work.
- 5. Provide dewatering for own excavations.
- 6. Protect survey stakes for own work and maintain until installations are complete.
- 7. Protect existing concrete curbs/lighting/drain inlets/hydrants/stubbed utility to remain. Install/maintain/remove snow fencing protection as required.
- 8. Review UG locator, and coordination drawings prior to demolition and advise of any conflict between existing utilities and demo scope.
- 9. Perform re-compaction of fill materials in accordance with Geotech report recommendations or specifications. Perform over excavation at building areas in accordance with Geotech report recommendations.
- 10. See General Notes at beginning of summary of work specification section for other items.

#### **Coordination with Other Trades**

- 1. Coordinate and allow access to building pads for building related scope of work (concrete, plumbing, utilities, electrical)
- 2. Utilize all excess material spoils from utilities and foundations to complete grading. Other bid packages shall dump spoils at a designated location for grading by this bid package. Figure additional move-in to utilize stockpiled material for fine grading and to remove excess material at completion of fine grading.
- 3. Obtain all permits required to perform the work. SWPPP will be obtained by the District and installed by this bid package.

#### Furnish and Install Items

- 1. Furnish and install all clearing/stripping/grubbing, demolition, grading, paving, parking lot sealer, striping, and site signage for the project complete.
- 2. Provide own means of water supply for use during construction. If water tank is preferred, coordinate exact location onsite with CM. Provide temp water meter for own work. All costs associated with temp water usage shall be the contractors responsibility.
- 3. Furnish, install, and remove at completion of project, all temporary SWPPP BMPs for the project complete. See SWPPP included in bid documents.
- 4. Furnish and install all cut/fill necessary to perform work. Offhaul all excess spoils from site



- to offsite property owned by Clovis Unified. Location to be at South-East corner of Minnewawa and International Aves. Contractor to spread spoils evenly across site so no piles are present. Coordinate access to site with CUSD.
- 5. Provide all sawcut as shown for demolition and remove asphalt/concrete as shown. Include additional sawcut (and additional demo if needed) at completion of project for any existing asphalt that may have been damaged during construction. Provide permanent asphalt patchback at any asphalt removed for curb/gutter or utility installation.
- 6. Furnish and install street and onsite parking lot cleaning for own scope of work as required by municipal ordinance.
- 7. Grade all earthwork to within tolerances specified.
- 8. Sand and vapor barrier to be furnished and installed by concrete package at the buildings only. All other materials shall be provided by this bid package.
- 9. Furnish and install fine grading of the site on separate move-ins (as scheduled by the construction manager) to accommodate the site concrete & mow strips installation. Coordinate backfill and final fine grading activities with the concrete bid package to eliminate damage to new site concrete.
- 10. Furnish and install all grading and swales for landscape to  $\pm$  .10'.
- 11. Maintain and protect building pads to within tolerance, elevation, moisture, weed free and compaction until accepted/received by the concrete package as noted in the schedule.
- 12. Furnish, install, maintain, and remove all temp access roads, staging, paved runoff area, and lay down areas as scheduled/directed by the CM and shown on the site logistics plan. See Site logistics plan for actual material, dimensions, and thickness required. Furnish, install, maintain and remove (1) controlled entrance per site logistics plan. Include 3 mobilizations to maintain controlled entrance stations as requested by the CM throughout construction.
- 13. Perform site stripping/grubbing in accordance with geotechnical report recommendation.
- 14. Furnish and install excavation of mow strips and thickened sections for site concrete.
- 15. Furnish and install backfill of mow strips, walks, curb, curb & gutter, planter, and turf areas.
- 16. Furnish and install additional cut at heavy duty concrete and paving areas. Provide compacted ag base at heavy duty concrete areas.
- 17. Furnish, install, and maintain traffic control for work included in this bid package.
- 18. Provide cleaning of asphalt paving areas prior to installation of final lift and at the end of the project for sealing (coordinate with the CM) per the schedule.
- 19. Flood test all A.C. paving prior to sealing. Provide for minor patching of asphalt at completion of project prior to sealing asphalt.
- 20. Furnish and install all site signage, striping, and concrete at posts at site complete.
- 21. Furnish and install painted curbs with lettering.
- 22. Furnish and install all wheel stops as shown.
- 23. Furnish and install certification of final grading to confirm grades prior to landscape.
- 24. Provide caps/impalement protection for any impalement hazards such as concrete stakes, rebar, bolts, conduit, pipe, etc. Protection shall remain in place until impalement hazard is eliminated.
- 25. Include in base bid additional grading and removal of 2200 cubic yards of extra dirt. This added dirt was placed onsite by the Phase 1 earthwork contractor after the topo provided in the design drawings was completed. In addition to removing the added spoils, this bid package shall also be responsible for grading and offhaul of spoils in



the area between Civil Sheet 5 of 35 and Herndon Ave. This portion of dirt is not identified in the contract documents. This area shall be graded flat and tie into surrounding adjacent elevations. This portion of work will not be available to complete until the FID work along Herndon Ave (installed under a separate contract) is complete. This work is currently estimated to be completed by the end of February.

#### **FOB Items**

1. None.

#### Installation of FOB Items

1. None.

#### **End of Bid Package**

#### **DOF-02 - Site Utilities**

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

#### **Specification Sections**

**DIVISION 00 DIVISION 01** 023000 SUBSURFACE INVESTIGATION 312005 TRENCHING (AS APPLIES) 315000 EXCAVATION SUPPORT AND PROTECTION (AS APPLIES) 331000 WATER DISTRIBUTION 333000 SANITARY SEWERAGE 334000 STORM DRAINAGE FACILITIES 441113 FUGITIVE DUST CONTROL (AS APPLIES) GEOTECHNICAL INVESTIGATION REPORT

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

No. 1

- 1. Furnish and install all layout for own work from survey provided by the district. See survey scope of work for reference. This bid package will be responsible for all additional layout not performed by the survey contractor.
- 2. Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.
- 3. Furnish and install all sleeves in masonry, concrete, and foundations prior to the installation of concrete and reinforcing steel. Coordinate location with other related bid packages prior to excavation.
- Furnish off-haul of all excavation spoils upon compaction of trench sections to point 4. onsite as directed for work included in this bid package. Earthwork package to use spoils for completion of import materials. Provide spoils amount for this contract to Earthwork bid package within 10 days of award of contract.
- 5. There will be one wash-out area for each bid package as designated by the



Construction Manager. Each bid package will be responsible for removal from the site of all debris and spoils generated by this bid package.

- 6. Provide dewatering for own excavations.
- 7. Provide trench shoring as required.
- 8. Provide trench plates at excavation as required to allow access for other trades.
- See General Notes at beginning of summary of work specification section for other items.

#### **Coordination with Other Trades**

- Provide coordination drawings for underground work related to this bid package. Coordinate all drawings with the drawings of other bid packages. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to excavation and/or installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work. Provide a detailed site work schedule to coordinate with other utilities.
- 2. Coordinate all work to provide access to buildings for other trades as scheduled. Provide an underground utility schedule of where and when piping operations will be performed. Coordinate with other activities in the schedule for other trades and confirm the schedule meets the CMBS dates.
- 3. Building Plumbing bid package shall make physical connections to site utilities except the storm drain connection to downspouts at Building A. This package will be responsible for final connection.
- 4. Purity tests are required on all water system installations. Contractor to coordinate with the Authority having jurisdiction.
- 5. Clean and disinfect all site piping. Create disinfection plan and coordinate with building bid packages to allow for complete and maintained disinfection of the entire system until acceptance by owner. Building Plumbing bid package will be responsible for cleaning and disinfection of building piping.
- 6. At conflicts with electrical duct banks, electrical duct banks are to have the lower elevations.
- 7. Provide trenching plan and permits for excavations over 5' per OSHA requirements to the construction manager.
- 8. Installation of irrigation sleeves shall be by the Landscape/Irrigation Bid package.
- 9. Coordinate locations of all valve boxes and manholes away from doorways.
- 10. Coordinate location of site utility installations with location of building structure foundations to maintain clearance outside the foundation angle of repose.
- 11. Protect survey stakes for own work and maintain until installations are complete.
- 12. Coordinate with fire sprinkler contractor for POC at building riser locations.
- 13. Coordinate site utilities to miss all other site improvements including landscaping.
- 14. Provide detailed schedule for all work included in this bid package.

#### **Furnish and Install Items**

- 1. Furnish and install street and onsite parking lot cleaning for own scope of work as required by municipal ordinance.
- 2. Obtain and cover all associated costs for traffic control plan for own work. Provide daily maintenance as necessary.
- 3. Furnish and install all underground utilities onsite. Obtain and pay fees for encroachment permits as required. Any demo at gutters/approaches shall be temporarily addressed/modified to prevent standing/interrupted water flow. Certify grades have been returned to original grade. Special conditions are as follows:
  - a. Furnish, install, and maintain 2x4 marker stakes indicating end and depth of service



- for connection by other bid packages. Provide as-built points for each end of service on as-built drawings. Should inaccurate information be recorded, this bid package will be responsible for the costs of locating the end of service.
- b. Pothole and confirm locations of existing plumbing utilities prior to excavation and maintain marking during construction.
- c. Fire Water-Furnish and install all fire line piping complete with stub into all buildings per plan AFF. Stub with flange fitting, and cap for Fire sprinkler contractor. Furnish and install all detector check valves, FDC's, PIV's, christy boxes, required cages, and fire hydrants, paint per local authority standards. Coordinate fire alarm connections to be installed by the electrical bid package.
- d. Storm Drain, Sewer, and Domestic Water Install all utilities to designated locations on site, or capped to within 5' of building, or designated POC for hook up by other building package except for the storm drain connection to downspouts at Building A. This package shall make final connection to downspouts. Coordinate with Metal Building package. Furnish and install shut off valve at all POCs.
- e. Landscape Irrigation line Site Irrigation main lines to be installed by the irrigation bid package.
- 4. Furnish and install Sand Oil Interceptor.
- 5. Furnish and install hose bibbs at site complete per detail D on sheet 25 of 35.
- 6. Furnish and install all backfill and compaction of excavations to original subgrade for work included in this bid package.
- 7. Furnish and install all concrete required for installation of thrust blocks, manholes, vaults, boxes, underground structures, for work related to this bid package.
- 8. Furnish, install, and maintain protection of work included in this bid package from damage and intrusion of dirt and / or debris into the piping systems for the length of the project per the SWPPP. Protection shall allow use, as directed by the District, of the underground utility systems during construction for construction and testing operations without the start of the warranty period until the notice of completion for the project. Any dirt/debris that enters storm drain piping shall be removed and cleaned by this package at completion of project prior to owner turnover. Set inlets to allow drainage until site finishes are installed. Raise to proper elevation prior to installation of site concrete finishes. Raise all site utilities to grade in paving areas once paving is complete. Provide all patch back as necessary.
- 9. Furnish and install all signage and lettering called for in the contract documents related to work of this bid package.
- 10. Provide camera/ video inspection of all sewer and storm drain piping to show proper flow and cleanliness. Provide video to owner for review prior to final acceptance of the project. This is for piping larger than 6".
- 11. Furnish and install caps with appropriate fittings at any utilities that call to be stubbed for future.
- 12. Adjust all new and existing utility boxes/structures to grade in landscape and concrete/ac-paving areas.
- 13. Provide caps/impalement protection for any impalement hazards such as concrete stakes, rebar, bolts, conduit, pipe, etc. Protection shall remain in place until impalement hazard is eliminated.

#### **FOB Items**

1. None.

#### Installation of FOB Items

1. None.



#### **End of Bid Package**

#### DOF-03 - Concrete (W/Rebar)

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

#### **Specification Sections**

specification sections	
DIVISION	1 00
DIVISION	101
023000	SUBSURFACE INVESTIGATION
031512	POST INSTALLED CONCRETE ANCHORS
033000	CAST-IN-PLACE CONCRETE
033518	CONCRETE CURE-SEALER-HARDENER
033910	TOPICAL CONCRETE VAPOR CONTROL BARRIER
071326	SELF-ADHERING SHEET WATERPROOFING
072616	UNDERSLAB VAPOR RETARDER
079200	JOINT SEALANTS
313116	TERMITE CONTROL
321313	CONCRETE PAVING AND WALKS
321373	CONCRETE PAVING JOINT SEALANTS
321700	PAVING SPECIALTIES
441113	FUGITIVE DUST CONTROL (AS APPLIES)
No. 1	GEOTECHNICAL INVESTIGATION REPORT

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- Furnish off-haul of all excavation spoils to point onsite as directed for work included in this bid package. Earthwork package to use spoils for completion of import materials. Provide spoils amount for this contract to Earthwork bid package within 10 days of award of contract.
- 2. There will be one wash-out area for each bid package as designated by the Construction Manager. This bid package will be responsible for removal from the site of all debris generated by this bid package.
- 3. Provide all backfill of excavations to original sub-grade for work included in this bid package.
- 4. Provide all clean up and provide off-haul of own debris from site.
- 5. Provide dewatering for own excavations.
- 6. Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.
- 7. See General Notes at beginning of summary of work specification section for other items.



- 1. Review and coordinate layout for all blockouts in concrete as shown in the contract documents, related shop drawings or written layout provided by other bid packages. Coordinate locations with related bid packages prior to installation.
- 2. Coordinate dimensions with other related bid packages of all equipment and housekeeping pads. Pad sizes shall be provided by other bid packages and physically laid out and installed by this bid package.
- 3. This bid package will receive all building pads and site at tolerances listed in earthwork specification. This package will be responsible for all additional cut and fill necessary to complete the work of this bid package.
- 4. Provide access to other trades through reinforcing steel for installation of their work at building lines. If reinforcing steel needs to be bent in order to allow access, this contractor shall drill and epoxy new rebar as required through written direction from the engineer.
- 5. Provide layout drawings for all site and building concrete joints for approval prior to installation of concrete.
- 6. Receive and coordinate written layout from other bid packages for items embedded in or passing through concrete. All sleeves are to be installed by the utility bid packages.
- 7. Coordinate all embedded items within work included in this bid package that are to be installed at a later time such as fences, posts, etc.
- 8. Coordinate installation of all sleeves for work passing through masonry/concrete work with respective bid packages prior to excavation. Coordinate guardrail/handrail layout with steel contractor.
- 9. Coordinate all work to provide access to buildings for other trades as scheduled.
- 10. Install and coordinate block-outs at the site concrete to facilitate installation of fine grading by Earthwork Bid Package and to protect concrete until fine grading is complete. Complete site concrete block-outs once fine grading is complete. Backfill and fine grade once block-outs have been poured.
- 11. Earthwork bid package shall hold back earthwork at concrete foundations, footings, etc.. Coordinate hold back dimension with the Earthwork Bid Package of earthwork grading to allow installation of curb/gutter, trash enclosure walls, etc. Backfill by this package.
- 12. Electrical and site utility bid package shall furnish and install all concrete required for installation of thrust blocks, manholes, vaults, boxes, underground structures, for work related to their bid package.
- 13. Irrigation sleeves will be installed by the irrigation bid package. Coordinate schedule.
- 14. Coordinate the location of depressions, block outs, slopes, and drains prior to pour. Coordinate depressed and sloped floors in restrooms and sloped floors at accessible showers with flooring contractors and plumbing contractor for slope to drain.
- 15. Coordinate and provide floor flatness to comply with concrete specification standards.
- 16. Physically layout and install all blockouts, openings, etc. in concrete from written layout provided by other contractors for installation of their work.
- 17. Protect survey stakes for own work and maintain until installations are complete.

#### **Furnish and Install Items**

- 1. Furnish and install all building and site concrete complete including required excavations and rebar. Maintain building pad moisture content at building slab-ongrade areas after acceptance of building pads from earthwork contractor in compliance with geotechnical report recommendation.
- 2. Furnish and install backfill for own work.
- 3. Provide Excavation of elevator pit. After placement of walls, provide required backfill.



- 4. Furnish and install waterproofing where required.
- 5. Furnish and install street and onsite parking lot cleaning for own scope of work as required by municipal ordinance.
- 6. Obtain and cover all associated costs for traffic control plan for own work. Provide daily maintenance as necessary.
- 7. Furnish and install all sand and vapor barrier as detailed at concrete SOG.
- 8. Furnish and install all CMU foundations including excavation and rebar with lap splice per contract docs for continuation by masonry contractor. Layout of vertical rebar to be provided by CMU contractor.
- 9. Furnish and install **ALL** pipe bollards shown throughout contract documents.
- 10. Furnish and install saw cuts in slabs with joint filler. Provide shop drawings for review prior to installation.
- 11. Furnish and install all concrete collars as required for site utilities including but not limited to: cleanouts, valves, pull boxes, vaults, etc.
- 12. Furnish and install light pole bases including excavation, concrete, reinforcing steel and backfill. Bolts provided by Electrical Package.
- 13. Furnish and install all grouting and/or dry pack for structural steel and misc. iron and light pole bases.
- 14. Furnish and install excavation, rebar and concrete fill of deepened foundations and rebar for all utilities passing through foundations from physical layout provided by others.
- 15. Furnish and install all concrete equipment & housekeeping pads, supports and foundations for fixtures and equipment. Non-concrete supports are by respective bid packages.
- 16. Furnish and install concrete foundation at dust collector and duct supports.
- 17. Furnish and install all handicap ramp truncated domes.
- 18. Furnish and install trash bin enclosure concrete complete including CMU wall foundations.
- 19. Furnish and install blockouts for steel. Cover and protect until steel and concrete placement.
- 20. Furnish and install Integral Concrete Floor Moisture Vapor Emission Control System as shown.
- 21. Furnish and install termite control at buildings.
- 22. Furnish and install saw cuts in slabs with joint filler. Provide shop drawings for review prior to installation.
- 23. Furnish and install sealant at concrete floors, building concrete to concrete and concrete to masonry.
- 24. Furnish and install all drypacking at structural steel.
- 25. Furnish and install cleaning, dewatering and protection of anchor bolts until turn over to structural steel erection or setting of leveling nuts.
- 26. Provide all cut required for minor depressions for tile and slopes to drain.
- 27. Protect all slab block outs for other trades working in the area.
- 28. Furnish and install all floor prep for floors out of tolerance to comply with concrete specification standards.
- 29. Furnish and install concrete floor hardener and concrete sealer at sealed floors.
- 30. Furnish, install, maintain, and remove floor protection at all exposed Building floors until sealed concrete finish is complete.
- 31. Provide caps/impalement protection for any impalement hazards such as concrete stakes, rebar, bolts, conduit, pipe, etc. Protection shall remain in place until impalement hazard is eliminated.
- 32. Furnish and install concrete at steel stair pans.



Furnish and install concrete and wire mesh at second floor deck.

#### **FOB Items**

1. None.

#### Installation of FOB Items

### Note. Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this bid package:

- 1. Install all sleeves, handrails, queuing rails, traffic rails, guard rails complete including grout embedded in concrete as provided FOB jobsite.
- 2. Install all items embedded in concrete (i.e., anchor bolts, hold downs, plates, ledgers, angles, non-bolted tube steel, rails, sleeves, pipe rail, poles, etc.) as provided FOB jobsite by other bid packages from written layout provided by those bid packages.
- 3. Install light pole anchor bolts and templates furnished FOB by the electrical contractor.
- 4. Install and remove when complete all bolt templates provided by other bid packages.
- 5. Install embedded fence accessories FOB by fencing contractor.
- 6. Install FOB guard rails at building drinking fountains.
- 7. Install all framing sill bolts and hold down bolts as provided FOB by the framing package. All layout will be furnished and installed by the framing package.

#### **End of Bid Package**

#### DOF-04 - Building Steel & Fabrications / Metal Roofing & Siding

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

#### **Specification Sections**

**DIVISION 00** 

DIVISION 01

051200 STRUCTURAL STEEL FRAMING

053100 STEEL DECKING

054000 COLD-FORMED METAL FRAMING (ADM 4)

055000 METAL FABRICATIONS

055133 METAL STAIRS

055133 METAL LADDERS

055213 PIPE AND TUBE RAILINGS

057300 DECORATIVE METAL RAILING WITH PERFORATED INFILL

072114 THERMAL FOAM PLASTIC BOARD WALL INSULATION

074113 INSULATED METAL ROOF PANELS

074213 INSULATED METAL WALL PANELS

074213.1 PREFORMED METAL WALL PANELS

076200 SHEET METAL FLASHING AND TRIM

089000 LOUVERS

133419 METAL BUILDING SYSTEMS

441113 FUGITIVE DUST CONTROL (AS APPLIES)

Refer to additional related specifications sections for work specifically included in this bid package noted below.



#### **General Items**

- 1. Provide erection plan prior to erection of buildings.
- 2. Provide protection of utilities from cranes and equipment. There will be no crane access on the slab.
- 3. See General Notes at beginning of summary of work specification section for other items.
- 4. Provide all hoisting/rigging for work in this bid package.
- 5. Provide all clean up and off-haul of own debris from site.
- 6. Provide temp power for own work beyond what is provided by the electrical bid package. Refer to Electric Bid Package for specific information.
- 7. Provide off loading for all FOB items in areas as designated by the CM.

#### **Coordination with Other Trades**

- 1. This package shall coordinate delivery and unloading of pre-engineered metal building. Review and inventory all material to confirm correct material count is received.
- 2. Provide coordination drawings for above ceiling work and openings for work related to this bid package. Coordinate all drawings with the drawings of other bid packages. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.
- 3. Provide a written crane access plan, laydown areas, and movement schedule for coordination with other contractors. Refer to site logistics plan for crane access to buildings. Stabilization of base under erection crane shall be the responsibility of the steel erection contractor if location of crane is outside of access road to buildings. Cranes shall not be allowed on building slabs. Provide non-marking tires for lift equipment on building slabs.
- 4. Provide setting plan to concrete contractor and certify all anchor bolt layout at least 21 days prior to erection of structural steel. Report any bolts out of tolerance to the construction manager for correction by the concrete bid package.

#### **Furnish and Install Items**

- 1. Furnish and install street and onsite parking lot cleaning for own scope of work as required by law municipal ordinance.
- 2. The intent is for this package to provide and install all steel for the project not provided or fabricated by the Metal Building Manufacturer. Furnish and install all steel called for on Teter drawings **NOT** identified as "provided by Metal Building Manufacturer" or identified on Metal Building Drawings as "Not BY MBS" including but not limited to:
  - Elevator hoist beam
  - Hoist beams in shops
  - Guardrails/handrails
  - Additional Purlins/Girts
  - Steel "C" Channel and support channels
  - Steel stairs including stringers, landings, support angles, support columns/beams, etc.
  - Furnish and install all support angles, bolts/washers/nuts, and support clamps shown on MBM drawings necessary for installation that are excluded by MBM.
  - Furnish and install all steel angle/embeds/columns/beams/support



- plates/bent plate/connection bolts for elevator not identified as provided by MBM.
- Furnish and install all exterior trim, coping cap, gutters, hat channel, and flashings complete including all flashings related to roof, rake parapet trim, wall panels, soffits, doors, windows, penetrations, mechanical equipment, etc.
- Furnish and install all exterior metal panels including walls, roof, soffits, etc.
- 3. Furnish and install all sealant/caulking/backer rod/butyl tape/etc as called for at exterior envelope excluding storefront openings.
- 4. Furnish and install weather resistive barrier at building exterior complete.
- 5. Furnish and install all collector boxes and downspouts complete including any necessary brackets and hardware. Final connection at Building A to site storm drain to be performed by the Site Utility Package.
- 6. Furnish and install overflow drains.
- 7. Furnish and install rigid insulation at building exterior.
- 8. Furnish and install metal louvers at building exterior including bug screens.
- 9. Physically layout and install all block outs, openings, bracing and holes in steel from written layout provided by other bid packages.
- 10. Furnish and install perforated metal panels at railing.
- 11. Furnish and install expandable foam where required.
- 12. Furnish and install all primer touch up at welding at structural steel and where chipping occurs from shipping /installation prior to acceptance by painting contractor.
- 13. Set leveling nuts at anchor bolts to the proper elevation for structural steel installation, assume protection of bolts from the concrete contractor.
- 14. Furnish and install all pipe rails, handrails, hold open posts / rails, and guard rails not directly embedded in concrete or masonry.
- 15. Furnish and install all drilling, epoxy of bolts and wedge anchors for steel and misc. iron at concrete and CMU.
- 16. Furnish and install all misc. iron & angles attached to concrete and masonry. Provide attachment if not shown to be embedded.
- 17. Furnish and install all roof hatch access ladders.
- 18. Furnish and install structural steel support for exterior duct at dust collector per 2/M801.
- 19. Furnish and install elevator pit ladder. (ADM 4)
- 20. Furnish and install angle at elevator per detail 17 on A870.
- 21. Furnish and install all attachment devices for handrails.
- 22. Furnish and install temp railing or cabling at all second floor openings and roof edge. Leave in place until fall hazard is gone. Remove when requested by CM.
- 23. Provide temporary stair access to second floor and roof until permanent stairs are installed.
- 24. Provide caps/impalement protection for any impalement hazards such as concrete stakes, rebar, bolts, conduit, pipe, etc. Protection shall remain in place until impalement hazard is eliminated.

#### **FOB Items**

1. STEEL BUILDING BOLTS ARE NOT PROVIDED BY STEEL BUILDING SUPPLIER. This package shall furnish FOB jobsite all bolts and bolt templates for all patterns (made of steel) assembled with bolts, nuts, and washers ready for use/installation by the concrete bid package. Deliver, and off-load in an area designated by the CM all templates/anchor bolts for steel columns assembled to the jobsite. Predrill holes



- oversized for bolt installation. Provide acceptance of anchor bolt installation prior to setting steel columns.
- 2. Furnish FOB jobsite all associated sleeves for fencing, handrails, and guard rails, etc.... and provide physical layout for installation by the concrete bid package.
- 3. Furnish FOB Jobsite all casework and countertop support brackets.
- 4. Furnish FOB guard rails at building drinking fountains.
- Predrill holes for fabricated fasteners. Coordinate layout for holes with framing contractor.
- 6. Furnish threshold and slab edge angles to concrete package.

#### Installation of FOB Items

1. Install Metal Building complete provided FOB jobsite by Metal Building Supplier. See Metal Building Plans for complete scope required.

#### **End of Bid Package**

#### DOF-05 - Casework

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

#### **Specification Sections**

**DIVISION 00** 

**DIVISION 01** 

031512 POST INSTALLED CONCRETE ANCHORS (AS APPLIES)

064116 PLASTIC LAMINATE CASEWORK

064118 SOLID SURFACE COUNTERTOPS

064600 ARCHITECTURAL WOOD TRIM

079200 JOINT SEALANTS

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- 1. Provide all clean up and provide off-haul of own debris from site.
- 2. See General Notes at beginning of summary of work specification section for other items
- Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.

#### **Coordination with Other Trades**

- Due to schedule constraints field measuring should be considered at wood framing stage in lieu of after all drywall and finishes are complete. Review the schedule to determine necessity relative to fabrication times. If measurement is required at the framing stage, provide measurement to meet the schedule and figure all associated finishes.
- 2. Coordinate at the jobsite all plumbing and electrical locations during rough-in activities to assure proper fit at time of casework and equipment installation.
- 3. Confirm ADA clearance for knee space at sink closure panels.
- 4. Coordinate with Building Plumbing Bid Package for sink openings in countertops.



5. Confirm cabinet lock and keyway with school district and CM.

#### Furnish and Install Items

- 1. Furnish and install all openings in casework and tops for other trades.
- 2. Furnish and install cable holes and grommets as laid out by District.
- 3. Furnish and install all floor anchorage, angles, and floor blocking for casework. Backing in wall to be provided by the Framing Bid Package.
- 4. Furnish and install rough wood carpentry framing incorporated into casework.
- 5. Furnish and install all attachment of all equipment related to this scope of work.
- 6. Furnish and install wall cap per detail 2 on A861.
- 7. Furnish and install wood walls incorporated into casework.
- 8. Furnish and install solid surface countertops.

#### **FOB Items**

1. None.

#### Installation of FOB Items

1. None.

#### **End of Bid Package**

#### DOF-06 - Drywall & Metal Framing

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

#### **Specification Sections**

DIVISION 00 DIVISION 01

# 054000 COLD-FORMED METAL FRAMING (ADM 4) 061600 PLYWOOD PANEL SHEATHING 061643 EXTERIOR GYPSUM SHEATHING 078413 PENETRATION FIRESTOPPING (AS APPLIES) 092116 GYPSUM BOARD SHAFT WALL ASSEMBLIES 092216 NON-STRUCTURAL METAL FRAMING

092900 GYPSUM BOARD 079200 JOINT SEALANTS

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- 1. Provide permits for scaffolding as required.
- 2. There will be one wash-out area for each bid package as designated by the Construction Manager. Provide wash out for own installations.
- 3. Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.
- 4. Provide clean up daily and off-haul of all debris generated by this bid package.
- 5. See General Notes at beginning of summary of work specification section for other



items.

#### **Coordination with Other Trades**

- Coordinate all drawings with the drawings of other bid package. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.
- 2. Physically layout and install all drilling, block outs, openings, holes, etc. from written layout provided by other contractors for installation of their work.
- 3. Coordinate and provide wall flatness with wall finish trades to comply with product installation standards.

#### Furnish and Install Items

- 1. Furnish and install all metal framing, drywall, taping/texturing, cement board, and sealant systems as called for in the contract documents.
- 2. Furnish and install all exterior sheathing.
- 3. Furnish and install drywall for fire rated assemblies at general specialty, electrical, plumbing, and mechanical utilities, and fixtures.
- 4. Furnish and install all plywood sheathing including metal trim at all shop walls.
- 5. Furnish and install all wood blocking/framing/backing as called for.
- 6. Furnish and install wood bumper boards inside trash enclosure per 22/Sheet 22 of 35.
- 7. Furnish and install signage per CBC 703.7 marking and identification at all rated walls.
- 8. Furnish and install all clips for framing to attach to steel.
- 9. Furnish and install 3/16" less thickness drywall over plumbing fixture support plates to create flush wall.
- 10. Furnish and install shaft wall and fire stop sealant at elevator shaft.
- 11. Furnish and install primer coat at gypsum board as called for in the specifications. Confirm all primer is compatible with final finish system.
- 12. Furnish and install all sealant at gyp board to other material transitions.
- 13. Furnish and install temporary heat and fans as needed for taping/texture activities to meet project schedule.
- 14. Protect and keep floors clean through completion of work.
- 15. Furnish and install metal stud backing for electrical panels being surface mounted on metal stud walls.
- 16. Provide caps/impalement protection for any impalement hazards such as concrete stakes, rebar, bolts, conduit, pipe, etc. Protection shall remain in place until impalement hazard is eliminated.

#### **FOB Items**

1. None.

#### Installation of FOB Items

1. Install countertop support brackets furnished by Steel Package.

#### **End of Bid Package**

#### DOF-07 - Glass, Glazing, & Storefronts

Furnish and install all work specifically required throughout the project documents to complete the work of this prime-contractor that specifically includes, but is not limited to the following:



#### **Specification Sections**

DIVISION 00

DIVISION 01

076200 SHEET METAL FLASHING AND TRIM (AS APPLIES)

079200 JOINT SEALANTS

084113 ALUMINUM FRAMED ENTRANCES AND STOREFRONTS

085113 ALUMINUM WINDOWS

087100 DOOR HARDWARE (AS APPLIES)

088000 GLAZING

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- 1. Any substitution of details or materials must be pre-approved by the Architect, engineers, and DSA. All substitution requests must be submitted to construction manager prior to bid. This contractor is responsible for all costs and time delays required for DSA approval.
- 2. Provide clean up daily and off-haul of all debris generated by this bid package.
- 3. Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.
- 4. See General Notes at beginning of summary of work specification section for other items.

#### **Coordination with Other Trades**

- 1. Submit shop drawings & procure material so as not to delay the scheduled installation of siding and drywall.
- Order windows based on guaranteed rough opening dimensions from the framing contractors.
- Confirm keyway with school district and Construction Manager.

#### Furnish and Install Items

- 1. Furnish and install all glass and glazing shown throughout the contract documents.
- 2. Furnish and install all storefront, and alum windows systems complete.
- 3. Furnish and install glass at door lights. Remove and reinstall screws for stops.
- 4. Furnish and install sealants at all aluminum windows and storefront at interior and exterior.
- 5. Furnish and install all aluminum flashing, break metal, and flexible flashings as required to provide a complete water tight system.
- 6. Furnish and install all hardware for aluminum storefront doors and frames.
- 7. Provide all water testing of windows per the specifications.
- 8. Furnish and install wood shim spacers at storefronts.
- 9. Furnish and install ram board covers at all vertical aluminum jambs for protection of frames during construction.
- 10. Furnish and install privacy film where required.
- 11. Furnish and install plywood closures at all aluminum doors and windows if material does not arrive to site prior to building closing for security and weather intrusion.

#### **FOB Items**

1. None.



#### Installation of FOB Items

1. None.

#### **End of Bid Package**

#### <u>DOF-08 – Acoustical Ceilings & Wallcoverings</u>

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

#### **Specification Sections**

DIVISION 00
DIVISION 01
066400 FIBERGLASS REINFORCED PLASTIC PANELING
079200 JOINT SEALANTS (AS APPLIES)
095113 ACOUSTICAL TILE CEILINGS
097723 VINYL COVERED TACKBOARD PANELS
102600 WALL PROTECTION

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- 1. Provide clean up daily and off-haul of all debris generated by this bid package.
- 2. See General Notes at beginning of summary of work specification section for other items.
- 3. Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.

#### **Coordination with Other Trades**

- 1. Review buildings prior to installation of ceilings to note conflicts with ceiling heights.
- 2. Coordinate locations for light wires with electrical contractor.
- 3. Coordinate backing locations for wall metal trim with framing and drywall contractors.

#### **Furnish and Install Items**

- 1. Furnish and install acoustical ceiling systems complete.
- 2. Furnish and install all hangers, supports and bracing necessary for installation of work included in this bid package.
- 3. Furnish and install all hanger wires for light fixtures/cable trays in suspended acoustical ceilings. Electrical bid package will connect wire to their work.
- 4. Furnish and install ceiling tile at electrical & low voltage devices prior to dropping of tile activity. Cut holes in tiles for devices per as required.
- 5. Furnish and install all FRP and tackboard wall coverings.
- 6. Furnish and Install sealant at all locations where tackboard meets other materials.
- 7. Furnish and install cornerguards complete.

#### **FOB Items**

1. None.



#### Installation of FOB Items

1. None.

#### **End of Bid Package**

#### DOF-09 - Painting

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

#### **Specification Sections**

DIVISION 00 DIVISION 01 079200 JOINT SEALANTS 099100 PAINTING

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- 1. Provide clean up daily and off-haul of all debris generated by this bid package.
- 2. There will be one wash-out area for each bid package as designated by the Construction Manager. This bid package will be responsible for removal from the site of all debris and spoils generated by this bid package.
- 3. Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.
- 4. See General Notes at beginning of summary of work specification section for other items.

#### **Coordination with Other Trades**

1. Schedule paint coats to allow for completion of work with minimal damage with final coat being installed with majority of work completed.

#### **Furnish and Install Items**

- 1. Furnish and install all painting as shown including but not limited to:
  - a. Exposed steel, drywall, exposed plywood as called for, exposed steel roof framing, ceiling scrim, flashings not identified as prefinished, coping, scuppers, downspouts, canopy decking, hollow metal door/frames. Refer to color schedule for all interior colors.
  - b. Mechanical, plumbing, fire sprinklers, and electrical utilities as required.
  - c. Fire department connection.
  - d. Fire resistant painted surfaces.
  - e. All gates to be painted.
- Furnish and install sealing systems complete for the project except for concrete floor sealer.
- Furnish and install all contrasting striping at stair treads.
- 4. Furnish and install finish as specified for trim, doors, and millwork.
- 5. Furnish and install all intumescent paint as called for.
- 6. Furnish and install sealing of masonry and concrete other than slab on grade floors as specified. Floor sealer to be installed by the concrete bid package.



- 7. Furnish and install all surface preparation and finish of all flashing to be painted. Verify compatibility for primer adhesion at structural steel.
- 8. Apply painting coats to minimize the need for touch up. Furnish and install all touch up painting required. Touch-up door/window light stops after installation of glazing.
- 9. Furnish and install all caulking of interior/exterior Frames.

#### **FOB Items**

1. None.

#### Installation of FOB Items

1. None.

#### **End of Bid Package**

#### DOF-10 – General Specialties

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

#### **Specification Sections**

DIVISION 00 DIVISION 01 031512 POST INSTALLED CONCRETE ANCHORS 042200 CONCRETE UNIT MASONRY 072116 BLANKET INSULATION 077233 ROOF HATCHES 078413 PENETRATION FIRESTOPPING (AS APPLIES) 079200 JOINT SEALANTS (AS APPLIES) 081113 HOLLOW METAL DOORS AND FRAMES 081416 FLUSH WOOD DOORS 081200 INTERIOR ALUMINUM DOORS AND FRAMES 083113 ACCESS DOORS AND FRAMES **OVERHEAD COILING DOORS** 083323 088300 MIRRORS 093000 TILING

- FLOORING MOISTURE AND pH TESTING 096001
- 096513 RESILIENT BASE AND ACCESSORIES
- 096816 CARPETING
- 101400 SIGNAGE
- 101419 DIMENSIONAL CHARACTER SIGNAGE
- 102113 TOILET COMPARTMENTS
- 102800 TOILET ROOM ACCESSORIES
- 104415 FIRE EXTINGUISHERS AND CABINETS
- 110113 OWNER FURNISHED CONTRACTOR INSTALLED EQUIPMENT (AS APPLIES)
- 115213 PROJECTION SCREENS
- 142400 HYDRAULIC ELEVATORS
- 323113 CHAIN LINK FENCES AND GATES
- 323119 DECORATIVE METAL FENCES AND GATES



323314 BICYCLE LOCKERS

441113 FUGITIVE DUST CONTROL (AS APPLIES)

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- 1. There will be one wash-out area for each bid package as designated by the Construction Manager. Each bid package will be responsible for removal from the site of all debris and spoils generated by each bid package.
- 2. Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.
- 3. Furnish and install all hangers, supports and bracing necessary for installation of work included in this bid package.
- 4. Provide all backfill of excavations to original sub-grade for work included in this bid package.
- 5. Provide early startup / use of equipment included in this bid package as required by the Construction Manager for construction or building systems testing of buildings prior to final acceptance, which will not initiate the warranty period until the filing notice of completion.
- 6. Any holes through materials to allow installation of utilities not called for in the contract documents shall be installed and reinforced by this bid package.
- 7. Provide all clean up and provide off-haul of own debris from site.
- 8. Provide all hoisting/rigging for work in this bid package.
- 9. See General Notes at beginning of summary of work specification section for other items.

#### **Coordination with Other Trades**

- Provide coordination drawings for above ceiling work for work related to this bid package. Coordinate all drawings with the drawings of this bid package. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.
- 2. Coordinate all work to provide access to buildings for other trades as scheduled.
- 3. Coordinate layout of vertical rebar in CMU wall foundations with concrete contractor.
- 4. Coordinate plumbing and electrical for in-wall electrical and plumbing piping in/through CMU.
- 5. Coordinate ceramic tile installation with mirror locations.
- 6. Coordinate ADA clearances for ceramic tile and toilet partitions and accessories. Also coordinate with plumbing bid package for clearances.
- 7. Coordinate all embedded fences, posts in foundations at building exterior to be installed at a later time.
- 8. Install and coordinate block-outs at the site fencing to facilitate installation of fine grading by Earthwork Bid Package. Complete site fencing once fine grading is complete.
- Protect survey stakes for own work and maintain until installations are complete.
- 10. This contractor shall confirm and coordinate all dimensions for door frames furnished and installed by this package. Procure all related information so as not to delay installations as scheduled in the project baseline schedule.
- 11. Coordinate with Metal Stud Framing Bid Package for backing/blocking needed at



miscellaneous specialty installations.

- 12. Coordinate layout of OFCI items.
- 13. Coordinate keyways with school district and CM.

#### General Furnish and Install Items

- 1. Furnish and install all excavations, and backfill of excavations to original subgrade for work included in this bid package.
- 2. Furnish and install watertight closures at all gang and individual pipe penetration through exterior walls.
- 3. Furnish and install all coring or place sleeves for utilities through concrete/masonry.
- 4. Furnish and install all rough-in for all equipment of other bid packages and OFCI items as required by the related specification sections and drawings. Connect to equipment.
- 5. Furnish and install all roof accessories relative to this bid package's work except flashings, to be provided by the Roofing bid packages.
- 6. Furnish and install roof hatches complete, including safety railing and post.
- 7. Furnish and install Unistrut for work included in this bid package.
- 8. Furnish and install drilling of steel for supports for own work.
- Furnish and install all shims necessary for plumb installation of work included in this bid package.
- 10. Furnish and install all sleeves for work passing through masonry and concrete work. Coordinate with respective bid packages.
- 11. Furnish and install all access doors.
- 12. Furnish and install all tv/monitor brackets as called out.
- 13. Furnish off-haul of all excavation spoils to point onsite as directed for work included in this bid package. Earthwork package to use spoils for completion of import materials. Provide spoils amount for this contract to earthwork bid package within 10 days of award of contract.
- 14. Furnish and install all attachment of all equipment related to this scope of work.
- 15. Provide caps/impalement protection for any impalement hazards such as concrete stakes, rebar, bolts, conduit, pipe, etc. Protection shall remain in place until impalement hazard is eliminated.

#### **General FOB Items**

- 1. Furnish FOB jobsite all anchor bolts that embed in concrete for installation by that packages. Provide written layout.
- 2. Furnish FOB all sleeves for all utilities to the concrete package for installation.
- 3. Furnish FOB all fence hooks and gate tracks embedded in concrete for installation by Concrete Bid Package.
- 4. Furnish all lead flashings, flashings, and storm collars FOB jobsite required for all roof penetrations related to this scope of work for installation by the roofer.

#### General Installation of FOB Items

Note. Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this bid package:

1. None.

#### Masonry

#### **Furnish and Install Items**

- 1. Furnish and install CMU walls.
- 2. Furnish and install all masonry rebar. Tie to vertical lap bars embedded in foundations



- provided by concrete contractor. Coordinate rebar lap with concrete package prior to rebar placement in footing.
- 3. Furnish and install all expansion joints and sealant complete required by the contract documents in CMU.
- 4. Furnish and install all cutting of block to match grades at building/site walls.
- 5. Furnish and install all special or cut block to match details at special corners and ends of walls.
- 6. Remove all efflorescence from masonry prior to sealing.
- 7. Furnish and install coring and grouting of CMU for embedded items.
- 8. Install trash enclosure gate hinges provided FOB by fence contractor. (ADM 4)

#### **Building Insulation**

#### Furnish and Install Items

1. Furnish and install all thermal insulation, sound insulation, draft / fire stops, and blankets. Structural Steel bid package to provide rigid insulation.

### Doors & Frames, Access Doors, Coiling Counter Doors, & Door Hardware Furnish and Install Items

- 1. Furnish and install all Hollow Metal doors, frames, Aluminum doors and frames, louvers at doors, anchor clips, and hardware and accessories complete. Provide construction cylinders for temporary use and final keying prior to occupancy by Owner. This contract is responsible for swapping out construction cores with final cores.
- 2. Furnish and install all coiling doors including steel frames.
- 3. Furnish and install door stops and hold opens at concrete including coring and arouting.
- 4. Allow temporary use and provide required maintenance of openings after installation of doors and windows provided by this package.

#### **Flooring**

#### **Furnish and Install Items**

- 1. Furnish and install floor prep for concrete cracking, saw cut joints and construction joints. Leveling to be provided by the concrete contractor as necessary for areas out of specified concrete standards tolerance. Level concrete within tolerance as required.
- Confirm that moisture levels of slab on grade meet manufacturer's requirements prior to installation of flooring.
- 3. Furnish and install all flooring except concrete sealer hardener. Protect after installation. Carpet to be OFCI.

#### **Ceramic Tile**

#### Furnish and Install Items

- 1. Furnish and install ceramic tile walls and floors including mortar bed. Concrete and wall substrate contractors shall provide surface flatness within their respective industry standards. Level concrete and wall substrate within tolerance as required for own installations.
- 2. Test moisture levels of slab on grade meet manufacturer's requirements prior to installation of flooring.
- 3. Furnish & install all grout and floor sealers for this scope of work.
- 4. Furnish and install all prep of cement board complete for tile installation.
- 5. Provide color matched caulk from wall tile to door frame.

#### **Hydraulic Elevator**



#### Furnish and Install Items

- 1. Provide review of elevator requirements for code adherence and dimensions at shop drawing stage and prior to inspection to allow any necessary corrections.
- 2. Coordinate onsite with other trades for rough in and backing requirements for the elevator.
- 3. Confirm size of steel is adequate for rail bracket attachment.
- 4. Furnish and install all elevator piping rough-in in wall, above ceiling, and under slab.
- 5. Furnish and install elevator complete including all steel required for installation not shown on steel drawings. Provide actual attachment as required.
- 6. Provide early start up/use of equipment included in this bid package as required by the construction schedule for construction activities or building systems testing of buildings prior to final acceptance, which will not initiate the warranty period until the filing of notice of completion.
- 7. Provide personnel for inspection and approval by State Agency.
- 8. Install elevator and equipment per the contract schedule.
- 9. Include 3 site visits in bid to review and coordinate installation requirements with other contractors.

#### **Specialties**

#### **Furnish and Install Items**

- 1. Furnish and install ceiling hatches/access doors as shown on architectural sheets.
- 2. Furnish and install all toilet partitions mirrors, and accessories. See specifications for items to be provided by Owner (OFCI).
- 3. Furnish and install Police/fire dept by-pass lock (Knox Box)
- 4. Furnish and install fire extinguishers and extinguisher cabinets.
- 5. Furnish and install bicycle lockers.
- 6. Furnish and install projection screens.

