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ADDENDUM NO. 03

PROJECT:

College of the Sequoias
Tulare Campus CTE
4999 Bardsley Avenue
Visalia, CA 93274

Date: **12/15/2022**

TETER Project No.: **21-12032.00**

CLIENT:

College of the Sequoias
915 S. Mooney Blvd.
Visalia, CA 93277

Client Project No.: **N/A**
DSA File No.: **54-C2**
DSA Appl. No.: **02-120265**

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.

Pre-Bid RFI Responses:

1. Single Ply Backing at Parapets - Detail 14 on A830 shows 16g metal track at single ply roofing lap at backside of parapets. This detail is not called out on any of the section views and roof plans. 1-Please clarify if this detail applies to this project. If so, please clarify locations where this occurs. 2-Please also clarify if track backing is required, can 6" 16g flat strap be used in lieu of track backing.

   a. Detail is a typical, standard detail to apply where roofing laps are required on parapet walls.
   b. Proposed 6” -16 gauge flat strap is acceptable in lieu of track backing for attachment of thin wall materials like sheathing and roofing, but not for anchoring of any wall mounted equipment.

2. 1) 7 / A300, 9 / A320, and 9 / A321 all show dimensional exterior letters although I cannot find any plan details for them. Is this available? 2) G000 shows four (4) lines of text along the left wall. Looks to be a quote. I did not see any plans or details for this. Is this something that will need to be part of the bid? If so, can you direct me to the plan pages?

   a. Refer to 3/A825 and 12/A825 for dimensional letters on entry towers. Dimensional letters to be 12” high at entry towers.
   b. Quote text shown on G000 to be future OFOI, NIC.

3. Is the Cove Lighting for the dimensional letters or does it refer to the panel behind the letters?

   a. For the dimensional letters and extends full height of entry tower. Refer to details 3/A825 and 7/E601 for location and information on lights at entry towers.

4. RCV size, refer to sheet L101, remote control valve at station A-1 is 3/4" size. However, legend shows remote control valve model Irritrol 100 series. The smallest size for 100 series is 1". Please clarify.

    a. BCF Response – 12/14/2022: Station A-1 is a 3/4” remote control valve. Use Irritrol model 700B.75.

5. Controller Enclosure, refer to sheet L101, legend shows the controller enclosure model is ACC-PED powder coated pedestal. However, sheet L103, detail J shows Nema 3R rainproof enclosure (UL listed). Please clarify.

    a. BCF Response – 12/14/2022: Install ACC PED powder pedestal as indicated in the Irrigation Legend – Sheet L103.

6. Gate Valves, refer to sheet L101 and L102, all symbol of gate valves shown on mainline 2" and mainline 4" are Nibbco T113. However, the legend sheet L101 and details G sheet L103 are showing model of Gate valves 2" and large is Leemco Gate Valve. Please confirm that all gate valves to be Leemco.

    a. BCF Response – 12/14/2022: All gate valves are Nibbco T113.

7. Drip Operation Indicator, refer to sheet L101, legend shows drip operation indicator Hunter Eco-ID. However, sheet L104, detail F shows Rainbird Xeri-pop Micro-spray pop-up. Please clarify.

    a. BCF Response – 12/14/2022: Install Hunter Eco-ID Pop-up Indicator.

8. Main line Fittings, refer to spec 328400, section 2.1-J shows coated ductile iron push-on mechanical fittings shall be used for mainline connections for pipe 3" and greater in diameter and for new mainline service tee at valve connections. However, sheet L103 detail I show service tee SCH.80, detail H show SCH 40. Please clarify.

    a. BCF Response – 12/14/2022: Main line connections for pipe 3 inches and greater in diameter, use Coated ductile iron push-on mechanical fittings (per spec 328400, Sec 2.1 (J)) for new main line service tee at valve connections and quick coupler valve service connections.

    b. Main line connections for 2.5 inches and less in diameter, use Sch. 80 fittings (per spec 328400, Sec 2.1 (E)) for new main line service tee at valve connections and quicker coupler valve service connections.