#### **Equipment**

#### Furnish and Install Items

- 1. Furnish and install all cantilever storage racks/ rack storage/ global industrial single sided industrial rack/described as FBC/IBC on sheet A263.
- 2. Furnish and install metal work counter described as FBC/IBC on sheet A263.
- 3. Furnish and install 1 ton trolley beam hoist as described on sheet A263.
- 4. Furnish and install metal work counter described as FBC/IBC on sheet A263.
- 5. Install Triton lift described as FBO/IBC on sheet A263. Furnished by Owner. Coordinate delivery with Owner. This package to receive, unload and store until ready for installation.
- 6. Install table saw described as FBO/IBC on sheet A263. Furnished by Owner. Coordinate delivery with Owner. This package to receive, unload and store until ready for installation.
- 7. Install EB140 Virutex described as FBO/IBC on sheet A263. Furnished by Owner. Coordinate delivery with Owner. This package to receive, unload and store until ready for installation.

#### Signage

#### **Furnish and Install Items**

- 1. Furnish and install all building signage complete.
- 2. Furnish and install all building aluminum letters/signage complete.

#### **Fencing**



#### Furnish and Install Items

- 1. Furnish and install excavations for fence posts.
- 2. Furnish and install all chain link and ornamental fence as shown.
- 3. Furnish and install all chain link fencing and gates inside buildings. Provide coring as required for foundations.
- 4. Furnish and install automatic gate openers including vehicle detector loops, keypad, and keypad post.
- 5. Furnish and install all site fencing, gates, and hardware complete. Prep all gates as needed to accept required hardware.
- 6. Furnish and install all cane bolts including drilling holes.
- 7. Furnish and install gates and hardware complete at trash enclosures.
- 8. Furnish and install backfill of fence post excavations to the required grade and off-haul spoils.
- 9. Confirm keyway with CUSD.
- 10. Provide trash enclosure gate hinges to CMU contractor for installation. (ADM 4)

#### Overhead Coiling Doors Furnish and Install Items

1. Furnish and install overhead coiling doors complete.

#### **End of Bid Package**

#### **DOF-11 – Fire Sprinklers**

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

#### **Specification Sections**

DIVISION 00

DIVISION 01

031512 POST INSTALLED CONCRETE ANCHORS (AS APPLIES)

078413 PENETRATION FIRESTOPPING (AS APPLIES)

079200 JOINT SEALANTS (AS APPLIES)

083113 ACCESS DOORS AND FRAMES (AS APPLIES)

210000 FIRE SPRINKLER SYSTEM

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- 1. Any holes through materials to allow installation of utilities not called for in the contract documents shall be installed and reinforced by this bid package.
- 2. Provide all clean up and off-haul of own debris from site.
- 3. Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.
- 4. Provide all hoisting/rigging for work in this bid package.
- 5. Provide early startup / use of fire sprinkler system as required by the Construction Manager for construction or building systems testing of buildings prior to final acceptance, which will not initiate the warranty period until the filing notice of completion.



6. See General Notes at beginning of summary of work specification section for other items.

#### **Coordination with Other Trades**

- Provide coordination drawings for above ceiling work for work related to this bid package. Coordinate all drawings with the drawings of this bid package. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.
- 2. Coordinate all work to provide access to buildings for other trades as scheduled. Provide a breakout schedule of where and when piping operations will be performed that has been coordinated with other activities in the schedule for other trades.
- Purging and testing of all building fire sprinkler utilities included in this bid package is the responsibility of this bid package. Coordinate with site utility contractor prior to connection.
- 4. Coordinate hook up of electrical and low voltage wiring with related bid package.
- 5. Provide location of stub for the underground contractor.
- 6. Provide written layout to framing contractor prior to framing for location of all backing/blocking for own installations. Any missed layout not provided to the framing contractor shall be furnished and installed by this contractor.

#### Furnish and Install Items

- 1. Install all coring or place sleeves for utilities through concrete.
- 2. Furnish and install building fire sprinkler system for a complete system. Coordinate approval process from City of Clovis.
- 3. Furnish and install all signage/labelling required for this scope of work.
- 4. Furnish and install all exposed materials in a consistent and aesthetic manner.
- 5. Furnish and install all access doors necessary to provide access to work included in this bid package.
- 6. Furnish and install all attachment of all equipment related to this scope of work.
- 7. Furnish and install all hangers, supports, and bracing necessary for installation of work included in this bid package.
- 8. Furnish and install fire stopping related to this scope of work. Coordinate system with other MEP trades to comply with specifications.
- 9. Furnish and install complete fire sprinkler risers, from flange, at buildings. Electrical contractor to connect to electric bell and flow switch installed by this contractor.
- 10. Furnish and install drilling of steel or wood for supports and piping installations.

#### **FOB Items**

1. None.

#### Installation of FOB Items

1. None.

#### **End of Bid Package**

#### **DOF-12 - Building Plumbing**

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:



#### **Specification Sections**

DIVISION 00

DIVISION 01

- 031512 POST INSTALLED CONCRETE ANCHORS (AS APPLIES)
- 078413 PENETRATION FIRESTOPPING (AS APPLIES)
- 079200 JOINT SEALANTS (AS APPLIES)
- 083113 ACCESS DOORS AND FRAMES (AS APPLIES)
- 110113 OWNER FURNISHED CONTRACTOR INSTALLED EQUIPMENT (AS APPLIES)
- 220000 GENERAL PLUMBING PROVISIONS
- 220050 PLUMBING
- 312005 TRENCHING (AS APPLIES)
- 315000 EXCAVATION SUPPORT AND PROTECTION (AS APPLIES)
- 441113 FUGITIVE DUST CONTROL (AS APPLIES)
- No. 1 GEOTECHNICAL INVESTIGATION REPORT

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- Furnish off-haul of all excavation spoils to point onsite as directed for work included in this bid package. Earthwork package to use spoils for completion of import materials. Provide spoils amount for this contract to Earthwork bid package within 10 days of award of contract.
- 2. Provide dewatering for own excavations.
- 3. Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.
- 4. There will be one wash-out area for each bid package as designated by the Construction Manager. Each bid package will be responsible for removal from the site of all debris and spoils generated by each bid package.
- 5. Provide all backfill of excavations to original subgrade for work included in this bid package.
- 6. Provide early startup / use of plumbing equipment as required by the Construction Manager for construction or building systems testing of buildings prior to final acceptance, which will not initiate the warranty period until the filing notice of completion.
- 7. Any holes through materials to allow installation of utilities not called for in the contract documents shall be installed and reinforced by this bid package.
- 8. Provide all clean up and provide off hauls of own debris from site.
- 9. Provide all hoisting/rigging for work in this bid package.
- 10. See General Notes at beginning of summary of work specification section for other items.

#### **Coordination with Other Trades**

 Provide coordination drawings for underground and above ceiling work for work related to this bid package. Coordinate all drawings with the drawings of this bid package. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to excavation and/or installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.



- 2. Provide dimensions for structural openings through building structure.
- 3. Coordinate all work to provide access to buildings for other trades as scheduled. Provide a breakout schedule of where and when piping operations will be performed that has been coordinated with other activities in the schedule for other trades.
- 4. This bid package shall make physical connections from buildings to site utilities.
- 5. Cleaning and purging of all building plumbing utilities included in this bid package is the responsibility of this bid package. Coordinate with site utility contractor prior to connection.
- 6. Clean and disinfect all building piping. Phased construction will necessitate a specific schedule of disinfection coordinated with the packages. Create disinfection plan and coordinate with site bid package to allow for complete and maintained disinfection of the entire system until acceptance by owner.
- 7. Coordinate routing of plumbing to miss foundations.
- 8. Make adjustment and coordinate with concrete contractor for flush installation of exterior boxes for cleanouts, valves, etc.
- 9. Provide dimensions for wall and roof openings on structural coordination drawings.
- 10. Coordinate installation of roof drains with roofing contractor for watertight installation.
- 11. Coordinate the location of depressions, block outs, slopes, and drains with the Concrete Contractor prior to pour.
- 12. This contractor shall provide pour watch of own installations through building concrete slabs for every scheduled S.O.G. installation by the concrete contractor. This is mandatory.
- 13. Protect survey stakes for own work and maintain until installations are complete.
- 14. Provide written layout to framing contractor prior to framing for location of all backing/blocking for own installations. Any missed layout not provided to the framing contractor shall be furnished and installed by this contractor.
- 15. Provide roof penetration quantities with sizes for roofing contractor.

#### **Furnish and Install Items**

- 1. Furnish and install street cleaning for own scope of work as required.
- 2. Furnish and install building plumbing systems complete, including but not limited to:
  - a. Domestic water piping, Compressed air piping, waste/vent piping, condensate drain piping, plumbing fixtures, plumbing equipment, plumbing accessories, etc.
- 3. Furnish and install physical layout for all deepened foundations at utilities prior to excavation by the concrete bid package.
- 4. Furnish and install booster pump and associated piping.
- 5. Furnish and install compressed air lines including associated valves, filters, regulators, lubricators, etc.
- 6. Furnish and install suspended hose reels. This includes fabrication and installation of steel brackets.
- 7. Furnish and install any steel angle/rod/support bracket/seismic bracing/channel necessary for installation of plumbing equipment not called out on structural drawings.
- 8. Furnish and install 2 3 (ADM 4) compartment sink shown on equipment schedule on sheet A263
- 9. Furnish and install all sleeves in foundations prior to the installation of concrete and reinforcing steel. Coordinate location with other related bid packages prior to excavation.
- 10. Furnish and install all coring or place sleeves for utilities through masonry and concrete.
- 11. Furnish and install all excavations and backfill of excavations to original subgrade for work included in this bid package. Certify grades have been returned to original grade when work is complete.



- 12. Furnish and install all concrete required for installation of thrust blocks for all work related to this bid package.
- 13. Furnish, install, and maintain protection of work included in this bid package from damage and intrusion of dirt and / or debris into the building piping systems for the length of the project per the SWPPP. Protection shall allow use, as directed by the Construction Manager, of the plumbing utility systems during construction for construction and testing operations without the start of the warranty period until the notice of completion for the project.
- 14. Furnish, install, and connect all building utilities to 5' from building or noted POC unless otherwise noted in this bid package.
- 15. Furnish and install all flues associated with own work.
- 16. Furnish and install watertight closures at all gang and individual pipe penetration through exterior walls for own work.
- 17. Furnish and install water heater brackets and platforms complete.
- 18. Furnish and install all hangers, supports and bracing necessary for installation of work included in this bid package.
- 19. Furnish and install all attachments of all equipment related to this scope of work.
- 20. Furnish and install any/all seismic bracing required for work included in this bid package.
- 21. Furnish and install backing for all plumbing fixtures. Steel plates only, no wood/metal.
- 22. Furnish and install drilling of steel or wood for supports and piping installations.
- 23. Furnish and install disinfection of all building plumbing related to this bid package. Coordinate a disinfection plan with other bid packages to assure a clean system at acceptance.
- 24. Furnish and install all roof accessories relative to this bid package's work.
- 25. Furnish and install all rough-in for all equipment of other bid packages as required by the related specification sections and drawings. Connect to equipment.
- 26. Furnish and install all required utilities for Owner Furnished Equipment, capped and ready for connection. Connections to be made by this bid package.
- 27. Furnish and install all signage/labelling required for this scope of work.
- 28. Furnish and install all building drinking fountains and associated backing (guard rails by others).
- 29. Furnish and install all toilet and sink sensors and wiring complete to hook up of power. Conduit is by Electrical Bid Package.
- 30. Furnish and install clean outs shown on plumbing drawings.
- 31. Furnish and install sealant at overflow drains.
- 32. Furnish and install fire stopping related to this scope of work. Coordinate system with other MEP trades to comply with specifications.
- 33. Furnish and install all access doors necessary to provide access to work included in this bid package.
- 34. Furnish and install condensate drains. Connect condensate drain to unit pump provided by HVAC contractor and extend in attic to drain.
- 35. Furnish and install escutcheon covers, rings, etc. at all floor, wall, and ceiling penetrations for plumbing lines and /or fixtures. All floor gaps, holes around lines at penetrations shall be sealed and caulked as per health dept. requirements.
- 36. Furnish and install sealant and backer material, pipe jackets, escutcheons for own piping penetrations through walls.
- 37. Furnish and install emergency eye wash/shower.
- 38. Furnish and install ice machines compete.
- 39. Provide testing of drains at completion of project.
- 40. Provide caps/impalement protection for any impalement hazards such as concrete



stakes, rebar, bolts, conduit, pipe, etc. Protection shall remain in place until impalement hazard is eliminated.

#### **FOB Items**

1. Furnish FOB jobsite all anchor bolts and templates that embed in concrete or masonry for installation by those packages. Provide written layout.

#### Installation of FOB Items

Note. Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this bid package:

None.

#### **End of Bid Package**

#### DOF-13 - Mechanical

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

-	ation Sections
DIVISION	
DIVISION	
031512	POST INSTALLED CONCRETE ANCHORS (AS APPLIES)
078413	PENETRATION FIRESTOPPING (AS APPLIES)
079200	JOINT SEALANTS (AS APPLIES)
083113	ACCESS DOORS AND FRAMES (AS APPLIES)
110113	OWNER FURNISHED CONTRACTOR INSTALLED EQUIPMENT (AS APPLIES)
230100	GENERAL MECHANICAL PROVISIONS
230500	COMMON WORK RESULTS FOR HVAC
230513	COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT
230529	HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT
230548	VIBRATION AND SEISMIC CONTROLS FOR HVAC PIPING AND EQUIPMENT
230553	IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT
230593	TESTING, ADJUSTING, AND BALANCING FOR HVAC
230700	HVAC INSULATION
230800	COMMISSIONING OF HVAC
232300	REFRIGERANT PIPING
233113	METAL DUCTS
233300	AIR DUCT ACCESSORIES
233423	HVAC POWER VENTILATORS
233723	HVAC GRAVITY VENTILATORS
235143	DUST COLLECTION SYSTEMS
237200	AIR-TO-AIR ENERGY RECOVERY EQUIPMENT

237433 OUTDOOR, EVAPORATIVE COOLING MAKEUP-AIR UNITS

255000 ENERGY MANAGEMENT AND TEMPERATURE CONTROL SYSTEM

238150 VARIABLE REFRIGERANT FLOW AIR-CONDITIONERS

238126 SPLIT-SYSTEM AIR-CONDITIONERS

238323 RADIANT-HEATING ELECTRIC PANELS



312005 TRENCHING

315000 EXCAVATION SUPPORT AND PROTECTION

441113 FUGITIVE DUST CONTROL (AS APPLIES)

No. 1 GEOTECHNICAL INVESTIGATION REPORT

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- 1. Provide early startup and maintenance of HVAC equipment as required by the Construction Manager for acclimatization of buildings prior to final acceptance, which will not initiate the warranty period until the filing notice of completion.
- 2. Any holes through materials to allow installation of utilities not called for in the contract documents shall be installed and reinforced by this bid package.
- 3. Provide all clean up and off-haul of own debris from site.
- 4. Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.
- 5. Provide all hoisting/rigging for work in this bid package.
- 6. See General Notes at beginning of summary of work specification section for other items.

#### **Coordination with Other Trades**

- Provide coordination drawings for underground and above ceiling work for work related to this bid package. Coordinate all drawings with the drawings of this bid package. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to excavation and/or installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.
- 2. Provide dimensions for structural openings on framing coordination drawings.
- 3. Provide physical layout of systems through walls & ceilings/roof for block out by framing contractor.
- 4. Provide all necessary openings and/or connection points for EMS and fire alarm wiring and devices.
- 5. Concrete housekeeping and equipment pads will be furnished and installed by the concrete bid package. Provide dimensions for pads.
- 6. Provide written layout to framing contractor prior to framing for location of all backing/blocking for own installations. Any missed layout not provided to the framing contractor shall be furnished and installed by this contractor.
- 7. Provide crane access plan and duration of construction to stop during setting the roof top equipment.
- 8. Provide quantities of roof penetration jacks with sizes for roofing contractor.
- 9. Provide pre/post commissioning plan for review and acceptance by Owner and CM prior to initiating any commissioning activities.

#### **Furnish and Install Items**

- 1. Furnish and install all HVAC equipment, EMS, ductwork, duct insulation, refrigerant piping, piping, and pipe insulation, fixtures, accessories, controls, and air balance for a complete heating and air conditioning system.
- 2. Furnish and install all access doors necessary to provide access to work included in this bid package.



- 3. Furnish and install all attachment of all equipment related to this scope of work.
- 4. Furnish and install all hangers, supports and bracing necessary for installation of work included in this bid package.
- 5. Furnish and install any/all seismic bracing required for work included in this bid package.
- 6. Furnish and install all underground ductwork including excavation, sand, vapor barrier, and backfill.
- 7. Furnish and install all roof curbs with proper height and slope for the roofing system. Coordinate with Metal Building Package. Verify heights with shop drawings prior to fabrication.
- 8. Furnish and install all roof accessories and/or curbs/platforms/stands/supports/steel backing/bolts/angles (pre-manufactured for all mechanical equipment provided under this bid package.
- 9. Furnish and install all rough-in for all equipment of other bid packages as required by the related specification sections and drawings. Connect and or stub as described.
- 10. Furnish and install HVAC Controls and/or EMS system complete including conduit and wiring unless specifically called for on electrical drawings.
- 11. Furnish and install drilling of structure for installation of own supports and piping installations.
- 12. Furnish and install fire stopping related to this scope of work. Coordinate system with other MEP trades to comply with specifications.
- 13. Furnish and install all flues associated with own work.
- 14. Furnish and install steel brackets to support radiant heaters per 16/M800 and sim.
- 15. Furnish and install any steel angle/rod/support bracket/seismic bracing/channel necessary for installation of mechanical equipment not called out on structural drawings.
- 16. Furnish and install all signage, labelling, and lettering called for in the contract documents related to work of this bid package.
- 17. Furnish and install mechanical unit relays for connection by electrical contractor.
- 18. Provide start-up and run equipment for acclimation of buildings without effecting official start date of Warranty period upon Owner acceptance of project. Protect all openings to the duct system during this time with filters at all return air openings. Provide final equipment washdown upon completion of dust-generating construction activities.
- 19. Provide two (2) changes of filters, at all filter locations, for construction dust during construction prior to installation of final filters.
- 20. Furnish and install dust collector system complete. Foundation to be by concrete package. Final attachment/anchoring to be by this package.
- 21. Furnish and install wall mount MERV 14 telescopic fan per equipment schedule on sheet A263.
- 22. Furnish and install Unistrut/posts required for duct installation at dust collector.
- 23. Provide pre & post functional testing/commissioning of the HVAC system per specifications. Provide plan to Owner/CM for approval prior to starting any commissioning activities.
- 24. Provide complete air balance for the HVAC System per specifications.

#### **FOB Items**

1. Provide mechanical unit relays for connection by electrical contractor.

#### Installation of FOB Items

1. None.



#### **End of Bid Package**

#### <u>DOF-14 – Electrical & Site Electrical</u>

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

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**DIVISION 01** 

- 031512 POST INSTALLED CONCRETE ANCHORS (AS APPLIES)
- 078413 PENETRATION FIRESTOPPING (AS APPLIES)
- 079200 JOINT SEALANTS (AS APPLIES)
- 083113 ACCESS DOORS AND FRAMES (AS APPLIES)
- 110113 OWNER FURNISHED CONTRACTOR INSTALLED EQUIPMENT (AS APPLIES)
- 115213 PROJECTION SCREENS
- 260000 SUMMARY OF ELECTRICAL WORK
- 260100 GENERAL CONDITIONS FOR ELECTRICAL WORK
- 260500 BASIC ELECTRICAL MATERIALS AND METHODS
- 260526 GROUNDING
- 261340 CABLE TRAYS
- 262213 DRY-TYPE TRANSFORMERS (600 V AND LESS)
- 262413 SWITCHBOARDS
- 262416 PANELBOARDS
- 265113 LIGHTING
- 266100 LIGHTING CONTROL SYSTEMS
- 269500 ELECTRICAL ACCEPTANCE TESTS
- 270000 COMMUNICATIONS GENERAL
- 270528 COMMUNICATIONS INFRASTRUCTURE SYSTEM
- 271000 STRUCTURED CABLING SYSTEM
- 272010 UNINTERRUPTED POWER SUPPLY
- 278000 VIDEO SURVEILLANCE
- 283100 FIRE DETECTION AND ALARM
- 312005 TRENCHING (AS APPLIES)
- 315000 EXCAVATION SUPPORT AND PROTECTION (AS APPLIES)
- 441113 FUGITIVE DUST CONTROL (AS APPLIES)
- No. 1 GEOTECHNICAL INVESTIGATION REPORT

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- 1. Provide dewatering for own excavations.
- Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.
- 3. There will be one wash-out area for each bid package as designated by the Construction Manager. Each bid package will be responsible for removal from the site



- of all debris and spoils generated by each bid package.
- 4. Provide trenching plan and permits for excavations over 5' per OSHA requirements to the construction manager.
- 5. Provide use and maintenance of electrical equipment and devices as required by the construction manager for construction and testing of other equipment prior to final acceptance, which will not initiate the warranty period until filing of notice of completion.
- 6. Provide all clean up and off-haul of own debris from site.
- 7. Provide all hoisting/rigging for work in this bid package.
- 8. See General Notes at beginning of summary of work specification section for other items.

#### **Coordination with Other Trades**

- Provide coordination drawings for underground and above ceiling work for work related to this bid package. Coordinate all drawings with the drawings of this bid package. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to excavation and/or installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.
- 2. Provide shop drawings for equipment layout in electrical yards and electrical rooms to confirm that dimensions are adequate prior to rough in and pouring of foundations.
- 3. Light pole bases shall be excavated and installed by the Concrete Bid Package. Coordinate the installation and requirements of light pole bases with the Concrete Bid Package.
- 4. Coordinate all work to provide access to buildings for other trades as scheduled. Provide an underground utility schedule of where and when piping operations will be performed. Coordinate with other activities in the schedule for other trades and confirm the schedule meets the CMBS dates.
- 5. At conflicts with site utilities, electrical duct banks/conduits are to have the lower elevations.
- 6. Coordinate location of fire alarm monitoring devices for PIV/tamper switches/flow switches with site utility drawings.
- 7. Provide physical layout of systems through walls & ceilings/roof for block out by framing contractor. Any holes through materials to allow installation of utilities not called for in the contract documents shall be installed and reinforced by this bid package.
- 8. Quantify, coordinate, and provide final connections of starters for HVAC units as provided by the Mechanical Bid Package.
- 9. Furnish and install physical layout for all deepened foundations at utilities prior to excavation.
- 10. Coordinate with all underground utilities prior to excavation.
- 11. This contractor shall provide pour watch of own installations through building concrete slabs for every scheduled S.O.G. installation by the concrete contractor. This is mandatory.
- 12. Coordinate power and fire alarm connection with roll-up doors.
- 13. Protect survey stakes for own work and maintain until installations are complete.
- 14. Provide written layout to framing contractor prior to framing for location of all backing/blocking for own installations. Any missed layout not provided to the framing contractor shall be furnished and installed by this contractor.
- 15. Verify voltage for all equipment by others from product submittals prior to installation.
- 16. Coordinate UG utilities out of building's angle of repose.



#### Furnish and Install Items

- 1. Furnish and install all building and site electrical complete.
- 2. Furnish and install street and onsite parking lot cleaning for own scope of work as required by municipal ordinance.
- 3. Furnish and install firestopping for own work. Coordinate system with other MEP trades to comply with specifications.
- 4. Furnish and install all low voltage systems complete except for the EMS system.
- 5. Furnish and install pull strings / rope in all empty or future conduits.
- 6. Furnish and install all concrete required for installation of manholes, vaults, boxes, underground structures, work related to this bid package.
- 7. Furnish and install all coring and reinforcing for utilities through concrete and masonry.
- 8. Any holes through materials to allow installation of utilities not called for in the contract documents shall be installed and reinforced by this bid package.
- 9. Furnish and install all sleeves for work passing through masonry and concrete work. Coordinate with Respective bid packages.
- 10. Furnish and install all sleeves in foundations prior to the installation of concrete and reinforcing steel. Coordinate location with other related bid packages prior to excavation.
- 11. Furnish off-haul of all excavation spoils to point onsite as directed for work included in this bid package. Earthwork package to use spoils for completion of import materials. Provide spoils amount for this contract to Earthwork bid package within 10 days of award of contract.
- 12. Furnish and install all access doors necessary to provide access to work included in this bid package.
- 13. Furnish and install all attachment of all equipment related to this scope of work.
- 14. Provide all backfill of excavations to original subgrade for work included in this bid package.
- 15. Furnish and install all conduit & sleeves for future low voltage and telecommunications wiring. Install fire stopping as required.
- 16. Furnish and install disconnects and associated supports.
- 17. Furnish and install project mounts.
- 18. Furnish and install cord reels.
- 19. Furnish and install all necessary supports required for pendent light fixtures.
- 20. Furnish and install all supports and bracing required for electrical work except for hanger wires in suspended acoustical ceilings.
- 21. Furnish and install watertight closures at all gang and individual pipe penetration through exterior walls.
- 22. Furnish and install all signage and lettering called for in the contract documents related to work of this bid package.
- 23. Furnish and install all required utilities for Owner Furnished Equipment, hook up as required.
- 24. Furnish and install all rough-in for all equipment of other bid packages as required by the related specification sections and drawings. Connect and or stub as described.
- 25. Furnish and install all roof accessories relative to this bid package's work.
- 26. Furnish and install drilling of structure for supports and piping installations.
- 27. Furnish and install all roof supports for electrical.
- 28. Furnish, install, and remove all temp power per Site Logistics Plan. Maintain for duration of project and remove at completion of project. At project startup, provide the following:
  - a. Construction Trailers -



- Connect to existing main switchgear (installed in Phase 1 scope of work). Install (1) 2" conduit underground from switchgear to construction trailers located in laydown yard. Install (1) 100A 3phase breaker in main switchboard and Install skid @ Construction Trailer with 480V-120/208V transformer and 200A Panel. Make connection at double wide trailers. Provide all conduit, wire, equipment necessary for a complete installation. Remove at completion of project.
- b. Buildings A, B, C, & D -
  - Connect to existing main switchgear (installed in Phase 1 scope of work). Install (1) 100A 3phase breaker in main switchboard and Install (1) 2" conduit underground from switchgear to Building A. Install skid at Building A with 480V-120/208V transformer and 200A Panel. Provide temp power cords from Building A Panel with 2 spider boxes at the first floor and 2 spider boxes at the second floor. Provide all conduit, wire, and equipment necessary for a complete installation. Remove at completion of project.
  - At Building B, C, & D, run (1) 2" conduit underground to each building from Building A panel. Provide temp power to each building:
    - Provide (1) Spider box @ Building B
    - Provide (2) Spider boxes @ Building C (one at each end)
    - Provide (2) Spider Boxes @ Building D (one at each end)
- c. Temporary power boxes shall remain in service until completion of project or until permanent power is available at the buildings. All conduit and equipment shall be removed at completion of project.
- d. Provide inspection, testing and maintenance of temporary power system per OSHA regulations. Provide documented inspection report to CM. Secure temporary power boxes from the end of each workday to the start of the next.
- e. Any additional power needed beyond what is described above shall be provided by the bid package in need.
- f. Lighting for own work areas to be provided by each package. Egress Lighting to be provided by electrical package. Locations per Electrical SOW.
- 29. Furnish, install, and connect power to all equipment including switches and controls.
- 30. Furnish and install holes in door and window frames for own work.
- 31. Furnish, install, and maintain traffic control for work included in this bid package.
- 32. Furnish and install all components and wiring required to hook-up fire suppression system to fire alarm, exhaust blower, & make-up air system for interlock and shut down.
- 33. Furnish and install all projectors.
- 34. Pothole existing electrical and communication utilities, mark and maintain markings throughout site.
- 35. Furnish and install alarm conduit, pull string, and box rough in.
- 36. Provide commissioning for electrical work. Provide pre & post functional testing/commissioning of the Electrical system per specifications. Provide plan to Owner/CM for approval prior to starting any commissioning activities.
- 37. Furnish and install all necessary rough in for EV charge stations.
- 38. Furnish and install disconnects not provided on factory equipment installed by other bid packages.
- 39. Furnish, install, and maintain egress lighting for all buildings. Lighting shall consist of strand lights down all main corridors. Lighting shall be installed at the completion of framing until all permanent lights are installed and operating.
- 40. Connect "hanger wires" provided by the Acoustical Bid Package to light fixtures.
- 41. Furnish and install shunt trip as required for elevator installation.



42. Provide caps/impalement protection for any impalement hazards such as concrete stakes, rebar, bolts, conduit, pipe, etc. Protection shall remain in place until impalement hazard is eliminated.

#### **FOB Items**

- 1. Furnish FOB jobsite all bolt templates for use by the concrete bid package and masonry bid package.
- 2. Furnish FOB jobsite all anchor bolts and templates for light poles and equipment.
- 3. Furnish FOB all sleeves for all utilities to the concrete package for installation.

#### Installation of FOB Items

Note. Unload, inventory, store and notify of deficiencies for all items delivered to the jobsite FOB, to be installed by this bid package:

- 1. Connect relay module to mechanical unit shutdown. Relays to be provided by HVAC contractor.
- 2. Connect to electric fire sprinkler bell and flow switch installed by fire protection contractor at building fire risers.

#### **End of Bid Package**

#### DOF-15 – Landscape and Irrigation

Furnish and install all work specifically required throughout the project documents to complete the work of this bid package that specifically includes, but is not limited to the following:

#### **Specification Sections**

DIVISION 00 DIVISION 01

010001101

312005 TRENCHING

315000 EXCAVATION SUPPORT AND PROTECTION

328400 LANDSCAPE IRRIGATION SYSTEM

329000 LANDSCAPE CONSTRUCTION

441113 FUGITIVE DUST CONTROL (AS APPLIES)

No. 1 GEOTECHNICAL INVESTIGATION REPORT

Refer to additional related specifications sections for work specifically included in this bid package noted below.

#### **General Items**

- 1. There will be one wash-out area for each bid package as designated by the Construction Manager. Each bid package will be responsible for removal from the site of all debris and spoils generated by this bid package.
- 2. Construction water will be available at the Fire Hydrant located on site (Contractor to verify). Each Bid Package will be responsible for providing their own water meter for water consumption.
- 3. See General Notes at beginning of summary of work specification section for other items.

#### **Coordination with Other Trades**

1. Provide coordination drawings for underground work related to this bid package.



Coordinate all drawings with the drawings of other bid packages. Note conflicts and provide potential solutions to the architect for review. Coordination must occur prior to excavation and/or installation of the work. Attend all coordination meetings required to coordinate all underground and above ceiling work.

- 2. At conflicts with electrical duct banks, electrical duct banks are to have the lower elevations.
- 3. Coordinate location of site utility installations with location of building structure foundations to maintain clearance outside the foundation angle of repose.
- 4. Coordinate with all underground utilities prior to excavation.
- 5. Receive grades at  $\pm$  .10'. Cut all additional swales required to provide proper drainage.
- 6. Protect survey stakes for own work and maintain until installations are complete.

#### **Furnish and Install Items**

- 1. Furnish and install all irrigation and landscaping complete. Include in bid, labor and material to cover replacement of mulch at planter areas directly west of Buildings B & C. Mulch thickness to match thickness required on drawings.
- 2. Furnish and install all irrigation sleeves on separate move-ins.
- 3. Furnish and install all christy boxes as required for own work.
- 4. Furnish and install all sleeves in masonry, concrete, and foundations prior to the installation of concrete and reinforcing steel. Coordinate location with other related bid packages prior to excavation.
- 5. Furnish off-haul of all excavation spoils to point onsite as directed for work included in this bid package.
- 6. Furnish and install all concrete, concrete collars, and pads for own work except for mow strips.
- 7. Furnish and install all 2x6 pressure treated header board as called for.
- 8. Furnish and install all splash blocks.
- 9. Furnish and install all thrust blocks for own work.
- 10. Furnish and install all bricks and washed gravel at all boxes as shown.
- 11. Furnish and install swales beyond that shown on civil drawings for proper drainage.
- 12. Provide water test of turf and planter areas prior to planting to confirm proper drainage.
- 13. Maintain project to be weed free until completion.
- 14. Provide caps/impalement protection for any impalement hazards such as concrete stakes, rebar, bolts, conduit, pipe, etc. Protection shall remain in place until impalement hazard is eliminated.

#### **FOB Items**

1. None.

#### Installation of FOB Items

1. None.

#### **End of Bid Package**

#### 1.03 WORK UNDER OTHER CONTRACTS:

- 1. General Requirements:
  - a. Work under separate contracts will occur throughout the duration of the project. The work being installed under separate contracts will occur around adjacent to the Contract project site including offsite work.



- b. Contractor shall be responsible for coordinating access to and from the site throughout the duration of the project. Access points to and from the site may vary, based upon timing and duration of separate contracts.
- c. Contractor shall cooperate and coordinate all work under this Contract with all work under separate contracts.
- d. Should the Contractor damage and/or otherwise alter work installed under separate contracts, Contractor responsible for the correction repair of work installed under separate contracts.
- e. Prior to the installation of the Work, coordinate the work installed or to be installed by separate contracts relative to own work.
- 2. Separate Contracts by Owner:
  - a. Construction Bid Packages, as defined above in Construction Bid Packages.
  - b. Construction Bid Packages as defined in future phases of work below in projected project phasing.
  - c. Owner Furnished Items, as defined in Specification Section OWNER FURNISHED ITEMS.
- 3. Separate Contracts by Others:
  - a. Adjacent Properties:
- 4. Phasing is projected to be as shown on the Construction manager's Bid Schedule. However, the owner reserves the right to revise start times pending the review and award of bids.

#### 1.04 CONTRACTOR'S DUTIES:

- 1. Except as specifically noted, provide, and pay for:
  - a. Labor, material, and equipment.
  - b. Tools, construction equipment and machinery.
  - c. Other facilities and services necessary for proper execution and completion of Work.
  - d. Water: See Specification Section TEMPORARY FACILITIES AND CONTROLS.
- 2. Pay legally required sales, consumer and use taxes.
- 3. Secure and pay for all site specific, as necessary for proper execution and completion of Work, and as applicable at time of receipt of bids.
  - a. Licenses.
  - b. Permits and Fees.
  - c. Governmental Fees.
  - d. Royalties.
- 4. Give required notices.
- 5. Comply with codes, ordinances, rules, regulations, orders, and other legal requirements of public authorities which bear on performance of Work.
  - a. The Contractor shall certify in writing that no materials containing Asbestos are incorporated in the work, in accordance with the Asbestos Hazard Emergency Regulations Act.
- 6. Promptly submit written notice to Construction Manager of observed variance of Contract Documents from legal requirements.
  - a. Appropriate modifications to Contract Documents will adjust necessary changes.
  - b. Assume responsibility for work known to be contrary to such requirements and without written notice to Architect of observed variance.
- 7. Enforce strict discipline and good order among employees. Do not employ on Work:



- a. Unfit persons.
- b. Persons not skilled in assigned task.

#### 1.05 CONTRACTOR USE OF PREMISES:

- 1. Confine operations at sites to areas permitted by:
  - a. Laws.
  - b. Ordinances.
  - c. Permits.
  - d. Contract Documents.
- 2. Do not unreasonably encumber site with materials or equipment.
- 3. Do not load structure with weight that will endanger structure.
- 4. Assume full responsibility for protection and safekeeping of Contractor's and Owner's material stored on premises and keep the site and building secure at all times.
- 5. Obtain and pay for use of additional storage or Work areas needed for operations.
- 6. Limit use of site for Work and storage.
- 7. Prime Contractors to notify CM of all deliveries 48 hours prior.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

**END OF SECTION** 



#### Pre-Bib Request for Information Log

Proj	Project: CUSD D.O. Phase 2 - Pre-Bid RFI Log					
RFI#	Trade	Questions	Date	Architect's Response		
1	Doors & Frames	Frame types "KD-1" are listed as 'Knock down aluminum frames". Details 1/A822, 21/A860 & 22/A860 are hollow metal frame details, these details are assigned to "KD-1" frames. Which is correct, are the frames listed as "KD-1" aluminum knock down frames or hollow metal frames?	10/28/2024	Refer to Addendum 4 item 27 - Details revised		
2	Doors & Frames	The door schedule page A700 does not have hardware groups assigned to the appropriate openings, please provide.	10/29/2024	Refer to Addendum 4 item 27 - Hardware groups added		
3		Are the metal building providers including all exterior doors, frames and windows?	10/31/2024	Exterior doors, frames and windows are not provided by metal building manufacturer. Refer to SOW for items required by each bid package.		
4	Building Steel	Is Sub-Part "R" classification or certification required?	11/4/2024	Contractor to meet all requirements of CA OSHA and OCIP.		
5	Building Steel	Is a riggers certification required?	11/4/2024	Contractor to meet all requirements of CA OSHA and OCIP.		
6	Concrete	What is the max load bearing capacity for the concrete slab for buildings A, B, C and D? (Equipment)	11/4/2024	Refer to S000 for slab strengths		
7	Building Steel	Are steel chokers required?	11/4/2024	Contractor to meet all requirements of CA OSHA and OCIP.		
8	Electrical	Will an Electrical Roof Plan for Building A be issued?	11/5/2024	There is no electrical located on the roof. No plans to be issued.		
9	Electrical	Is the solar part of the electrical bid? Even though it is deferred approval or separate permit? Please clarify.	11/5/2024	Not part of project scope		
10	Louvers	Mechanical drawing sheets for building A show louvers on the exterior of the building. The keynotes say to reference architectural drawings for a louver schedule. There is no louver schedule, and these are not spelled out in any scope of work to be provided and installed. Please clarify what types of louvers these are and who is responsible for procurement and installation.	11/5/2024	Refer to Addendum 4 item 26 - Louver size added		

11	Matal Framing	DOF-04 SOW list's Spec Section 054000 – Cold Formed Metal Framing; but doesn't specifically note metal framing at any of the "F&I" items.  DOF-06 SOW doesn't list Spec Section 054000 -Cold Formed Metal Framing, but 'F&I" item #1 states to "Furnish and install ALL METAL FRAMING "	11/5/2024	Refer to Addendum 4 item 06 - Refer to revised SOW
12	Metal Framing	Please clarify if "ALL metal framing" per DOF-06, F&I item #1 only references interior metal framing OR if it is meant to signify inclusion of exterior framing shown (and similar) to the details below.	11/5/2024	DOF-06 Contractor to provide interior and exterior metal framing.
13	SWPPP	Will the Storm Water Pollution Prevention Plan (SWPPP) responsibility and implemented be run by the construction manager?	11/6/2024	SWPPP included in DOF-01 bid package
14	Site	Are job site signs required for the multi-prime contractors?	11/6/2024	No, job site signage to be provided by CM
15	Site	Are job trailers/office required for the multi-prime contractors?	11/6/2024	No, Prime contractors may provide site trailer/office for their scope.
16	Site	Please confirm that the construction manager will be providing the temporary fencing for this project.	11/6/2024	Confirmed
18	Site	Will temporary toilets and wash stations be provided by the construction manager, or do each bid package provide its own? Will temporary toilets and wash stations be provided by the construction manager, or do each bid package provide its own?	11/6/2024	CM to provide temporary fasilities.
19	General Specialties	For General Specialties, is the contractor just responsible for receiving the Trion Lift, or are we also responsible for installation as well?	11/6/2024	Refer to A263, C42 to be IBO & C43 to be IBC.
20	Doors & Frames	Do all the exterior doors, frames, and hardware come with the pre- engineered metal building, or do general specialties need to furnished these items?	11/6/2024	Prime Contractor to provide all materials indicated in the Door & windiow schedules.
21	Doors & Frames	Please provide a hardware heading on the door schedule?	11/6/2024	Refer to Addendum 4 item 27 - Hardware groups added
22	Doors & Frames	Please provide direction on the hardware specifications where the hardware groups will be applicable on the openings.	11/6/2024	Refer to Addendum 4 item 27 - Hardware groups added
23	Doors & Frames	On the door schedule A700, door type KD/1 calls out detail 1/A860, but this detail is for a hollow metal frame. Please clarify.	11/6/2024	Refer to Addendum 4 item 27 - Details revised
24	Building Steel	In bid package DOF04, under furnish and install calls for exterior metal panels and perforated metal panels. Please confirm that these items do not come with the MBM.	11/6/2024	Confirmed, not by metal building manufacture.

25	Electrical	Drawing E100 indicates a group of secondary feeder conduits from Distribution Panels BC and BCL, consisting of eight (8) 2-1/2", four (4) 3" and one (1) 3-1/2", serving Buildings B and C. The 2-1/2" and 3" conduits depicted align with feeder conduits reflected on Single Line Drawing E100, however the 3-1/2" conduit does not. Please advise on where to the 3-1/2" feeds to and from.	11/6/2024	Refer to Addendum 4 item 34 - Drawings revised
26	Electrical	Drawing E100 indicates a group of secondary feeder conduits from Distribution Panels D and DL, consisting of seven (7) 2-1/2", two (2) 3" and one (1) 3-1/2", serving Building D. The 2-1/2" and 3" conduits depicted align with feeder conduits reflected on Single Line Drawing E100, however the 3-1/2" conduit does not. Please advise on where to the 3-1/2" feeds to and from.	11/6/2024	Refer to Addendum 4 item 34 - Drawings revised
27	Electrical	Project Spec Section 011100, Part 1, 1.4, A, 1, states that additional structures include a solar carport canopy. Drawings E100 & E700 depict solar conduit provisions on the Site Plan, and a 60kw BESS and a 53.55kw PV system on the Single Line Diagram; however, the Electrical SOW (addendum #2) does not reference the BESS/PV system and there are no specifications or details for the solar canopy structure. Please advise if the solar canopy structure and the BESS/PV system are to be part of another phase, if not please provide specifications and drawings reflecting this scope.	11/6/2024	Refer to Addendum 4 - Refer to revised electrical sheets
28	HVAC	Please confirm existing DDC system of the previous phases to match exiting HVAC control systems and existing district wide system. Was told it was possibly Distech systems but would like clarification to match existing. Spec-Division 25500 states: The control system shall be direct digital; Schneider TAC I/A, Reliable Distech, Allerton, or Honeywell. The system shall be Niagra 4 based with open license supervisory controller and must be compatible with existing district-wide system. The protocol shall be LonWorks or BACnet.	11/7/2024	Refer to Addendum 4 - Refer to revised electrical sheets

29	Masonry	Regarding the CMU Service Yard: Civil drawing page 14 shows the top of footing elevation at 376.10 and the top of wall at 383.43, making the CMU wall 7-4 from top of footing to top of wall. See attached. Details 5, 10, 14, and 20 on drawing page A110 show the Top of Wall at 7-8 above concrete floor, with 1-0 of CMU below concrete floor, making the CMU wall 8-8 from top of footing to top of wall. See attached. How tall is the CMU wall from top of footing to top of wall?	11/7/2024	CMU height to be per Architectural drawings.
30	Accoustical	There is a discrepancy between the finish schedule and the interior elevations for the tackboard in many of the offices. Finish schedule calls for TB on 4 walls, interior elevations only show 3 walls. For bidding purposes, will we be going off the finish schedule or interior elevations?	11/7/2024	All 4 walls to be TB per the Finish Schedule.
31	Electrical	Drawing E600, provides installation details for EVCS, reference Details 5 & 15. Drawing E100, Key Note #16, identifies conductors to EVCS locations. Electrical SOW (Addendum #2), Furnish & Install Item #37, states to furnish and install rough-in for EVCS. Please confirm no EVCS are to be provided or installed as part of the electrical SOW. If required, please provide clarification if EVCS are Owner provided or provided specifications if under Electrical SOW.	11/7/2024	Refer to Addendum 4 - Refer to revised electrical sheets
32	Electrical	Drawing E700, Single Line Diagram, indicates numerous new loads feeding from existing switchboard, however does not indicate if breakers and / or metering serving subject loads are new or existing. Please confirm breakers and metering feeding new loads from existing switchboard MSB are existing. If not, please provide existing switchboard information including manufacture and required AIC rating for new breakers.	11/7/2024	Refer to Addendum 4 - Refer to revised electrical sheets
33	Building Steel	On the Metal Building Plans, Building A and B show that the panels do not come with the building, but Building C and D do not call out anything. Are the panels for Building C and D part of the MBM kit, or do we have to furnish them?	11/7/2024	PEMB Covershheet C1 of 2 is typical of buildings B, C, & D

34	General Specialties	Bid Package DOF10 General Specialties. The following items are specified as Owner Furnished & plan sheets A904 & all subsequent enlarged plans call out model numbers to be provided. Please confirm which is correct? Plans or Specs?  a. Bobrick Soap Dispenser model 82216  b. Bobrick Paper Towel Dispenser model 2860	11/7/2024	Items to be owner provided
35	Building Steel/Metal Framing	On bid package DOF04 calls for spec section 054000 COLD-FORMED METAL FRAMING, but on bid package DOF06 under furnish and install items it calls for all metal framing. Is the metal framing at the exterior walls and columns part of bid package DOF04 or DOF06? Is any metal framing part of DOF04? Please clarify	11/7/2024	DOF-06 Contractor to provide interior and exterior metal framing.
36		For bid package DOF10, how much lift does each hoist require from the beam to the floor level.	11/7/2024	Contractor to provide a SNER010S-10 & SNER005S-10
37		For bid package DOF10, is 4'ft less than the amount of lift for the pendant drop acceptable.	11/7/2024	Contractor to provide a SNER010S-10 & SNER005S-10
38	General Specialties	For bid package DOF10, is the power supply for both hoists 110/1/60hz.	11/7/2024	Refer to revised electrical plans
39		For bid package DOF10, is there a flange width range that the trolleys need to accept.	11/7/2024	Contractor to provide a SNER010S-10 & SNER005S-10
40	Casework	Regarding the Offices in Building A, keynote 6.26 on elevation sheets (A901 – A907) call for solid surface countertops at PEMB brace.  This keynote is shown on all Office countertops even the ones without the PEMB brace.Can you confirm if all of the countertops are to be solid surface? Or, only the tops shown with the brace and the tops without to be plastic laminate?	11/7/2024	Refer to Addendum 4 item 28 - Refer to revised finish schedule
42		Elevation 17/A907 at Open Space A213 keynote 6.26 calls for solid surface counter top at PEMB brace. There is no brace shown. Finish schedule calls for plastic laminate countertop. Please clarify type of countertop.	11/7/2024	Refer to Addendum 4 item 28 - Refer to revised finish schedule
43	Casework	Elevation 9/A935, at Breakroom D117 on the north wall below the monitor there appears to be cubbies or mail slots. There is no keynote to indicate this. Can you clarify the intent of these boxes shown.	11/7/2024	This item to be OFOI.
44	( asework	On the east wall of Storage Room C105 there appears to be shelving. There is no keynote to indicate this. Please confirm.	11/7/2024	Refer to A261 for additional information

45	HVAC	On Mechanical Sheet M200 it shows most of the Refrigerant Suction Pipe (RS) to be a size of 3/5". That size doesn't exist so can you please clarify what the correct size should be?	11/7/2024	Revise all references of 3/5" to 5/8"
46	Metal Framing	Please confirm that item 16 under furnish and install on Bid Package DOF- 06-Drywall & Metal Framing does not belong to this package.	11/7/2024	All Prime contractors to provide impalement protection for any work related to their scope.
47	Metal Framing	Details 29, 30/A812 and 11, 12, 16, and 26 on A861 calls for #14 X 2-3/4" F.H. Star screw @ 8" O.C. (Measured) Is the screwing only required at the perimeter of the panel where the Alum. Trim occurs? Note that most of the plywood goes over ZEE-GIRT.	11/7/2024	Screws required at all horizontal ZEE-GIRTs
48	Metal Framing	Details 29, 30/A812 and 11, 12, 16, and 26 on A861 call out for the plywood to be T & G and detail 26 on A861 shows a ¼" Alum. T-Trim at vertical joints between panels, Alum. T-Trim it will not work with the T & G, Please advise.	11/7/2024	Refer to Addendum 4 item 29 - Detail eliminated
49	Metal Framing	CFMF backing required behind the Alum. T-Trim shown on 26/A861? Please advise.	11/7/2024	Refer to Addendum 4 item 29 - Detail eliminated
50	General	Please reference equipment schedule, sheet A263, there is some information needed to quote the items listed as FBC/IBC: Reference type mark C32.4 the "metal work counter", is not shown on the equipment plan for Building C on sheet A261. Also, is not showing if is going to be bolted to the concrete or mobile. It also says that its metal but I don't see what kind. Is it stainless steel or what type of metal? Is there any specific manufacturer or it can be a metal fab? Please indicate what finish if powder coated, stainless steel, etc. Also, in case there is a specific manufacturer, please provide the part or serial number to get it priced out. A detail would be really helpful. Please advise.	11/7/2024	Contractor to provide a ULINE - Steel assembly Table - H4838S or equal.
51	General Specialties	Please reference equipment schedule, sheet A263, there is some information needed to quote the items listed as FBC/IBC: Reference type mark C32.7 "Global Industrial single sided cantilever rack 2 in lip", is specifying the measurements as 75"Lx45"Wx120"H but, per Global Universal representatives, they don't carry any cantilever rack with those specific measurements. Also, please specify the amount of arms to include in the bid. This would affect the cost and since the detail 7/A862 is not showing an specific amount of arms/supports, it's impossible to price it out correctly. Please advise.	11/7/2024	Revise dimensions to 72"Wx46"Dx120"H - T9A320823

52	General Specialties	Reference type mark C47. Is it in the General Specialties package scope of work to furnish and install the beam for the "1 Ton push trolley beam hoist, Harrington SNER010S" as well? It is not clear if its only the hoist or the beam also.	11/7/2024	Hoist beam to be provided and installed be DOF-04
53	General Specialties	Please see below display options for different features for that specific part number. Please advise what option is required for the following features (since the cost depends on it, we have to know to price it out correctly):  a. Lift (Options from 10ft – 40ft in increments of 1 ft each option) (see attachment)  b. Hoist suspension (please see below displayed options) (see attachment)  c. With or without chain container (please see below displayed options) (see attachment)  d. Hoist power cord length (please see below displayed options) (see attachment)	11/7/2024	Contractor to provide a SNER010S-10 & SNER005S-10
54	Plumbing	In the Plumbing Summary of Work under the Furnish and Install Item #8 it calls out to furnish and install 2-compartment sink shown on equipment schedule on sheet A263. However, there is no listing on sheet A263 of a 2-compartment sink. Can you please clarify details about the 2-compartment sink and where it is being installed?	11/8/2024	Refer to Addendum 4 item 06 - Refer to revised SOW
55	Ceramic Tile	A908/A222 shows CT-1 wall base. There is no CT-1 on Finish Schedule A750. Please advise.	11/8/2024	Revise reference to CT-3
56	Ceramic Tile	A908/A224 shows CT-1 wall base while finish schedule A750 shows base to be RB-2. Please advise.	11/8/2024	Revise reference to CT-3
57		DOF010 General Specialties / Furnish and Install items #12 T.V./Monitor Brackets (Summary of Work) A903 Keynote 11.37 states " Monitor Mount/Monitor N.I.C.". Are the T.V./Monitor Brackets to be picked up by General Specialties or not?	11/8/2024	Yes, refer to DOF-10 Schedule of Work
58	General Specialties	Please provide specs for the 1/2 ton (SNER005S) and 1 ton (SNER010S).	11/8/2024	No specification contractor to provide specified item.
59	General Specialties	The Bike Rack on A/19 is CFCI, while the bike locker on 6/A110 is OFCI. Please confirm.	11/8/2024	Refer to Addendum 4 item 21 - Detail eliminated
60	Concrete	On Bid package 03 Concrete with rebar, spec section 071326 Self-adhering sheet waterproofing calls for Meadows, W.R., Inc Sealtight Mel-Rol. Is this spec section applicable to this contract, if so, where is it being applied? Is it on the curbs, slab on grade, please clarify?	11/8/2024	Self-adhering sheet waterproofing to be used at elevator pit. Refer to A870

61	Casework	Please confirm that the Monitored Compliance Program in spec section 064116 is required on this project.	11/8/2024	Refer to Addendum 4 - Refer to revised electrical sheets
62	All Trades	To ensure we provide the most accurate and thorough bid for the District Campus Phase 2 - Plant Operations project, we kindly request a brief extension of 7 calendar days for the bid opening. We understand the importance of your timeline and appreciate your consideration of this request. This additional time would allow us to submit a proposal that aligns with the high standards of quality and detail that your project deserves.	11/8/2024	Bid date revised to November 21st at 10:00am
63	Paint	1.In building A, Room A213 Open Space, there is an exposed ceiling that calls for painted gypsum board. Please confirm that the exposed structure will paint EXP-2.	11/8/2024	Refer to Addendum 4 item 28 - Refer to revised finish schedule
64	Paint	2.In the shop buildings, there are exposed plywood wainscots. They are called out as PW-2 with no paint finish indicated. Please clarify what finish (paint or clear finish) is required, or if it will remain unfinished.	11/8/2024	Plywood to remain unfinished
65	General Specialties	Who is responsible for the carpet adhesive & Seam Sealer—the owner or the flooring contractor?	11/11/2024	Work to be included in DOF-10
66	General Specialties	According to the finish schedule in sheet A750, Elevator A130 is listed with LVT, but the finishschedule does not specify LVT. Could you please provide the material specifications, manufacturer, and style for the flooring and also mention who is responsible for procuring the material?	11/11/2024	Refer to Addendum 4 item 28 - Refer to revised finish schedule
67	General Specialties	Can you please mention who responsible for providing wall base?	11/11/2024	Work to be included in DOF-10
68	General Specialties	According to the stair plans on sheets A201 and A202, no floor finish is shown. Is floor finish workrequired for the stairs? If so, could you please provide the material specifications?	11/11/2024	Refer to Addendum 4 item 28 - Refer to revised finish schedule
69	General Specialties	Could you please confirm if there are any mortar bed requirements in restrooms A126, A127, A222,A223, C108, C109, D119, and D120? Or is it sufficient to simply float the slope for the drain withoutthe mortar bed? Additionally, if there are any depressed slabs, please provide details of the depression.	11/11/2024	Rooms A126, A127, A222, & A223 to slope to drain with no mortar bed or depressed slab, No floor drains in the other restrooms.
70	Landscape	Scope of work DOF-15 – Landscape and Irrigation require splash blocks. However, it is not shown on the plan. Please clarify.	11/12/2024	Refer to A230 for additional information and locations.
71	Landscape	Please provide detail for swale as required in scope of work DOF-15 — Landscape and Irrigation.	11/12/2024	The intent of this scope item is to provide adequate drainage in the planter areas. Landscape contractor to add any minor swales necessary prior to installing mulch.
72	Landscape	Please provide location swale as required in scope of work DOF-15 – Landscape and Irrigation.	11/12/2024	The intent of this scope item is to provide adequate drainage in the planter areas. Landscape contractor to add any minor swales necessary prior to installing mulch.

73	Landscape	Please provide locations or at least drawing numbers for impalement hazards as required in scope of work DOF-15 – Landscape and Irrigation.	11/12/2024	All Prime contractors to provide implement protect for any work related to their scope.
74	Landscape	Please provide location for existing controller as required in irrigation legend on sheet 7 of 10 landscape irrigation plan.	11/12/2024	Existing controller located in phase 1 in the Southwest corner of the property.
75	· ·	There is a difference of soil preparation ratio between specs 329000-08/3.3/A and landscape note #78 on sheet 2 of 35 construction note. Please clarify.	11/12/2024	Contractor to refer to project specification.
76	Landscape	There is a difference of backfill ratio between specs 329000-10/3.4/D and landscape note #72 on sheet 2 of 35 construction note. Please clarify.	11/12/2024	Contractor to refer to project specification.
77	Landscape	Please provide material of screened backfill as required in detail 17 on sheet 9 of 10 landscape &irrigation details. Is it the soil (generated from excavated/trenched)to be screened?	11/12/2024	If rock is encounted during tenching a 6" bedding of screened material is to be installed below the piping and conduits.
78	Landscape	Specs 329000-09/3.3/B shows planting holes are to be excavated three times the size of root ball. However, detail 15 on sheet 9 of 10 landscape and irrigation detail shows planting holes is to be 2-3 times the diameter of container. Please clarify.	11/12/2024	Construct per projects specifications
79	Electrical	Lighting drawing keynotes (various), indicate "One 3/4"C with one category 5E plenum rated cable, green in color with RJ45 connectors in each end." Beings cable is plenum rated, please confirm 3/4"C is only required in inaccessible ceiling spaces.	11/12/2024	Conduit required at areas with exposed ceilings and inaccessable spaces.
80	Electrical	Specification Section 260000-1.2D10, indicates in part to provide a complete Intrusion Detection System per Specification Section 281600, however Section 281600 is not included with project documents. Security Plan Key Notes reference security devices and state to provide per District Specifications. Electrical SOW, Furnish & Install Item #35 states to furnish and install alarm conduit, pull string and box rough-in. Please confirm Intrusion Detection System is furnished and installed by Owner with rough-in provided under electrical SOW. If not, please provide Section 281600 referenced above.	, ,	Refer to Addendum 4 - Refer to revised electrical sheets
81	Electrical	Sheet E700 single line drawing shows a 60kw BESS system and a 53kw PV system, is this to be included in the project scope of work?		BESS system and PV system are not included in this bid. Prime contractor only responsible for scope of work indicated in the bid documents.

82	HVAC	Addendum 2 specified the underground duct in the carpenter shop as PVC-coated galvanized sheet metal with 4x1 PVS coating. This is a very short run, less than 10 feet, of 4 inch duct. It would be simpler and more cost efficient to use schedule 40 PVC pipe for this exhaust application. Please advise if 4 inch schedule 40 PVC pipe would be an allowable alternative for the underground duct portion in this building.	11/12/2024	Prime contractor may use schedule 40 PVC for underground duct portion.
83	Metal Framing	Architectural 6" stud bracing attached to Z girts, called out on details 2,12,14 and 24 does not identify spacing requirements. Please clarify if stud bracing per above details are to be 16" oc at each exterior wall stud and at each Z girt.	11/12/2024	Bracing to be at each stud.
84	Metal Framing	There are two backing details note at hand rail location. Detail 3 on A861 calls for wood blocking and detail 12 on A862 calls for 6" 14g track backing.Please clarify if metal backing per detail 12 is acceptable.	11/12/2024	Handrail backing to be per deail 3/A861
85		Per detail 2 on A840 there is a 2x6 wood nailer on top of top track. This does not match structural top of wall detail 25 on S004. Please clarify if wood nailer is required per architectural detail. If so, provide locations where occurs.	11/12/2024	2x6 Wood nailer not required
86	Metal	Details on A870 show shaft walls at elevator. Some details show (2) layers of gyp board over RC channel. Some details show (2) layers of gyp board directly over metal shaft wall framing. Per 092116, shaft walls are to be 2-1/2" 1hr with one layer of gyp board and no RC channel. There are no shaft wall types noted and per the floor plan, walls surrounding elevator appear to wider than 2-1/2".Please clarify shaft wall assembly required at elevator.	11/12/2024	Refer to Addendum 4 item 30 - Typical Shaft wall detail added. All shaft walls to be constructed per this typical detail.
87	Metal Framing	Per A600 there is a gyp board ceiling shown at south stair in room A122. Details and section views on A202 do not show or note a gyp board ceiling at this location. Please clarify if there is to be a gyp board ceiling under side of stairs. If so, please provide detail/s showing ceiling.	11/12/2024	Gyp board to be installed under stair treads, ceiling to be exposed, refer to section 7/A400
88	Framing	Detail 4 on A830 notes to see detail 8 on S009 for brace attachment.  Detail 9 on A830 notes to see detail 8 on A861 for wire brace attachment to structure above. There is no S009 structural page provided. Also, there is no detail 8 on A861. Please clarify.	11/12/2024	Revise reference 8/S009 to 2/A831. Revise reference 8/A861 to 1/A831

				·
89	Metal Framing	At bldg D room 105 (108 sim.) east interior elevation shows tack board. It appears that room 105 & 108 east exterior walls will receive a 2-1/2" metal stud furred wall per floor plan wall legend. At bldg D room 109 east interior elevation shows tack board as well. It doesn't appear to have 2-1/2" metal stud wall furring per floor plan wall legend. Please clarify if room 109 interior east elevation exterior wall will receive 2-1/2" metal stud wall furring sim. to rooms 105 & 108.	11/12/2024	Contractor to provide furring at room 109 similar to rooms 105 & 108.
90	Concrete	Reference Buildings A, B, C and D. See also concrete foundation details Sheet S500.Would it be acceptable to pour the foundations and curb monolithic? Please advise.	11/12/2024	It is acceptable to install the foundations and exterior curbs monolithically as long as the original durations in the schedule are met and access for equipment to the buildings is provided.
92	Casework	There are many locations on the elevations that the keynotes call off solid surface countertops but the finish schedule on sheet A750 call for them to be Plastic Laminate. Please advise which one is correct.	11/12/2024	Refer to Addendum 4 item 28 - Refer to revised finish schedule
93	Casework	Detail 8 on sheet A862 can may be done in solid surface material but it is not likely with a plastic laminate countertop which occurs in a few places in Bldg. A. Please advise.	11/12/2024	Refer to Addendum 4 item 28 - Refer to revised finish schedule
94	Casework	Which bid package is responsible for providing and installing the in-wall countertop supports shown in detail 3/A862? Please indicate where it occurs as no elevations have that detail called off.	11/12/2024	Refer to DOF-06
95	Electrical	Please advise on the BESS specifications and/or manufacturer.	11/12/2024	BESS system and PV system are not included in this bid. Prime contractor only responsible for scope of work indicated in the bid documents.
96	Landscape	Sheet 1 of 10 landscape require for landscape repair at phase 1. Please provide as-built drawings for phase 1 to clarify which areas are sod and which areas are shrub areas.	11/13/2024	There is no sod in phase 1 all areas are planter areas.
97	Metal Roofing	Spec Section 074113 Insulated Metal Roof Panels is shown in the Table of Contents, but the spec section is not included. Please provide.	11/13/2024	Refer to Addendum 4 item 02 - Specification Section added.

SHEET NUMBER	SHEET TITLE				
	CIVIL DRAWINGS				
1	COVER SHEET				
2	CONSTRUCTION NOTES				
3	TOPOGRAPHY SURVEY LEGEND				
4	PARTIAL TOPOGRAPHY SURVEY				
5	PARTIAL TOPOGRAPHY SURVEY				
6	PARTIAL DEMOLITION PLAN				
7	PARTIAL DEMOLITION PLAN				
8	PARTIAL SITE PLAN				
9	PARTIAL SITE PLAN				
10	PARTIAL HORIZONTAL CONTROL PLAN				
11	PARTIAL HORIZONTAL CONTROL PLAN				
12	HORIZONTAL CONTROL LEGEND				
13	PARTIAL GRADING AND DRAINAGE PLAN				
14	PARTIAL GRADING AND DRAINAGE PLAN				
15	PARTIAL UTILITY PLAN				
16	PARTIAL UTILITY PLAN				
17	SITE DETAILS				
18	SITE DETAILS				
19	SITE DETAILS				
20	FENCE DETAILS				
21	GATE DETAILS				
22	TRASH ENCLOSURE DETAILS				
23	UTILITY DETAILS				
24	UTILITY DETAILS				
25	UTILITY DETAILS				
	LANDSCAPE DRAWINGS				
26	LANDSCAPE MULCHING PLAN				
27	LANDSCAPE MULCHING PLAN				
28	LANDSCAPE PLANTING PLAN				
29	LANDSCAPE PLANTING PLAN				
30	LANDSCAPE IRRIGATION PLAN				
31	LANDSCAPE IRRIGATION PLAN				
32	LANDSCAPE IRRIGATION PLAN				
33	LANDSCAPE & IRRIGATION DETAILS				
34	LANDSCAPE & IRRIGATION DETAILS				
35	LANDSCAPE & IRRIGATION DETAILS				

#### PROJECT DIRECTORY:

PROJECT ADDRESS: SOUTHEAST CORNER OF HERNDON

AVENUE AND FOWLER AVENUE, CLOVIS, CA.
APN 550-020-47T

CONTACT:

NICK MELE

(559)327-9000
OWNER: CLOVIS UNIFIED SCHOOL DISTRICT

1450 HERNDON AVE CLOVIS CA 93613

CIVIL ENGINEER: BLAIR, CHURCH & FLYNN

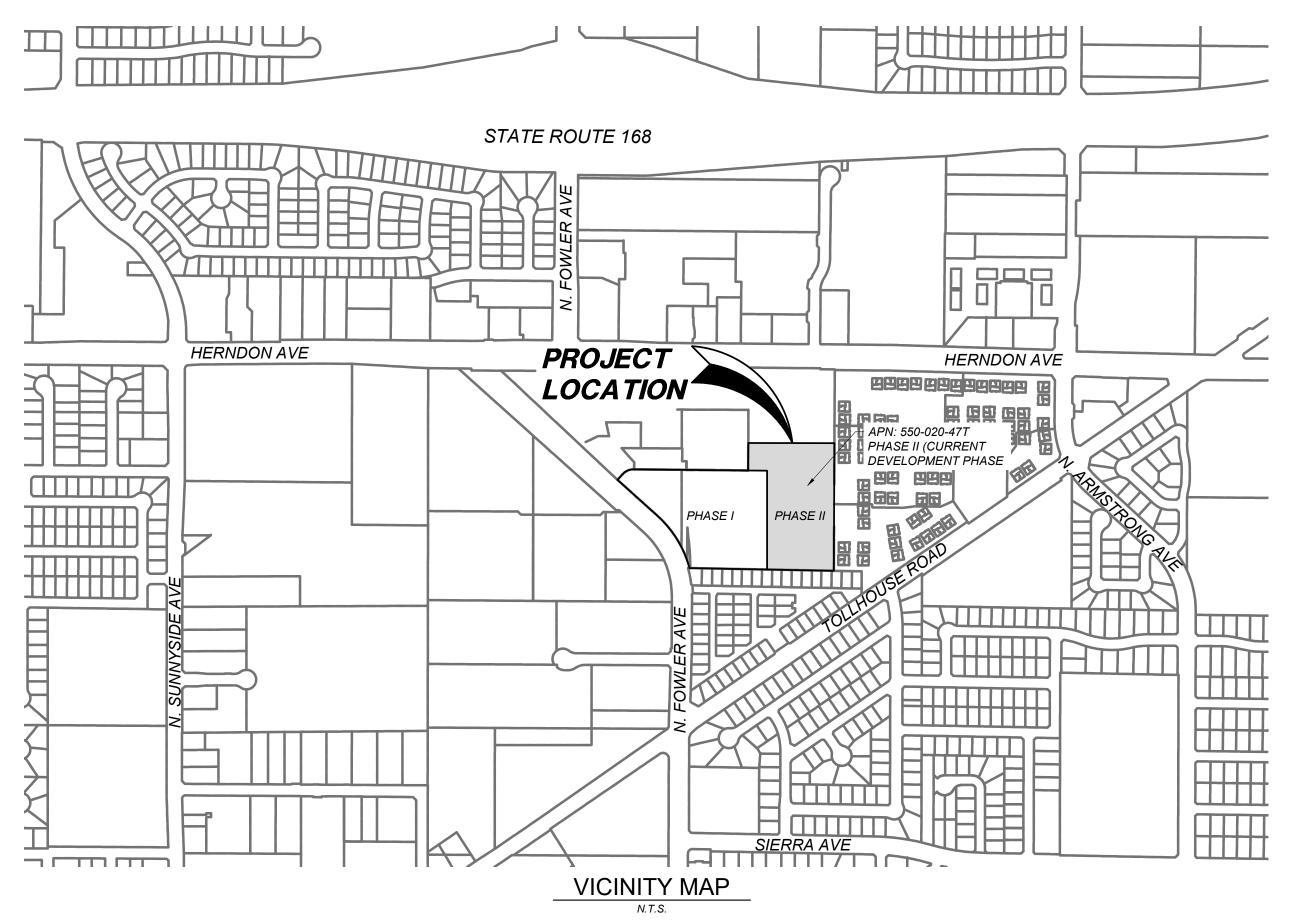
CONSULTING ENGINEERS 451 CLOVIS AVE., SUITE 200 CLOVIS, CA 93612

CONTACT: ZACHARY HOCKETT PHONE: (559) 326-1400

## CITY OF CLOVIS

# PLANT OPERATIONS CUSD DISTRICT OFFICE EXPANSION PHASE 2 CL SPR 2023-12

CITY ENGINEER - THAD AVERY PROJECT ENGINEER - ZACHARY HOCKETT



#### **SURVEY NOTES:**

- 1. THIS TOPOGRAPHIC SURVEY LOCATES SPECIFIC PHYSICAL FEATURES OF THE SITE AND THEIR ELEVATION AS DETERMINED NECESSARY BY THE PROJECT ENGINEER. IT IS NOT A COMPLETE TOPOGRAPHIC SURVEY OF THE SITE. THE INFORMATION SHOWN REFLECTS THE DATA OBTAINED BY FIELD SURVEY CONDUCTED ON JULY 29, 2024.
- 2. UTILITY INFORMATION SHOWN HEREON IS BASED ON RECORD INFORMATION SUPPLIED TO THE ENGINEER BY UTILITY COMPANIES, PUBLIC AGENCIES AND THE PROPERTY OWNER, TOGETHER WITH OBSERVATION OF VISIBLE EVIDENCE BY A FIELD SURVEY. THE ENGINEER CAN MAKE NO GUARANTEE AS TO THE ACCURACY OR COMPLETENESS OF THE UNDERGROUND UTILITY FACILITIES SHOWN. PRIOR TO ANY SITE EXCAVATIONS, THE CONTRACTOR SHALL CONTACT THE OWNER AND UNDERGROUND SERVICE ALERT (USA) AND REQUEST THAT THEY IDENTIFY THE LOCATION OF ALL UNDERGROUND UTILITIES AT THE SITE.

#### SWPPP

ACREAGE: APPROVAL DATE:

16.65 3/13/24 5F10C403331

#### BASIS OF BEARINGS

THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 3, TOWNSHIP 13 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN, ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS) OBSERVATION TAKEN TO BE NORTH 00° 08' 33 EAST.

#### PROJECT BENCHMARK

CITY OF CLOVIS BENCHMARK #125 IN CURB AT THE NORTHEAST CORNER OF HERNDON AND FOWLER 20'± NORTH OF NORTH RETURN

### SITE BENCHMARK:

ELEVATION = 376.730 NAVD88 DATUM

CHISELED X IN CONCRETE CURB ON HERNDON AVENUE APPROXIMATELY 49'± OF THE NORTHEAST CORNER OF THE PROPERTY LINE.

ELEV.= 378.91 NAVD88 DATUM

#### **DATUM CONVERSION**

CONVERSION FROM NAVD88 TO NGDV 29: NAVD88 - NGVD29 = -2.23'

## APPROVED BY:

FRESNO METROPOLITAN FLOOD CONTROL DISTRICT DATE
FMFCD APPROVAL US LIMITED TO:
1. ONSITE DRAINAGE BOUNDARIES

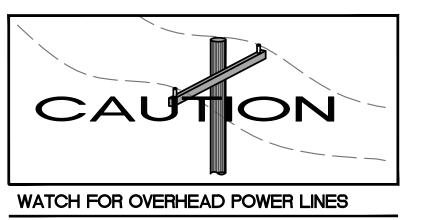
2. LOCATION OF DRAINAGE ENTRY TO PUBLIC STREETS

THAD AVERY, CITY ENGINEER DATE
RCE 62251

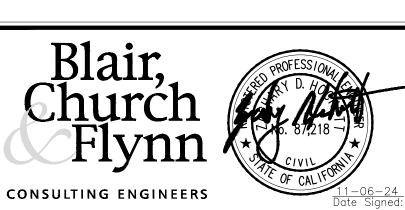
CERTIFIED ACCESS SPECIALIST (CASP)

AS OF THE DATE OF CITY APPROVAL, THE PROJECT SITE AND ALL DESIGN ASPECTS WITHIN THE SCOPE OF THE PROJECT HAVE BEEN EVALUATED FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY STANDARDS BY CITY STAFF. THE PROJECT WILL BE ADA COMPLIANT UPON COMPLETION.

FMFCD CONTRACT 5F-PVT-8







	CONSULT
	Blair, Church & F Consulting Engin 451 Clovis Aver Suite 200 Clovis, California 9 Tel (559) 326-1 Fax (559) 326-1
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LTANT	REVISIONS
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nia 93612	<u> </u>
26-1400 26-1500	<u></u>
75-17481	

APPROVALS

DEVELOPMENT REVIEW

CONSTRUCTION MANAGEMENT

BUILDING

UTILITIES/STREETS

PROVALS
(INITIAL)

ENT REVIEW
TION MANAGEMENT
PROJECT
DIA

CITY OF CLOVIS

PROJECT TITLE
PLANT OPERATIONS
DISTRICT OFFICE EXPANSION PHASE 2 SPR 2023-12

DISTRICT OFFICE EXPANSION PHASE 2 SPR 2023-12

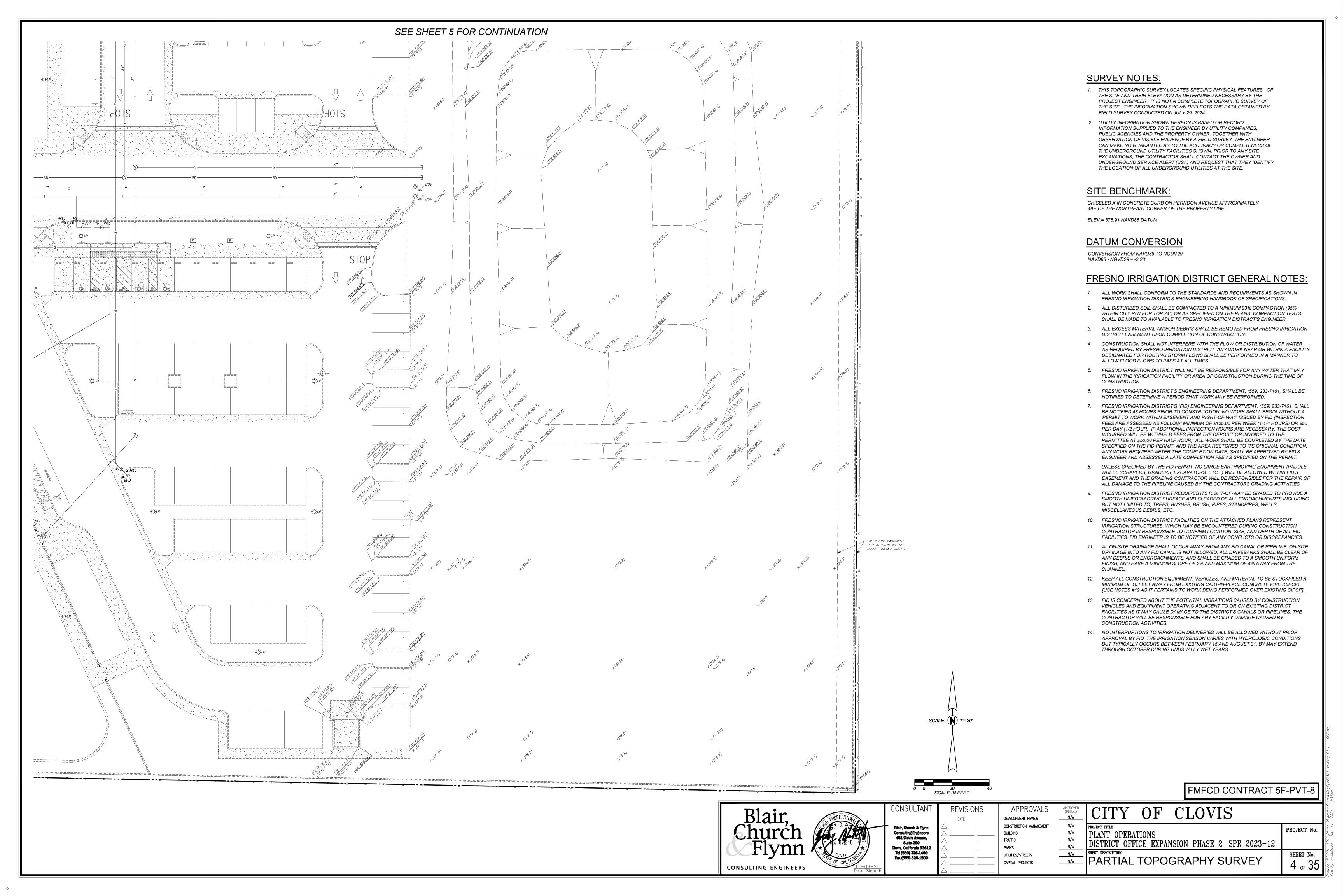
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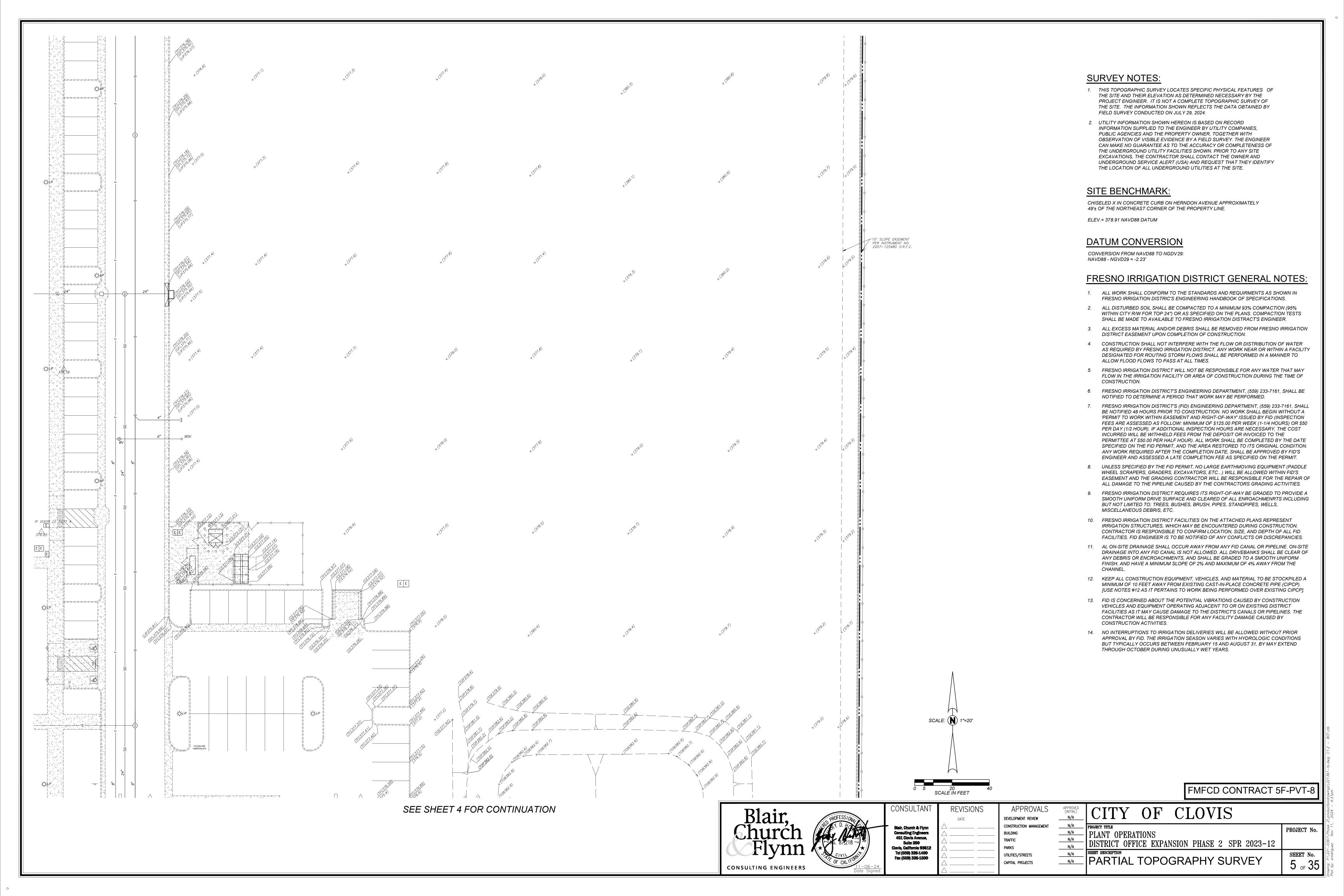
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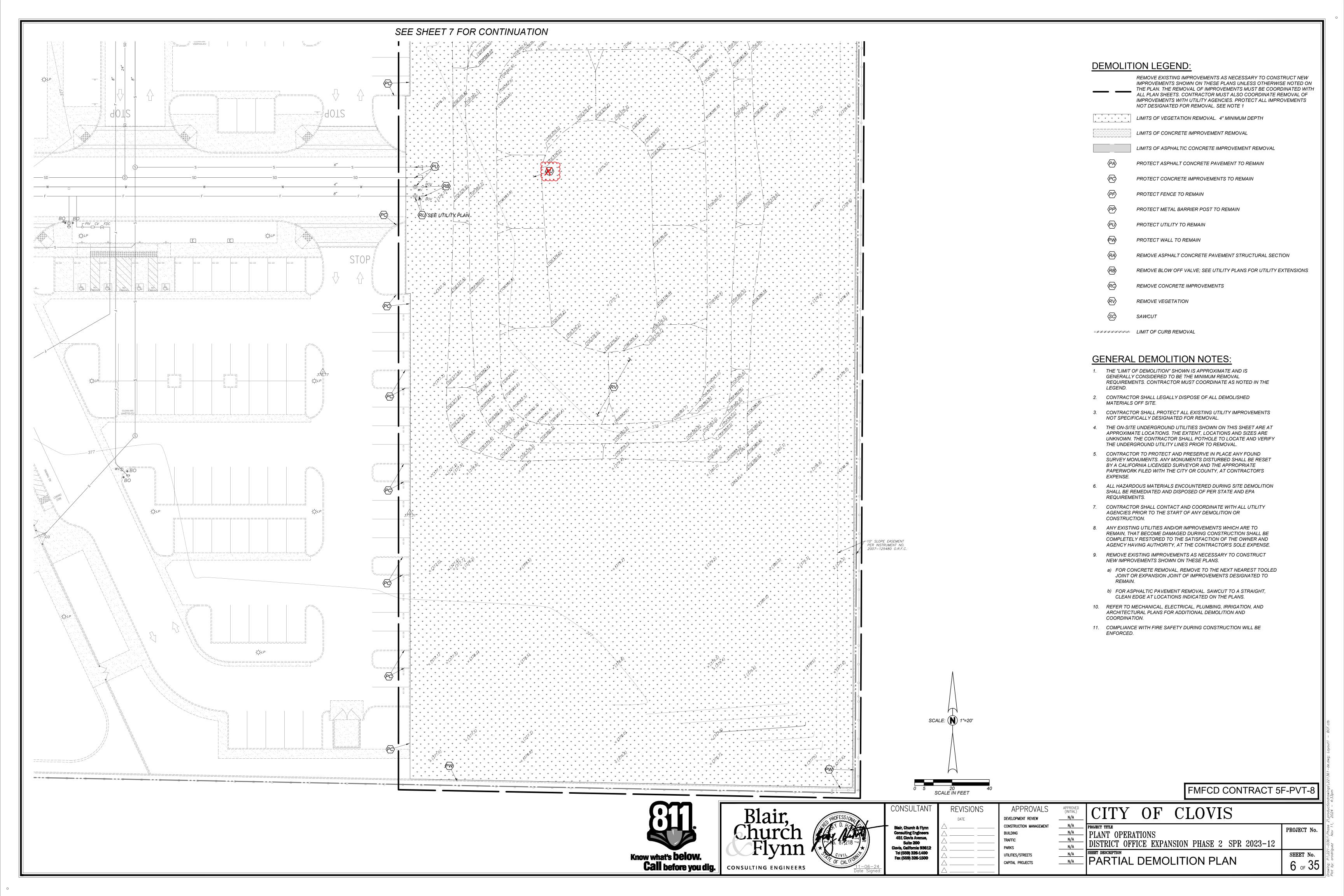
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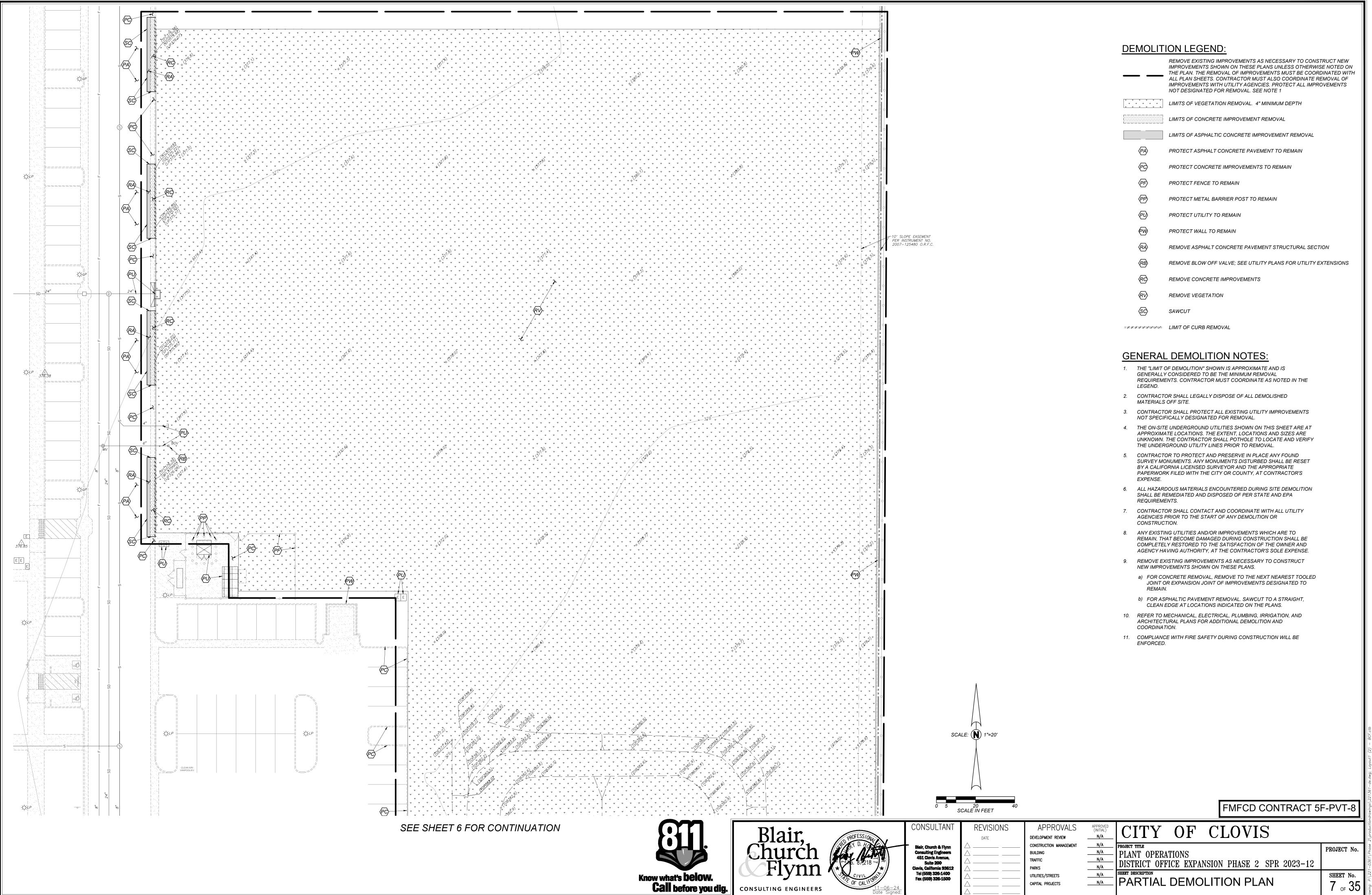
SHEET No. 1 of 35

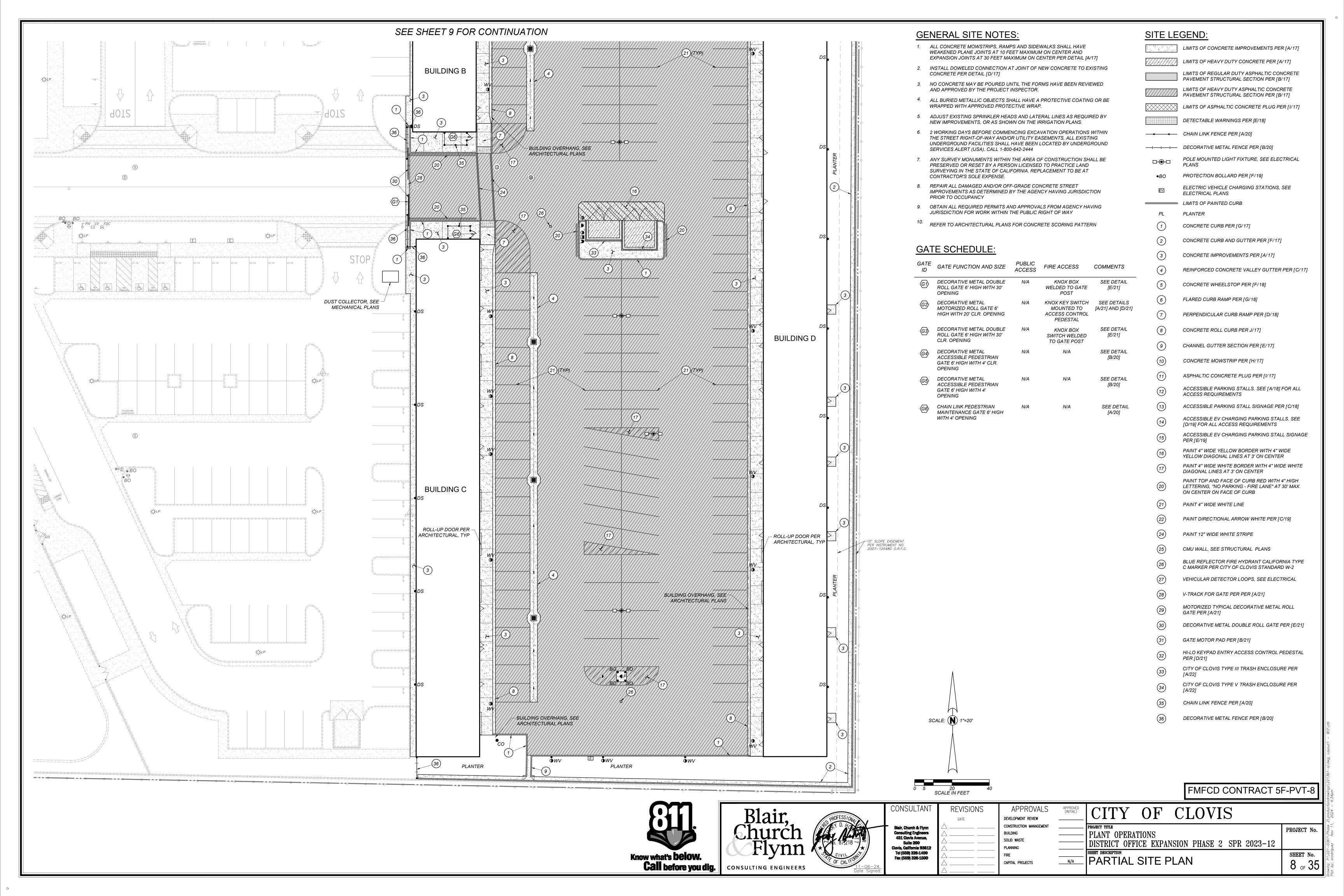
PROJECT No.