9. Pipe Sleeves, refer to spec 328400, section 2.1 and sheet L103 show that pipe sleeves under paving shall be PVC Schedule 40 for 3-inch and smaller or SDR 35 for 4-inch and larger pipes. However, sheet L101/legend shows all pipe sleeves shall be SCH40. Please clarify.

    a. BCF Response – 12/14/2022: Please install pipe sleeves per specs (328400, Section 2.1 (C) (2)): Pipe sleeves under paving shall be PVC Schedule 40 for 3-inch and smaller or SDR 35 for 4-inch and larger pipes.

10. Tree Bubbler, refer to sheet L104, detail A tree bubbler shows 4" pop-up sprinkler head. However, sheet L101, legend show tree bubbler hunter PROS-00-PCN-50. This model is not 4" pop-up. Please clarify.

a. BCF Response – 12/14/2023: Install Hunter PROS-00-PCN-50.

11. Amendment Rates, refer to spec 329000 section 3.4-B shows amend area by compost rate of 6 CY per 1000 SF sheet L204 planting note no. 13 shows compost rate shall be a minimum of 4 CY per 1000 SF. Please clarify.

a. BCF Response – 12/14/2022: Final soil amendments are provided by the laboratory analysis and by the direction of the Landscape Architect. Please submit a laboratory analysis per spec 329000, section 1.4, to Landscape Architect, David Briley (BC&F), for review.

12. Root Barrier, refer to sheet Ll204, detail D root barrier showing the installation of 12 LF long deep root control barrier. However, on sheets L201 and L202, the symbol of root barriers on plan is only 10 LF long. Please confirm which one takes precedence.

a. BCF Response – 12/14/2022: Install Root Barrier UB24-2 as indicated in the Plant Legend-sheet L203.

13. Please confirm that no soil amendment is required for raised concrete planters on sheet with sandy loam topsoil already installed.

a. BCF Response – 12/14/2022: Per spec 329000, section 1.4 (D)(1), the contractor shall provide and pay for a fertility analysis of the existing topsoil and any proposed import planting topsoil. Please submit a laboratory analysis to Landscape Architect, David Briley (BC&F), for review and acceptance.

14. Backfill @ Raised Planters, refer to sheet A105, detail 5 seating wall @ planter. I did not see any information about planter soil. Please provide depth of planter soil required at raised planter areas.

a. BCF Response – 12/14/2022: Planter soil shall be 3” below top of wall.

15. A850 Detail 3, Spec #061663 Cement Board Sheathing. Specification 061663 is specifying Finex cement board panels. This manufacture is based out of Quebec, Canada. With the limited quantity of panels needed for this project, shipping to west coast/California is near impossible. 1. Is there an alternate manufacture/product suitable for this project's application that is more accessible here in the west coast. 2. All three specified manufactures listed for plywood panel aluminum trim does not make trim for 1/4" paneling. Is there a suitable alternate manufacture that provides the specified/detailed product?

a. Acceptable alternate manufacturers in addition to Finex. Alternate manufacturers to meet requirements of spec section 061663 Cement Board Sheathing.
   - James Hardie (Smooth)
   - American Fiber Cement Corporation (Minaret HD)
   - Allura (Smooth)

b. Per discussions with manufacturer, they can cut down the aluminum trim to work with thinner paneling.

16. Spec 064116 does not list any manufactures, color, or finish of the plastic laminate. Please advise.

a. Please refer to spec section 064116 paragraph 2.5 D for manufacturers. Color/finish is TBD and will be selected by Architect/Owner, see clip below.

D. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or, if not indicated, as required by woodwork quality standard.

1. Manufacturer: Subject to compliance with requirements, provide high-pressure decorative laminates by one of the following:

a. Formica Corporation.
b. Nevamar Company, LLC; Decorative Products Div.
c. Wilsonart International; Div. of Premark International, Inc.

17. Per Spec 075419, section 2.6 Substrate boards the specification has a 5/8" board. The substrate means the roof deck. Are we supposed to install this board on the entire roof? The drawings do not show it. I can see it on the wall details only please confirm.

a. See response to question 31 in this Addendum.

18. 1. Per keynote 32.85 on sheet A300 FRP flowerpot is shown. Please provide manufacturer, model number or specification for this item. 2. Is irrigation required at this FRP flowerpots?

a. (8) total FRP flowerpots are to be future OFOI. GC to provide 1/2" irrigation stub up to each location for future.

19. On sheet E101, notes for feeders F3, F4 and F5 show one additional 3" conduit for each run. Please confirm if this is a spare conduit in addition to the feeder conduits.

a. See attached E101 with updated conduit totals.

20. Please confirm if the spot welder in building F labeled EQ409 referenced on sheet E220 is a plug-in unit only requiring a receptacle outlet, or if unit will need to be hard wired?

a. See attached revised E220 and provide a 100A disconnect and branch circuit per revised drawings.

21. Regarding the spot welder in building F labeled EQ409, drawing E220 shows a receptacle connection, however, the equipment schedule on E801 does not show a receptacle type. Please confirm since this is a 100-amp piece of equipment, if we are to provide a 100-amp pin and sleeve type receptacle or is a regular 100 amp disconnect and hard wire set up acceptable?

a. See attached revised E220 and provide a 100A disconnect and branch circuit per revised drawings.

22. Irrigation legend on plan sheets L101 and L102 call for PVC Class 200 Gasketed mainline. Irrigation plans show 4", 2" mainline sizes. What is the 2" mainline classification?

b. BCF Response – 12/14/2022: All irrigation main lines shall be PVC Class 200 Gasketed, including 2".

23. Please confirm connection requirements for future pressure washer per 11.06 on A150.

a. See attached E101 with revised connection points for pressure washers. See Plumbing for drain locations and Civil for water connections.

24. Please confirm refuse bins per 32.76 on A150 are provided by GC or Owner.

a. Refuse bins shown in trash enclosures are to be provided by Owner's refuse hauler.

25. Please confirm cord reels referenced on sheet A851 are provided and installed by GC or Owner.

a. Cord reels shown on plans and detailed on A851 are to be provided and installed by the GC (CFCI). See Plumbing and Electrical plans for cord/hose reel model #'s.

26. Please confirm vehicle lifts per 11.01 on A200 are provided and installed by GC or Owner.

a. Vehicle lifts to be provided and installed by GC per Addendum 1 response to RFI 1, and revised sheet A201 attached to Addendum 1.

27. Low Voltage Specs, please provide Specifications 280000 Electronic Safety and Security and 284600 Fire Alarm System.

a. See attached spec sections requested.

28. Data and AV Equipment, Sheets E400 show wall mounted and pendant speakers. However, specification 274110 - Audio Visual Systems does not provide any information on the speakers. Please confirm speakers shown on E400 to E420 are OFOI. Please confirm projectors are OFOI. Please confirm wireless access points are OFOI.

a. Speakers, projectors, and wireless access points are OFOI. GC to provide pathways, wires, boxes, and supports as shown on drawings to these locations, and the owner will coordinate to have these items installed.

29. The drawings it shows the measurements of the HIGH-PRESSURE LAMINATE MAGNETIC MARKER BOARDS, but specifically in these images it says the measurement of the outer markerboards is the equal. My question is, is the size of these also 4 feet, or do they have another size?

a. In the areas where the white board is shown this way the ends at these spaces will have to be custom widths to fit the width of the wall since it is not a full 4-foot piece.

30. Aluminum Plaster Trims, Detail 5/A821 shows both a plaster T Mold and a plaster F Mold. Please clarify if both trims are needed. If not, clarify the Trim of choice.

a. Use a T Mold only, and please disregard the note for a F Mold.