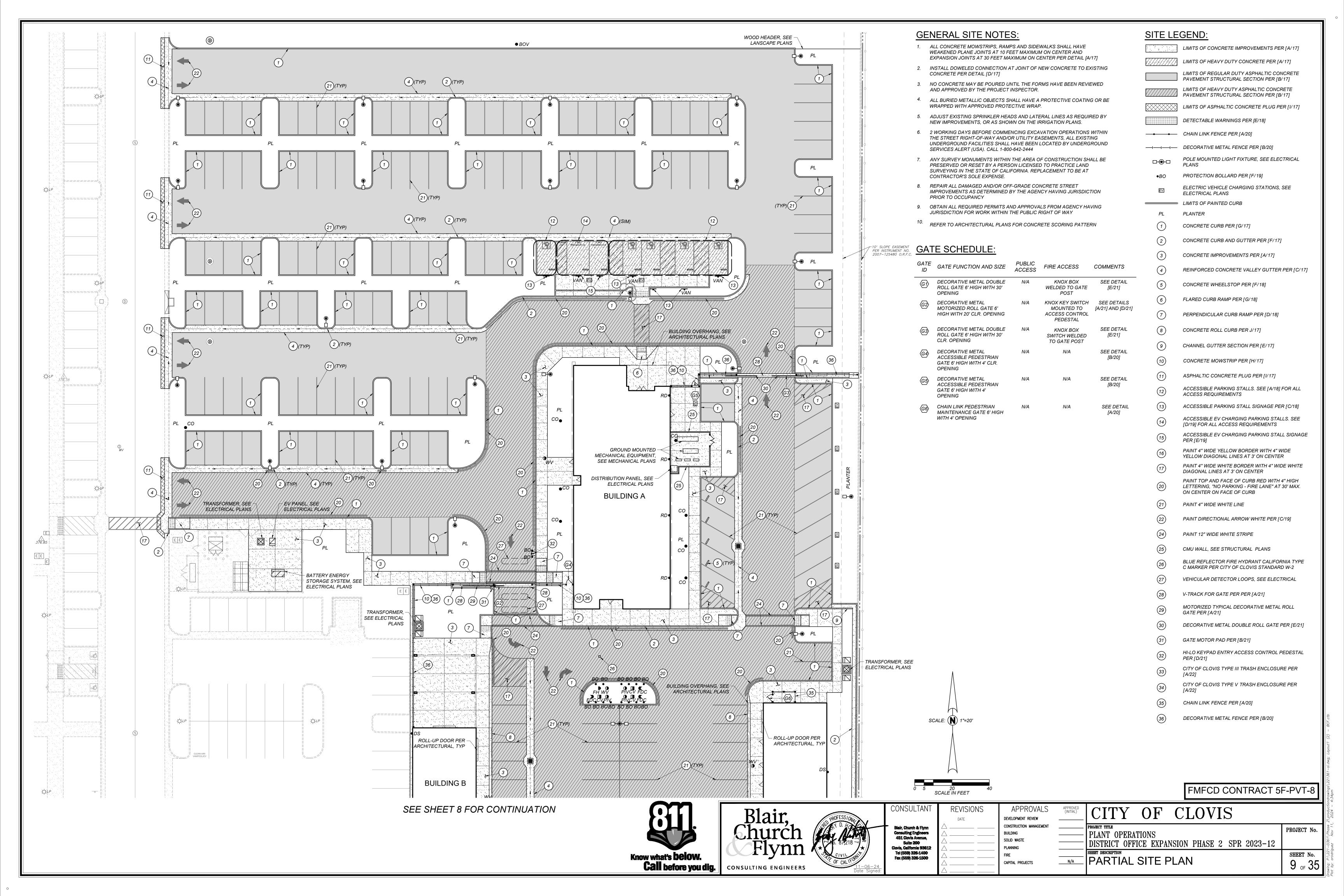


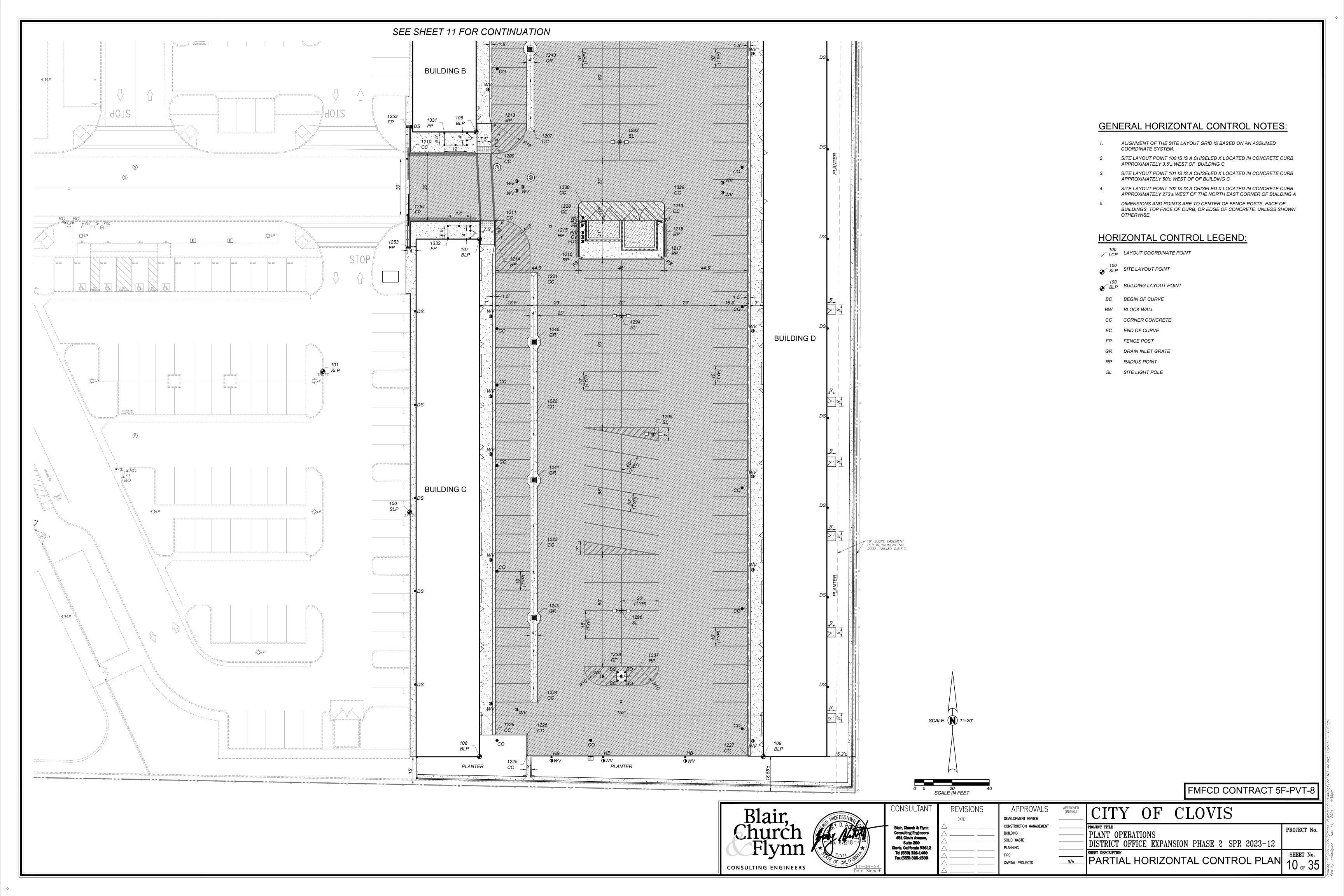


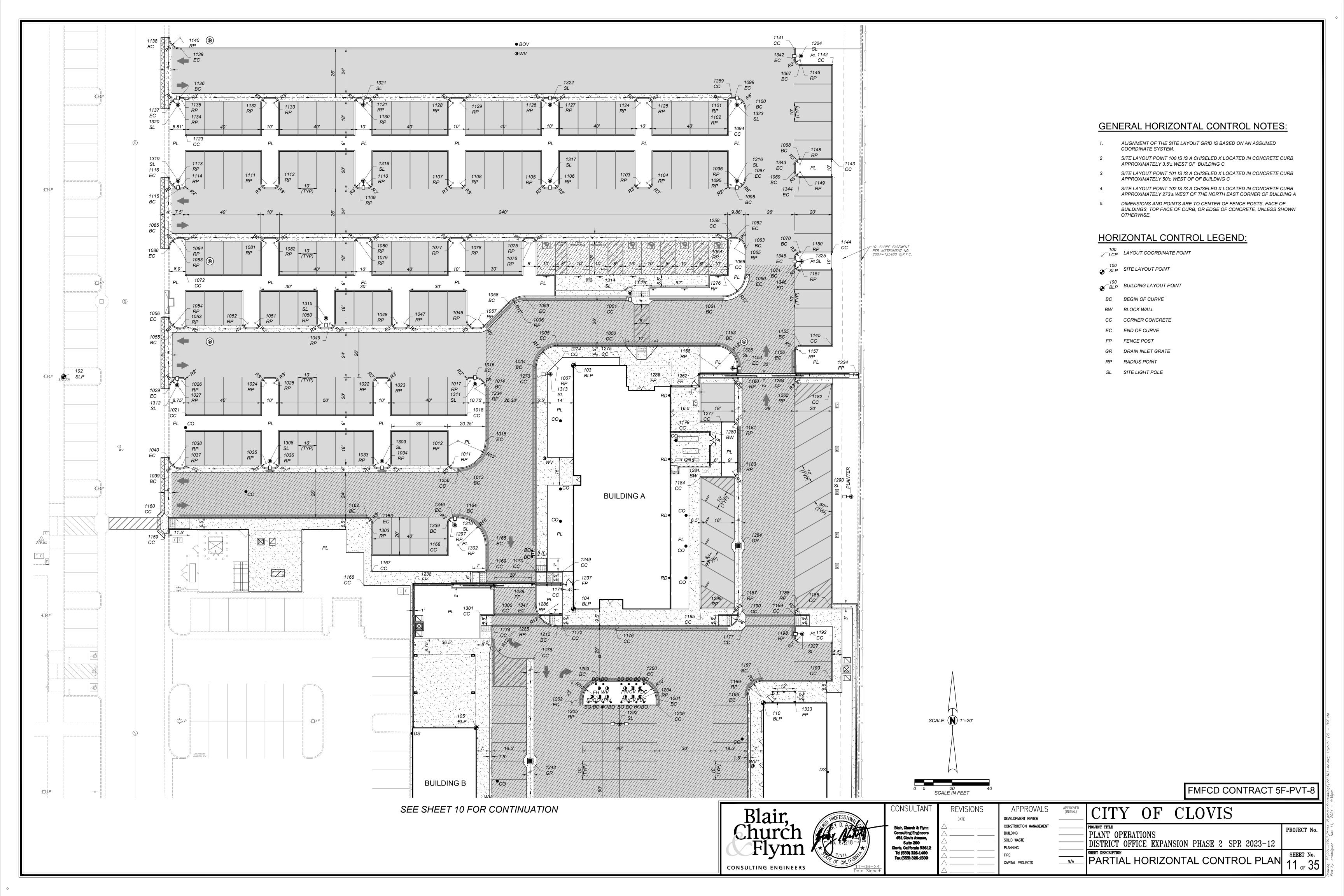












NORTHING EASTING TABLE						
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102	2188198.19	6362452.82	SLP	SITE LAYOUT POINT		
103	2188204.18	6362725.89	BLP	BUILDING LAYOUT POINT		
104	2188073.70	6362725.89	BLP	BUILDING LAYOUT POINT		
105	2188010.02	6362673.71	BLP	BUILDING LAYOUT POINT		
106	2187947.69	6362673.71	BLP	BUILDING LAYOUT POINT		
107	2187890.29	6362675.55	BLP	BUILDING LAYOUT POINT		
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110	2188023.37	6362827.55	BLP	BUILDING LAYOUT POINT		
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1001	2188240.92	6362754.52	СС	CORNER CONCRETE		
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1005	2188214.92	6362717.39	EC	END CURVE		
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1007	2188202.87	6362717.39	RP	RADIUS POINT		
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1014	2188191.76	6362679.05	ВС	BEGIN CURVE		
1015	2188163.76	6362679.05	EC	END CURVE		
1016	2188197.76	6362673.05	EC	END CURVE		
1017	2188195.77	6362670.30	RP	RADIUS POINT		
1018	2188177.76	6362668.30	СС	CORNER CONCRETE		
1021	2188177.76	6362518.30	CC	CORNER CONCRETE		
1022	2188194.76	6362621.30	RP	RADIUS POINT		
1023	2188194.76	6362625.30	RP	RADIUS POINT		
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1026	2188195.76	6362516.30	RP	RADIUS POINT		
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POINT	NORTHING	EASTING	ABV	DESCRIPTION
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1065	2188266.76	6362812.16	RP	RADIUS POINT
1066	2188252.76	6362808.30	СС	CORNER CONCRET
1067	2188364.92	6362847.16	ВС	BEGIN CURVE
1068	2188314.92	6362847.16	ВС	BEGIN CURVE
1069	2188307.92	6362844.16	ВС	BEGIN CURVE
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			RP	RADIUS POINT
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1083	2188266.76	6362515.05	RP	RADIUS POINT
1084	2188270.76	6362516.30	RP	RADIUS POINT
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1116	2188304.76	6362508.97	EC	END CURVE
1123	2188327.76	6362518.30	CC	CORNER CONCRETE
1124	2188344.76	6362761.30	RP	RADIUS POINT
1125	2188344.76	6362765.30	RP	RADIUS POINT
1126	2188344.76	6362711.30	RP	
				RADIUS POINT
1127	2188344.76	6362715.30	RP	RADIUS POINT
1128	2188344.76	6362661.30	RP	RADIUS POINT
1129	2188344.76	6362665.30	RP	RADIUS POINT
1130	2188344.76	6362611.30	RP	RADIUS POINT
1131	2188344.76	6362615.30	RP	RADIUS POINT

POINT	NORTHING	EASTING	ABV	DESCRIPTION
1132	2188344.76	6362561.30	RP	RADIUS POINT
1133	2188344.76	6362565.30	RP	RADIUS POINT
1134	2188341.76	6362515.05	RP	RADIUS POINT
1135	2188345.76	6362516.30	RP	RADIUS POINT
1136	2188347.76	6362515.05	ВС	BEGIN CURVE
1137	2188341.76	6362508.99	EC	END CURVE
1138	2188379.76	6362509.02	ВС	BEGIN CURVE
1139	2188373.76	6362515.66	EC	END CURVE
1140	2188379.76	6362515.05	RP	RADIUS POINT
1141	2188373.76	6362844.16	СС	CORNER CONCRETE
1142	2188364.92	6362864.16	СС	CORNER CONCRETE
1143	2188314.92	6362864.16	СС	CORNER CONCRETE
1144	2188264.92	6362864.16	СС	CORNER CONCRETE
1145	2188214.92	6362864.16	СС	CORNER CONCRETE
1146	2188367.92	6362847.16	RP	RADIUS POINT
1148	2188311.93	6362847.15	RP	RADIUS POINT
1149	2188307.92	6362847.16	RP	RADIUS POINT
1150	2188261.92	6362847.16	RP	RADIUS POINT
1151	2188257.92	6362847.16	RP	RADIUS POINT
1153	2188214.92	6362802.16	BC	BEGIN CURVE
1154	2188203.51	6362814.14	EC	END CURVE
1155	2188214.92	6362847.60	ВС	BEGIN CURVE
1156	2188211.92	6362844.16	EC	END CURVE
1157	2188211.92	6362847.16	RP	RADIUS POINT
1158	2188202.92	6362802.16	RP	RADIUS POINT
1159	2188116.76	6362508.89	СС	CORNER CONCRETE
1160	2188122.76	6362508.89	СС	CORNER CONCRETE
1162	2188122.76	6362615.30	ВС	BEGIN CURVE
1163	2188119.76	6362618.30	EC	END CURVE
1164	2188122.92	6362664.05	ВС	BEGIN CURVE
1165	2188107.92	6362679.05	EC	END CURVE
1166	2188086.34	6362613.51	СС	CORNER CONCRETE
1167	2188093.84	6362617.80	СС	CORNER CONCRETE
1168	2188102.76	6362658.30	СС	CORNER CONCRETE
1169	2188093.84	6362679.05	СС	CORNER CONCRETE
1170	2188093.84	6362705.89	СС	CORNER CONCRETE
1171	2188087.84	6362711.89	СС	CORNER CONCRETE
1172	2188064.73	6362719.89	СС	CORNER CONCRETE
1174	2188064.73	6362682.21	СС	CORNER CONCRETE
1175	2188047.23	6362704.71	СС	CORNER CONCRETE
1176	2188062.23	6362748.55	СС	CORNER CONCRETE
1177	2188062.23	6362816.16	СС	CORNER CONCRETE
1179	2188174.23	6362794.16	СС	CORNER CONCRETE
1180	2188197.23	6362811.16	RP	RADIUS POINT
1181	2188171.23	6362811.16	RP	RADIUS POINT
1182	2188194.23	6362864.16	СС	CORNER CONCRETE
1183	2188147.23	6362811.16	RP	RADIUS POINT
1184	2188144.23	6362794.16	СС	CORNER CONCRETE
1185	2188074.23	6362794.16	CC	CORNER CONCRETE
1186	2188074.23	6362864.16	СС	CORNER CONCRETE
1187	2188071.23	6362811.16	RP	RADIUS POINT
1188	2188071.23	6362847.16	RP	RADIUS POINT
1189	2188070.73	6362844.16	СС	CORNER CONCRETE
1190	2188070.23	6362814.16	СС	CORNER CONCRETE
	2188055.46	6362864.16	СС	CORNER CONCRETE
1192	2100033.40	0302004.70		

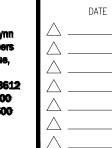
POINT	NORTHING	EASTING	ABV	DESCRIPTION
1196	2188028.37	6362819.05	EC	END CURVE
1197	2188035.46	6362827.00	ВС	BEGIN CURVE
1198	2188058.46	6362847.16	RP	RADIUS POINT
1199	2188026.88	6362826.27	RP	RADIUS POINT
1200	2188035.23	6362760.55	EC	END CURVE
1201	2188025.23	6362770.55	ВС	BEGIN CURVE
1202	2188025.23	6362730.55	EC	END CURVE
1203	2188035.23	6362740.55	ВС	BEGIN CURVE
1204	2188025.23	6362760.55	RP	RADIUS POINT
1205	2188025.23	6362740.55	RP	RADIUS POINT
1206	2188022.23	6362770.55	СС	CORNER CONCRE
1207	2187948.23	6362704.71	СС	CORNER CONCRE
1209	2187936.26	6362682.21	СС	CORNER CONCRE
1210	2187936.26	6362638.05	СС	CORNER CONCRE
1211	2187900.26	6362684.05	СС	CORNER CONCRE
1212	2188064.23	6362717.39	ВС	BEGIN CURVE
1213	2187951.40	6362683.80	RP	RADIUS POINT
1214	2187884.26	6362686.55	RP	RADIUS POINT
1215	2187898.65	6362731.97	RP	RADIUS POINT
1216	2187881.55	6362731.58	RP	RADIUS POINT
1217	2187881.50	6362771.49	RP	RADIUS POINT
1218	2187898.20	6362771.34	RP	RADIUS POINT
1219	2187900.23	6362770.88	СС	CORNER CONCRE
1220	2187900.23	6362732.22	СС	CORNER CONCRE
1221	2187872.23	6362706.55	СС	CORNER CONCRE
1222	2187798.23	6362706.55	СС	CORNER CONCRE
1223	2187724.23	6362706.55	CC	CORNER CONCRE
1224	2187642.23	6362706.55	СС	CORNER CONCRE
1225	2187613.75	6362701.05	СС	CORNER CONCRE
1226	2187625.08	6362701.05	cc	CORNER CONCRE
1227	2187613.75	6362819.05	СС	CORNER CONCRE
1228	2187625.08	6362684.05	cc	CORNER CONCRE
1234	2188199.20	6362877.83	FP	FENCE POST
1237	2188086.71	6362725.62	FP	FENCE POST
1237	2188086.74	6362640.21	FP	FENCE POST
1239	2188086.74	6362703.68	FP	FENCE POST
1240	2187687.23	6362704.55	GR	DRAIN INLET GRA
1241	2187761.23	6362704.53	GR	DRAIN INLET GRA
1242	2187835.23	6362704.55	GR	DRAIN INLET GRA
1243	2187992.23	6362702.72	GR	DRAIN INLET GRA
1249	2188093.84	6362719.89	CC	CORNER CONCRE
1252	2187950.16	6362636.65	FP	FENCE POST
1253	2187886.26	6362636.90	FP	FENCE POST
1254	2187903.28	6362636.90	FP	FENCE POST
1256	2188146.76	6362664.05	СС	CORNER CONCRE
1258	2188274.76	6362810.30	СС	CORNER CONCRE
1259	2188349.76	6362810.30	СС	CORNER CONCRE
1262	2188199.20	6362793.16	FP	FENCE POST
1264	2188199.20	6362845.16	FP	FENCE POST
1265	2188197.23	6362847.16	RP	RADIUS POINT
1273	2188200.43	6362711.89	CC	CORNER CONCRE
1274	2188208.42	6362719.87	СС	CORNER CONCRE
1275	2188208.42	6362750.55	СС	CORNER CONCRE
1276	2188252.92	6362806.16	RP	RADIUS POINT
1277	2188173.73	6362805.16	СС	CORNER CONCRE
			BW	

POINT	NORTHING	EASTING	ABV	DESCRIPTION
1281	2188149.73	6362799.16	BW	BLOCK WALL
1284	2188107.38	6362814.16	GR	DRAIN INLET GRATE
1285	2188060.50	6362692.71	RP	RADIUS POINT
1286	2188076.23	6362717.39	RP	RADIUS POINT
1288	2188192.99	6362778.23	FP	FENCE POST
1290	2188133.92	6362874.66	SL	SITE LIGHT POLE
1292	2188012.23	6362750.55	SL	SITE LIGHT POLE
1293	2187942.23	6362750.55	SL	SITE LIGHT POLE
1293	2187849.23	6362751.55	SL	SITE LIGHT POLE
1295	2187785.99	6362768.67	SL	SITE LIGHT POLE
1296	2187691.25	6362751.55	SL	SITE LIGHT POLE
1297	2188119.92	6362661.30	RP	RADIUS POINT
1299	2188070.23	6362808.16	RP	RADIUS POINT
1300	2188070.23	6362683.39	СС	CORNER CONCRETE
1301	2188070.23	6362676.21	CC	CORNER CONCRETE
1302	2188107.92	6362664.05	RP	RADIUS POINT
1303	2188119.76	6362615.30	RP	RADIUS POINT
1308	2188152.90	6362563.22	SL	SITE LIGHT POLE
1309	2188152.90	6362623.30	SL	SITE LIGHT POLE
1310	2188118.47	6362662.36	SL	SITE LIGHT POLE
1311	2188194.10	6362673.05	SL	SITE LIGHT POLE
1312	2188193.58	6362513.60	SL	SITE LIGHT POLE
1313	2188199.43	6362713.51	SL	SITE LIGHT POLE
1314	2188243.10	6362756.16	SL	SITE LIGHT POLE
1315	2188229.40	6362593.30	SL	SITE LIGHT POLE
1316	2188303.10	6362813.35	SL	SITE LIGHT POLE
1317	2188303.10	6362713.30	SL	SITE LIGHT POLE
1318	2188303.10	6362613.30	SL	SITE LIGHT POLE
1319	2188303.10	6362514.04	SL	SITE LIGHT POLE
1320	2188343.88	6362514.03	SL	SITE LIGHT POLE
1321	2188343.88	6362613.30	SL	SITE LIGHT POLE
1322	2188343.88	6362713.30	SL	SITE LIGHT POLE
1323	2188343.88	6362813.34	SL	SITE LIGHT POLE
1324	2188369.92	6362847.64	SL	SITE LIGHT POLE
1325	2188259.85	6362848.03	SL	SITE LIGHT POLE
1326	2188202.56	6362811.08	SL	SITE LIGHT POLE
1327	2188060.37	6362848.41	SL	SITE LIGHT POLE
1329	2187910.23	6362773.05	CC	CORNER CONCRETE
1330	2187910.23	6362730.05	СС	CORNER CONCRETE
1331	2187947.19	6362656.71	FP	FENCE POST
1332	2187890.78	6362658.55	FP	FENCE POST
1333	2188023.87	6362844.55	FP	FENCE POST
1334	2188191.76	6362673.05	RP	RADIUS POINT
1337	2187661.25	6362761.55	RP	RADIUS POINT
1338	2187661.25	6362741.55	RP	RADIUS POINT
1339	2188119.92	6362658.40	ВС	BEGIN CURVE
1340	2188122.92	6362661.30	EC	END CURVE
1341	2188076.23	6362705.39	EC	END CURVE
	2188367.92	6362844.16	EC	END CURVE
1342	2100001.02	i		
1342 1343	2188311.92	6362844.16	EC	END CURVE
		6362844.16 6362847.16	EC EC	END CURVE END CURVE
1343	2188311.92			

FMFCD CONTRACT 5F-PVT-8







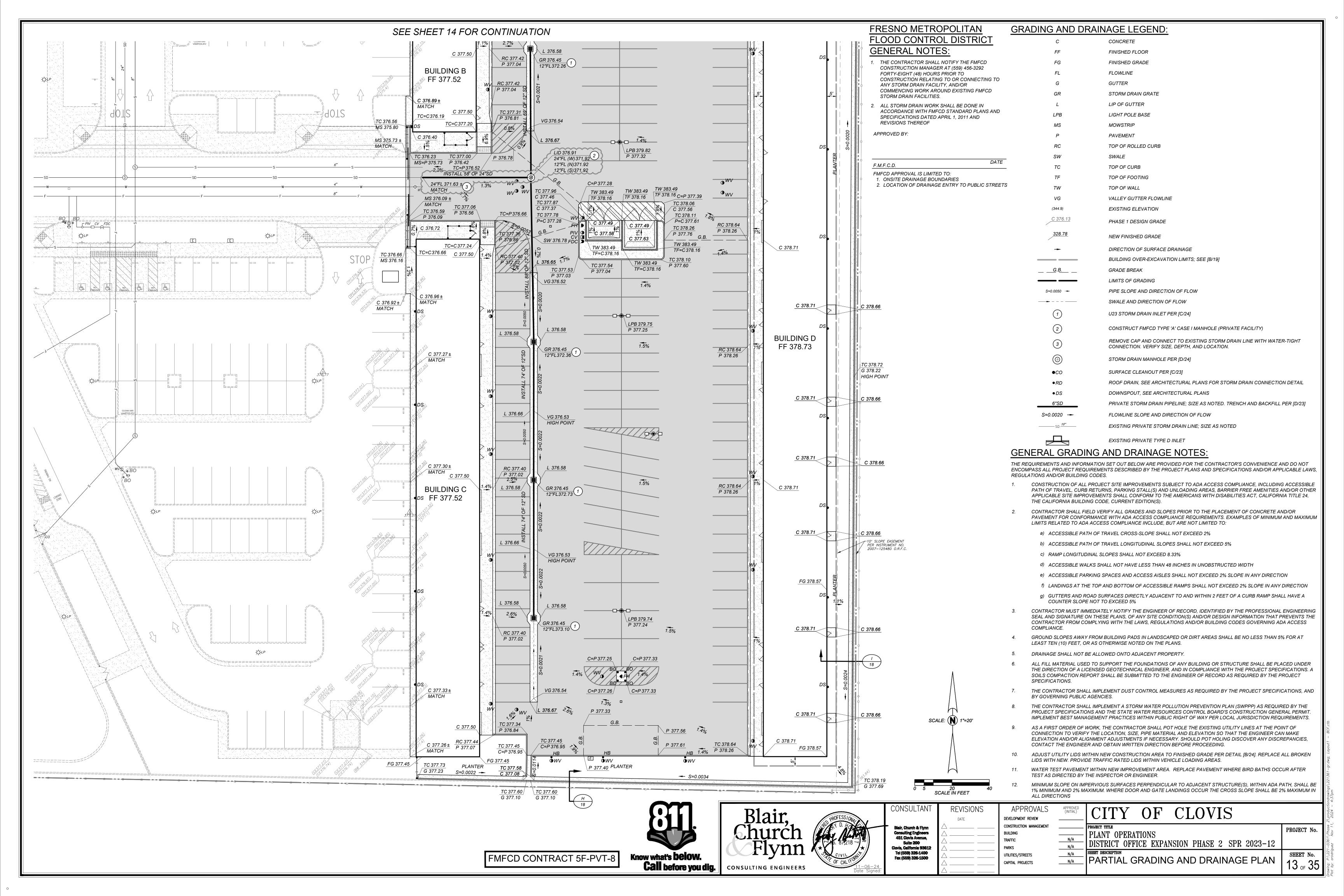
REVISIONS

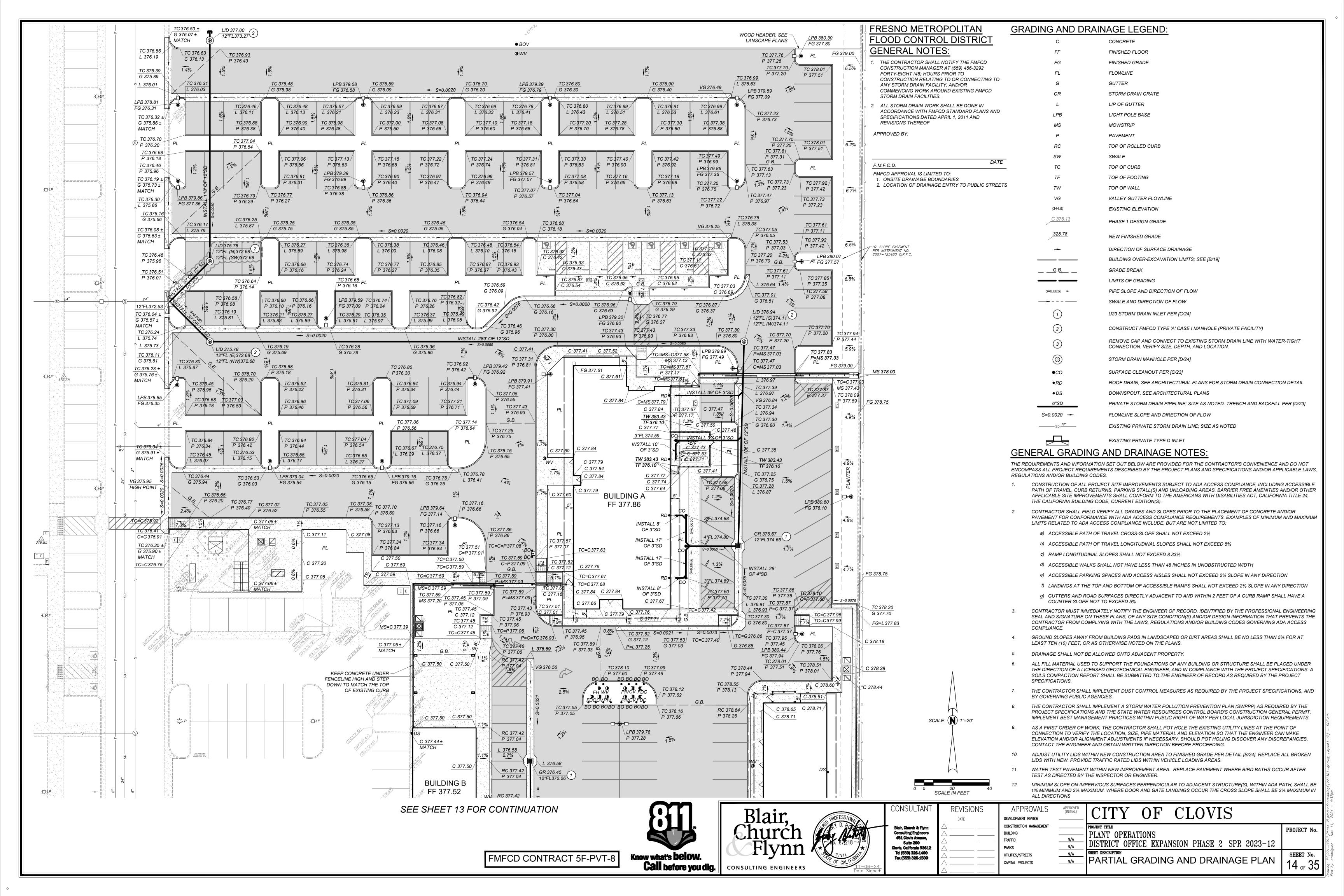
APPROVALS
DEVELOPMENT REVIEW BUILDING SOLID WASTE PLANNING FIRE

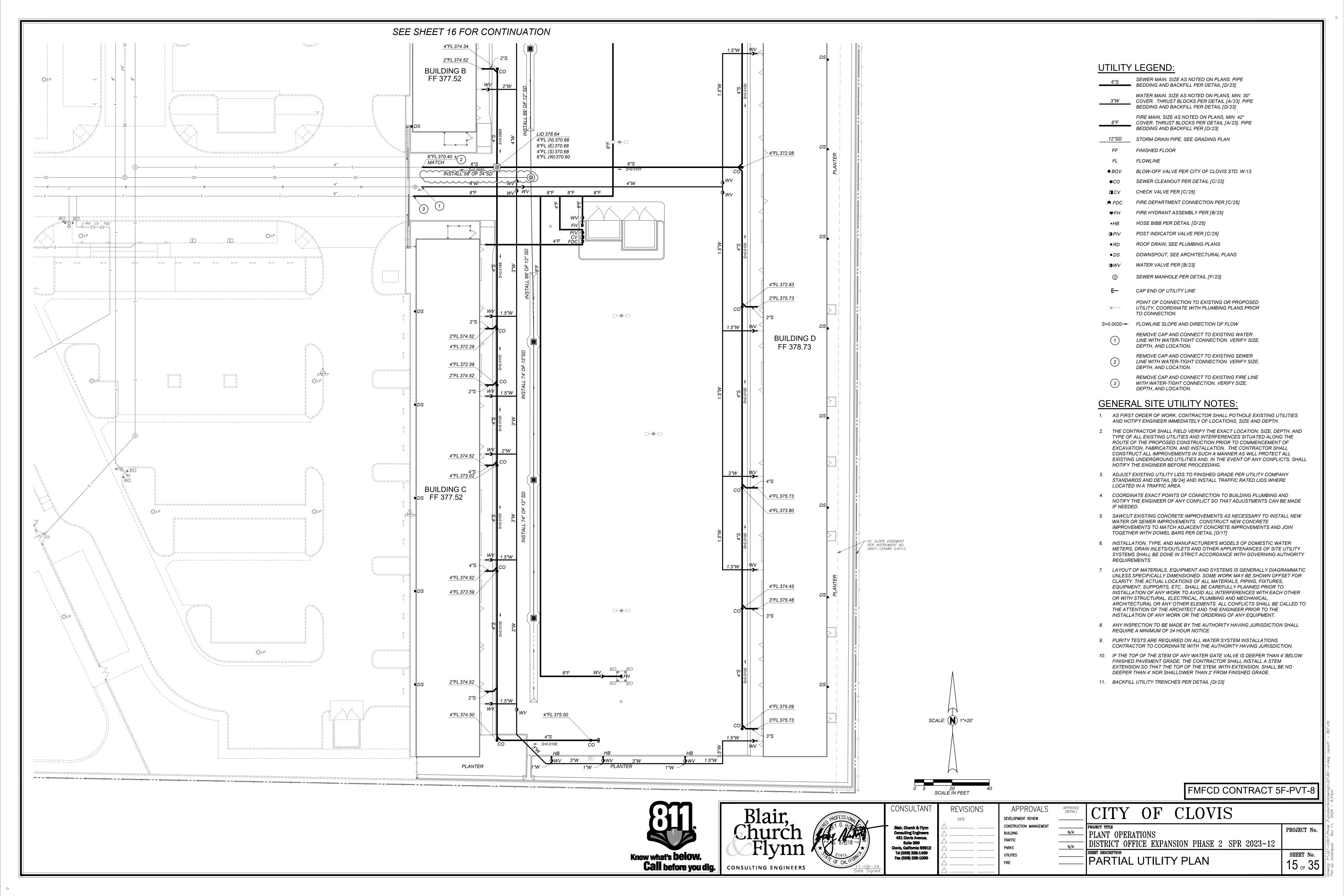
CAPITAL PROJECTS

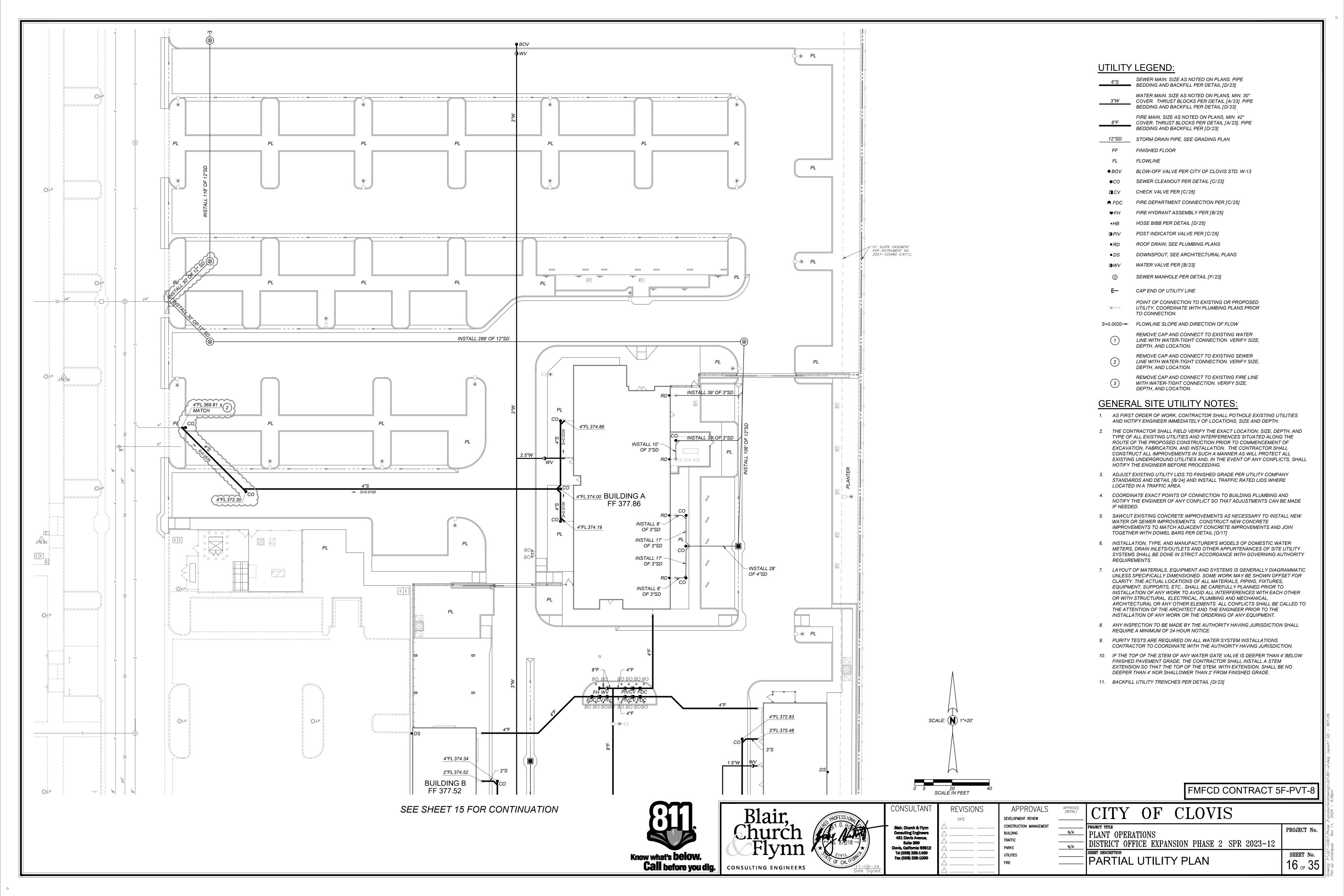
SHEET No.
12 of 35

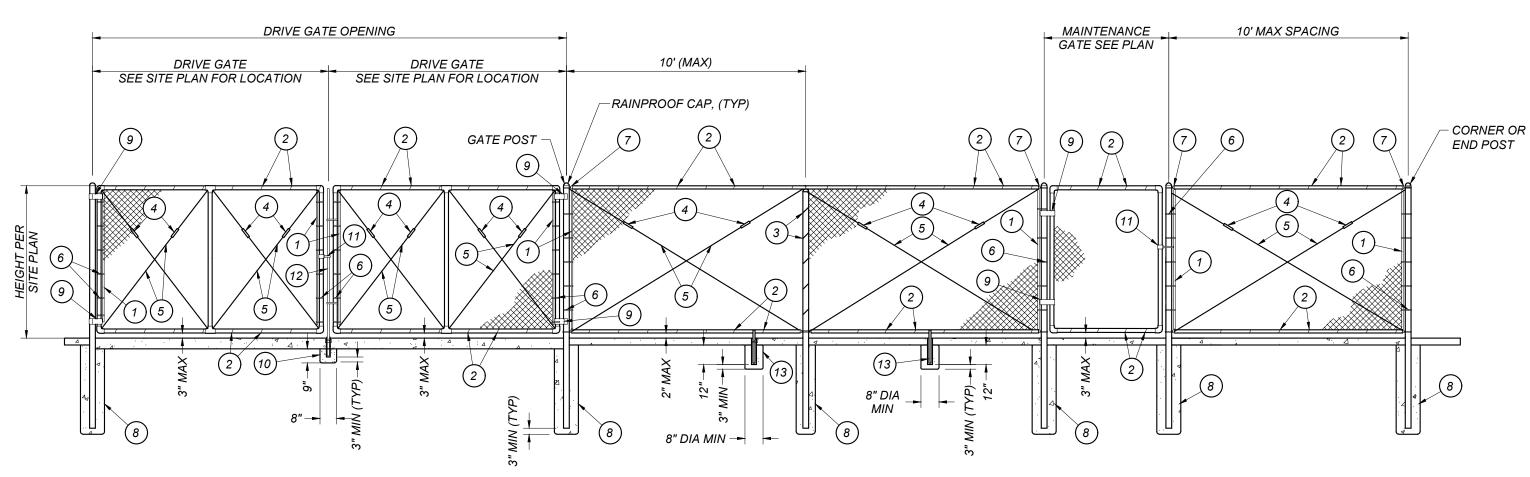
PROJECT No.











#### FENCE AND GATE ELEVATIONS

	CHAIN LINK FENCE SIZING SCHEDULE - OPEN FABRIC													
	END,	ANGLE, CORNER F	POSTS		LINE POSTS		SINGLE	LEAF MAN GATE	POSTS	D	OUBLE GATE POST	ΓS	COMMENT	
FENCE HEIGHT	POST DIAMETER	FOOTING DIAMETER	FOOTING DEPTH	POST DIAMETER	FOOTING DIAMETER	FOOTING DEPTH	POST DIAMETER	FOOTING DIAMETER	FOOTING DEPTH	POST DIAMETER	FOOTING DIAMETER	FOOTING DEPTH	1.66" O.D. TOP AND BOTTOM	
6′	2-7/8" O.D.	12"	4'-0"	2-3/8" O.D.	12"	3'-3"	2-7/8" O.D.	12"	4'-0"	6" O.D.	15"	5'-0"	RAIL, SCHEDULE 40	

#### OPEN FABRIC CHAIN LINK FENCE AND GATE LEGEND:

- (1) 1/8" X 3/4" GALVANIZED STEEL STRETCHER BAR.
- 9 GAUGE (0.148" DIA) GALVANIZED STEEL TIE WIRES OR HOG RINGS AT 15" MAXIMUM SPACING. MINIMUM OF 8 TIE WIRES PER EACH 10' HORIZONTAL RAIL.
- 3 6 GAUGE (0.192" DIA) GALVANIZED STEEL POST CLIPS AT 14" MAXIMUM SPACING. MINIMUM 5 POST CLIPS FOR EACH 6' POST.
- GALVANIZED ADJUSTABLE TURNBUCKLE FOR 3/8" DIAMETER TRUSS ROD.
- 5 3/8" DIAMETER GALVANIZED STEEL ADJUSTABLE TRUSS ROD. TRUSS RODS REQUIRED FOR ALL GATE POST PANELS, END OR CORNER POST PANELS.
- 6 1/8" THICK GALVANIZED STEEL STRETCHER BAR TENSION BAND AT 12" MAXIMUM SPACING. MINIMUM OF 5 TENSION BANDS FOR EACH 6' POST SECTION.
- (7) GALVANIZED RAIL ENDS.
- (8) CONCRETE FOOTING, TYPICAL.
- (9) HINGES PER THE SPECIFICATION.
- (11) LOCKABLE FORK LATCH PER SPECIFICATIONS

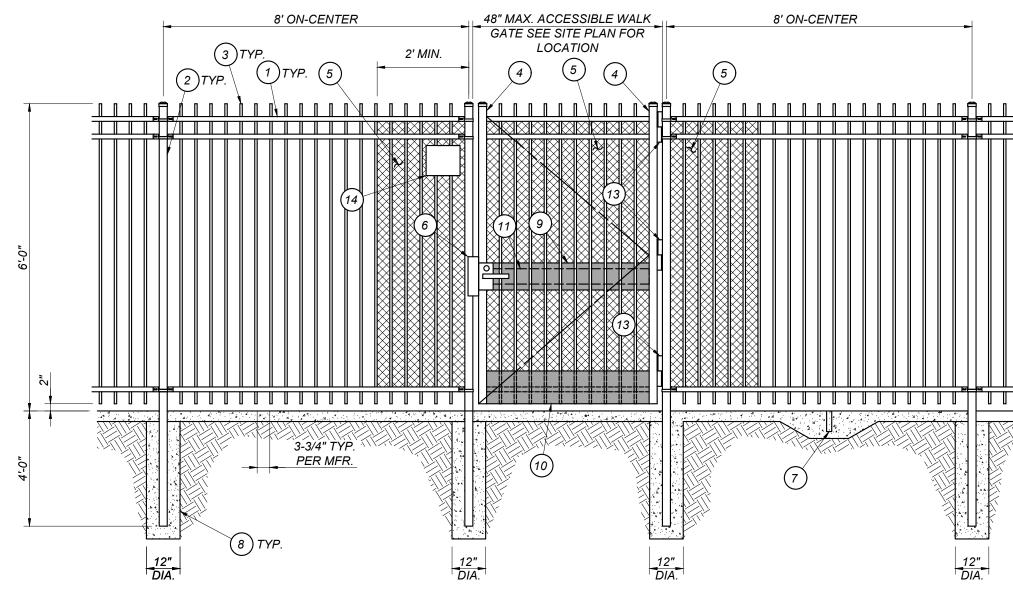
(10) GALVANIZED STEEL PIPE SLEEVE FOR GATE DROP ROD.

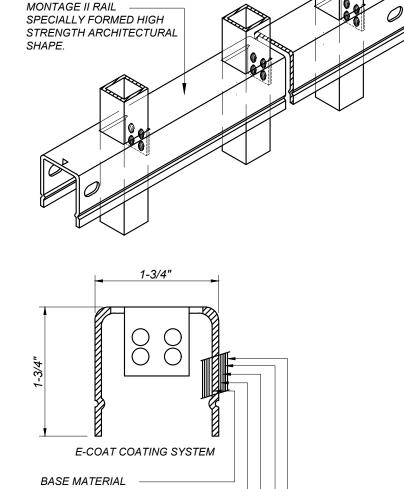
- (12) CENTER GATE DROP POST AND LATCH
- (13) INSTALL GATE HOLDBACK FOR ALL GATES.

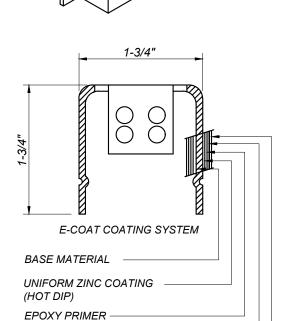
#### OPEN FABRIC CHAIN LINK FENCE AND GATE NOTES:

- 1. GATE FRAME SHALL BE 2" O.D. GALVANIZED STEEL (2.72
- 2. FENCE FABRIC SHALL BE 2" X 2" MESH X 9 GAUGE GALVANIZED FENCE FABRIC WITH KNUCKLED TOP AND BOTTOM SELVAGE. FENCE FABRIC TO BE GALVANIZED BEFORE WEAVING (GBW)
- CONTRACTOR TO PROVIDE AND INSTALL GATE HOLDBACK FOR EACH GATE. HOLDBACK TO BE INSTALLED IN FENCE MOWSTRIP UNLESS OTHERWISE NOTED.
- MATCH OWNER'S LOCKSET GATE HARDWARE AND KEYING SYSTEM FOR ALL KEYED GATES.
- WALK GATE POST SIZE LIMITED TO 6 FOOT WIDTH OR LESS. SEE DRIVE GATE SIZING FOR LARGER LEAF WIDTHS.
- DOUBLE TRUSS RODS ARE REQUIRED IN PANELS ADJACENT TO GATE POSTS AND AT ALL FENCE CORNERS AND END
- 7. ALL GATE CORNERS AND SUPPORT POINTS SHALL BE FASTENED TOGETHER AND REINFORCED WITH MALLEABLE IRON FITTINGS DESIGNED FOR THAT PURPOSE. WELDED CONNECTIONS WILL NOT BE ALLOWED.
- 8. TACK WELD ALL GATE HINGES AND LATCH COLLARS TO POST.
- ALL AREAS AFFECTED BY WELDING, TRIMMED ENDS OF BOLTS, STRETCHER BARS, TRUSS RODS OR ANY EXPOSED STEEL SHALL BE PAINTED (GALVANIZED) PER CONTRACT SPECIFICATIONS.

## CHAIN LINK FENCE AND GATES NOT TO SCALE







ZINC PHOSPHATE COATING

ACRYLIC TOPCOAT

### GATES AND FENCE ELEVATION

## ACCESSIBLE WALK GATE SEE PLAN (TYP) 3 1 2 3-3/4" TYP. PER MFR.

PEDESTRIAN GATE PLAN VIEW

6' DECORATIVE METAL FENCE, GATE, HINGE AND LATCH

## FENCE AND GATE NOTES:

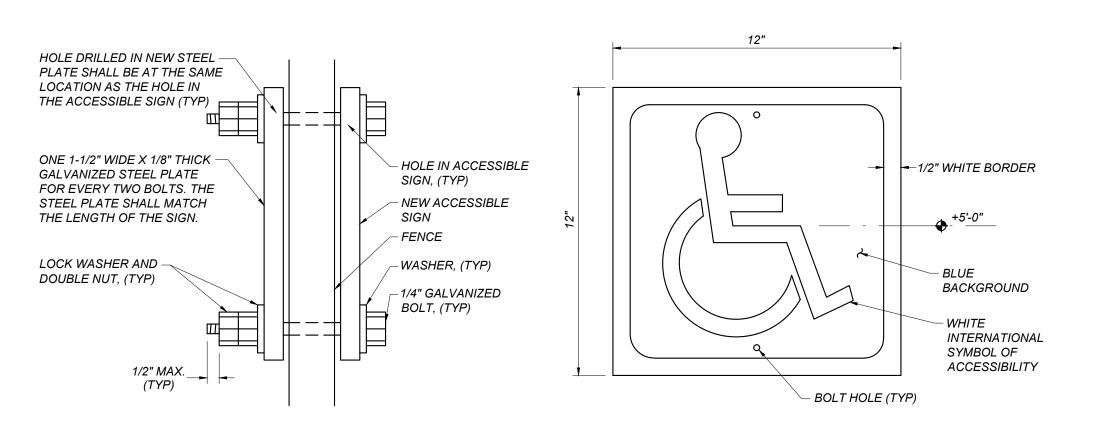
- FENCE TO BE AMERISTAR MONTAGE II "GENESIS" STYLE FENCING OR APPROVED EQUAL. CONTRACTOR TO COORDINATE PLACEMENT OF STEEL POSTS FOR FENCING TO WHICH OCCURS ADJACENT TO BUILDINGS, COLUMNS OR BLOCK WALLS PRIOR PLACING CONCRETE. VERIFY CLEAR OPENINGS IN FIELD PRIOR TO CONSTRUCTION.
- FENCE PANEL SYSTEM SHALL BE INDUSTRIAL GRADE.
- MOWSTRIP THICKNESS AT GATE OPENINGS TO BE 6" THICK. 4. CONTRACTOR TO PROVIDE AND INSTALL GATE HOLDBACK FOR EACH
- GATE. HOLDBACK TO BE INSTALLED IN FENCE MOWSTRIP UNLESS OTHERWISE NOTED.
- 5. ALL ACCESSIBLE GATES SHALL HAVE: a. LEVER TYPE LATCH (HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERABLE PARTS ON DOORS AND GATES SHALL COMPLY ADA. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34 INCHES MINIMUM AND 44 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR
- SWINGING DOOR AND GATE SURFACES WITHIN 10 INCHES OF THE FINISH FLOOR OR GROUND MEASURED VERTICALLY SHALL HAVE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR OR GATE. PARTS CREATING HORIZONTAL OR VERTICAL JOINTS IN THESE SURFACES SHALL BE WITHIN 1/16 INCH OF THE SAME PLANE AS THE OTHER AND BE FREE OF SHARP OR ABRASIVE EDGES. CAVITIES CREATED BY ADDED KICK PLATES SHALL BE CAPPED.

### DECORATIVE METAL FENCE AND GATE LEGEND:

- 1) 1-3/4"W x 1-3/4"H x 12GA. HORIZONTAL RAILING FENCE PER MANUFACTURER
- (2) 3" SQ. x 12GA. TUBE STEEL POST PER MANUFACTURER
- (3) 1" SQ. x 14GA. STEEL PICKETS PER MANUFACTURER
- 4) METAL GATE FRAME PER MANUFACTURER (5) FLATTENED EXPANDED METAL 1/2"X16 GA.
- (6) STRIKE PLATE
- (7) INSTALL GATE HOLDBACK FOR ALL GATES.
- (8) CONCRETE FOOTING, TYPICAL.
- 12" HIGH, CENTER ON LATCH, 1/8" THICK STEEL PLATES WELDED ON THE INTERIOR SIDE, THE FULL WIDTH OF THE GATE. THE PLATE AND WELDS SHALL BE POWDER COATED TO MATCH
- (10) 10" HIGH, 1/8" THICK STEEL PLATES WELDED ON BOTH SIDES OF THE GATE AT BOTTOM, FULL WIDTH OF THE GATE. THE KICK PLATE AND WELDS SHALL BE POWDER COATED TO MATCH FENCE.
- (11) ALL WALK GATES SHALL HAVE ADA/CBC COMPLIANT ACCESSIBLE HARDWARE WHEN LOCATED WITHIN ACCESSIBLE PATH OF TRAVEL. GATE LATCH SHALL REQUIRE A MAXIMUM OF 5 LBS OF PRESSURE TO OPERATE. LOCKABLE LEVER-TYPE GATE LATCH, RHODES SCHLAGE LEVER LOCK WITH RHODES SCHLAGE LOCK BOX WITH MODEL ND80PD KEYED LOCK IS ACCEPTABLE OR APPROVED EQUAL. VON DUPRIN 22 SERIES RIM EXIT DEVICE OR APPROVED EQUAL MOUNTED TO PUSH-SIDE OF GATE. OTHERWISE, INSTALL LOCKABLE GATE
- (12) 1" x 1" x 1/8" METAL ANGLE WELD WITH METAL GATE FRAME
- 13) LOCINOX MAMMOTH 180 SELF-CLOSING HINGES, BLACK TO **MATCH FENCE**
- (14) ACCESSIBLE GATE SIGN PER DETAIL [C/20]

### NOTES:

- 1. SIGN BY "STOP SIGNS AND MORE", MODEL SKU:PAR-1124 WITH WEATHER AND GRAFFITI PROTECTION OR APPROVED EQUAL.
- 2. BACKING PLATE 12"x12"x16 GAUGE METAL PLATE, SANDWICH CHAIN LINK FABRIC BETWEEN SIGN AND BACKING PLATE. FASTEN TOGETHER WITH TAMPER RESISTANT THRU BOLTS SIMILAR TO DETAIL TO THE RIGHT.



**ENTRY ACCESSIBILITY SIGN** 

FMFCD CONTRACT 5F-PVT-8



Blair, Church & Flynn Consulting Engineers 451 Clovis Avenue, Suite 200 Clovis, California 93612 Tel (559) 326-1400 Fax (559) 326-1500

REVISIONS DEVELOPMENT REVIEW CONSTRUCTION MANAGEMENT BUILDING TRAFFIC UTILITIES/STREETS CAPITAL PROJECTS

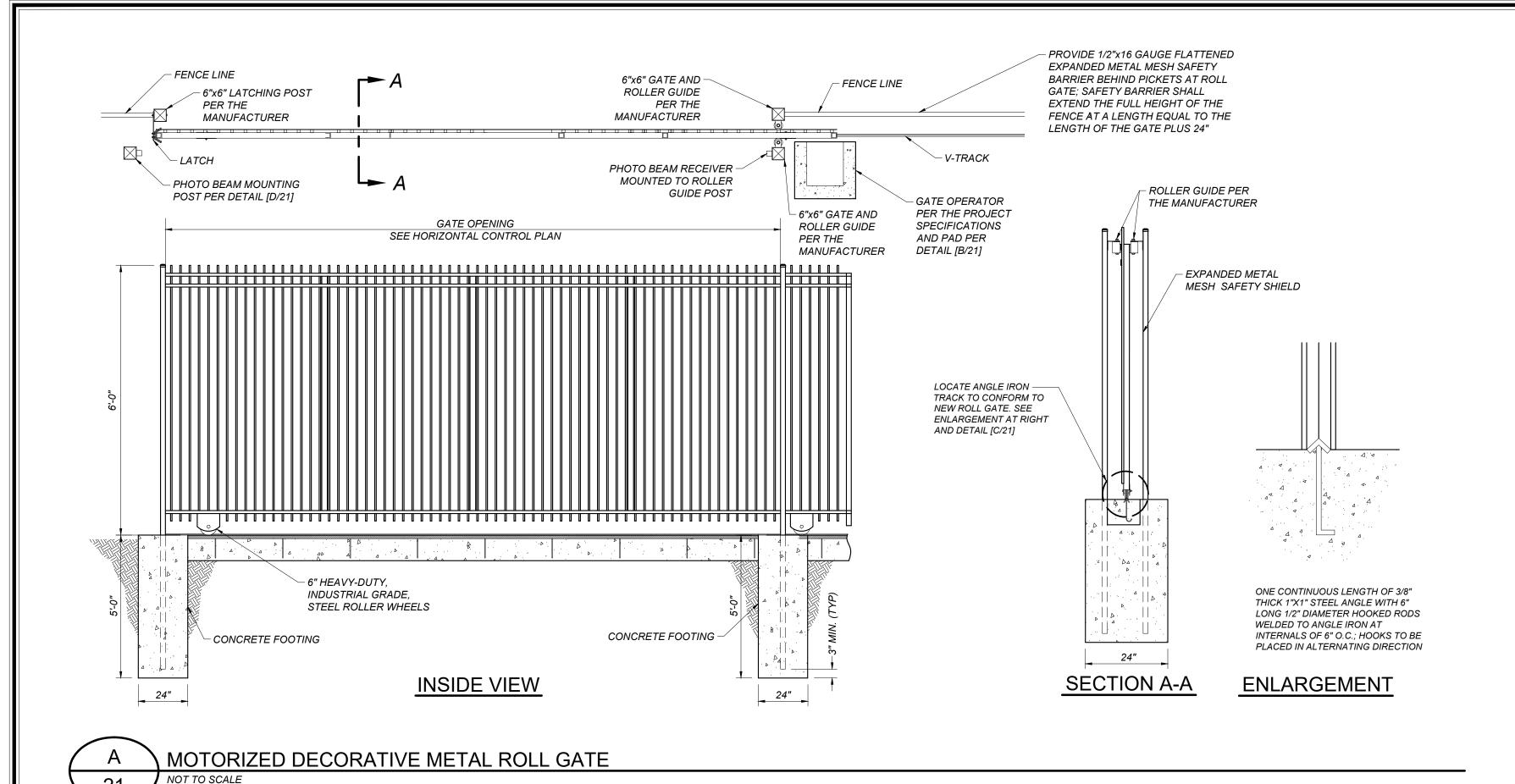
APPROVALS

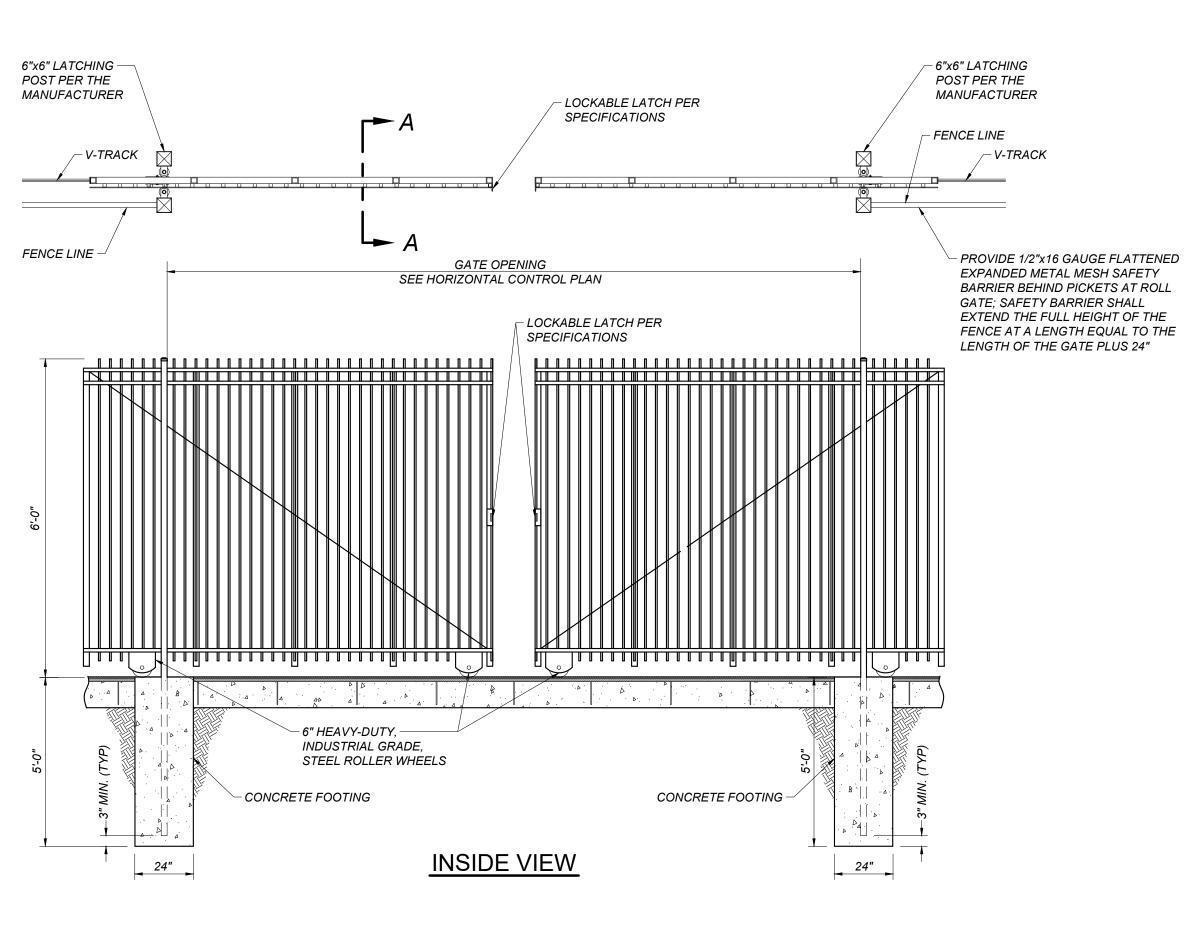
CITY OF CLOVIS

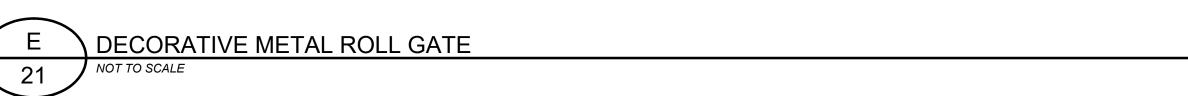
- PLANT OPERATIONS DISTRICT OFFICE EXPANSION PHASE 2 SPR 2023-12 FENCE DETAILS

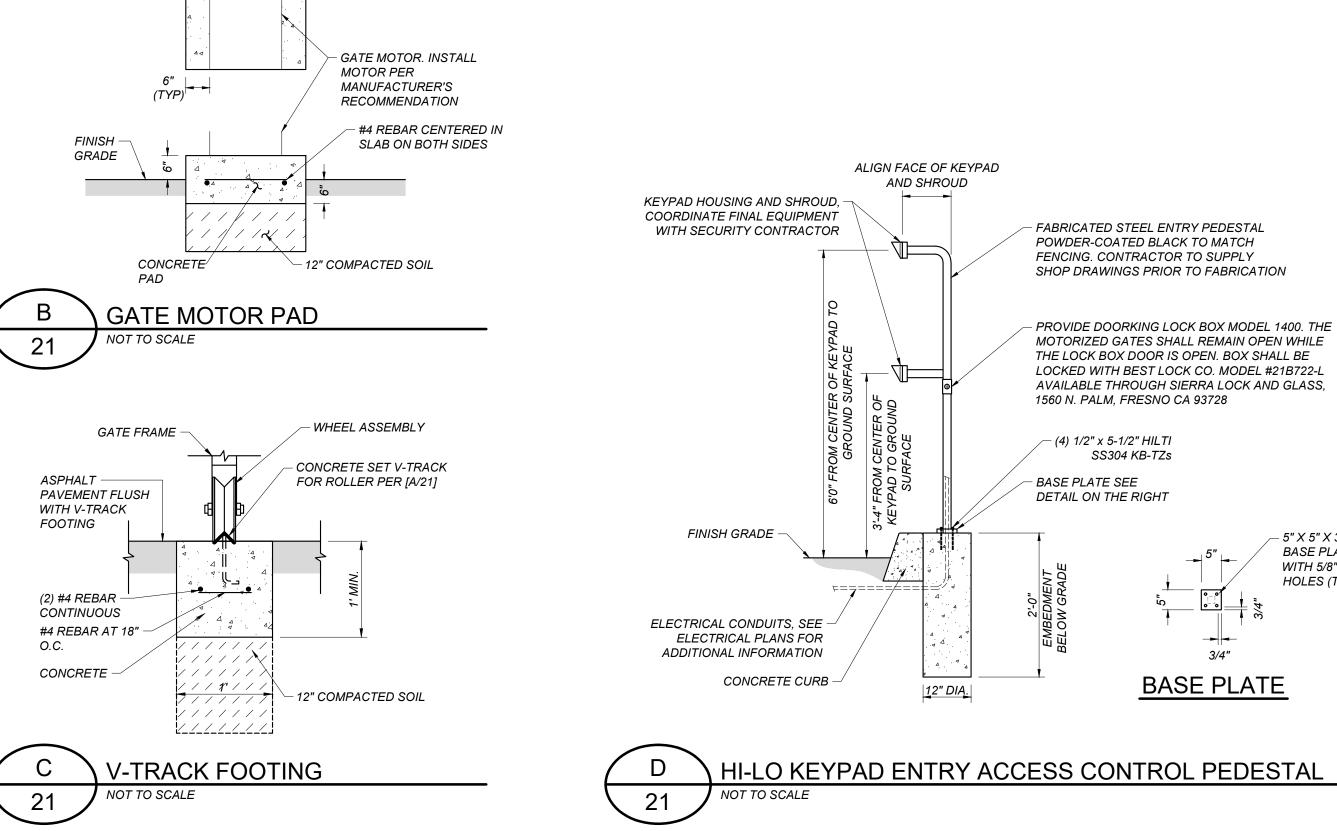
SHEET No. 20 of 35

PROJECT No.









FMFCD CONTRACT 5F-PVT-8

PROJECT No.

- 5" X 5" X 3/8" BASE PLATE

WITH 5/8" Ø

HOLES (TYP)



CONSULTANT Blair, Church & Flynn Consulting Engineers 451 Clovis Avenue, **Suite 200** Clovis, California 93612 Tel (559) 326-1400 Fax (559) 326-1500

REVISIONS

APPROVALS DEVELOPMENT REVIEW CONSTRUCTION MANAGEMENT BUILDING TRAFFIC PARKS

- PLANT OPERATIONS

CITY OF CLOVIS

DISTRICT OFFICE EXPANSION PHASE 2 SPR 2023-12 SHEET DESCRIPTION SHEET No. 21 of 35

UTILITIES/STREETS M/A GATE DETAILS CAPITAL PROJECTS

22-12560

A700

## **ABBREVIATIONS**

SOLID CORE WOOD VENEER STOREFRONT, ALUMINUM STEEL CLEAR ANODIZED, ALUMINUM

TEMPERED GLASS TEMPERED INSULATED GLASS

B. ACCESS CONTROLLED DOOR, SEE ELECTRICAL DWGS. C. REMOVABLE MULLION.

A. DOOR TO FIRE RISER ROOM NOT REQUIRED TO BE ACCESSIBLE.

D. PROVIDE 24" x 12" LOUVER E. PANIC HARDWARE

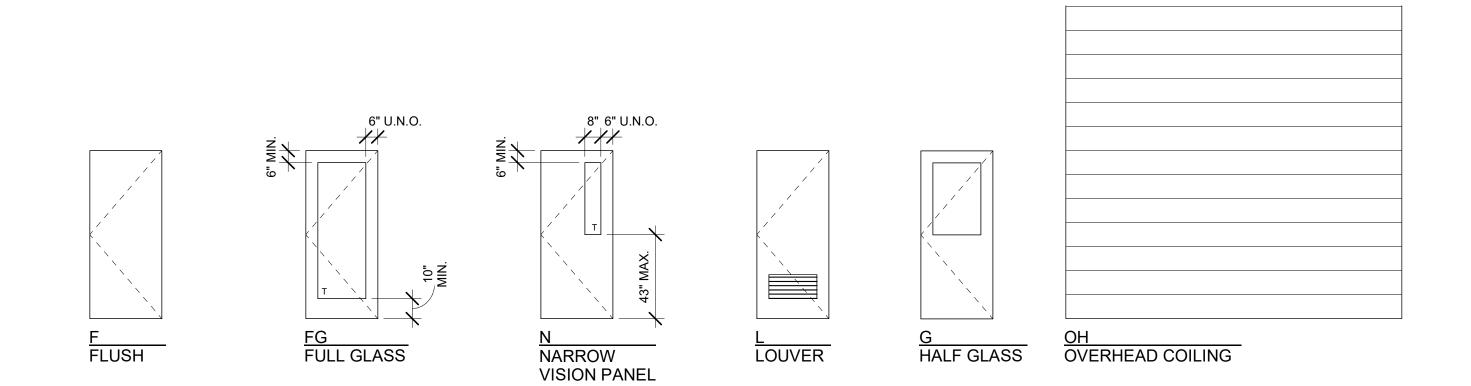
## **GENERAL NOTES**

FACTORY FINISH

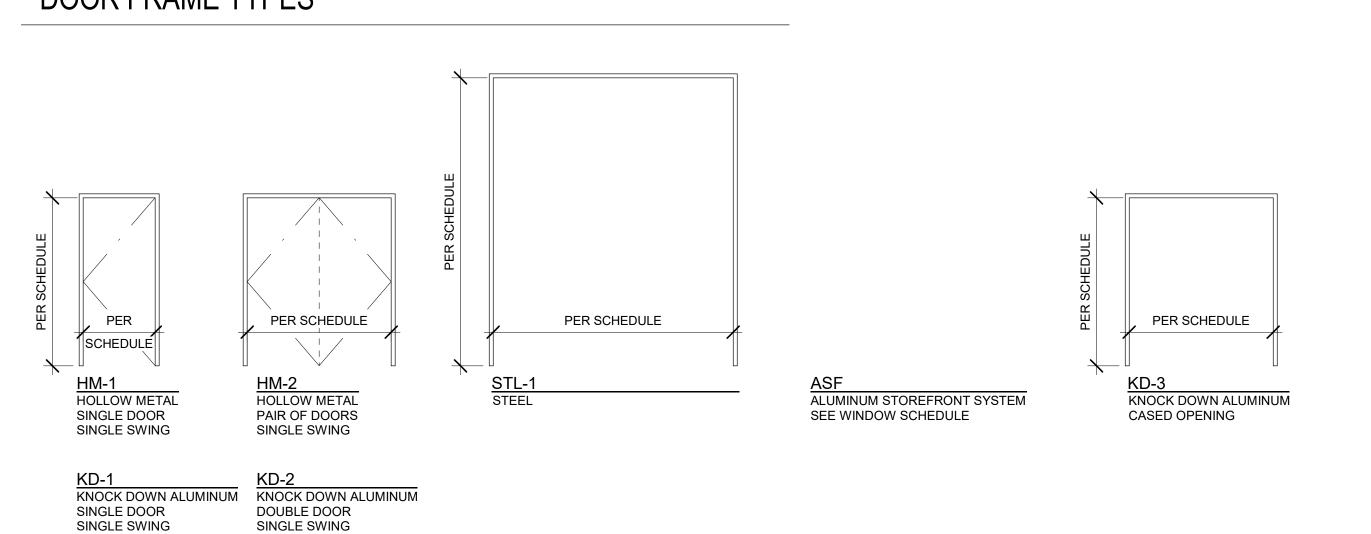
HOLLOW METAL

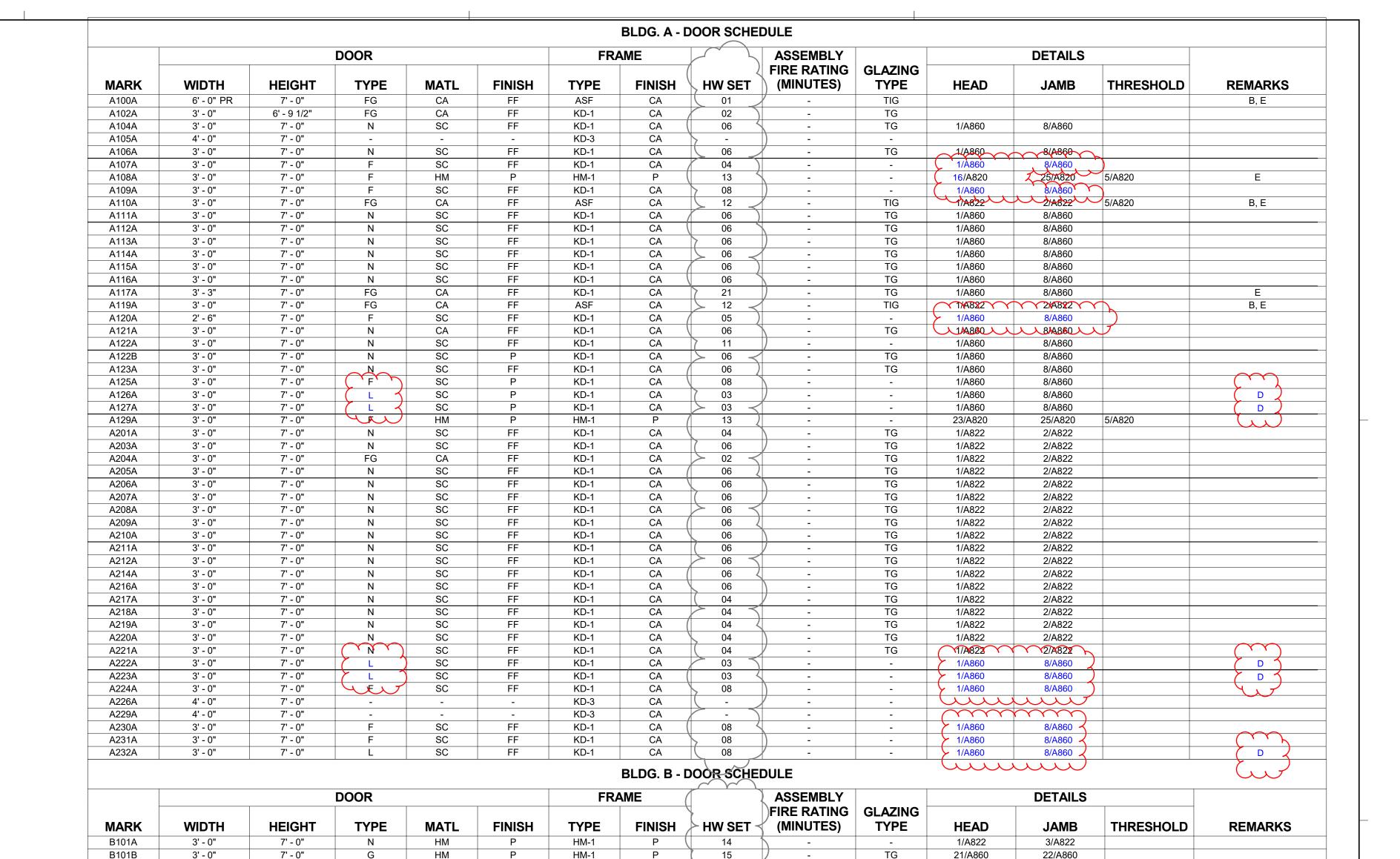
- DOORS AND GATES SHALL COMPLY WITH CBC SECTIONS 1010 AND 11B-404, INCLUDING BUT NOT LIMITED TO THE FOLLOWING 1. SIZE: DOOR OPENINGS SHALL HAVE A MINIMUM OPENING CLEAR WIDTH OF 32" MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES. EGRESS DOORS USED FOR THE MOVEMENT OF BEDS AND STRETCHER PATIENTS SHALL PROVIDE A MINIMUM CLEAR OPENING WIDTH OF 44". THE CLEAR OPENING HEIGHT OF DOORS SHALL BE NOT LESS THAN 80". THE MAXIMUM DOOR LEAF WIDTH SHALL BE 48" (CBC 1010.1.1 AND 11B-404.2.3).
- 2. FORCE TO UNLATCH HARDWARE: THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 LBS MAXIMUM (CBC 1010.1.3, 11B-404.2.7 AND 11B-309.4).
- 3. FORCE TO OPEN DOORS: THE FORCE REQUIRED TO PUSH OR PULL OPEN NON-FIRE RATED SWINGING, SLIDING, OR FOLDING DOORS SHALL NOT EXCEED 5 LBS; THE FORCE REQUIRED TO PUSH OR PULL OPEN A FIRE RATED SWINGING DOOR SHALL NOT EXCEED 15 LBS (CBC 1010.1.3 AND 11B-404.2.9).
- 4. THRESHOLDS: THRESHOLDS SHALL NOT EXCEED 1/2 INCH IN HEIGHT ABOVE THE LOWEST ADJACENT FINISHED FLOOR OR LANDING SURFACE: CHANGES IN ELEVATION
- GREATER THAN 1/4" SHALL BE BEVELED WITH A SLOPE NOT GREATER THAN 2:1 HORIZONTAL TO VERTICAL (CBC 1010.1.6, 11B-404.2.5 AND 11B-303). 5. DOOR OPERATION: EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT (CBC 1010.2).
- 6. UNLATCHING: THE UNLATCHING OF ANY DOOR OR LEAF FOR EGRESS SHALL NOT REQUIRE MORE THAN ONE MOTION IN A SINGLE LINEAR OR ROTATIONAL DIRECTION TO
- RELEASE ALL LATCHING AND ALL LOCKING DEVICES (CBC 1010.2.1).
- 7. HARDWARE: HAND ACTIVATED DOOR OPERATING HARDWARE SHALL BE LEVER HANDLED OR PULLS THAT ARE EASY TO GRASP WITH ONE HAND AND DO NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE. LEVERS, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES ON REQUIRED MEANS OF EGRESS DOORS SHALL COMPLY WITH SFM STANDARD 12-10-2, SECTION 12-10-202 CONTAINED IN THE CCR, TITLE 24, PART 12, CALIFORNIA REFERENCED STANDARDS CODE (CBC 1010.2.2 AND 11B-404.2.7).
- 8. HARDWARE HEIGHT: OPERATING HARDWARE SHALL BE MOUNTED 34 INCHES MINIMUM AND 44 INCHES MAXIMUM ABOVE THE FINISHED FLOOR LEVEL. LOCKS USED ONLY FOR SECURITY PURPOSES AND NOT USED FOR NORMAL OPERATION ARE PERMITTED AT ANY HEIGHT. (CBC 1010.2.3 & 11B-404.2.7).
- 9. BOLT LOCKS: MANUALLY OPERATED SURFACE OR FLUSH BOLTS ARE NOT PERMITTED EXCEPT FOR THE INACTIVE LEAF OF PAIRS OF DOORS SERVING STORAGE OR EQUIPMENT ROOMS, OR SERVING B, F OR S OCCUPANCIES HAVING AN OCCUPANT LOAD OF LESS THAN 50 OCCUPANTS (CBC 1010.2.5).
- 10. PANIC HARDWARE: SWINGING DOORS SERVING A GROUP 'H' OCCUPANCY OR SERVING ROOMS OR SPACES WITH AN OCCUPANT LOAD OF 50 OR MORE IN A GROUP 'A' OR 'E' OCCUPANCY SHALL BE PROVIDED WITH PANIC OR FIRE EXIT HARDWARE (CBC 1010.2.9).
- 11. ELECTRICAL EQUIPMENT ROOMS: EXIT OR EXIT ACCESS DOORS SERVING TRANSFORMER VAULTS, ROOMS DESIGNATED FOR BATTERIES OR ENERGY STORAGE SYSTEMS, OR MODULAR DATA CENTERS SHALL BE EQUIPPED WITH PANIC HARDWARE. ROOMS CONTAINING ELECTRICAL EQUIPMENT RATED AT 800 AMPERES OR MORE THAT CONTAIN OVERCURRENT DEVICES, SWITCHING DEVICES OR CONTROL DEVICES AND WHERE THE EXIT OR EXIT ACCESS DOOR IS LESS THAN 25' FROM THE EQUIPMENT WORKING SPACE AS REQUIRED BY NFPA 70, SUCH DOORS SHALL BE PROVIDED WITH PANIC HARDWARE AND THE DOORS SHALL SWING IN THE DIRECTION OF EGRESS TRAVEL (CBC 1010.2.9.2).
- 12. DOOR CLOSERS: IF A DOOR HAS A CLOSER, THE CLOSER SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM (CBC 11B-404.2.8.1). CLOSERS SHALL BE ADJUSTED SO THAT THE FORCE REQUIRED TO PUSH OR PULL OPEN A DOOR SHALL NOT EXCEED 5 LBS. FOR INTERIOR AND EXTERIOR DOORS AND NOT MORE THAN 15 LBS. FOR REQUIRED FIRE RATED DOORS. (CBC 11B-404.2.9).
- 13. DOOR SURFACE: SWINGING DOOR SURFACES WITHIN 10" OF THE FLOOR SHALL HAVE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR. JOINTS IN THE DOOR SURFACE SHALL NOT EXCEED 1/16" OFFSET. SURFACES SHALL BE FREE OF SHARP OR ABRASIVE EDGES. CAVITIES CREATED BY KICK PLATES SHALL BE
- 14. VISION LIGHTS: VISION LITES IN DOORS SHALL HAVE THE BOTTOM EDGE OF VISIBLE GLASS 43" MAXIMUM ABOVE THE FLOOR (CBC 11B-404.2.11).
- 15. SAFETY GLAZING: GLAZING IN DOORS SHALL BE TEMPERED SAFETY GLASS OR OTHER APPROVED SAFETY GLAZING MATERIAL. SAFETY GLAZING SHALL BE PERMANENTLY IDENTIFIED (CBC 2406.1, 2406.3 AND 2406.4.1).
- 16. FIRE RATED ASSEMBLIES: FIRE RATED DOOR/FRAME ASSEMBLIES SHALL BE SELF CLOSING AND POSITIVE LATCHING (CBC 716.2.6.1, 716.2.6.2 AND 716.2.6.4). FIRE RATED DOOR/FRAME ASSEMBLIES SHALL BE LABELED BY AN APPROVED AGENCY AND HAVE LABELS COMPLYING WITH NFPA 80 PERMANENTLY AFFIXED TO THE DOOR AND FRAME
- 17. ALL DOORS SHALL BE 1-3/4" THICK UNLESS NOTED OTHERWISE.
- 18. REFER TO INTERIOR FINISH SCHEDULE FOR COLOR/GLOSS/ PATTERN FOR PAINTED DOOR AND FRAME FINISHES.
- 19. WHERE NEW DOORS ARE TO BE INSTALLED IN EXISTING DOOR FRAMES, THE CONTRACTOR SHALL FIELD VERIFY THE SIZE OF THE EXISTING DOOR OPENING AND CONFIRM THE SIZE OF NEW DOORS.
- 20. PUBLIC SCHOOL FACILITIES (K-12): DOORS TO CLASSROOMS AND ANY ROOM WITH AN OCCUPANT LOAD OF 5 OR MORE PERSONS SHALL BE CAPABLE OF BEING LOCKED FROM THE INSIDE, LOCKS SHALL COMPLY WITH REQUIREMENTS FOUND IN CBC 1010.2.
- 21. INTRUDER LOCKING: LOCKS DESIGNED TO PREVENT INTRUDERS FROM ENTERING SHALL BE CAPABLE OF BEING UNLOCKED FROM THE OUTSIDE WITH A KEY, SHALL BE OPENABLE FROM WITHIN THE ROOM, AND MODIFICATIONS SHALL NOT BE MADE TO FIRE OR PANIC HARDWARE, AND/OR FIRE RATED DOOR ASSEMBLIES (CBC 1010.2.8).
- 22. IN BUILDINGS IN OCCUPANCY GROUP A HAVING AN OCCUPANCY LOAD OF 300 OR LESS, GROUPS B, F, M, AND S, AND IN PLACES OF RELIGIOUS WORSHIP, THE MAIN EXTERIOR DOOR OR DOORS ARE PERMITTED TO BE EQUIPPED WITH KEY-OPERATED LOCKING DEVICES FROM THE EGRESS SIDE PROVIDED 1) THE LOCKING DEVICE IS READILY DISTINGUISHABLE AS LOCKED, 2) A READILY VISIBLE DURABLE SIGN POSTED ON THE EGRESS SIDE ON OR ADJACENT TO THE DOOR STATING "THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED" AND 3) THE USE OF THE KEY OPERATED LOCKING DEVICE IS REVOCABLE BY THE FIRE CODE OFFICIAL FOR DUE CAUSE

## DOOR TYPES



## DOOR FRAME TYPES





							BLDG. C - D	OOR SCHE	DULE					
	DOOR					FR	AME	5	ASSEMBLY			DETAILS		
MARK	WIDTH	HEIGHT	TYPE	MATL	FINISH	TYPE	FINISH	HW SET	FIRE RATING (MINUTES)	GLAZING TYPE	HEAD	JAMB	THRESHOLD	REMARKS
C100A	3' - 0"	7' - 0"	N	HM	Р	HM-1	Р	14	-	-	1/A822	3/A822		
C100B	12' - 0"	14' - 0"	OH	STL	FF	STL-1	FF	-	-		11/A822	13/A822		
C100C	6' - 0"	7' - 0"	N	HM	Р	HM-1	Р (	14	-	-	1/A822	3/A822		
C101A	3' - 0"	7' - 0"	N	HM	Р	HM-1	Р	14	-	-	6/A822	8/A822		
C101B	3' - 0"	7' - 0"	G	HM	Р	HM-1	Р	04	/ -		21/A860	22/A860		
C102A	3' - 0"	7' - 0"	F	HM	Р	HM-1	Р	04	-	-	21/A860	22/A860		
C103A	10' - 0"	14' - 0"	ОН	STL	FF	STL-1	FF (	- 4	-		11/A822	13/A822		
C103B	3' - 0"	7' - 0"	Р	HM-1	Р	14	-	-	1/A822	3/A822				
C104A	3' - 0"	7' - 0"	N	HM	Р	HM-1	Р	( 16	<i>j</i> -	-	6/A822	8/A822		
C104B	3' - 0"	7' - 0"	G	HM	Р	HM-1	Р	04	-		21/A860	22/A860		
C105A	4' - 0"	7' - 0"	F	HM	Р	HM-1	Р (	17 (	-	-	21/A860	22/A860		
C106A	3' - 0"	7' - 0"	G	HM	Р	HM-1	Р	16	-	-	6/A822	8/A822		
C107A	0' - 0"	0' - 0"	-	-	-	KD-3	CA	7 -	-	-				
C108A	3' - 0"	7' - 0"	F	HM	Р	HM-1	Р	> 07 ≺	-	-	21/A860	22/A860		
C109A	3' - 0"	7' - 0"	F	HM	Р	HM-1	P /	07	-	-	21/A860	22/A860		
C110A	12' - 0"	14' - 0"	OH	STL	FF	STL-1	FF	-	-		11/A822	13/A822		
C110B	12' - 0"	14' - 0"	ОН	STL	FF	STL-1	FF	7 -	) -		11/A822	13/A822		
C110C	12' - 0"	14' - 0"	ОН	STL	FF	STL-1	FF	> - <	-		11/A822	13/A822		
C110D	3' - 0"	7' - 0"	N	HM	Р	HM-1	Р /	14	-		1/A822	3/A822		
C111A	3' - 0"	7' - 0"	G	HM	Р	HM-1	Р	04	-		21/A860	22/A860		
C112A	6' - 0" PR	7' - 0"	F	HM	Р	HM-2	Р	7 09	-	-	21/A860	22/A860		
C113A	6' - 0"	7' - 0"	F	HM	Р	HM-2	Р	10	-	-	1/A822	3/A822		
C114A	3' - 0"	7' - 0"	G	HM	Р	HM-1	Р	04	-		21/A860	22/A860		
C115A	3' - 0"	7' - 0"	N	HM	Р	HM-1	Р	14	-		1/A822	3/A822		
C115B	12' - 0"	14' - 0"	OH	STL	FF	STL-1	FF	_	-		11/A822	13/A822		