31. Specification Section Reference: 075419-2.6A. – Substrate Board. Drawing Reference: S008 – Detail 2 / Roof Deck Schedule. Question:
Specification Section 075419-2.6A. Calls for the roof assembly to receive a 5/8" substrate board although the roofing details do not depict its utilization. The roof deck on the majority of this project consists of acoustic deck per detail 2 on drawing S008 which has an upper flute spacing of 4 5/8". Roofing insulation utilized is polyiso which cannot span the flute opening although the specified 5/8" substrate board can span the opening. Please confirm that the 5/8" substrate board will be required at all roofing locations where acoustic deck specified.

a. Roof assembly required to include a substrate board installed per specifications. Please use an 1/2" board in lieu of the 5/8" specified. Board to be installed over the entire area of acoustic deck "D" noted in detail 2/S008 and on Roof Framing Plans.

32. STC Rated Doors at Mechanical Platforms: Details 1, 6/A813 shows an extremely high STC rating for acoustical door which exceeds the ratings that are commonly available (STC 51). Is STC51 acceptable? If not, please provide a source for the specified rating.

a. STC 51 is acceptable for the acoustical doors at the mechanical platforms.

33. Could you please provide us with the height and details of the dimensional letters?

a. Refer to RFI responses 2 and 3 on this addendum.

34. Sheet A710 – Abbreviations:
- CP – Concrete Polished
- CS – Concrete, Sealed (Clean, Grind (2), Polish (2)

Please confirm (CS) Sealed Concrete per Specification 033518 does not require grinding and polishing.

a. Follow specification section 033518 for sealed concrete, please disregard grind and polish notes on finish schedule abbreviations and prepare/seal concrete per spec section 033518.

35. Please confirm that the 18ga Galv. Hat Channels behind the Metal Wall Panels are installed with (1) Fastener @ 24" o.c., Detail 25/A822.

a. Yes, Fasteners are required into 1 stud/metal stud backing at 24" O.C.

36. Please confirm the thickness of the Rigid Insulation behind the Metal Wall Panels. Is it to be 1" or 2" in thickness? Specs 07 21 14 Thermal Foam Plastic Board Wall Insulation on Part 2.1.A.2 Properties & Performance call for a 1" Thickness. Wall Type Details 2,3/A822 and plan sheets call for a 2" Rigid Foam Insulation.

a. Provide 2" thick Rigid Foam Insulation as detailed.

37. Please confirm that Hunter XCI Rigid Insulation is an acceptable product. Specs 07 21 14 Thermal Foam Plastic Board Wall Insulation on Part 2.1.A.1 Manufactures, only lists Diversifoam, Dow Chemical & Owens Corning.

a. Hunter XCI is an acceptable manufacturer.

38. Please confirm that the Metal Wall Panel Clips are to receive (2) fasteners per clip. Detail 25/A822 only shows (1) fastener per panel clip.

a. Installer to comply with manufacturer's requirements for clip installation.

Revised Drawings:

DRAWINGS, SHEET C201 – PARTIAL DEMOLITION PLAN revise as follows:

A. Remove existing water valve on 4" fire sprinkler line in lieu of 6" fire hydrant line.

DRAWINGS, SHEET C501 – PARTIAL GRADING AND DRAINAGE PLAN, revise as follows:

A. Adjusted 4" storm drain lateral at northeast corner of Bldg. D.

DRAWINGS, SHEET C502 – PARTIAL GRADING AND DRAINAGE PLAN, revise as follows:

A. Adjusted 6" storm drain invert elevations and pipe slopes south of Bldg. F.

DRAWINGS, SHEET C601 – PARTIAL UTILITY PLAN, revise as follows:

A. Add PIV to 4" fire sprinkler line in lieu of 6" fire hydrant line.
B. Added dimensions to 8" fire water main in between Bldg. C and D
C. Adjusted 8" fire main at the pump house.
D. Adjusted 4" storm drain lateral at northeast corner of Bldg. D.