BLDG. D - DOOR SCHEDULE

11/A822

11/A822

13/A822

13/A822 8/A822

				DOOR			FR	AME		ASSEMBLY			DETAILS		
M	IARK	WIDTH	HEIGHT	TYPE	MATL	FINISH	TYPE	FINISH	HW SET	FIRE RATING (MINUTES)	GLAZING TYPE	HEAD	JAMB	THRESHOLD	REMARKS
D	)100A	12' - 0"	14' - 0"	ОН	STL	FF	STL-1	FF	> - <	-	-	11/A822	13/A822		
	)100B	3' - 0"	7' - 0"	N	НМ	Р	HM-1	Р (	14	-	-	1/A822	3/A822		
D	)101A	3' - 0"	7' - 0"	N	НМ	Р	HM-1	Р	14	-	-	6/A822	8/A822		
	)101B	3' - 0"	7' - 0"	G	HM	Р	HM-1	Р	04	-	TG	21/A860	22/A860		
	)102A	3' - 0"	7' - 0"	F	HM	Р	HM-1	Р	04	-	-	21/A860	22/A860		
D	)103A	3' - 0"	7' - 0"	N	НМ	Р	HM-1	Р (	14	-	-	6/A822	8/A822		
D	)104A	3' - 0"	7' - 0"	F	НМ	Р	HM-1	Р	04	-	-	21/A860	22/A860		
	)105A	3' - 0"	7' - 0"	N	НМ	Р	HM-1	Р	14	<i>-</i>	-	6/A822	8/A822		
D	)106A	3' - 0"	7' - 0"	N	НМ	Р	HM-1	Р	14	-	-	6/A822	8/A822		
D	0107A	3' - 0"	7' - 0"	F	НМ	Р	HM-1	Р (	04	-	-	21/A860	22/A860		
D	)107B	3' - 0"	7' - 0"	F	НМ	Р	HM-1	Р	04	-	-	21/A860	22/A860		
D	)108A	3' - 0"	7' - 0"	N	НМ	Р	HM-1	Р	18	-	-	6/A822	8/A822		
D	)109A	3' - 0"	7' - 0"	N	НМ	Р	HM-1	Р	19	-	-	1/A822	3/A822		
	)109B	3' - 0"	7' - 0"	G	НМ	Р	HM-1	P	04	-	TG	21/A860	22/A860		
D	)110A	3' - 0"	7' - 0"	N	НМ	Р	HM-1	Р	16	-	-	1/A822	3/A822		
	)110B	12' - 0"	14' - 0"	ОН	STL	FF	STL-1	FF	-	<del>/</del> -	-	11/A822	13/A822		
D	)111A	3' - 0"	7' - 0"	N	НМ	Р	HM-1	Р	14		-	6/A822	8/A822		
	)111B	3' - 0"	7' - 0"	G	НМ	Р	HM-1	Р	22	-	TG	21/A860	22/A860		
D	)112A	3' - 0"	7' - 0"	F	НМ	Р	HM-1	Р	04	-	-	21/A860	22/A860		
	)113A	12' - 0"	14' - 0"	ОН	STL	FF	STL-1	FF	-	-	-	11/A822	13/A822		
	)113B	3' - 0"	7' - 0"	N	HM	Р	HM-1	Р	14		_	1/A822	3/A822		
D	)113C	3' - 0"	7' - 0"	F	НМ	Р	HM-1	Р	14	-	-	1/A822	3/A822		
D	)114A	3' - 0"	7' - 0"	N	НМ	Р	HM-1	Р	14	-	-	6/A822	8/A822		
D	)116A	3' - 0"	7' - 0"	N	НМ	Р	HM-1	Р	14 _	-	-	1/A822	3/A822		
D	)116B	12' - 0"	14' - 0"	OH	STL	FF	STL-1	FF /	-	-	-	11/A822	13/A822		
D	)116C	3' - 0"	7' - 0"	N	HM	Р	HM-1	Р	14	-	-	1/A822	3/A822		
D	)116D	3' - 0"	7' - 0"	F	HM	Р	HM-1	Р	14	) -	-	1/A822	3/A822		
D	)116E	3' - 0"	7' - 0"	G	HM	Р	HM-1	Р	> 04 <	-	TG	21/A860	22/A860		
D	)116F	3' - 0"	7' - 0"	F	HM	Р	HM-1	Р /	04	-	-	21/A860	22/A860		
D	)117A	3' - 0"	7' - 0"	N	HM	Р	HM-1	Р	14	-	-	6/A822	8/A822		
D	)118A	0' - 0"	0' - 0"	-	-	-	KD-3	CA	-	) -	-				
D	)119A	3' - 0"	7' - 0"	F	HM	Р	HM-1	Р	> 07 ≺	-	-	21/A860	22/A860		
D	)120A	3' - 0"	7' - 0"	F	HM	Р	HM-1	Р /	07	-	-	21/A860	22/A860		
D	)121A	4' - 0"	7' - 0"	N	HM	Р	HM-1	P	20	-	-	1/A822	3/A822		
D	)121B	12' - 0"	14' - 0"	ОН	STL	FF	STL-1	FF	-	) -	-	11/A822	13/A822		
D	)121C	12' - 0"	14' - 0"	OH	STL	FF	STL-1	FF	· - <	-	-	11/A822	13/A822		
D	)121D	3' - 0"	7' - 0"	F	HM	Р	HM-1	Р /	14	-	-	1/A822	3/A822		
D	)122A	12' - 0"	14' - 0"	ОН	STL	FF	STL-1	FF	-	-	-	11/A822	13/A822		
D	)122B	3' - 0"	7' - 0"	F	НМ	Р	HM-1	Р	14	-	-	1/A822	3/A822		
D	)122C	3' - 0"	7' - 0"	G	HM	Р	HM-1	Р	04 <	-	TG	21/A860	22/A860		
D	)123A	3' - 0"	7' - 0"	N	HM	Р	HM-1	Р (	14	-	-	6/A822	8/A822		
D	)124A	3' - 0"	7' - 0"	N	HM	Р	HM-1	P	14	-	-	6/A822	8/A822		
D	)125A	3' - 0"	7' - 0"	F	HM	Р	HM-1	Р	( 04	-	-	21/A860	22/A860		
D	)126A	10' - 0"	14' - 0"	ОН	STL	FF	STL-1	FF	<u>-</u> - <	-	-	11/A822	13/A822		
D	)126B	3' - 0"	7' - 0"	F	HM	Р	HM-1	Р /	14	-	-	1/A822	3/A822		
	)126C	3' - 0"	7' - 0"	G	НМ	Р	HM-1	P	04	-	TG	21/A860	22/A860		
D	)127A	3' - 0"	7' - 0"	N	HM	Р	HM-1	Р	14	-	-	6/A822	8/A822		

12' - 0"

14' - 0"

6' - 0" PR 7' - 0" F HM P HM-2

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T DATE: 10/31/2024

						FINI	SH SCHEDULE				
							BUILDING A				
OOM NUMBER		FLOOR	BASE	NORTH	EAST	SOUTH	WEST	CEILING	CASEWORK (EXPOSED)	COUNTERTOP	REMARKS
	LOBBY	C-2/CPT-2	RB-2	GB-1	GB-1	 CD 1/CD 4	GB-1	EXP-2	 DI 1	 CC/DL 2	
	RECEPTION OFFICE	C-2/CPT-1 CPT-1	RB-2 RB-1	GB-1 TB-2	GB-1 TB-1	GB-1/GB-4 GB-1	GB-1 GB-1	EXP-2/GB-1 ACP	PL-1	SS/PL-2	
	OFFICE	CPT-1	RB-1	GB-1	TB-1	TB-1	TB-2	ACP	PL-1	PL-2	
	STORAGE	C-2	RB-2	GB-1	GB-1	TB-1	GB-1	ACP	PL-1	PL-2	
	OFFICE	CPT-1	RB-1	TB-1	TB-1	TB-1	TB-2	ACP	PL-1	CAP-2	
7	SUPPLY	C-2	RB-2	GB-1	GB-1	GB-1	GB-1	ACP	PL-1	<b>SS</b> 3	
}	ELEC.	C-2	RB-2	GB-1	GB-1	GB-1	GB-1	EXP-1		tuni	A,F.
	сомм.	C-2	RB-2	PW-1/GB-1	PW-1/GB-1	PW-1/GB-1	PW-1/GB-1	ACP			
	CORRIDOR	C-2/CPT-2	RB-2	GB-1	GB-1	GB-1/TB-1	GB-1	EXP-2/GB-1		PL-2	
	OFFICE	CPT-1	RB-1	TB-1	TB-1	TB-1	TB-2	ACP	PL-1	PL-2	
	OFFICE OFFICE	CPT-1 CPT-1	RB-1	TB-1	TB-1	TB-1 TB-1	TB-2	ACP ACP	PL-1	PL-2	
	OFFICE	CPT-1	RB-1	TB-1 TB-1	TB-1 TB-1	TB-1	TB-2	ACP	PL-1 PL-1		
	OFFICE	CPT-1	RB-1	TB-1	TB-1	TB-1	TB-2	ACP	PL-1 PL-1	PL-2	
	OFFICE	CPT-1	RB-1	TB-1	TB-1	TB-1	TB-2	ACP	PL-1	PL-2	
	CORRIDOR	C-2	RB-2	GB-1	GB-1		GB-1	EXP-2			
	EXIT ACCESS STAIRS	C-2	RB-2		GB-1			EXP-2			
)	LOBBY 2	C-2/CPT-2	RB-2		GB-1	GB-1	GB-1	EXP-2			
	FIRE RISER	C-2	RB-2	GB-5	GB-5	GB-5	GB-5	EXP-1			
	OFFICE	CPT-1	RB-1	TB-2	TB-1	TB-1	TB-1	ACP	PL-1	PL-2	
	PLAN ARCHIVE	C-2	RB-2	TB-1	TB-1	TB-1	TB-1	EXP-2		PL-2	
	MEETING ROOM	C-2	RB-2	TB-1	TB-1	TB-2	TB-1	EXP-2	 DI 1		
	BREAKROOM	C-2	RB-2	GB-1/FRP	GB-1/FRP	GB-1	GB-1/FRP	GB-1/EXP-2	PL-1	SS	D.
	STORAGE WOMENS	C-2 CT-3	RB-2 CT-3	GB-1 FRP/GB-1	GB-1 FRP/GB-1	GB-1 FRP/GB-1	GB-1 FRP/GB-1	GB-1	PL-1		C
	MENS	CT-3	CT-3	FRP/GB-1	FRP/GB-1	FRP/GB-1	FRP/GB-1	GB-1			C
	EXIT ACCESS STAIRS	C-2	RB-2		GB-1/GB-4	GB-1/GB-4	GB-1/GB-4	EXP-2			C.
	MACHINE ROOM	C-2	RB-2	GB-5	GB-5	GB-5	GB-5	EXP-1			
	ELEVATOR	LVT-1									
	OFFICE	CPT-1	RB-1	TB-1	TB-2	TB-1	TB-1	ACP	PL-1	PL-2	
	OFFICE	CPT-1	RB-1	GB-1	GB-1		GB-1	ACP			
	CONFERENCE	CPT-1	RB-1	TB-1/GB-1	TB-1	TB-1	TB-1/GB-1	ACP	PL-1	PL-2	
	BREAKROOM 2	C-2	RB-2	GB-1	TB-1	TB-1	GB-2	ACP	PL-1	Cage The same of t	
	OFFICE	CPT-1	RB-1	TB-1	TB-1	TB-1	TB-2	ACP ACP	PL-1	SS }	
	OFFICE OFFICE	CPT-1	RB-1	TB-1 TB-1	TB-1 TB-1	TB-1 TB-1	TB-2	ACP	PL-1 PL-1	PL-2	
	OFFICE	CPT-1	RB-1	TB-1	TB-1	TB-1	TB-2	ACP	PL-1 PL-1	PL-2	
	OFFICE	CPT-1	RB-1	TB-1	TB-1	TB-1	TB-2	ACP	PL-1	PL-2	
	OFFICE	CPT-1	RB-1	TB-1	TB-1	TB-1	TB-2	ACP	PL-1	المريدي على المريدي ا	
	OFFICE	CPT-1	RB-1	TB-1	TB-1	TB-1	TB-2	ACP	PL-1	ss J	
	OFFICE	CPT-1	RB-1	TB-1	TB-1	TB-1/GB-1	TB-2/GB-1	ACR			
	OPEN SPACE	C-2	RB-2	GB-1/TB-1	GB-1	GB-1	GB-1/GB-4	EXP-2		PL-2	
	OFFICE	CPT-1	RB-1	TB-1	TB-1	TB-1/GB-1	TB-2	ACRU	PL-1	PL-2	
	CORRIDOR	C-2	RB-2		GB-1	GB-1	GB-1	EXP-2			
	OFFICE	CPT-1	RB-1	TB-1	TB-2/GB-1	TB-1/GB-1	TB-1	ACP	PL-1	PL-2	
	OFFICE	CPT-1	RB-1	TB-1	TB-2	TB-1	TB-1	ACP	PL-1	PL-2	
	OFFICE OFFICE	CPT-1 CPT-1	RB-1	TB-1 TB-1	TB-2/GB-1 TB-2	TB-1/GB-1 TB-1	TB-1	ACP ACP	PL-1 PL-1		
	OFFICE	CPT-1	RB-1	TB-1	TB-2/GB-1	TB-1/GB-1	TB-1	ACP	PL-1 PL-1		
	OFFICE	CPT-1	RB-1	TB-1	TB-2/GB-1	TB-1	TB-1	ACP	PL-1	ss }	
	WOMENS	C-3	CT-3	FRP/GB-1	FRP/GB-1	FRP/GB-1	FRP/GB-1	GB-1			C.
	MENS	C-3	CT-3	FRP/GB-1	FRP/GB-1	FRP/GB-1	FRP/GB-1	GB-1			C.
	JAN	C-2	RB-2	FRP/GB-1	FRP/GB-1	FRP/GB-1	FRP/GB-1	EXP-1			
	CORRIDOR	C-2	RB-2	GB-1	GB-1	GB-1	GB-1	EXP-2			
	STORAGE	C-2	RB-2	GB-1	GB-1	GB-1	GB-1	ACP	PL-1		
	CORRIDOR	C-2	RB-2	GB-1	GB-1	GB-1	GB-1	EXP-2			
	CORRIDOR	C-2	RB-2		GB-1/TB-1		GB-1	EXP-2		PL-2	
	STORAGE	C-2	RB-2	GB-1	GB-1	GB-1	GB-1	ACP	PL-1		
	STORAGE	C-2	RB-2	GB-5	GB-5	GB-5	GB-5	EXP-1			
	ELEC. COMM. 2	C-2 C-2	RB-2 RB-2	GB-1 PW-1/GB-1	GB-1 PW-1/GB-1	GB-1 PW-1/GB-1	GB-1 PW-1/GB-1	EXP-1			
	IN A MINITURE OF	L-Z	IND-Z	L AA-T\ (1Q-T	L AA-T\@D-T	- アット・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	F VV = I / \J D =	L A F = 1	, <del></del>	ı	T. Company of the Com

	BUILDING B												
ROOM NUN	MBER ROOM NAME	FLOOR	BASE	NORTH	EAST	SOUTH	WEST	CEILING	CASEWORK (EXPOSED)	COUNTERTOP	REMARKS		
B100	COVERED LAY DOWN	C-2						EXP-1					
B101	PAINT SHOP	C-2		PW-2/EXP-1	PW-2/EXP-1/FRP	PW-2/EXP-1	PW-2/EXP-1	EXP-1			E.		
B102	OFFICE	C-2/CPT-2	RB-2	TB-1	TB-1	TB-1/GB-1	TB-1	ACP	PI -1	PI -2			

						BU	JILDING C				
ROOM NUMBER	ROOM NAME	FLOOR	BASE	NORTH	EAST	SOUTH	WEST	CEILING	CASEWORK (EXPOSED)	COUNTERTOP	REMARKS
C100	CARPENTER SHOP	C-2	RB-2	PW-2/EXP-1	PW-2/EXP-1/FRP	PW-2/EXP-1	PW-2/EXP-1	EXP-1			E.
C101	OFFICE	C-2/CPT-2	RB-2	TB-1	TB-1	TB-1	TB-1	ACP	PL-1	PL-2	
C102	STORAGE	C-2	RB-2	GB-1	GB-1	GB-1	PW-2/EXP-1	EXP-1			E.
C103	WELDING	C-2	RB-2	PW-2/EXP-1	PW-2/EXP-1/FRP	PW-2/EXP-1	PW-2/EXP-1	EXP-1			
C104	OFFICE	C-2	RB-2	TB-1	TB-1	TB-1	TB-1	ACP	PL-1	PL-2	
C105	STORAGE	C-2	RB-2	GB-1	GB-1	GB-1	PW-2/EXP-1	EXP-1			E.
C106	BREAKROOM	C-2/CPT-2	RB-2	TB-1	GB-1	GB-1	TB-1	ACP	PL-1	SS	
C107	HALL	C-2	RB-2	TB-1	GB-1	GB-1	GB-1	ACP			
C108	RESTROOM	CT-3	CT-3	FRP/GB-1	FRP/GB-1	FRP/GB-1	FRP/GB-1	GB-1			
C109	RESTROOM	CT-3	CT-3	FRP/GB-1	FRP/GB-1	FRP/GB-1	FRP/GB-1	GB-1			
C110	GROUNDS EQUIPMENT REPAIR	C-2	RB-2	PW-2/EXP-1	PW-2/EXP-1/FRP	PW-2/EXP-1	PW-2/EXP-1	EXP-1			E.
C111	OFFICE	C-2	RB-2	TB-1	TB-1	TB-1	TB-1	ACP	PL-1	PL-2	
C112	STORAGE	C-2	RB-2	GB-1	GB-1	GB-1	PW-2/EXP-1	EXP-1			E.
C113	OIL ROOM	C-2	RB-2	GB-1	EXP-1	GB-1	GB-1	EXP-1			E.
C114	GROUNDS ENV SAFETY OFFICE	C-2/CPT-2	RB-2	TB-1	TB-1/GB-1	TB-1	GB-1	ACP	PL-1	PL-2	
C115	GROUNDS ENV SAFETY	C-2	RB-2	PW-2/GB -1/STS	PW-2/EXP-1	PW-2/EXP-1	PW-2/EXP-1/GB-1	EXP-1			E.
C116	PESTICIDE STORAGE	C-2	RB-2	GB-1	GB-1	GB-1	PW-2/EXP-1	GB-1			E.

						В	UILDING D				
ROOM NUMBE	ROOM NAME	FLOOR	BASE	NORTH	EAST	SOUTH	WEST	CEILING	CASEWORK (EXPOSED)	COUNTERTOP	REMARKS
D100	PLUMBING	C-2	RB-2	PW-2/EXP-1	PW-2/EXP-1	PW-2/GB-1/FRP	PW-2/EXP-1	EXP-1			E.
0101	OFFICE	C-2/CPT-2	RB-2	TB-1	TB-1	TB-1	TB-1	ACP	PL-1	PL-2	
0102	STORAGE	C-2	RB-2	GB-1	PW-2/EXP-1	GB-1	GB-1	EXP-1			E.
103	LOCK/KEY	C-2/CPT-2	RB-2	TB-1	TB-1	TB-1	GB-1	ACP	PL-1	PL-2	
104	STORAGE	C-2	RB-2	GB-1	PW-2/EXP-1	GB-1	GB-1	EXP-1			E.
105	HVAC	C-2/CPT-2	RB-2	TB-1	TB-1	TB-1	TB-1	ACP	PL-1	PL-2	
106	OFFICE	C-2/CPT-2	RB-2	GB-1/TB-1	TB-1	TB-1	GB-1	ACP	PL-1	PL-2	
107	STORAGE	C-2	RB-2	GB-1	PW-2/EXP-1	GB-1	GB-1	ACP			E.
108	LOW VOLTAGE	C-2/CPT-2	RB-2	TB-1	TB-1	TB-1	GB-1	ACP	PL-1	PL-2	E.
109	OFFICE	C-2/CPT-2	RB-2	TB-1	TB-1	TB-1	PW-2/EXP-1	ACP	PL-1	PL-2	E.
110	ROOFING	C-2/CPT-2	RB-2	GB-1	PW-2/EXP-1	GB-1/PW-2	PW-2/EXP-1	EXP-1	PL-1	PL-2	E.
111	OFFICE	C-2/CPT-2	RB-2	TB-1	TB-1	TB-1	TB-1	ACP	PL-1	PL-2	
112	STORAGE	C-2	RB-2	GB-1	PW-2/EXP-1	GB-1	GB-1	EXP-1			E.
113	ELECTRICAL	C-2/CPT-2	RB-2	PW-2/GB-1	PW-2/EXP-1	PW-2/GB-1/FRP	PW-2/EXP-1	EXP-1			E.
L14	OFFICE	C-2/CPT-2	RB-2	TB-1	TB-1	TB-1	TB-1	ACP	PL-1	PL-2	
.15	STORAGE	C-2	RB-2	GB-1	PW-2/EXP-1	GB-1	GB-1	EXP-1			E.
.16	MAINTENANCE WAREHOUSE	C-2	RB-2	PW-2/GB-1	PW-2/EXP-1	PW-2/GB-1	PW-2/EXP-1/FRP	EXP-1	-		E.
.17	BREAKROOM	C-2/CPT-2	RB-2	TB-1	TB-1	GB-1	GB-1	ACP	PL-1	SS	
.18	HALL	C-2	RB-2	TB-1	GB-1	GB-1	GB-1	ACP			
L <b>1</b> 9	RESTROOM	CT-3	CT-3	FRP/GB-1	FRP/GB-1	FRP/GB-1	FRP/GB-1	GB-1			
120	RESTROOM	CT-3	CT-3	FRP/GB-1	FRP/GB-1	FRP/GB-1	FRP/GB-1	GB-1			
L <b>21</b>	GROUNDS WAREHOUSE	C-2	RB-2	PW-2/GB-1	PW-2/EXP-1	PW-2/GB-1	PW-2/EXP-1/FRP	EXP-1			E
122	CONCRETE GRADING	C-2	RB-2	PW-2/GB-1	PW-2/EXP-1/FRP	PW-2/GB-1	PW-2/EXP-1	EXP-1			E
123	OFFICE	C-2	RB-2	TB-1	GB-1	TB-1	GB-1	ACP	PL-1	PL-2	
124	OFFICE	C-2	RB-2	TB-1	TB-1	TB-1	TB-1	ACP	PL-1	PL-2	
125	STORAGE	C-2	RB-2	GB-1	PW-2/EXP-1	GB-1	GB-1	EXP-1			
126	TREE & IRRIGATION	C-2	RB-2	PW-2/GB-1	PW-2/EXP-1/FRP	PW-2/GB-1	PW-2/EXP-1	EXP-1			E
127	OFFICE	C-2	RB-2	TB-1	TB-1	TB-1	GB-1	ACP	PL-1	PL-2	

## REMARKS

- A. SEE ELECTRICAL SPEC FOR ADDITIONAL PLYWOOD INFORMATION B. NOT USED.
- C. TOILET PARTITIONS COLOR XXX D. FRP WAINSCOT AT DRINKING FOUNTAIN ALCOVE
- E. AT EXTERIOR WALLS WITH PLYWOOD WAINSCOT, NO TOPSET BASE. SEE

## **GENERAL NOTES**

- A. SEE INTERIOR ELEVATIONS FOR WAINSCOT/MATERIAL HEIGHT
- B. PAINT EXPOSED WOOD TRIM C. EXPOSED PEMB STRUCTURE INCLUDING BUT NOT LIMITED TO BRACES,
- FRAMES, GIRTS, PURLINS SHALL BE PAINTED GRAY (MATCH GB-2) D. AT EXP-2 LOCATIONS PAINT ALL EXPOSED STRUCTURE, DUCTS, PIPING, UNDERSIDE OFINSULATION AND DECKS

E. UNLESS NOTED OTHERWISE, FURNITURE SHALL BE OWNER FURNISHED AND

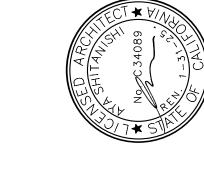
F. STAIRS SHALL BE SEALED CONCRETE FINISH 

## **ABBREVIATIONS**

- ACP SUSPENDED ACOUSTIC PANEL
- CONCRETE, SEAL
- CT-3 FLOOR TILE WITH COVED BASE
- CPT-1 CARPET, CPT-2 CARPET, WALK-OFF CARPET
- EXP-1 EXPOSED, NO FINISH EXP-2 EXPOSED, PAINTED
- FIBERGLASS REINFORCED PANEL
- GYPSUM BOARD, PAINT WHITE, EGGSHELL GYPSUM BOARD, PAINT ACCENT, EGGSHELL
- GYPSUM BOARD, PAINT, SEMI GLOSS GYPSUM BOARD, TAPE, TEXTURE, LEVEL 4 FINISH GYPSUM BOARD, TAPE ONLY
- PLASTIC LAMINATE PLASTIC LAMINATE
- 3/4" PLYWOOD WITH INTUMESCENT PAINT 3/4" T&G PLYWOOD
- RESILIENT TOPSET RUBBER BASE (4" U.N.O.)
- RESILIENT TOPSET RUBBER BASE (4" U.N.O.)
- SOLID SURFACE
- STS STAINLESS STEEL WAINSCOT
- TACKABLE WALL PANEL, OVER TAPED GYPSUM BOARD (LEVEL 2 FINISH)
  TACKABLE WALL PANEL, OVER TAPED GYPSUM BOARD (LEVEL 2 FINISH)

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- TOILET PARTITION ......
- LVT-1 LUXURY VINYL TILE Mohawk Group; Commercial Grade Luxury Vinyl Tile, Stonework (OR EQUAL)
  a. Collection: Living Local
  b. Style: Stonework #C0179
  c. Color: Igneous #950
  d. Size: 12" x 24" plank

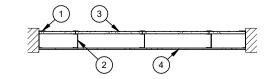






A750

#### BXUV.U415 - FIRE-RESISTANCE RATINGS - ANSI/UL 263 CERTIFIED FOR UNITED STATES DESIGN NO. U415 DECEMBER 22, 2020 NONBEARING WALL RATINGS — SYSTEM A - 1 HR.



- 1. Floor, Side and Ceiling Runners "J" shaped runner, min 2-1/2 in. deep (min 4 in. deep when System C is used), with unequal legs of 1 in. and 2 in., fabricated from min 24 MSG (min 20 MSG when Item 4A, 4B, 4C, 4D or 7 are used) galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC. "E" shaped studs (Item 2A) may be used as side
- 2. Steel Studs "C-H" shaped studs, min 2-1/2 in. deep (min 4 in. deep when System C is used), fabricated from min 25 MSG (min 20 MSG when Items 2D, 4A, 4B, 4C, 4D or 7 is used) galv steel. Cut to lengths 3/8 to 1/2 in. less than floor-to-ceiling height and spaced 24 in. or 600 mm OC (max 16 in. OC when Items 4A, 4B, 4C, or 4D are used).
- 2A. Steel Studs (Not Shown) "E" shaped studs installed back to back in place of "C-H" shaped studs (Item 2) "E" shaped studs secured together with steel screws spaced a maximum 12 in. OC. Fabricated from min 25 MSG (min 20 MSG when Item 2D, 4A, 4B or 7 is used) galv steel, min 2-1/2 in. deep when System C is used), with one leg 1 in. long and two legs 3/4 in. long. Shorter legs 1 in. apart to engage gypsum liner panels. Cut to lengths 3/8 to 1/2 in. less than
- 2B. Furring Channels (Optional, Not Shown) For use with single or double layer systems. Resilient furring channels fabricated from min 25MSG corrosion protected steel, installed horizontally, and spaced vertically a max 24 in. OC. Flange portion of channel attached to each intersecting "C-H" or "E" stud on side of stud opposite the 1 in. liner panels with 1/2 in. long Type S or S-12 pan-head steel screws. When furring channels are used, wallboard to be installed vertically only. . Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
- 2C. Furring Channels For use with System I "Hat" shaped, 25 MSG galv steel furring channels attached directly over the inner layers of wallboard to each stud with 2 in. long Type S pan head steel screws. Screws alternate from top flange to bottom flange at each stud intersection. Furring channels spaced vertically max 24 in. OC.
- 2D. Steel Framing Members\* (Optional, Not Shown) For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
  - a. Furring Channels Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.
  - b. Steel Framing Members\* Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels. PAC INTERNATIONAL L L C Types RSIC-1, RSIC-1 (2.75)
- 2E. Steel Framing Members\* (Optional, Not Shown) Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units
  - a. Furring Channels Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18
  - AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

    b. Steel Framing Members\* Used to attach furring channels (Item 2Ea) to studs. Clips spaced 24 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted
  - into clips.
    STUDCO BUILDING SYSTEMS RESILMOUNT Sound Isolation Clips Type A237R
- 2F. Steel Framing Members\* (Optional, Not Shown) For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards
  - a. Furring Channels Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 3.
  - b. Steel Framing Members\* Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
    PLITEQ INC — Type GENIECLIP
- 2G. Steel Framing Members\* (Optional, Not Shown) Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units
  - a. Furring Channels Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2Gb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

    b. Steel Framing Members\* — Used to attach furring channels (Item 2Ga) to studs. Clips spaced 24 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
  - REGUPOL AMERICA Type SonusClip
- 2H. Steel Framing Members\* (Optional, Not Shown) Resilient channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units
  - a. Resilient Channels Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4

    b. Steel Framing Members\* — Used to attach resilient channels (Item 2Ha) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with
  - one No. 10 x 1/2 in. pan-head self-drilling screw. KEENE BUILDING PRODUCTS CO INC Type RC+ Assurance Clip
- 21. Steel Framing Members\* (Optional, Not Shown) For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards
- (Itlems 4A-4D), or cementitious backer units (Item 7). **a. Furring Channels** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced max. 24 ln. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.
  - b. Steel Framing Members\* Used to attach furring channels (Item 2la) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet.
  - Furring channels are friction fitted into clips.

    CLARKDIETRICH BUILDING SYSTEMS Type ClarkDietrich Sound Clip
- 3. Gypsum Board\* Gypsum liner panels, nom 1 in. thick, 24 in. or 600 mm (for metric spacing) wide. Panels cut 1 in. less in length than floor to ceiling height. Vertical edges inserted in "H" portion of "C-H" studs or the gap between the two 3/4 in. legs of the "E" studs. Free edge of end panels attached to long leg of vertical "J" runners with 1-5/8 in. long Type S steel screws spaced not greater than 12 in. OC. When wall height exceeds liner panel length, liner panel may be butted to extend to the full height of the wall. Horizontal joints need not be backed by steel framing. In System I, butt joints in liner panels are staggered min 36 in. Butt joints backed with 6 in. by 22 in. strips of 3/4 in. thick gypsum wallboard (Item 4). Wallboard strips centered over butt joints and secured to liner panels with six 1-1/2 in. long Type G steel screws, three screws along the 22 in.

nsion at the top and bottom of the strips.

CGC INC — Type SLX

UNITED STATES GYPSUM CO — Type SLX

USG BORAL DRYWALL SFZ LLC — Type SLX
USG MEXICO S A DE C V — Type SLX

#### 4. Gypsum Board\* -

#### System A - 1 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. when installed vertically or 8 in OC when installed horizontally. Horizontal joints need not be backed by steel framing.

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, WRC, WRX, USGX. USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

#### 5. Joint Tape and Compound — (Not Shown)

#### Systems A, B, Ć, E, F, G, H, I

Joints on outer layers of gypsum boards (Item 4 and 4A) covered with paper tape and joint compound. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges. Exposed screw heads covered with joint compound.

#### 6. Batts and Blankets\* -

#### Systems A, B, E, F, G, H, I

(Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt mineral bearing the UL Classification Marking as to Fire Resistance.

- 7. Cementitious Backer Units\* (System D) Nom 1/2 or 5/8 in. thick panels, square edge, attached to studs over gypsum wallboard with 1-5/8 in. long, Type S-12, corrosion resistant steel screws spaced 8 in. OC and staggered 8 in. from gypsum wall board screws. Joints covered with glass fiber mesh tape. Vertical joints staggered one stud cavity from gypsum wallboard joints. Horizontal joints staggered a min of 12 in. from the gypsum wallboard joints. UNITED STATES GYPSUM CO — Type DCB
- 8. Laminating Adhesive\* (Optional, Not Shown) Used to bond outer layer of Cementitious Backer Units (Item 7) to inner layers of Gypsum Board (Item 4) in System D. ANSI A136.1 Type 1 organic adhesive applied with 1/4 in. square notched trowel. See Adhesives (BYWR) in the Fire Resistance Directory or Adhesives (BJLZ) in the Building Materials Directory for names of Classified companies
- 9. Lead Batten Strips (Not Shown, For Use With Item 4A) Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 strip and one at the bottom of the strip. Lead batten s ips to have a purity of 99.9% meeting joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Required behind vertical joints.
- 9A. Lead Batten Strips (Not Shown, for use with Item 4C) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L<sub>1</sub> 201f, Grades "B, C or D".. Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 6) and
- (Not Shown, For Use With Item 4A) Used in lieu of or in addition to the lead batten strips (Item 9) or optional at other locations Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4A) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal
- 10A. Lead Discs (Not Shown, for use with Item 4C) Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f,
- 11. Lead Batten Strips (Not Shown, For Use With Item 4B) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the strid with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L<sub>1</sub> 201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4B) and optional at remaining stud locations.
- 12. Lead Tabs (Not Shown, For Use With Item 4B) 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 4B) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.
- \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

CLOVIS, CA

## FIRE RATED SHAFTWALL ASSEMBLY (UL U415 SYSTEM A)

JOB NUMBER:

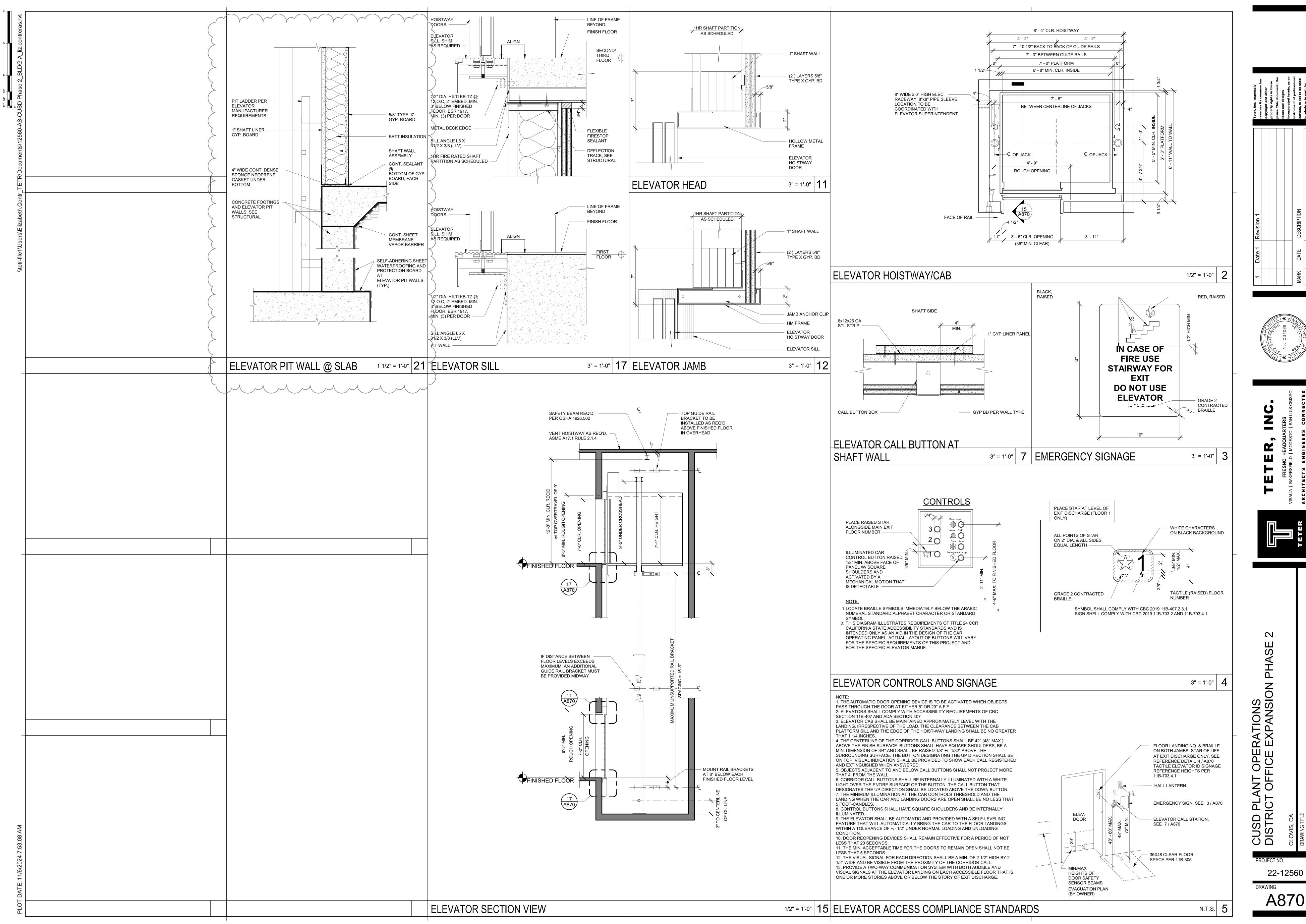
N.T.S.

VISALIA | BAKERSFIELD | MODESTO | SAN LUIS OBISPO ARCHITECTS ENGINEERS CONNECTED

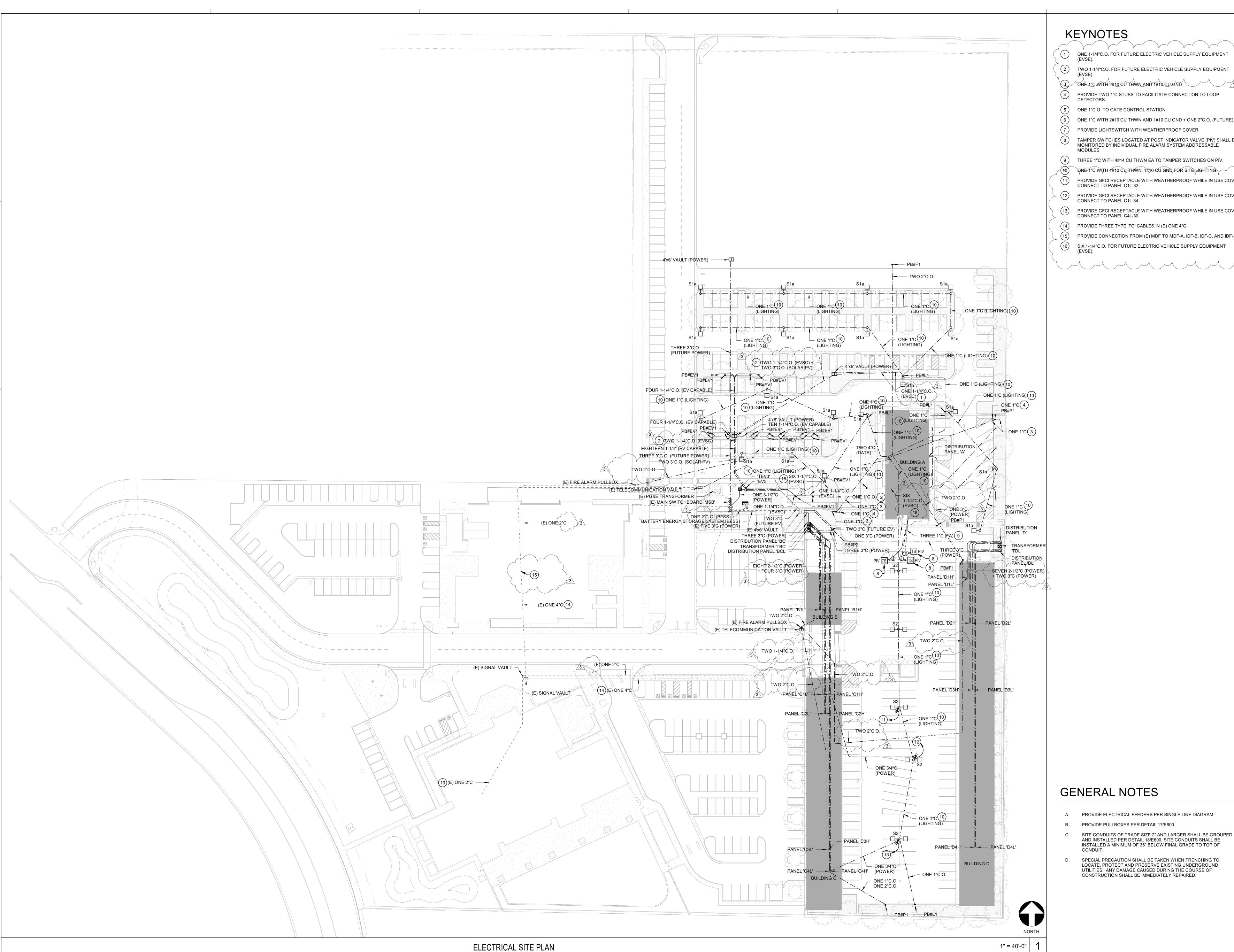
**TETER** 

ONLINE SCHOOL & SPECIAL EDUCATION ADMINISTRATION DISTRICT OFFICE **EXPANSION** CLOVIS UNIFIED SCHOOL DISTRICT

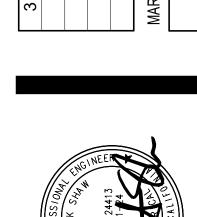
12560 DWG. DATE: 11/15/2024 AD4-01







- ONE 1-1/4"C.O. FOR FUTURE ELECTRIC VEHICLE SUPPLY EQUIPMENT
- TWO 1-1/4"C.O. FOR FUTURE ELECTRIC VEHICLE SUPPLY EQUIPMENT
- 3 ONE 1"C WITH 2#10 CU THWN AND 1#10 CU GND. PROVIDE TWO 1"C STUBS TO FACILITATE CONNECTION TO LOOP
- 5 ONE 1"C.O. TO GATE CONTROL STATION.
  - ONE 1"C WITH 2#10 CU THWN AND 1#10 CU GND + ONE 2"C.O. (FUTURE). PROVIDE LIGHTSWITCH WITH WEATHERPROOF COVER.
  - TAMPER SWITCHES LOCATED AT POST INDICATOR VALVE (PIV) SHALL BE MONITORED BY INDIVIDUAL FIRE ALARM SYSTEM ADDRESSABLE
- THREE 1"C WITH 4#14 CU THWN EA TO TAMPER SWITCHES ON PIV.
- QNE/1"C WITH 1#10 CU THWN, 1#10-EU GND FOR SITE LIGHTING. PROVIDE GFCI RECEPTACLE WITH WEATHERPROOF WHILE IN USE COVER. CONNECT TO PANEL C1L-32.
- PROVIDE GFCI RECEPTACLE WITH WEATHERPROOF WHILE IN USE COVER.
  - PROVIDE GFCI RECEPTACLE WITH WEATHERPROOF WHILE IN USE COVER. CONNECT TO PANEL C4L-30.
- (14) PROVIDE THREE TYPE 'FO' CABLES IN (E) ONE 4"C. PROVIDE CONNECTION FROM (E) MDF TO MDF-A, IDF-B, IDF-C, AND IDF-D.
  - SIX 1-1/4"C.O. FOR FUTURE ELECTRIC VEHICLE SUPPLY EQUIPMENT



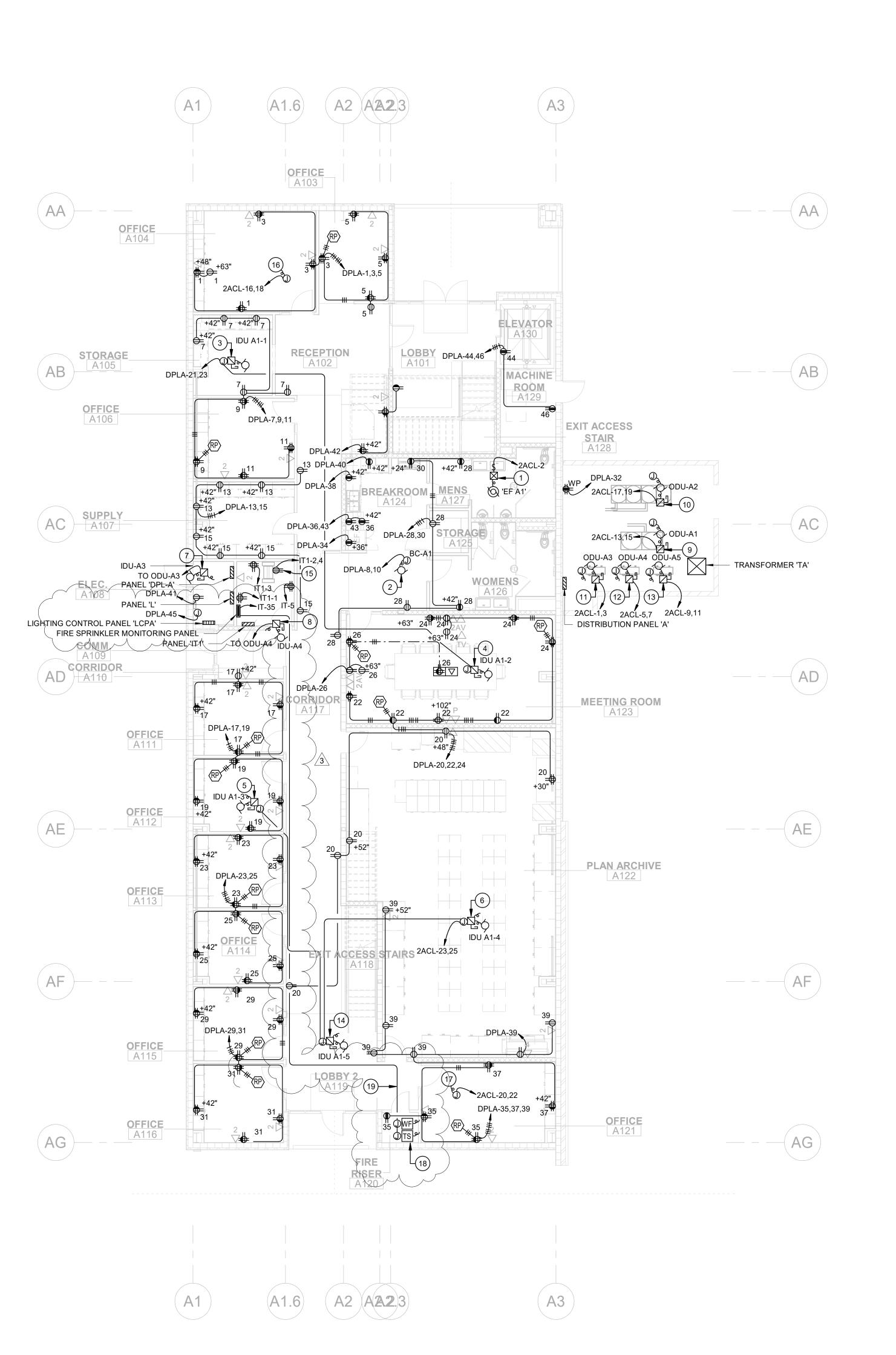


CUSD PLANT DISTRICT OFF

23-12560

23-12560

E200



## KEYNOTES

- 1 PROVIDE 120V, 30A, 1-POLE, FUSED DISCONNECT WITH INTEGRAL MAGNETIC STARTER PROVIDE CONNECTION FOR 115V, 1PH, 1/6 HI MAGNETIC STARTER, PROVIDE CONNECTION FOR 115V, 1PH, 1/6 HP, EXHAUST FAN 'EF-A1'.
- PROVIDE FLEXIBLE POWER CONNECTION TO 208V,1PH, 1 MCA, 20 MOCP, BRANCH CONTROLLER BOX THROUGH MOTORO RATED SNAP SWITCH
- HEAVY DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1PH, 4.4 MCA, 15 MOCP, 3.5 FLA, INDOOR UNIT 'IDU A1-1'. PROVIDE A RELAY TO FACILITATE CONNECTION TO EMS CONTROL SYSTEM.
- HEAVY DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1PH, 2.88 MCA, 15 MOCP, 2.3 FLA, INDOOR UNIT 'IDU A1-2'. PROVIDE A RELAY TO FACILITATE CONNECTION TO EMS
- (5) HEAVY DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1PH, 4.25 MCA, 15 MOCP, 3.4 FLA, INDOOR UNIT 'IDU A1-3'. PROVIDE A RELAY TO FACILITATE CONNECTION TO EMS CONTROL SYSTEM.
- 6 HEAVY DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V 1PH 2 88 MCA 15 MOCP 2 3 FLA INDOC CONNECTION FOR 208V, 1PH, 2.88 MCA, 15 MOCP, 2.3 FLA, INDOOR UNIT 'IDU A1-4'. PROVIDE A RELAY TO FACILITATE CONNECTION TO EMS CONTROL SYSTEM.
- PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-A3'. PROVIDE CONNECTION FOR 208V, 1PH, 11 MCA, 28 MOCP, INDOOR UNIT 'IDU-A3' VIA OUTDOOR UNIT ODU-A3'. PROVIDE A RELAY TO FACILITATE CONNECTION TO EMS CONTROL SYSTEM.
- 8 PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-A4'. PROVIDE CONNECTION FOR 208V, 1PH, INDOOR UNIT 'IDU-A4' VIA OUTDOOR UNIT ODU-A4'. PROVIDE A RELAY TO FACILITATE CONNECTION TO EMS CONTROL SYSTEM.
- 9 HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 480V, 3PH, 14 MCA, 20 MOCP, OUTDOOR UNIT
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 480V, 3PH, 19 MCA, 30 MOCP, OUTDOOR UNIT
- HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1PH, 11 MCA, 28 MOCP, 7.5 FLA, OUTDOOR UNIT 'ODU-A3'.
- HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1PH, 11 MCA, 28 MOCP, 7.5 FLA,
- OUTDOOR UNIT 'ODU-A4'. HEAVY DUTY WEATHERPROOF 208V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1PH, 11 MCA, 28 MOCP, 7.5 FLA, OUTDOOR UNIT 'ODU-A5'.
- HEAVY DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1PH, 2.88 MCA, 15 MOCP, 2.3 FLA, INDOOR UNIT 'IDU A1-5'. PROVIDE A RELAY TO FACILITATE CONNECTION TO EMS
- CONTROL SYSTEM. PROVIDE ONE 30A, 120V, 2-POLE, 3-WIRE GROUNDING TYPE NEMA L5-30R RECEPTACLE ABOVE EACH TELECOMMUNICATION RACK.
- GENERAL DUTY 250V, 30A, 2-POLE NON-FUSED DISCONNECT. PROVIDE CONNECTION FOR 240V, 1¢, 3.6 MCA, 15 MOCP, 2.9 FLA, ENERGY RECOVERY VENTILATOR SCHEDULE 'ERV A1-1'.
- GENERAL DUTY 250V, 30A, 2-POLE NON-FUSED DISCONNECT. PROVIDE CONNECTION FOR 240V, 16, 3:6 MCA, 15 MQCP, 2.9 FLA, ENERGY RECOVERY WENTILATOR SCHEDULE ERV A1/2 .
- PROVIDE MONITORING OF FIRE SPRINKLER RISE TAMPER SWITCH AND WATER FLOW SWITCH.
- 19 PROVIDE ONE 1"C 4#18 CU THHN.