DRAWINGS, SHEET C602 – PARTIAL UTILITY PLAN, revise as follows:

A. Added 6" sanitary sewer invert elevations south of building F.

DRAWINGS, SHEET E101 – ENLARGED ELECTRICAL SITE PLAN – POWER AND LIGHTING, revise as follows:

A. Updated conduit counts for feeders to buildings.
B. Updated electrical connection locations for future OFOI pressure washers at northwest corner of yard to coordinate with other disciplines.

DRAWINGS, SHEET E220 – POWER PLAN – BUILDING F, revise as follows:

A. Revised power connection to spot welder (EQ409) in Environmental Controls Lab (F10).

DRAWINGS, SHEET E810 – PANEL SCHEDULES, revise as follows:

A. Revise panel schedules noted.

DRAWINGS, SHEET E811 – PANEL SCHEDULES, revise as follows:

A. Revise panel schedules noted.

DRAWINGS, SHEET E812 – PANEL SCHEDULES, revise as follows:

A. Revise panel schedules noted.

DRAWINGS, SHEET E813 – PANEL SCHEDULES, revise as follows:

A. Revise panel schedules noted.

END OF ADDENDUM NO. 03

Jon Coulter
Architect of Record

Attachments:

- SPEC SECTION 280000 – ELECTRONIC SAFETY AND SECURITY
- SPEC SECTION 284600 – FIRE ALARM SYSTEM
- C201 – PARTIAL DEMOLITION PLAN
- C501 – PARTIAL GRADING AND DRAINAGE PLAN
- C502 – PARTIAL GRADING AND DRAINAGE PLAN
- C601 – PARTIAL UTILITY PLAN
- C602 – PARTIAL UTILITY PLAN
- E101 – ENLARGED ELECTRICAL SITE PLAN – POWER AND LIGHTING
- E220 – POWER PLAN – BUILDING 'F'
- E810 – PANEL SCHEDULES
- E811 – PANEL SCHEDULES
- E812 – PANEL SCHEDULES
- E813 – PANEL SCHEDULES

SECTION 280000
ELECTRONIC SAFETY AND SECURITY

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, apply to this section.

1.2 SUMMARY

A. Section Includes

1. This project requires the Contractor provide, label, test, document, and warranty an Intrusion Detection System and Closed-Circuit Surveillance Video System with Video Surveillance IP Cameras in conformance with this specification for the facilities of the College of the Sequoias (COS) referenced as Tulare Campus CTE.

B. The Contractor shall provide and coordinate the installation of the following:

1. All Intrusion Detection Control Panels, Power Supplies, Video Surveillance Systems Components, Cameras, Motion Detectors, Key Pads, Cabling, and all incidental flexible conduit, termination blocks, and building attachments as part of this project and scope.
2. All installation, programming, testing and systems check, including in-service training and one-year parts and labor warranty - See warranty, Division 1 - General Requirements.
3. All Service, Installation and Operations Manuals, Software (mission critical and support), and as-built documentation.

C. Related Sections

1. Section 270526 - Grounding and Bonding for Communications Systems
2. Section 270600 - Schedules for Communications
3. Section 271100 - Communications Equipment Room Fittings
4. Section 271513 - Communications Copper Horizontal Cabling
5. Section 271543 - Communications Faceplates and Connectors
6. Section 271553 - Communications Cable Plant Testing
7. Section 280600 – Schedules for Electronic Safety and Security
8. Section 283100 – Intrusion Detection Systems
9. Section 282300 – Video Surveillance Systems

1.3 PRE-INSTALLATION MEETING

A. During the execution phase of this project the selected Contractor shall be prepared to attend progress review meetings with the Owner or his/her designate.

1.4 SUBMITTALS

A. Required submittals upon award of contract, See also Division 1 - General Requirements. These submittals must be received and approved by the Engineer before commencement of work.