# GENERAL NOTES

- A. PROVIDE ELECTRICAL FEEDERS PER SINGLE LINE DIAGRAM.
- CONDUIT AND CONDUCTORS FOR NEW OUTLETS SHALL BE CONCEALED,
- C. PENETRATIONS THROUGH WALLS, CEILINGS, FLOORS, AND/OR ROOFS SHALL BE SEALED.
- ALL 120V, 15A AND 20A RECEPTACLES WITHIN KITCHENS AND RESTROOMS SHALL BE GFCI TYPE RECEPTACLES. IN ALL OTHER SPACES, 120V, 15A AND 20A RECEPTACLES WITHIN 6' OF SINKS OR FAUCETS SHALL BE GFCI TYPE RECEPTACLES.

BLDG. A - OFFICE BLDG. - POWER PLAN - FIRST FLOOR

1/8" = 1'-0"

23-12560 E201



# A202 OFFICE 20 © EF-A3 2ACL-6 2R1-29 'IDU A2-2' EXIT ACCESS COMM. 2 BREAKROOM 2 A204 A231 OFFICE A205 AC OFFICE A206 AD OPEN SPACE A213 OFFICE A208 AE OFFICE A210 OFFICE A211 XIT ACCESS STAIRS A118 AF OFFICE A214 A2 (A2.3) A3

- 1 120V, 30A, 1-POLE, FUSED DISCONNECT WITH INTEGRAL MAGNETIC STARTER, PROVIDE CONNECTION FOR 115V, 1PH, 1/6 HP, EXHAUST FAN
- 4 HEAVY DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE
- 5 HEAVY DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE
- CONNECTION FOR 208V, 1PH, 7.7 MCA, 15 MOCP, 3.67 FLA, INDOOR UNIT 'IDU A2-2'. PROVIDE A RELAY TO FACILITATE CONNECTION TO EMS CONTROL SYSTEM.
- 'IDU A2-3'. PROVIDE A RELAY TO FACILITATE CONNECTION TO EMS CONTROL SYSTEM. 7 HEAVY DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE
- 'IDU A2-4'. PROVIDE A RELAY TO FACILITATE CONNECTION TO EMS CONTROL SYSTEM.
- CONNECTION FOR 208V, 1PH, INDOOR UNIT 'IDU-A4' VIA OUTDOOR UNIT ODU-A5'. PROVIDE A RELAY TO FACILITATE CONNECTION TO EMS CONTROL SYSTEM.
- WITH ARCHITECTURE FLOOR PLAN 2/A200. PROVIDE PRE-POUR POKE THROUGH SLEEVE OR CORE HOLE ACCORDING TO MANUFACTURER'S INSTRUCTIONS, 8-1/8" MAX DIA. LOCATE HOLE AT LEAST 8" AWAY FROM ANY WALL.
- PROVIDE ONE 30A, 120V, 2-POLE, 3-WIRE GROUNDING TYPE NEMA L5-30R RECEPTACLE ABOVE EACH TELECOMMUNICATION RACK.
- VENTILATOR 'ERV A2-1'.
- CONNECTION FOR 240V, 1¢, 10.1 MCA, 15 MOCP, ENERGY RECOVERY VENTILATOR 'ERV A2-2'.
- PUMP CONTROL PANEL. ROUTE CIRCUIT THROUGH DISCONNECT TO PUMP CONTROL PANEL.
- PUMP/CONTROL PANEL
- A/C SNAP SWITCH DISCONNECT LOCATED ADJACENT TO CIRCULATION PUMP. PROVIDE CONNECTION FOR 115V, 1\( \phi\), 1/12HP CIRCULATION PUMP.

## KEYNOTES

- 2 120V, 30A, 1-POLE, FUSED DISCONNECT WITH INTEGRAL MAGNETIC STARTER, PROVIDE CONNECTION FOR 115V, 1PH, 1/6 HP, EXHAUST FAN
- PROVIDE POWER CONNECTION TO 208V, 1PH, 1 MCA, 20 MOCP, BRANCH
- CONTROLLER BOX 'BC-A2'.
- CONNECTION FOR 208V, 1PH, 2.88 MCA, 15 MOCP, 2.3 FLA, INDOOR UNIT
- 6 HEAVY DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1PH, 7.7 MCA, 15 MOCP, 3.67 FLA, INDOOR UNIT
- CONNECTION FOR 208V, 1PH, 7.7 MCA, 15 MOCP, 3.67 FLA, INDOOR UNIT
- 8 PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-A5'. PROVIDE
- 9 PROVIDE 8" EVOLUTION SERIES ATC POKE-THRU. COORDINATE LOCATION
- GENERAL DUTY 250V, 30A, 2-POLE NON-FUSED DISCONNECT. PROVIDE CONNECTION FOR 240V, 1¢, 10.1 MCA, 15 MOCP, ENERGY RECOVERY
- GENERAL DUTY 250V, 30A, 2-POLE NON-FUSED DISCONNECT. PROVIDE
- (13) PROVIDE 120V CONNECTION TO DUCT SMOKE DETECTOR.
- PROVIDE 250V, 30A, 3-POLE NEMA 3R FUSED DISCONNECT ADJACENT TO
- PROVIDE CONNECTIONS TO 208V, 3¢, 1HP, 8.52 FLA DUPLEX PUMPS FROM

**GENERAL NOTES** 

CONDUIT AND CONDUCTORS FOR NEW OUTLETS SHALL BE CONCEALED,

C. PENETRATIONS THROUGH WALLS, CEILINGS, FLOORS, AND/OR ROOFS SHALL BE SEALED.

ALL 120V, 15A AND 20A RECEPTACLES WITHIN KITCHENS AND RESTROOMS SHALL BE GFCI TYPE RECEPTACLES. IN ALL OTHER

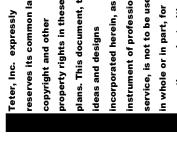
FAUCETS SHALL BE GFCI TYPE RECEPTACLES.

SPACES, 120V, 15A AND 20A RECEPTACLES WITHIN 6' OF SINKS OR

- GENERAL DUTY 250V, 60A, 3-POLE NON-FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1φ, 6000W, ELECTRIC WATER HEATER 'WH-1'.

## KEYNOTES

- 1 PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-B1'. PROVIDE CONNECTION FOR 208V, 1PH, 2.44A, INDOOR UNIT 'IDU-6' VIA OUTDOOR UNIT ODU-B1'. PROVIDE A RELAY TO FACILITATE CONNECTION TO EMS CONTROL SYSTEM.
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-B1'
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-B2'
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-B3'
- 5 HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13,5A, INFRARED RADIANT HEATER 'IR-B4'
- 6 PROVIDE DEDICATED MOMENTARY CONTROL SWITCH (VEE INDUSTRIES #PBS-3S, OR EQUIVALENT).
- 7 PROVIDE ONE 3/4"C WITH 4#18 BETWEEN GARAGE DOOR MOTOR AND CONTROL STATION. 8 PROVIDE CONNECTION TO 120V, 1PH, 5 FLA, COIL DOOR MOTOR.
- 9 PROVIDE RECEPTACLE TYPE 5-20R CONNECTION FOR 120V, 1PH, 'B06 GRINDER'.
- PROVIDE RECEPTACLE TYPE 5-20R CONNECTION FOR 120V, 1PH, 'B07-PAINT SHAKER'.
- PROVIDE MONITORING OF FIRE SPRINKLER RISE TAMPER SWITCH AND WATER FLOW SWITCH.
- (12) PROVIDE ONE 1"C 4#18 CU THHN.
- HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT. 3
  PROVIDE CONNECTION FOR 230V. 1PH, 2 HP, AIR COMPRESSOR BUILDING PROVIDE CONNECTION FOR 230V, 1PH, 2 HP, AIR COMPRESSOR BUILDING
- PROVIDE INDUSTRIAL CORD REEL, KH INDUSTRIES, RTBB3LB, 12AWG, 20A, NEMA 4, BLACK (OR EQUIVALENT). PROVIDE QUAD RECETPACLE ON CORD END WITH GALVANIZED 45 BOX AND GALVANIZED COVERPLATE.
- PROVIDE CONDUIT AND CONDUCTORS BETWEEN INFRARED RADIANT HEATER AND ELECTRIC INFRARED RADIANT HEATER CONTROL PANEL.









# **GENERAL NOTES**

- A. PROVIDE ELECTRICAL FEEDERS PER SINGLE LINE DIAGRAM.
- B. CONDUIT AND CONDUCTORS FOR NEW OUTLETS SHALL BE CONCEALED,
- C. PENETRATIONS THROUGH WALLS, CEILINGS, FLOORS, AND/OR ROOFS SHALL BE SEALED.
- ALL 120V, 15A AND 20A RECEPTACLES WITHIN KITCHENS AND RESTROOMS SHALL BE GFCI TYPE RECEPTACLES. IN ALL OTHER SPACES, 120V, 15A AND 20A RECEPTACLES WITHIN 6' OF SINKS OR FAUCETS SHALL BE GFCI TYPE RECEPTACLES.

23-12560

CUSD PHASE

## **KEYNOTES**

- (1) PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-C1'. PROVIDE CONNECTION FOR 208V, 1PH, INDOOR UNIT 'IDU-C1' VIA OUTDOOR UNIT
- PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-C2'. PROVIDE CONNECTION FOR 208V, 1PH, INDOOR UNIT 'IDU-C2' VIA OUTDOOR UNIT
- (3) PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-C3'. PROVIDE
- (4) HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 460V, 20A, 7.5 HP, DUST COLLECTOR BLOWER 'DC-C1'.
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT PROVIDE CONNECTION FOR 460V, 15A, 1/3 HP, DUST COLLECTOR SHAKER
- (6) HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-C1'.
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-C2'.
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-C3'.
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-C4'.
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH,
- 13.5A, INFRARED RADIANT HEATER 'IR-C5'. HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-C6'.
- 12) HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH,
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT ~ WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-C8'.
- (14) HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH,
- 13.5A, INFRARED RADIANT HEATER 'IR-C9'. HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT
- WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-C10'. 16) HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH,
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-C12'
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH,
- HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-C14'.
- HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 120V, 1PH,
- 28.4A, INFRARED RADIANT HEATER 'IR-C15'. HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT
- WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 1PH, 13.5A, INFRARED RADIANT HEATER 'IR-C16'.
- 23) PROVIDE HARD WIRED CONNECTION TO 120V, 20.8A, 3PH, 2.5 HP, 'CO1-
- PROVIDE DEDICATED MOMENTARY CONTROL SWITCH (VEE INDUSTRIES #PBS-3S, OR EQUIVALENT).
- PROVIDE ONE 3/4"C WITH 4#18 BETWEEN GARAGE DOOR MOTOR AND CONTROL STATION.
- (26) PROVIDE CONNECTINO TO 120V, 1PH, 5 FLA, COIL DOOR MOTOR.
- PROVIDE 480V, 30A, 3-POLE DISCONNECT FOR 460V, 3PH, 3/4 HP, VEHICLE EXHAUST REEL 'VE-C1'.
- PROVIDE 480V, 30A, 3-POLE DISCONNECT FOR 460V, 3PH, 3/4 HP, VEHICLE EXHAUST REEL 'VE-C2'.
- PROVIDE 480V, 30A, 3-POLE DISCONNECT FOR 460V, 3PH, 3/4 HP, VEHICLE
- EXHAUST REEL 'VE-C3'. (30) PROVIDE CONNECTION FOR 460V, 6.1A, 3 PH, 'C03-EB 140 VIRUTEX'.
- PROVIDE CONNECTION FOR 240V, 3300W, 1 PH, 'C04-VACUUM FOR
- PROVIDE RECEPTACLE 5-20R CONNECTION FOR 120V, 15A, 1 PH, 'C05-CHOPSAW DEWALT'.
- PROVIDE RECEPTACLE L14-20 CONNECTION FOR 208V, 2.8A, 3 PH, 'C06-
- PROVIDE RECEPTACLE 5-20R CONNECTION FOR 115V, 9A, 1 PH, 'C07-BAND
- BELT SANDER'. PROVIDE RECEPTACLE 5-20R CONNECTION FOR 120V, 13A, 1 PH, 'C09-
- (37) PROVIDE RECEPTACLE L6-20 CONNECTION FOR 208V, 15A, 1 PH, 'C10-
- PROVIDE RECEPTACLE L15-20 CONNECTION FOR 208V, 12.6A, 3 PH, 'C11-
- METAL CUT OFF SAW'. PROVIDE CONNECTION FOR 115V, 15A, 1 PH, 'C12-PIPE BENDER'.
- (40) PROVIDE 10-50R STRAIGHT BLADE RECEPTACLE FOR 280V, 1PH, 2.5kVA, 'C14-BLUE MILLER SPOT WELDER'.
- (41) PROVIDE RECEPTACLE L15-20 FOR 208V, 9A, 3 PH, 'C16-SCOTCHMAN
- HYDRAULIC IRONWORKER! PROVIDE TWIST LOCK RECEPTACLE, NON NEMA, 50A, 125/250VAC, NON FLANGED, 3-POLE, WITH CENTER GROUND PIN FOR 208V, 'C17-LINDE
- COORDINATE WITH OWNER. PROVIDE RECEPTACLE L15-20R FOR 120V, 20A 'C18-MILLERMATIC 30E'. (44) PROVIDE CONNECTION FOR 120V, 20A, 1-PH, C19-POWER MIG WELDER'.
- PROVIDE CONNECTION FOR 115V, 13A, 1 PH, 'C20-DRILL PRESS VARIABLE SPEED'.

## **GENERAL NOTES**

- A. PROVIDE ELECTRICAL FEEDERS PER SINGLE LINE DIAGRAM.
- B. CONDUIT AND CONDUCTORS FOR NEW OUTLETS SHALL BE CONCEALED,
- C. PENETRATIONS THROUGH WALLS, CEILINGS, FLOORS, AND/OR ROOFS SHALL BE SEALED.
  - ALL 120V, 15A AND 20A RECEPTACLES WITHIN KITCHENS AND RESTROOMS SHALL BE GFCI TYPE RECEPTACLES. IN ALL OTHER SPACES, 120V, 15A AND 20A RECEPTACLES WITHIN 6' OF SINKS OR FAUCETS SHALL BE GFCI TYPE RECEPTACLES.

(46) PROVIDE RECEPTACLE 5-20R CONNECTION FOR 115V, 14A, 1 PH, 'C23 -

W.F. WELLS BAND SAW'.

- (47) PROVIDE NEMA 6-50R STRAIGHT BLADE RECEPTACLE FOR 208V, 46A, 'C24-HYPERTHERM MACHINE'.
- (48) PROVIDE CONNECTION FOR 115V, 13.5A, 1 PH, 'C25-ROCKWELL SANDER'.
- PROVIDE TWIST LOCK RECEPTACLE, NON NEMA, 50A, 125/250VAC, NON FLANGED, 3-POLE, WITH CENTER GROUND PIN FOR 208V, 'C26-IDEALARC
- PROVIDE TWIST LOCK RECEPTACLE, NON NEMA, 50A, 125/250VAC, NON FLANGED, 3-POLE, WITH CENTER GROUND PIN FOR 208V, 'C27-MILLER
- PROVIDE CONNECTION FOR 115V, 1PH, 3/4 HP, 'C28-BALDOR GRINDER'.
- (52) PROVIDE CONNECTION FOR 120V, 10A, 1 PH, 'C29-CROSSFIRE PLASMA
- PROVIDE CONNECTION FOR 120V, 4.2A, 1 PH, C30-SHIBUYA CORE DRILL'.
- (54) PROVIDE J-BOX WITH FLEX CONDUIT FOR 120V, 20A LIGHT CORD REEL. PROVIDE CONNECTION FOR 115(V, 17A, 1 P)H, 'C34 - 1/2 TON HARRINGTON
- (56) PROVIDE TVSS RECEPTACLE FOR 120V, 20A, 1 PH, 'C35-FOLEY UNITED
- ACCU-MASTER'.
- PROVIDE CONNECTION FOR 120V, 13.1A, 1 PH, 'C36-ACCU-PRO "TABLE".
- PROVIDE RECEPTACLE NEMA 8-50 CONNECTION FOR 250V, 50A, 1 PH, 'C39-MILLER MATIC 250 WELDING/WIRE FEEDER'.
- PROVIDE CONNECTION FOR 120V, 8A, 1 PH, 'C41-JET GRINDER'.
- PROVIDE CONNECTION FOR 220V, 30 MOCP, 1 PH, 'C42-TRION LIFT'.
- (61) PROVIDE CONNECTION FOR 220V, 30 MOCP, 1 PH, 'C43-TRION LIFT'.
- (62) PROVIDE CONNECTION FOR 120V, 24A, 1 PH, 'C47-1-TON HOIST'. (63) PROVIDE CONNECTION FOR 120V, 20A, 1 PH, 'C48-CHEMICAL BATH'.
- WHEEL SERVICE'. PROVIDE RECEPTACLE 5-20R CONNECTION FOR 115V, 20A, 1 PH, 'C63-FAN

PROVIDE CONNECTION FOR 110V, 18A, 1 PH, 'C50-TILT BACK TOWER

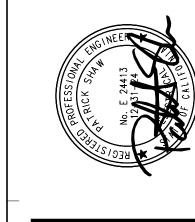
- PORTA COOL'. PROVIDE RECEPTACLE 5-20R CONNECTION FOR 115V, 14A, 1 PH, 'C64-
- TABLETOP KRIMPMASTER'. (67) PROVIDE RECEPTACLE 5-20R CONNECTION FOR 115V, 16.4A, 1 PH, 'C66-
- 68) HEAVY DUTY WEATHERPROOF 480V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 480V, 3PH, 7.5 HP, AIR COMPRESSOR

TABLETOP KRIMPMASTER 91135'.

- BUILDING C 'AC-2'. GENERAL DUTY 250V, 30A, 3-POLE NON-FUSED DISCONNECT. PROVIDE CONNECTION FOR 120V, 16, 1500W, FLECTRIC WATER HEATER 'WH-2'
- CONNECTION FOR 120V, 1¢, 1500W, ELECTRIC WATER HEATER 'WH-2'. (70) PROVIDE 120V POWER CONNECTION TO AIR COMPRESSOR 'AC-2'.
- 71) PROVIDE 120V POWER TO DUST COLLCTOR CONTROL PANEL. PROVIDE 120V POWER TO SPARK DETECTION SYSTEM CONTROL PANEL.
- PROVIDE CONDUIT AND CONDUCTORS BETWEEN INFRARED RADIANT HEATER AND ELECTRIC INFRARED RADIANT HEATER CONTROL PANEL.
- 74 PROVIDE 120V POWER TO ELECTRIC INFRARED RADIANT HEATER CONTROL PANEL.
- 75 PROVIDE CONDUIT AND CONDUCTORS TO EVAP. COOLER UNITS ON (76) PROVIDE INDUSTRIAL CORD REEL, KH INDUSTRIESM RTBB3LB, 12AWG,
- CORD END WITH GALVANIZED 4S BOX AND GALVANIZED COVERPLATE. PROVIDE POWER CONNECTION TO 115V, 1PH, 1HP, 750W WELDING EXPLAST WITT 'WE-CAT.

20A, NEMA 4, BLACK (OR EQUIVALENT). PROVIDE QUAD RECEPTACLE ON

- 78) PROVIDE MONITORING OF FIRE SPRINKLER RISE TAMPER SWITCH AND WATER FLOW SWITCH.
- 79) PROVIDE ONE 1"C 4#18 CU THHN.

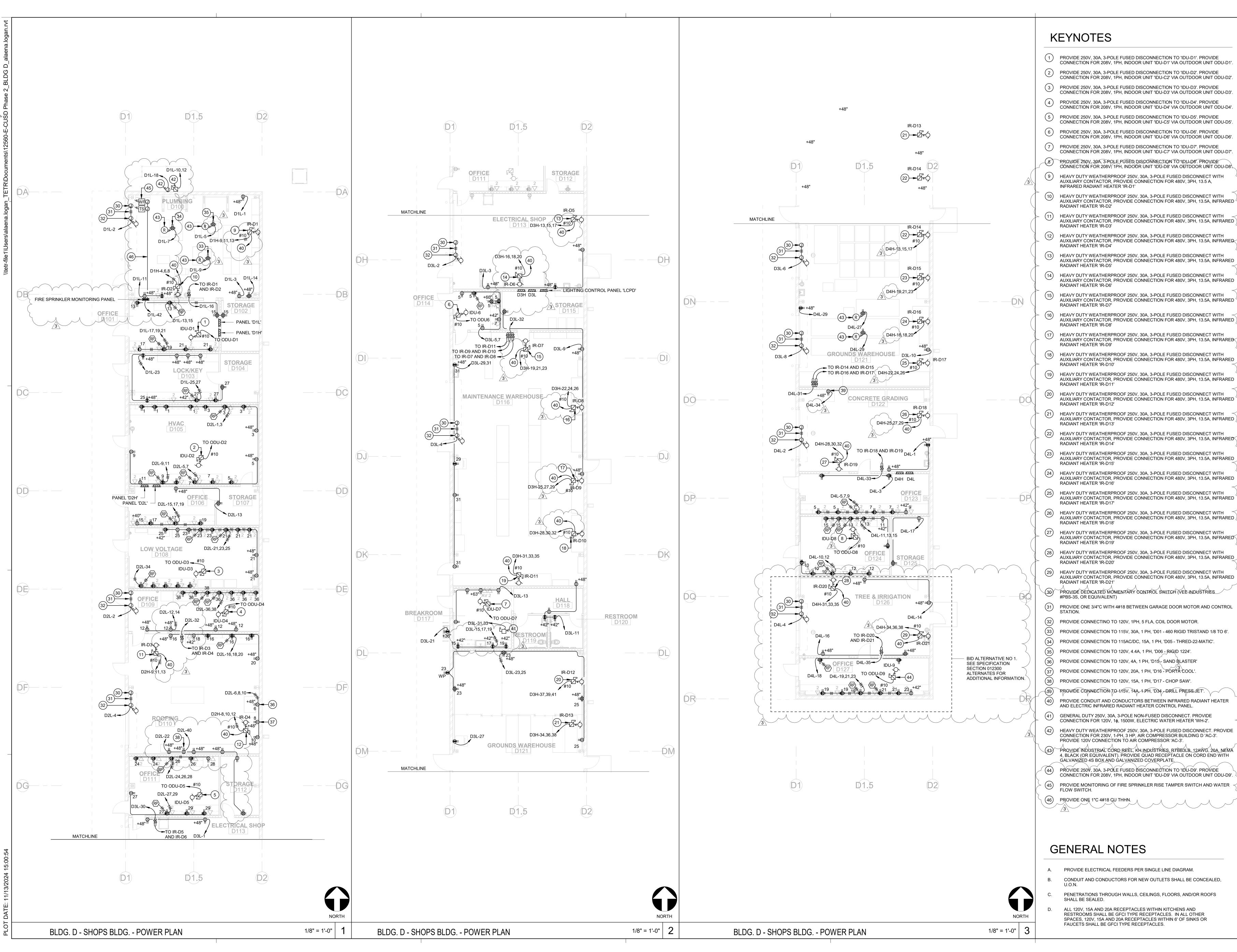




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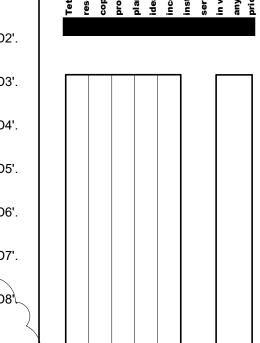
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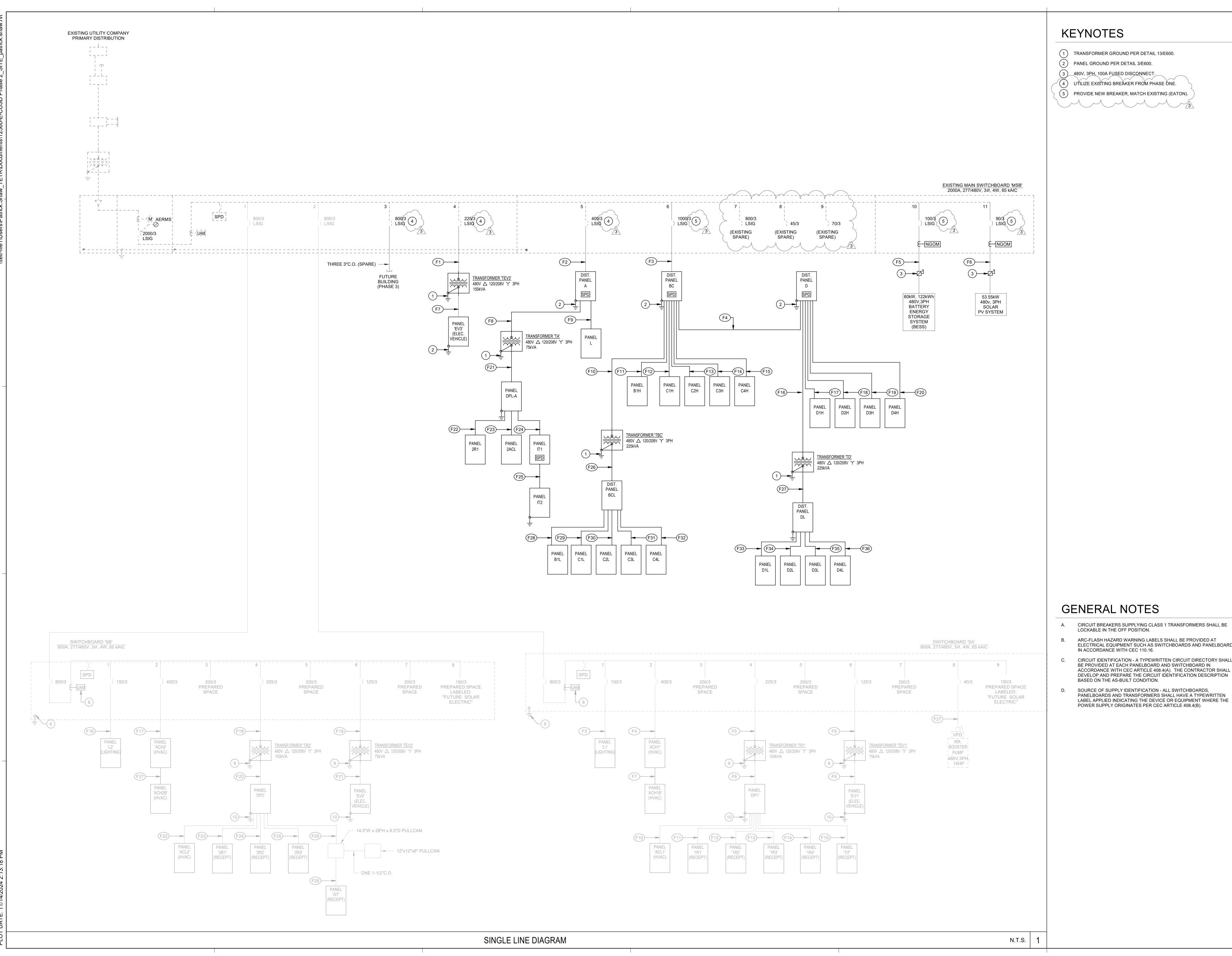
- PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-D1'. PROVIDE CONNECTION FOR 208V, 1PH, INDOOR UNIT 'IDU-D1' VIA OUTDOOR UNIT ODU-D1'.
- PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-D2'. PROVIDE
- PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-D3'. PROVIDE
- CONNECTION FOR 208V, 1PH, INDOOR UNIT 'IDU-D3' VIA OUTDOOR UNIT ODU-D3'.
- PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-D4'. PROVIDE CONNECTION FOR 208V, 1PH, INDOOR UNIT 'IDU-D4' VIA OUTDOOR UNIT ODU-D4'.
- PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-D5'. PROVIDE CONNECTION FOR 208V, 1PH, INDOOR UNIT 'IDU-C5' VIA OUTDOOR UNIT ODU-D5'.
- PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-D6'. PROVIDE CONNECTION FOR 208V, 1PH, INDOOR UNIT 'IDU-D6' VIA OUTDOOR UNIT ODU-D6'.
- PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-D7'. PROVIDE CONNECTION FOR 208V, 1PH, INDOOR UNIT 'IDU-C7' VIA OUTDOOR UNIT ODU-D7'.
- HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5 A,
- (10) HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- (11) HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH
- HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH
- AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED (13) HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH
- AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH
- (16) HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- (17) HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH
- AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH
- (19) HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- (20) HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- (21) HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- (22) HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- (24) HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- (26) HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- (29) HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT WITH
- AUXILIARY CONTACTOR, PROVIDE CONNECTION FOR 480V, 3PH, 13.5A, INFRARED
- 30) PROVIDE DEDICATED MOMENTARY CONTROL SWITCH (VEE INDUSTRIES
- PROVIDE ONE 3/4"C WITH 4#18 BETWEEN GARAGE DOOR MOTOR AND CONTROL
- (32) PROVIDE CONNECTINO TO 120V, 1PH, 5 FLA, COIL DOOR MOTOR.
- (33) PROVIDE CONNECTION TO 115V, 30A, 1 PH, 'D01 460 RIGID TRISTAND 1/8 TO 6'.
- (34) PROVIDE CONNECTION TO 115AC/DC, 15A, 1 PH, 'D05 THRED-22-MATIC'. PROVIDE CONNECTION TO 120V, 4.4A, 1 PH, 'D06 - RIGID 1224'.
- (36) PROVIDE CONNECTION TO 120V, 4A, 1 PH, 'D15/- SAND BLASTER' PROVIDE CONNECTION TO 120V, 20A, 1 PH, 'D16 - PORTĂ COOL'. (38) PROVIDE CONNECTION TO 120V, 15A, 1 PH, 'D17 - CHOP SAW'.
- PROVIDE CONNECTION TO 1/15V, 14A, 1 PH, 'D34 DRILL PRESS/JET' PROVIDE CONDUIT AND CONDUCTORS BETWEEN INFRARED RADIANT HEATER AND ELECTRIC INFRARED RADIANT HEATER CONTROL PANEL.
- CONNECTION FOR 120V, 1¢, 1500W, ELECTRIC WATER HEATER 'WH-2'. HEAVY DUTY WEATHERPROOF 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 230V, 1-PH, 3 HP, AIR COMPRESSOR BUILDING D 'AC-3'.
- PROVIDE INDUSTRIAL CORD REEL, KH INDUSTRIES, RYBB3LB, 12AWG, 20A, NEMA 4, BLACK (OR EQUIVALENT). PROVIDE QUAD RECEPTACLE ON CORD END WITH GALVANIZED 4S BOX AND GALVANIZED COVERPLATE.
- PROVIDE 250V, 30A, 3-POLE FUSED DISCONNECTION TO 'IDU-D9'. PROVIDE CONNECTION FOR 208V, 1PH, INDOOR UNIT 'IDU-D9' VIA OUTDOOR UNIT ODU-D9'.
- PROVIDE MONITORING OF FIRE SPRINKLER RISE TAMPER SWITCH AND WATER
- PROVIDE ONE 1"C 4#18 GU THHN.

- A. PROVIDE ELECTRICAL FEEDERS PER SINGLE LINE DIAGRAM. CONDUIT AND CONDUCTORS FOR NEW OUTLETS SHALL BE CONCEALED,
- PENETRATIONS THROUGH WALLS, CEILINGS, FLOORS, AND/OR ROOFS
- ALL 120V, 15A AND 20A RECEPTACLES WITHIN KITCHENS AND RESTROOMS SHALL BE GFCI TYPE RECEPTACLES. IN ALL OTHER SPACES, 120V, 15A AND 20A RECEPTACLES WITHIN 6' OF SINKS OR FAUCETS SHALL BE GFCI TYPE RECEPTACLES.

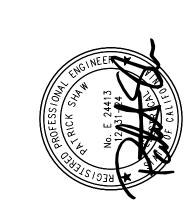


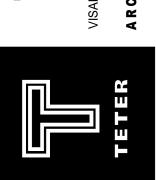


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- (1) TRANSFORMER GROUND PER DETAIL 13/E600.
- (2) PANEL GROUND PER DETAIL 3/E600.
- (3) 480V, 3PH, 100A FUSED DISCONNECT.
- I(4) UTILIZE EXISTING BREAKER FROM PHASE ONE.
- 5 PROVIDE NEW BREAKER, MATCH EXISTING (EATON).





# **GENERAL NOTES**

- A. CIRCUIT BREAKERS SUPPLYING CLASS 1 TRANSFORMERS SHALL BE
- ARC-FLASH HAZARD WARNING LABELS SHALL BE PROVIDED AT
- ELECTRICAL EQUIPMENT SUCH AS SWITCHBOARDS AND PANELBOARDS IN ACCORDANCE WITH CEC 110.16. CIRCUIT IDENTIFICATION - A TYPEWRITTEN CIRCUIT DIRECTORY SHALL
- BASED ON THE AS-BUILT CONDITION. SOURCE OF SUPPLY IDENTIFICATION - ALL SWITCHBOARDS, PANELBOARDS AND TRANSFORMERS SHALL HAVE A TYPEWRITTEN LABEL APPLIED INDICATING THE DEVICE OR EQUIPMENT WHERE THE

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N.T.S. 4

FEEDER SCHEDULE

MAIN SWITCHBOARD BATTERY ENERGY ONE 2"C.O. STORAGE SYSTEM F5 PROVISIONS FOR FUTURE BESS MAIN SWITCHBOARD SOLAR PV SYSTEM TWO 3"C.O. F6 PROVISIONS FOR FUTURE SOLAR PV PANEL 'EV3'

TWO 3"C 4#350 KEMIL CU THWH, 1#3/0 CU GND, IN EACH
CONDUIT TRANSFORMER TWO PARALLEL FEEDERS WITH 0.31% 'TEV3' SUPPLY-SIDE BONDING JUMPER TRANSFORMER ONE 2"C 3#1 CU THWN, 1#6 CU GND DISTRIBUTION F8 0.15% FEEDER PANEL 'A' F9 DISTRIBUTION PANEL 'L' ONE 2"C 4#2 CU THWN, 1#6 CU GND 0.44% FEEDER PANEL 'A' TRANSFORMER ONE 3-1/2"C 3#500 CU THWN, 1#2 CU GND (F10) DISTRIBUTION 0.10% FEEDER PANEL 'BC' F11 DISTRIBUTION PANEL 'B1H' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND 0.75% FEEDER PANEL 'BC' (F12) DISTRIBUTION PANEL 'C1H' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND 1.43% FEEDER PANEL 'BC' F13 DISTRIBUTION PANEL 'C2H' ONE 2-1/2"C | 4#4/0 CU THWN, 1#4 CU GND 1.63% FEEDER PANEL 'BC' (F14) DISTRIBUTION PANEL 'C3H' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND 2.72% FEEDER PANEL 'BC' (F15) DISTRIBUTION 2.93% PANEL 'C4H' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND FEEDER PANEL 'BC' TRANSFORMER ONE 3-1/2"C 3#500 CU THWN, 1#2 CU GND (F16) DISTRIBUTION 0.10% FEEDER PANEL 'D' (F17) DISTRIBUTION PANEL 'D1H' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND 0.51% FEEDER PANEL 'D' F18 DISTRIBUTION PANEL 'D2H' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND 0.92% FEEDER PANEL 'D' (F19) DISTRIBUTION 1.46% FEEDER PANEL 'D3H' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND PANEL 'D' (F20) DISTRIBUTION PANEL 'D4H' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND 2.72% FEEDER PANEL 'D' DISTRIBUTION ONE 3"C 4#350 kCMIL CU THWN, 1#2 CU GND TRANSFORMER 'TA' (F21) FEEDER WITH SUPPLY-SIDE BONDING 0.79% PANEL 'DPL-A' (F22) DISTRIBUTION PANEL '2R1' ONE 2"C 4#2/0 CU THWN, 1#6 CU GND 1.39% FEEDER PANEL 'DPL-A' DISTRIBUTION 0.35% PANEL '2ACL' ONE 2"C 4#1/0 CU THWN, 1#6 CU GND FEEDER PANEL 'DPL-A' F24) DISTRIBUTION ONE 2"C 4#1/0 CU THWN, 1#6 CU GND 0.35% FEEDER PANEL 'DPL-A' F25 FEEDER PANEL 'IT1' PANEL 'IT2' ONE 2"C 4#1/0 CU THWN, 1#6 CU GND 1.62% TRANSFORMER THREE PARALLEL FEEDERS WITH THREE 3"C 4#300 kCMIL THWN, 1#3/0 CU GND, IN EACH CONDUIT 0.23% DISTRIBUTION THREE 3"C 4#300 kCMIL THWN, 1#3/0 CU GND, IN EACH CONDUIT (F27) TRANSFORMER 'TD' THREE PARALLEL FEEDERS WITH SUPPLY-SIDE BONDING JUMPER F28 DISTRIBUTION PANEL 'B1L' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND 1.73% FEEDER PANEL 'BC' F29 DISTRIBUTION PANEL 'C1L' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND 1.83% FEEDER PANEL 'BCL' F30 DISTRIBUTION PANEL 'C2L' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND 2.51% FEEDER PANEL 'BCL' F31 DISTRIBUTION TWO PARALLEL FEEDERS, UPSIZED FOR TWO 3"C 4#250 kCMIL THWN, 1#2 CU GND, IN EACH CONDUIT 2.84% PANEL 'BCL' VOLTAGE DROP F32 TWO PARALLEL FEEDERS, UPSIZED FOR DISTRIBUTION PANEL 'C4H' TWO 3"C 4#250 kCMIL THWN, 1#2 CU GND, IN EACH CONDUIT 3.06% VOLTAGE DROP PANEL 'BCL' F33 DISTRIBUTION PANEL 'D1L' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND 1.18% FEEDER PANEL 'DL' F34) PANEL 'D2L' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND 2.12% FEEDER PANEL 'DL' F35 DISTRIBUTION PANEL 'D3L' ONE 2-1/2"C 4#4/0 CU THWN, 1#4 CU GND 2.25% FEEDER PANEL 'DL' DISTRIBUTION PANEL 'DL' F36 TWO PARALLEL FEEDERS, UPSIZED FOR PANEL 'D4L'

TWO 3"C 4#250 kCMIL THWN, 1#2 CU GND, IN EACH CONDUIT 2.84% VOLTAGE DROP

FEEDER SCHEDULE

ONE 3"C 4#500 kCMIL THWN, 1#2 CU GND, IN EACH CONDUIT

FEEDER ORIGIN DESTINATION CONDUIT

MAIN SWITCHBOARD DISTRIBUTION

'MSB'

'MSB'

'MSB'

F2

F1 MAIN SWITCHBOARD TRANSFORMER ONE 3-1/2"C 3#4/0 CU THWN, 1#4 CU GND

F3 MAIN SWITCHBOARD DISTRIBUTION PANEL 'BC' THREE 3"C 4#400 kCMIL THWN, 1#2/0 CU GND, IN EACH CONDUIT

DISTRIBUTION PANEL 'BC'

DISTRIBUTION THREE 3"C 4#300 KCMIL THWN, 1#1/0 CU GND, IN EACH CONDUIT

'TEV3'

PANEL 'BC'