1. Proof of Contractor qualifications for access system and camera systems. Include confirmation that the Contractor is certified to provide and install the proposed products as well as the associated warranties.
2. Bill of materials including each part, manufacturer's part number, brief description, proposed quantities, and reference to the specification section and paragraph where the part is specified.
3. Manufacturers' cut sheets for all products to be supplied by the Contractor in response to these Division 28 Specification Sections to include manufactures' installation instructions and recommendations.
4. Field and Shop Drawings including:

    a. Overall system schematic diagram and riser drawing diagram.

    b. Camera designators.

    c. IP addressing - coordinate with the Owner

B. Required submittals prior to final acceptance.

1. Two (2) sets of CDs or DVDs of the as-built drawings (AutoCAD or AutoCAD Lite Rev 2014 or later).
2. Two (2) sets of CDs or DVDs of component testing documentation.
3. Two (2) copies of required warranties.

1.5 QUALITY ASSURANCE

A. All work shall be performed in a neat and workmanlike manner (also see Division 1 - General Requirements).

B. Product, materials, and equipment provided by the Contractor shall be of the quality specified.

C. All materials provided under this contract shall be new and of a regularly manufactured line, currently in production at the time of installation.

D. Codes: (Current editions with addenda/Technical Service Bulletins (TSB), etc.) All materials, installation, and workmanship shall comply with the applicable requirements and codes addressed within the following references:

1. National Electrical Manufacturers Association (NEMA).
2. California Electrical Code (CEC).
3. ANSI/IEEE C2, National Electrical Safety Code (NESC).
4. FCC Rules and Regulations.
5. Local, county, state, and federal regulations and codes in effect as of the bid submission date.

E. Standards: (Current editions with addenda/TSB, etc.) All materials, installation, and workmanship shall comply with the applicable requirements and standards addressed within the following references:

1. ANSI C39.1 Electrical Analog Indicating Instruments.

2. NEMA ICS 2 Industrial Control Devices, Controllers and Assemblies.
3. NEMA ICS 6 Enclosures for Industrial Control and Systems.
4. CEC .
5. NFPA 72 .
6. UL 294 Access Control System Units.
7. UL 796 Printed-Wiring Boards.
8. All products shall be Underwriters Laboratories (UL) listed or other nationally recognized testing laboratory acceptable to COS listed for the application intended.

F. Where conflicts exist from one code or standard to another, the code or standard to adhere to will be decided by the Engineer.

1.6 WARRANTIES

A. The Contractor shall provide a one (1) year material and labor warranty on all the work the Contractor has performed as stipulated in Division 1 - General Requirements.

1.7 MATERIAL SUBSTITUTIONS

A. All requests for substitutions of products shall be made and approved or disallowed during the stated bid period for this project - see Division 01.

B. Electronic PDF and a URL reference of all proposed product substitution documentation are required. Proposed product substitution documentation shall contain all the substitution requirements per Division 1 - General Requirements, including the following:

1. The product manufacturer's performance specifications cut sheet(s).
2. If existing, the manufacturer's installation instructions and/or installation recommendations for that product.

C. Acceptance of proposed substitutions is at the discretion of the Owner. Allow 10 working days for review and final decision.

D. Substitutions must comply with the warranty requirements specified above.

1.8 COORDINATION

A. Coordination of work and resolution of conflicts between project documents issued by others such as Architects, Civil Engineers, Electrical/Mechanical Engineers, Plumbing Engineers, Civil Engineers, etc., and this Division 28 specification with its construction drawings shall be the responsibility of the Contractor.

B. All door hardware shall be provided and installed by the Division 8 - Openings contractor. Coordinate door intrusion detection system connectivity with Division 8 contractor.

C. The Contractor shall coordinate the work specified in this Division 28 specification with the work of the other trades involved in this project.

D. The Contractor shall coordinate with Division 26 - Electrical, Division 27 - Communications, and Division 8 - Openings concerning provision and installation of the following:

1. Conduit and cable tray pathway for electronic safety and security system cabling.

2. Wall penetrations and floor coring for electronic safety and security systems pathway.
3. Backboxes for electronic safety and security systems hardware mounting locations.
4. Telecommunications Space and work area space power outlet requirements and placement and requirements for electronic safety and security hardware.
5. Grounding and bonding for electronic safety and security systems.
6. Door latch hardware.