CONDUCTORS

CALCULATED

VOLTAGE DROP

0.14%

1.00%

REMARKS

THREE PARALLEL FEEDERS

THREE PARALLEL FEEDERS

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NEW	NEL: RECEP	TACLE	2A	CL 150 AMP BUS 120/208V, 3 PH, 4 W 100% RATED NEUTRAL		MAIN: TRIP: A.I.C.:	150A CB THERMAL 10000		τιC	LOCATION: ELECTRIC ROOM MOUNTING: FLUSH PER DETAIL ENCLOSURE: NEMA 1		0		
CIRC	UIT	BREAK	ER				VOLT-AM				BREAK	ER	CIRC	UIT
CKT NO.	PNL SPACE	АМР	POLE	SERVES	LOAD	Α	В	С	LOAD	SERVES	АМР	POLE	PNL SPACE	CKT NO.
1	1	20		OUTDOOD HAIT 'ODH A2'	1560	1824			264	EXHAUST FAN 'EF-A1'	15	1	2	2
3	3	30	2	OUTDOOR UNIT 'ODU-A3'	1560		1824		264	EXHAUST FAN 'EF-A2'	15	1	4	4
5	5	20			1560			1824	264	EXHAUST FAN 'EF-A3'	15	1	6	6
7	7	30	2	OUTDOOR UNIT 'ODU-A4'	1560	1768			208	DRANGU CONTROLLER INC. A11	00		8	8
9	9	00			1560		1768		208	BRANCH CONTROLLER 'BC-A1'	20	2	10	10
11	11	30	2	OUTDOOR UNIT 'ODU-A5'	1560			1768	208				12	12
13	13				7904	8112			208	BRANCH CONTROLLER 'BC-A2'	20	2	14	14
15	15	60	2	OUTDOOR UNIT 'ODU-A1'	7904		8986		1082	ENERGY RECOVERY VENTILATOR	2.5		16	16
17	17				5408			6490	1082	'ERV A1-1'	15	2	18	18
19	19	60	2	OUTDOOR UNIT 'ODU-A2'	5408	6490			1082	ENERGY RECOVERY VENTILATOR			20	20
21	21	3.5		IDU 'A1-1, A1-2'	1514		2596		1082	'ERV A1-2'	15	2	22	22
23	23	15	2	IDU 'A1-1, A1-2'	1514			2596	1082	ENERGY RECOVERY VENTILATOR	2.5		24	24
25	25				2155	3236	-		1082	'ERV A2-1'	15	2	26	26
27	27	15	2	IDU 'A1-3, A1-4, A1-5'	2155		3236	-	1082	ENERGY RECOVERY VENTILATOR			28	28
29	29	3.5		1511140 1 40 01	1242			2323	1082	'ERV A2-2'	20	2	30	30
31	31	15	2	IDU 'A2-1, A2-2'	1242	1422	-		180	DUCT SMOKE DETECTOR	20	1	32	32
33	33	1.5		IDU 140 0 40 41	1527		2597		1070				34	34
35	35	15	2	IDU 'A2-3, A2-4'	1527			2597	1070	BOOSTER PUMP 'BP-1'	30	3	36	36
37	37	20	1	SPARE	0	1070			1070				38	38
39	39	20	1	SPARE	0		0		0	SPACE	20	1	40	40
41	41	20	1	SPARE	0			0	0	SPACE	20	1	42	42
	1	1	1	TOTAL CONNECTED LOAD (VA):		23922	21007	17598				1		ı
				DEMAND FACTOR FOR RECEPTACLES >	10kVA:	-8755	-8755	-8755						
				TOTAL CALCULATED LOAD (VA):		15168	12253	8843	TOTAL C	CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS):		126.4	102.1	73.7		36264 VA				

	<b>VEL:</b>		IT2	100 AMP BUS 120/208V, 3 PH, 4 W		MAIN: [RIP:	100A CB	-MAGNE	LOCATION: IT ROOM - SEC ETIC MOUNTING: FLUSH PER DETA		_		
PANE	LBOAR	RD		100% RATED NEUTRAL	,	4.I.C.:	10000	A	ENCLOSURE: NEMA 1				
CIRC		BREAK	ER				VOLT-AM			BREAK	CER	CIRC	
CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	Α	В	С	LOAD	АМР	POLE	SPACE	CKT NO.
1	1	20	1	RECPT. COMM. 2	360	540			180 RECEPT IDF	30	2	2	2
3	3	20	1	RECPT. COMM. 2	360		540		180	30		4	4
5	5	20	1	RECPT. COMM. 2	360			360	0 SPACE	20	1	6	6
7	7	20	1	SPARE	0	0			0 SPACE	20	1	8	8
9	9	20	1	SPARE	0		0		0 SPACE	20	1	10	10
11	11	20	1	SPARE	0			0	0 SPACE	20	1	12	12
13	13	20	1	SPARE	0	0			0 SPACE	20	1	14	14
15	15	20	1	SPARE	0		0		0 SPACE	20	1	16	16
17	17	20	1	SPARE	0			0	0 SPACE	20	1	18	18
19	19	20	1	SPARE	0	0			0 SPACE	20	1	20	20
21	21	20	1	SPARE	0		0		0 SPACE	20	1	22	22
23	23	20	1	SPARE	0			0	0 SPACE	20	1	24	24
25	25	20	1	SPARE	0	0			0 SPACE	20	1	26	26
27	27	20	1	SPARE	0		0		0 SPACE	20	1	28	28
29	29	20	1	SPARE	0			0	0 SPACE	20	1	30	30
31	31	20	1	SPARE	0	0			0 SPACE	20	1	32	32
33	33	20	1	SPARE	0		0		0 SPACE	20	1	34	34
35	35	20	1	SPARE	0			0	0 SPACE	20	1	36	36
37	37	20	1	SPARE	0	0			0 SPACE	20	1	38	38
39	39	20	1	SPARE	0		0		0 SPACE	20	1	40	40
41	41	20	1	SPARE	0			0	0 SPACE	20	1	42	42
		1		TOTAL CONNECTED LOAD (VA):		540	540	360					I
				DEMAND FACTOR FOR RECEPTACLES > 1	0kVA:	(	0	0					
				TOTAL CALCULATED LOAD (VA):		540	540	360	TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS):		4.5	4.5	3.0	1440 VA				

NEW	<b>VEL:</b> RECEPT LBOAR	TACLE	IT1	150 AMP BUS 120/208V, 3 PH, 4 W 100% RATED NEUTRAL	•	MAIN: TRIP: A.I.C.:	150A CB THERMAL 10000		LOCATION: IT ROOM - FIF TIC MOUNTING: FLUSH PER DE ENCLOSURE: NEMA 1		00		
CIRC	UIT	BREAK	ER				VOLT-AM			BREAK	(ER	CIRC	UIT
CKT NO.	PNL SPACE	АМР	POLE	SERVES	LOAD	Α	В	С	LOAD	АМР	POLE	PNL SPACE	CKT NO.
1	1	20	1	RECEPT. ROOM A109	360	540			180	20		2	2
3	3	20	1	RECEPT. ROOM A109	360		540		RECEPT MDF	30	2	4	4
5	5	20	1	RECEPT. ROOM A109	360			360	0 SPACE	20	1	6	6
7	7	20	1	SPARE	0	0			0 SPACE	20	1	8	8
9	9	20	1	SPARE	0		0		0 SPACE	20	1	10	10
11	11	20	1	SPARE	0			0	0 SPACE	20	1	12	12
13	13	20	1	SPARE	0	0			0 SPACE	20	1	14	14
15	15	20	1	SPARE	0		0		0 SPACE	20	1	16	16
17	17	20	1	SPARE	0			0	0 SPACE	20	1	18	18
19	19	20	1	SPARE	0	0			0 SPACE	20	1	20	20
21	21	20	1	SPARE	0		0		0 SPACE	20	1	22	22
23	23	20	1	SPARE	0			0	0 SPACE	20	1	24	24
25	25	20	1	SPARE	0	0			0 SPACE	20	1	26	26
27	27	20	1	SPARE	0		0		0 SPACE	20	1	28	28
29	29	20	1	SPARE	0			0	0 SPACE	20	1	30	30
31	31	20	1	SPARE	0	0			0 SPACE	20	1	32	32
33	33	20	1	SPARE	<b>O</b>	7	0		0 SPACE	20	1	34	34
35	35	20	1	SPRINKLER MONITORING - A	500			500	0 SPACE	20	1	36	36
<b>37</b>	37				540	540			0			38	38
39	39	100	3	PANEL 'IT2'	540		540		0 SPD	30	3	40	40
41	41				360			360	0			42	42
				TOTAL CONNECTED LOAD (VA):		1080	1080	1220					
				DEMAND FACTOR FOR RECEPTACLES > 10	OkVA:	0	0	0					
				TOTAL CALCULATED LOAD (VA):		1620	1620	1580	TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS):		13.5	13.5	13.2	4820 VA				

NEW	NEL:		B1H	† 225 AMP BUS 277/480V, 3 PH, 4 W 100% RATED NEUTRAL		MAIN: TRIP: A.I.C.:	225A CB THERMAL 22000	-MAGNE	TIC	LOCATION: BUILDING B MOUNTING: FLUSH PER DETAIL ENCLOSURE: NEMA 1	L 9/E600	0		
CIRC		BREAK	FP				VOLT-AMPERE				BREAK	(FR	CIRC	IIT
CKT NO.	PNL	AMP	POLE	SERVES	LOAD	A	B B	С	LOAD	SERVES	AMP	POLE	PNL	CKT NO.
1	1				582	2202			1620				2	2
3	3	15	3	EVAPORATIVE COOLER 'EC-B1'	582		2202		1620	INFRARED RADIANT HEATER 'IR-B1'	20	3	4	4
5	5				582			2202	1620				6	6
7	7	20	1	INDOOR LIGHTING	1280	2900			1620				8	8
9	9	20	1	OUTDOOR LIGHTING	95		1715	•	1620	INFRARED RADIANT HEATER 'IR-B2'	20	3	10	10
11	11	20	1	OUTDOOR LIGHTING	216			1836	1620				12	12
13	13	30	1	AIR COMPRESSOR 'AC-1'	3324	4944			1620				14	14
15	15	20	1	INDOOR LIGHTING	0		1620		1620	INFRARED RADIANT HEATER 'IR-B3'	20	3	16	16
17	17	20	1	SPARE	0			1620	1620				18	18
19	19	20	1	SPARE	0	1620			1620				20	20
21	21	20	1	SPARE	0		1620		1620	INFRARED RADIANT HEATER 'IR-B4'	20	3	22	22
23	23	20	1	SPARE	0			1620	1620				24	24
25	25	20	1	SPARE	0	0			0	SPARE	20	1	26	26
27	27	20	1	SPARE	0		0		0	SPARE	20	1	28	28
29	29	20	1	SPARE	0			0	0	SPARE	20	1	30	30
31	31	20	1	SPARE	0	0			0	SPARE	20	1	32	32
33	33	20	1	SPARE	0		0		0	SPARE	20	1	34	34
35	35	20	1	SPARE	0			0	0	SPARE	20	1	36	36
37	37	20	1	SPARE	0	0			0	SPARE	20	1	38	38
39	39	20	1	SPARE	0		0		0	SPARE	20	1	40	40
41	41	20	1	SPARE	0			0	0	SPARE	20	1	42	42
	•	•	•	TOTAL CONNECTED LOAD (VA):	·	11666	7157	7278				•		
				25% LCL/LML (VA) :		465	169	199						
				TOTAL CALCULATED LOAD (VA):		12131	7326	7477	TOTAL C	ALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS):		43.8	26.4	27.0		26934 VA				



CUSD PLANT OPERATIONS DISTRICT OFFICE EXPANSION

23-12560

DRAWING E802

**NEW RECEPTACLE** 

47 47 20 1 SPARE

49 | 49 | 20 | 1 | SPARE

51 51 20 1 SPARE

53 | 53 | 20 | 1 | SPARE

TOTAL CONNECTED LOAD (VA):

TOTAL CALCULATED LOAD (VA): TOTAL CALCULATED LOAD (AMPS):

25% LCL/LML (VA):

225 AMP BUS 120/208V, 3 PH, 4 W 100% RATED NEUTRAL

TOTAL CONNECTED LOAD (VA):

TOTAL CALCULATED LOAD (VA):

TOTAL CALCULATED LOAD (AMPS):

DEMAND FACTOR FOR RECEPTACLES > 10kVA:

225 AMP BUS

120/208V, 3 PH, 4 W

100% RATED NEUTRAL

SERVES

MAIN: 225A CB

MOUNTING: FLUSH PER DETAIL 9/E600 ENCLOSURE: NEMA 1 **VOLT-AMPERES** 

2421

TRIP: THERMAL-MAGNETIC A.I.C.: 10000 A

MAIN: 225A CB

A.I.C.: 10000 A

1080 2700

540 2160

1920 3540

360 1980

720

420

456

1921

1921

1921 1921

TRIP: THERMAL-MAGNETIC

VOLT-AM...

2340

1800

1980

1921

-4153 -4153

72.9 53.9

1620

1620

1620

1620

LOCATION: BUILDING C

ENCLOSURE: NEMA 1

1620 INFRARED RADIANT HEATER 'IR-B1'

1620 INFRARED RADIANT HEATER 'IR-B2'

1620 INFRARED RADIANT HEATER 'IR-B4'

600 MOTORIZED ROLL UP DOOR

600 MOTORIZED ROLL UP DOOR

500 SPRINKLER MONITORING - B

22460 VA

LOCATION: BUILDING C

0 RECEPT. COVERED LAY DOWN

360 RECEPT. ROOFTOP

0 SPACE

0 SPACE

0 SPACE

O SPACE

0 SPARE

0 SPARE

0 SPARE

O SPARE 0 SPARE

23805 25377 19425 TOTAL CALCULATED LOAD FOR PANEL:

8748 6468 7244 TOTAL CALCULATED LOAD FOR PANEL:

1620 INFRARED RADIANT HEATER 'IR-B3' 20

MOUNTING: FLUSH PER DETAIL 9/E600

BREAKER

CIRCUIT

PNL CKT

SPACE NO.

2 2

6 6

8 8

12 12

14 14

18 18

20 20

24 24

3 16 16

20 3 10 10

20 3 22 22

20 | 1 | 26 | 26

20 | 1 | 28 | 28

20 | 1 | 30 | 30

20 | 1 | 32 | 32

20 | 1 | 34 | 34

20 | 1 | 36 | 36

**20** 1 **38 38** 

20 | 1 | 40 | 40

20 1 42 42

20 1 46 46

20 1 48 48

20 1 50 50 20 1 52 52

20 1 54 54

SPACE NO. 3536 OUTDOOR UNIT 'ODU-C2' 1 1 20 1 RECEPT. SHOP WELDING C103 1800 5336 20 2 4 4 3 3 20 1 RECEPT. SHOP WELDING C103 5 5 20 1 RECEPT. SHOP WELDING C103 1200 1740 540 RECEPT. ROOFTOP 20 1 6 6 696 EXHASUT FAN 'EF-C2' 1080 1776 15 1 8 8 1080 528 EXHASUT FAN 'EF-C3' 1608 1080 2256 1176 EXHASUT FAN 'EF-C4' 1680 2280 600 MOTORIZED ROLL UP DOOR 1560 3072 1620 3132 1512 RECEPT. SHOP WELDING C103 444 1956

7 7 9 9 20 3 RECEPT. SHOP WELDING C103 15 | 1 | 10 | 10 | 11 | 11 20 | 1 | 12 | 12 20 1 14 14 13 | 13 | 20 | 1 | RECEPT. SHOP WELDING C103 15 | 15 | 20 | 1 | RECEPT. SHOP WELDING C103 16 16 17 | 17 | 20 | 1 | RECEPT. SHOP WELDING C103 20 3 18 18 19 19 20 1 RECEPT. SHOP WELDING C103 20 20 1800 RECEPT. SHOP WELDING C103 21 21 20 1 RECEPT. SHOP WELDING C103 2304 20 | 1 | 22 | 22 23 23 20 1 24 24 180 RECEPT. SHOP WELDING C103 25 25 50 3 RECEPT. MILLER WELDER 3189 3369 180 RECEPT. SHOP WELDING C103 20 | 1 | 26 | 26 27 27 3189 3369 20 | 1 | 28 | 28 180 RECEPT. SHOP WELDING C103 29 29 1768 20 1 30 30 900 RECEPT. BREAKROOM C106 31 31 50 3 RECEPT. IDEALARC ARC WELDER RED 1768 2308 20 1 32 32 540 RECEPT. SHOP WELDING C103 33 33 1948 180 RECEPT. SHOP WELDING C103 20 1 34 34 35 | 35 | 20 | 1 | ICE MACHINE 1920 2100 180 CONTROL PANEL 20 1 36 36 37 37 20 1 RECEPT. SHOP WELDING C103 38 38 540 1580 3120 1040 RECEPT. LINDE WELDER YELLOW 50 3 40 40 4160 30 2 RECEPT. SHOP WELDING C103 3120 4160 42 42 5200 5200 0 SPARE 20 1 44 44 50 2 RECEPT. SHOP WELDING C103

23805 25377 19425

0 0 0

198.4 211.5 161.9

<u> </u>	OTAL CALCULATED LOAD (AMPS).		170.4	211.5	101.7	00000 VA				
			1						$\sim$	
PANEL: C4L	225 AMP BUS		ΜΔΙΝ·	225A CB		LOCATION: BUILDING C				
NEW	120/208V, 3 PH, 4 W				-MAGNE		ΔΙΙ <b>Θ/</b> ΕΔΩ	n		
PANELBOARD	100% RATED NEUTRAL		A.I.C.:	10000		ENCLOSURE: NEMA 1	AIL 7/ LOO	•		
ANLLDOARD	100% KATED NEOTKAL		A.I.C	10000	^	ENCLOSURE. NEMA				
CIRCUIT BREAKER			V	OLT-AMPERE	S		BREA	KER		CIRCUIT
CKT PNL	SERVES			_	_	SERVES			F	NL CKT
NO. SPACE AMP POLE		LOAD	Α	В	С	LOAD	AMP	POLE	SP	ACE NO.
1 1 20 1 R	RECEP. GROUNDS C115	360	900			540 RECEPT. ROOFTOP	20	1		2 2
3 3 20 1 R	RECEP. GROUNDS C115	540		1236		696 EXHASUT FAN 'EF-C6'	15			4 4
5 5 20 1 R	RECEP. GROUNDS C115	720			1248	528 EXHASUT FAN 'EF-C7'	15	1		6 6
7 7 20 1 R	RECEP. GROUNDS C115	1680	2208			528 EXHASUT FAN 'EF-C8'	20	1		8 8
9 9 20 1 R	RECEP. GROUNDS C115	1920		2520		600 MOTORIZED ROLL UP DOOR	20	1	4	0 10
11 11 20 1 R	RECEP. GROUNDS C115	1920			3000	1080 RECEP. GROUNDS C114	20	1	•	2 12
13 13 20 1 R	RECEP. GROUNDS C114	720	1800			1080 RECEP. GROUNDS C114	20	1	-	4 14
15 15 20 1 R	RECEP. GROUNDS C114	720		1260		540 RECEPT. STOR. C112 & OIL ROOM	20	1	-	6 16
17 17 20 1 R	RECEP. GROUNDS C114	360			540	180 RECEPT. ROOFTOP	20	1	-	8 18
19 19 20 1 0	CONTROL PANEL	180	3716			3536	40			20 20
21 21 20 1 R	RECEP. SITE POLE	180		3716		3536 OUTDOOR UNIT 'ODU-C3'	40	2	2	22 22
23 23 20 1 S	PARE	0			0	0 SPARE	20	1		24 24
25 25 20 1 S	PARE	0	0			0 SPARE	20	1	2	26 26
27 27 20 1 S	PARE	0		0		0 SPARE	20	1	2	28 28
29 29 20 1 S	PARE	0			0	0 SPARE	20	1	(	30 30
31 31 20 1 S	PARE	0	0			0 SPARE	20	1	(	32 32
33 33 20 1 S	PARE	0		0		0 SPARE	20	1	(	34 34
	PARE	0			0	0 SPARE	20	1	(	36 36
	PARE	0	0			0 SPARE	20		_	38 38
	PARE	0		0	-	0 SPARE	20			10 40
	PARE	0			0	0 SPARE	20		_	12 42
	OTAL CONNECTED LOAD (VA):		8624	8732	4788					
	5% LCL/LML (VA) :		0		0					
	OTAL CALCULATED LOAD (VA):		8624	8732	4788	TOTAL CALCULATED LOAD FOR PANEL:				
<del>-</del>	OTAL CALCULATED LOAD (AMPS):			72.8		22144 VA				
			* • • •		2					

PAI NEW	NEL:		C1I	225 AMP BUS 120/208V, 3 PH, 4 W		MAIN: TRIP:	225A CB		iti C	LOCATION: BUILDING C MOUNTING: FLUSH PER DETAIL	0 /E100	1		
	LBOAF	RD		100% RATED NEUTRAL		A.I.C.:	10000		iiiC	ENCLOSURE: NEMA 1	7/E0UC	,		
CIRC	UIT	BREAKE	ER .			\	VOLT-AMPERE	:S			BREAK	ER	CIRC	JIT
CKT NO.	PNL SPACE	АМР	POLE	SERVES	LOAD	Α	В	С	LOAD	SERVES	AMP	POLE	PNL SPACE	CK NC
1	1	20	1	RECEP. SHOP C100	540	2412			1872		00		2	2
3	3				582		2454		1872	OUTDOOR UNIT 'ODU-C1'	20	2	4	4
5	5	20	3	RECEP. SHOP C100	582			1122	540	RECEPT. ROOFTOP	20	1	6	6
7	7				582	1278			696	EXHASUT FAN 'EF-C1'	15	1	8	8
9	9	20	1	RECEP. SHOP C100	1080		1680		600	MOTORIZED ROLL UP DOOR	20	1	10	10
11	11	20	1	RECEP. SHOP C100	1560			1740	180	RECEP. SHOP C100	20	1	12	12
13	13	20	1	RECEP. SHOP C100	180	540			360	RECEP. SHOP C100	20	1	14	14
15	15	20	2	RECEP. SHOP C100	3120		3480		360	RECEPT. 'IDF-C'	20	1	16	16
17	17	20		RECEI: SHOT C100	3120			3300	180	RECEPT. SHOP C100	20	1	18	18
19	19				2496	5424			2928				20	20
21	21	20	3	RECEP. SHOP C100	2496		5424		2928	VIRUTEX	20	3	22	22
23	23				2496			5424	2928				24	24
25	25	20	1	SHOP WELDING C103	1800	3336			1536	RECEPT. SHOP C100	20	1	26	26
27	27	20	1	RECEP. OFFICE C101	720		900		180	RECEPT. SHOP C100	20	1	28	28
29	29	20	1	OFFICE C101 PRINTER	1000			1180	180	CONTROL PANEL	20	1	30	30
31	31	20	1	RECEP. OFFICE C101	900	1080			180	RECEP. SITE POLE	20	1	32	32
33	33	20	1	RECEP. STORAGE C102	360		540		180	RECEP. SITE POLE	20	1	34	34
35	35	20	1	SPARE	0			180	180	AIR COMPRESSOR 'AC-2'	20	1	36	36
37	37	20	1	SPARE	0	0			0	SPARE	20	1	38	38
39	39	20	1	SPARE	0		0		ď	SPARE Y Y Y Y	20	Y1 *	40 Y	40
41	41	20	1	SPARE	0			500	500	SPRINKLER MONITORING - C	20	1	42	42
				TOTAL CONNECTED LOAD (VA):		14070	14478	13446	. ,			λ -	. <i>J</i>	
				25% LCL/LML (VA) :		0	0	0						<u></u>
				TOTAL CALCULATED LOAD (VA):		14070	14478	13446	TOTAL C	CALCULATED LOAD FOR PANEL:				

117.3 120.7 112.1

41995 VA

TOTAL CALCULATED LOAD (AMPS):

NEW	NEL:		C31	225 AMP BUS 120/208V, 3 PH, 4 W 100% RATED NEUTRAL		MAIN: TRIP: A.I.C.:	225A CB THERMAL 10000		LOCATION: BUILDING C  TIC MOUNTING: FLUSH PER DETAIL 9  ENCLOSURE: NEMA 1	9/E600	)		
CIRC	UIT	BREAK	ER			V	OLT-AMPERES	5		BREAK	ER	CIRCI	JIT
CKT NO.	PNL SPACE	АМР	POLE	SERVES	LOAD	A	В	С	LOAD	AMP	POLE	PNL SPACE	CKT NO.
1	1	20	1	RECEPT. GROUNDS EQUIPMENT C110	960	4368			3408 INFRARED RADIANT HEATER 'IR-C15'	40	1	2	2
3	3	20	1	RECEPT. GROUNDS EQUIPMENT C110	180		360		180 RECEPT. STORAGE C105	20	1	4	4
5	5	20	1	RECEPT. GROUNDS EQUIPMENT C110	2160			2340	180 RECEPT. STORAGE C105	20	1	6	6
7	7	20	1	RECEPT. GROUNDS EQUIPMENT C110	900	1980			1080 RECEPT. BREAKROOM C106	20	1	8	8
9	9	20	1	RECEPT. OFFICE C111	1440		2616		1176 EXHAUST FAN 'EF-C5'	20	1	10	10
11	11	20	1	OFFICE C111 PRINTER	1000			2500	1500 WATER HEATER 'WH-2'	20	1	12	12
13	13	20	1	RECEPT. OFFICE C104	720	720			0 SPARE	20	1	14	14
15	15	20	1	RECEPT. OFFICE C104	1080		1680		600 MOTORIZED ROLL UP DOOR	20	1	16	16
17	17	20	1	RECEPT. OFFICE C104	360			960	600 MOTORIZED ROLL UP DOOR	20	1	18	18
19	19	20	1	RECEPT. GROUNDS EQUIPMENT C110	360	540			180 RECEPT. EXTERIOR	20	1	20	20
21	21	20	1	SPARE	0		360		360 RECEPT. GROUNDS EQUIPMENT C110	20	1	22	22
23	23				3120			3480	360 RECEPT. GROUNDS EQUIPMENT C110	20	1	24	24
25	25	30	3	VEHICLE HOIST	3120	3300			180 RECEPT. GROUNDS EQUIPMENT C110	20	1	26	26
27	27				3120		5040		1920 RECEPT. GROUNDS EQUIPMENT C110	20	1	28	28
29	29	20	1	RECEPT. GROUNDS EQUIPMENT C114	180			1752	1572 RECEPT. GROUNDS EQUIPMENT C110	20	1	30	30
31	31	20	1	MOTORIZED ROLL UP DOOR	600	1320			720 RECEPT. GROUNDS EQUIPMENT C110	20	1	32	32
33	33	20	1	RECEPT. GROUNDS EQUIPMENT C114	180		360		180 CONTROL PANEL	20	1	34	34
35	35	20	1	GROUNDS EQUIPMENT - HOIST	180			360	180 CONTROL PANEL	20	1	36	36
37	37	20	1	GROUNDS EQUIPMENT - HOIST	180	180			0 SPARE	0	1	38	38
39	39	20	1	CONTROL PANEL	180		360		180 RECEPT. LIGHT POLE	20	1	40	40
41	41	20	1	LIGHT CORD REEL	400			760	360 RECEPT. RESTROOMS	20	1	42	42
43	43				3120	6120			3000 DECEDE COUNTS FOUNDATING C110	<b>F</b> 0	0	44	42
45	45	30	3	VEHICLE HOIST	3120		6120		3000 RECEPT. GROUNDS EQUIPMENT C110	50	2	46	42
47	47				3120			3120	0 SPARE	20	1	48	42
49	49	20	1	SPARE	0	0			0 SPARE	20	1	50	42
51	51	20	1	SPARE	0		0		0 SPARE	20	1	52	52
53	53	20	1	SPARE	0			0	0 SPARE	20	1	54	54
	•	•		TOTAL CONNECTED LOAD (VA):		18528	16896	15272			•		
				25% LCL/LML (VA) :		0	0	0					
				TOTAL CALCULATED LOAD (VA):		18528	16896	15272	TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS):		154.4	140.8	127.3	50696 VA				

**PANEL**: BCL

**NEW DISTRIBUTION SWITCHBOARD** 

BUS: 800 AMP BUS **VOLTAGE: 120/208V, 3 PH, 4 W NEUTRAL: 100% RATED NEUTRAL** 

MAIN: 800A CB TRIP: ELECTRONIC LSI A.I.C.: 22 kAIC

LOCATION: BUILDING B MOUNTING: PAD PER DETAIL 1/E600

				T				
CIRC	PNL			SERVES		V	OLT-AMPERE	S
NO.	SPACE	AMP	POLE	SERVES	LOAD	Α	В	С
					8748	8748		
1	1	225	3	PANEL 'B1L'	6468		6468	
					7244			7244
					14070	14070		
2	2	225	3	PANEL 'C1L'	14478		14478	
					13446			13446
					23805	23805		
3	3	225	3	PANEL 'C2L'	25377		25377	
					19425			19425
					18528	18528		
4	4	225	3	PANEL 'C3L'	16896		16896	
					15272			15272
					8624	8624		
5	5	225	3	PANEL 'C4L'	8732		8732	
					4788			4788
					0	0		
6	6		3	SPACE	0		0	
					0			0
					0	0		
7	7		3	SPACE	0		0	
					0			0
				TOTAL CONNECTED LOAD (VA):		73776	71952	60176
				25% LCL/LML (VA):		0	0	0
				TOTAL CALCULATED LOAD (VA):		73776	71952	60176
				TOTAL CALCULATED LOAD (AMPS):		614.8	599.6	501.5





CUSD PLANT OF DISTRICT OFF

23-12560

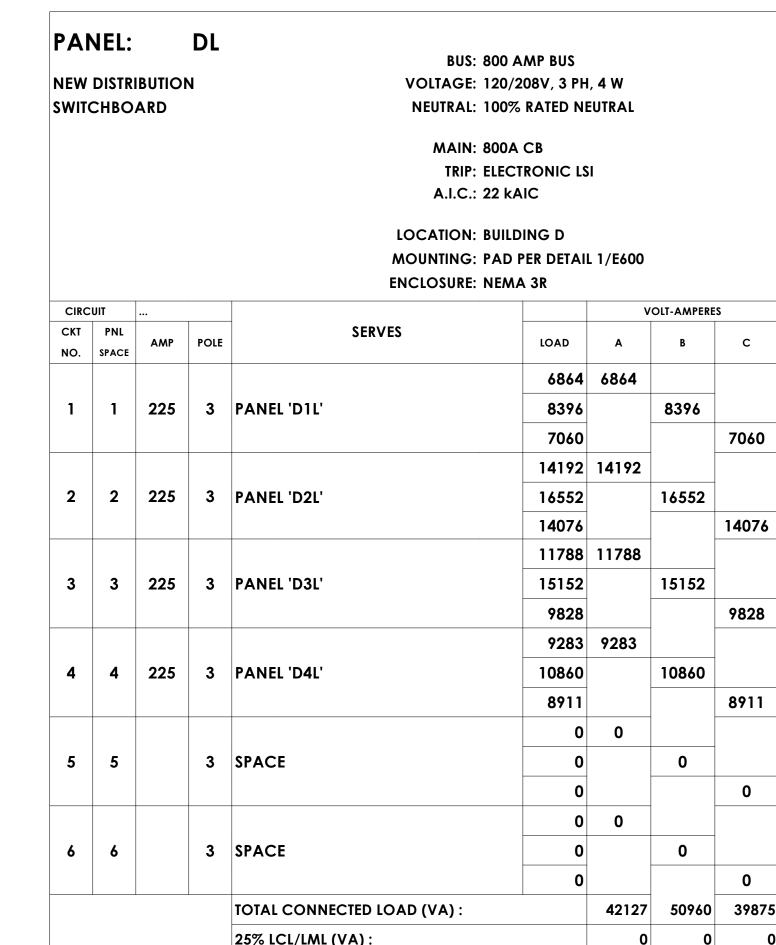
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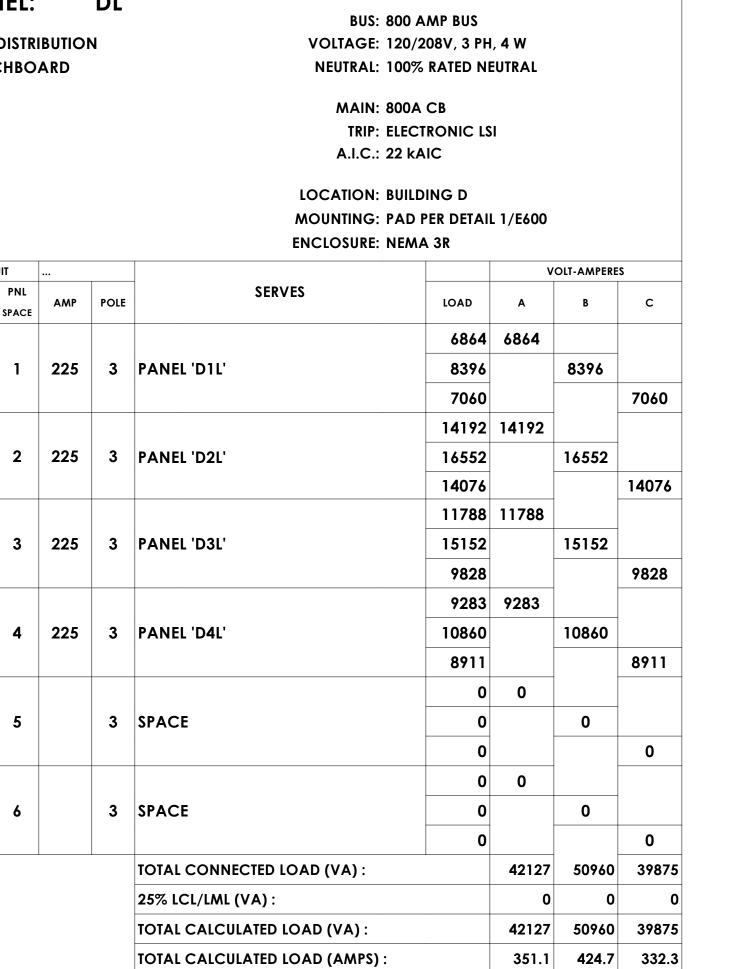
NEW	NEL:		D1I	225 AMP BUS 120/208V, 3 PH, 4 W 100% RATED NEUTRAL		MAIN: TRIP: A.I.C.:	225A CB THERMAL 10000	-MAGNE	TIC	LOCATION: BUILDING D MOUNTING: SURFACE PER DE ENCLOSURE: NEMA 1	TAIL 9/E	600		
CIRC	UIT	BREAK	ER			\	OLT-AMPERE	S			BREAK	ŒR	CIRC	:UIT
CKT NO.	PNL SPACE	АМР	POLE	SERVES	LOAD	Α	В	С	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1	20	1	RECEP. ROOM D100	180	780			600	MOTORIZED ROLL UP DOOR	20	1	2	2
3	3	20	1	RECEP. ROOM D100	180		708		528	EXHAUST FAN 'EF-D1'	15	1	4	4
5	5	20	1	RECEP. ROOM D100	528			2192	1664	OUTDOOD HAIT 'ODH D1'	40		6	6
7	7	20	1	RECEP. ROOM D100	1800	3464			1664	OUTDOOR UNIT 'ODU-D1'	40	2	8	8
9	9	30	1	RECEP. ROOM D100	2880		5168	-	2288		00		10	10
11	11	20	1	RECEP. ROOM D100	360			2648	2288	OUTDOOR UNIT 'ODU-D2'	20	2	12	12
13	13	20	1	RECEP. ROOM D100	720	900			180	RECEPT. ROOM D100	20	1	14	14
15	15	20	1	RECEP. ROOM D100	720		900		180	CONTROL PANEL	20	1	16	16
17	17	20	1	ROOM D100 PRINTER	1000			1180	180	AIR COMPRESSOR 'AC-3'	20	1	18	18
19	19	20	1	RECEP. ROOM D100	720	720			0	SPARE	20	1	20	20
21	21	20	1	RECEP. ROOM D100	720		720		0	SPARE	20	1	22	22
23	23	20	1	RECEP. ROOM D103	540			540	0	SPARE	20	1	24	24
25	25	20	1	ROOM D103 PRINTER	1000	1000			0	SPARE	20	1	26	26
27	27	20	1	RECEP. ROOM D103	900		900		0	SPARE	20	1	28	28
29	29	20	1	SPARE	0			0	0	SPARE	20	1	30	30
31	31	20	1	SPARE	0	0			0	SPARE	20	1	32	32
33	33	20	1	SPARE	0		0		0	SPARE	20	1	34	34
35	35	20	1	SPARE	0			0	0	SPARE	20	1	36	36
37	37	20	1	SPARE	0	0			0	SPARE	20	1	38	38
39	39	20	1	SPARE	0		0		Ø	SPARE	20	1	40	40
41	41	20	1	SPARE	0			500	500	SPRINKLER MONITORING - D	20	1	42	42
				TOTAL CONNECTED LOAD (VA):		6864	8396	7060				\		
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA):		6864	8396	7060	TOTAL C	CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS):		57.2	70.0	58.8		22320 VA				

1EW	<b>VEL:</b> lboar		<b>D3</b>	L 225 AMP BUS 120/208V, 3 PH, 4 W 100% RATED NEUTRAL		MAIN: TRIP: A.I.C.:	225A CB THERMAL 10000		TIC	LOCATION: BUILDING D MOUNTING: SURFACE PER DET. ENCLOSURE: NEMA 1	AIL 4/I	600		
CIRC	UIT	BREA	KER			\	OLT-AMPERES	<u> </u>			BREA	KER	CIRC	UIT
CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	В	С	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1	20	1	RECEP. ROOM D113	360	960			600	MOTORIZED ROLL UP DOOR	20	1	2	2
3	3	20	1	RECEP. ROOM D113	540		1140		600	MOTORIZED ROLL UP DOOR	20	1	4	4
5	5	20	1	RECEP. ROOM D114	1080			1680	600	MOTORIZED ROLL UP DOOR	20	1	6	6
7	7	20	1	ROOM D114 PRINTER	1000	1600			600	MOTORIZED ROLL UP DOOR	20	1	8	8
9	9	20	1	RECEP. ROOM D116	900		1080		180	RECEP. ROOM D121	20	1	10	10
11	11	20	1	RECEP. ROOM D118, D119, 120	720			1248	528	EXHAUST FAN 'EF-D3'	20	1	12	12
13	13	20	1	RECEP. ROOM D117	540	1068			528	EXHAUST FAN 'EF-D4'	20	1	14	14
15	15	20	1	RECEP. ROOM D117	1200		1728		528	EXHAUST FAN 'EF-D5'	20	1	16	16
17	17	20	1	RECEP. ROOM D117	1500			2028	528	EXHAUST FAN 'EF-D6'	20	1	18	18
19	19	20	1	RECEP. ROOM D117	1000	1528			528	EXHAUST FAN 'EF-D7'	20	1	20	20
21	21	20	1	WATER FOUNTAIN	1500		3372		1872	OUTDOOR UNIT	00		22	22
23	23	20	1	RECEP. ROOM D121	900			2772	1872	ODU D5'	20	2	24	24
25	25	20	1	RECEP. ROOM D121	540	3452			2912	OUTDOOR UNIT	40		26	26
27	27	20	1	ICE MACHINE	1920		4832		2912	ODU D6'	40	2	28	28
29	29	20	1	ICE MACHINE	1920			2100	180	CONTROL PANEL	20	1	30	30
31	31	٥٥		WATER HEATER	3000	3180			180	CONTROL PANEL	20	1	32	32
33	33	35	2	WATER HEATER	3000		3000		0	SPARE	20	1	34	34
35	35	20	1	SPARE	0			0	0	SPARE	20	1	36	36
37	37	20	1	SPARE	0	0			0	SPARE	20	1	38	38
39	39	20	1	SPARE	0		0		0	SPARE	20	1	40	40
41	41	20	1	SPARE	0			0,	0	SPARE	20	1	42	42
				TOTAL CONNECTED LOAD (VA):		11788	15152	9828					$\overline{\mathcal{A}}$	
				25% LCL/LML (VA):		0	0	0				_		
				TOTAL CALCULATED LOAD (VA):		11788	15152	9828	TOTAL C	ALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS):		98.2	126.3	81.9		36768 VA				

NEW	NEL:		D2I	225 AMP BUS 120/208V, 3 PH, 4 W 100% RATED NEUTRAL	•	MAIN: TRIP: A.I.C.:		MAGNE A	LOCATION: BUILDING D TIC MOUNTING: SURFACE PER DE ENCLOSURE: NEMA 1	TAIL 4/E	600		
CIRC	CUIT	BREAK	ER			,	VOLT-AMPERE	S		BREAK	ER	CIRC	UIT
CKT NO.	PNL SPACE	АМР	POLE	SERVES	LOAD	Α	В	С	LOAD	AMP	POLE	PNL SPACE	C N
1	1	20	1	RECEP. ROOM D105	540	1140			600 MOTORIZED ROLL UP DOOR	20	1	2	2
3	3	20	1	RECEP. ROOM D105	900		1500		600 MOTORIZED ROLL UP DOOR	20	1	4	4
5	5	20	1	RECEP. ROOM D105	900			2820	1920 RECEP. ROOM D109	20	1	6	(
7	7	20	1	RECEP. ROOM D105	720	2520			1800 RECEP. ROOM D109	20	1	8	8
9	9	20	1	RECEP. ROOM D105	900		1900		1000 ROOM D109 PRINTER	20	1	10	1
11	11	20	1	ROOM D105 PRINTER	1000			1720	720 RECEP. ROOM D109	20	1	12	1
13	13	20	1	RECEP. ROOM D106	540	2340			1800 RECEP. ROOM D109	20	1	14	1
15	15	20	1	ROOM D106 PRINTER	1000		1900		900 RECEP.ROOM D110	20	1	16	1
17	17	20	1	RECEP. ROOM D106	720			1720	1000 ROOM D110 PRINTER	20	1	18	1
19	19	20	1	RECEP. ROOM D106	720	1260			540 RECEP.ROOM D110	20	1	20	2
21	21	20	1	RECEP. ROOM D108	1440		2160		720 RECEP.ROOM D110	20	1	22	2
23	23	20	1	RECEP. ROOM D108	1080			1800	720 RECEP. ROOM D111	20	1	24	2
25	25	20	1	ROOM D108 PRINTER	1000	1720			720 RECEP. ROOM D111	20	1	26	2
27	27	20	1	RECEP. ROOM D111	540		1540		1000 ROOM D111 PRINTER	20	1	28	2
29	29	20	1	RECEP. ROOM D111	720			1248	528 EXHAUST FAN 'EF-D2'	20	1	30	3
31	31	40	2	OUTDOOR UNIT 'ODU-D3'	2288	2468			180 CONTROL PANEL	20	1	32	3
33	33	70		OUIDOOK UNII ODU-DU	2288		4088		1800 RECEPT. ROOM	20	1	34	3
35	35	25	2	OUTDOOR UNIT 'ODU-D4'	1664			3104	1440 RECEP. ROOM D109	20	1	36	3
37	37	23		OUIDOOK UNII ODU-D4	1664	2744			1080 RECEP. ROOM D109	20	1	38	3
39	39	25	2	OUTDOOR UNIT 'ODU-D5'	1664		3464		1800 RECEP. ROOM D110	20	1	40	4
41	41			OUIDOOK UKII ODU-DU	1664			1664	0 SPARE	20	1	42	4
				TOTAL CONNECTED LOAD (VA):		14192	16552	14076					
				25% LCL/LML (VA):		C	0	0					
				TOTAL CALCULATED LOAD (VA):		14192	16552	14076	TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS):		118.3	137.9	117.3	44820 VA				

NEW	<b>VEL:</b> lboar	lD.	D4L	225 AMP BUS 120/208V, 3 PH, 4 W 100% RATED NEUTRAL			225A CB THERMAL 10000	-MAGNE	TIC	LOCATION: BUILDING D MOUNTING: SURFACE PER D ENCLOSURE: NEMA 1	ETAIL 4/E	<b>E600</b>		
CIRC	UIT	BREAK	ER			V	OLT-AMPERE	S			BREAK	KER	CIRC	UIT
CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	Α	В	С	LOAD	SERVES	АМР	POLE	PNL SPACE	CKT NO.
1	1	20	1	RECEP. ROOM D122	180	780			600	MOTORIZED ROLL UP DOOR	20	1	2	2
3	3	20	1	RECEP. ROOM D123	900		1500		600	MOTORIZED ROLL UP DOOR	20	1	4	4
5	5	20	1	RECEP. ROOM D123	540			540	0	SPARE	20	1	6	6
7	7	20	1	RECEP. ROOM D123	1080	1080			0	SPARE	20	1	8	8
9	9	20	1	ROOM D123 PRINTER	1000		2080		1080	RECEP. ROOM D124	20	1	10	10
11	11	20	1	ROOM D124 PRINTER	1000			1720	720	RECEP. ROOM D124	20	1	12	12
13	13	20	1	RECEP. ROOM D124	360	720			360	RECEP. ROOM D126	20	1	14	14
15	15	20	1	RECEP. ROOM D124	540		900		360	RECEP. ROOM D126	20	1	16	16
17	17	20	1	RECEP. ROOM D125	900			1440	540	RECEP. ROOM D127	20	1	18	18
19	19	20	1	RECEP. ROOM D127	1080	1608			528	EXHAUST FAN 'EF-D8'	20	1	20	20
21	21	20	1	RECEP. ROOM D127	720		1248		528	EXHAUST FAN 'EF-D9'	20	1	22	22
23	23	20	1	ROOM D127 PRINTER	1000			1528	528	EXHAUST FAN 'EF-D10'	20	1	24	24
25	25	20	1	RECEP. ROOM D121	360	3272			2912	OUTDOOR UNIT	40		26	26
27	27	20	1	RECEP. ROOM D121	360		3272		2912	ODU D7'	40	2	28	28
29	29	20	1	RECEP. ROOM D121	180			1823	1643	OUTDOOR UNIT	00		30	30
31	31	20	1	CONTROL PANEL	180	1823			1643	ODU D8'	20	2	32	32
33	33	20	1	CONTROL PANEL	180		1860		1680	RECEP. ROOM D122	20	1	34	34
35	35	20	1	CONTROL PANEL	180			1860	1680	DRILL PRESS	20	1	36	36
37	37	20	1	SPARE	0	0			0	SPARE	20	1	38	38
39	39	20	1	SPARE	0		0		0	SPARE	20	1	40	40
41	41	20	1	SPARE	0			0	0	SPARE	20	1	42	42
			•	TOTAL CONNECTED LOAD (VA):		9283	10860	8911					•	
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA):		9283	10860	8911	TOTAL C	CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS):		77.4	90.5	74.3		29054 VA				









CUSD PLANT OPERATIONS DISTRICT OFFICE EXPANSION

23-12560

DRAWING E806