E. All questions and issues regarding coordination and construction element phasing shall be directed to the Engineer.

F. The Contractor shall coordinate their work so there shall be no disruption to any occupants of the campus unless coordinated and approved by the Engineer. Any necessary disruption shall be scheduled a minimum of 4 weeks in advance of its occurrence and affected parties shall be notified in writing of date, time, and planned duration of the disruption.

G. The Contractor shall follow all rules, regulations, and instructions stipulated by this specification, general provisions of the Contract, including General and Supplementary Conditions, Division 1 - General Requirements and all Specification Sections, if issued in conjunction with this Division 28 specification with regard to the following:

1. Delivery hours.
2. Delivery locations.
3. Storage.
4. Hazardous Material.
5. Security.
6. Hours of work.
7. Safety.
8. Logistics.

1.9 INTENT OF DRAWINGS AND SPECIFICATIONS

A. The Contractor shall keep on the Project site a copy of the Specifications and Drawings, and the same shall be available at all reasonable times for inspection and use by the Owner. Any Drawings listed in the detail Specifications shall be regarded as a part thereof and of the Contract. Anything mentioned in these Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in these Specifications, shall be of like effect as though shown or mentioned in both.

B. Any failure on the part of the Contractor to observe the Specifications will be sufficient cause for the rejection of the work at any time before its acceptance.

C. The Engineer will furnish from time to time, such detail drawings, drawings, profiles, and information as the Engineer may consider necessary for Contractor's guidance to insure the proper and adequate execution of the Contract. Contractor shall comply with such detail drawings, drawings, profiles, and information.

D. Only Engineer approved shop drawings and submittals shall be used in construction.

E. See and comply with Division 01 - General Requirements.

F. DO NOT USE drawing scale to determine exact dimensions or exact location. Scaled drawings are still to be considered diagrammatic and scale should be used forestimates only. If exact lengths or location placement dimensions are required, the drawings will specifically show those dimensions or placement coordinates.

1.10 INSTALLATION

A. Provide all required materials, equipment, and tools necessary to properly complete the work of these specifications including, but not limited to, tools for pulling and terminating the cables, mounting hardware, cable ties, bolts, anchors, clamps, hangers, kits of consumables, lubricants, technician communication devices, cable testing equipment, stands for cable reels, etc.

PART 2 - PRODUCTS

2.1 SCHEDULES FOR ELECTRONIC SAFETY AND SECURITY

A. In this specification, product/material shall be specified by reference to the Product/Materials Schedule contained in Section 270600 – Schedules for Communications.

B. The Contractor shall supply a complete and functioning system; if a product/material required for this project is not listed in Section 270600 - Schedules for Communications, Products and Materials Schedule, it shall be provided by Contractor with submittal approval by the ITPC or his/her designate.

C. The Product and Materials Schedule allows for "approved equal" substitutions. When "approved equal" product/material is substituted, the "approved equal" product/material submitted shall be equivalent in every way to the product/material listed in Section 270600 - Schedules for Communications, the Products and Materials Schedule - See Division 1 General Requirements and Material Substitutions above.

2.2 QUANTITIES

A. Determining quantity of any given required item or product shall be the Contractor's responsibility.

PART 3 - EXECUTION

3.1 EXAMINATION

A. The Contractor is responsible for examining existing conditions and comparing them with drawings and specifications and notifying the Engineer.

B. The Contractor is responsible for coordinating with the Engineer to address, adjust, and resolve any discrepancies found before commencing work.

C. If a discrepancy between existing conditions and these drawings and specifications is found after commencing work, stop any work that in the Contractor's opinion is affected by the found discrepancy. It shall then be the Contractor's responsibility to resolve all issues caused by the found discrepancy before commencing work in work areas affected by the discrepancy.

3.2 VERIFICATION

A. It is incumbent upon the Contractor to verify that the installation and materials used have been inspected before they are enclosed within building features, or otherwise hidden from view. The Contractor shall bear costs associated with uncovering or exposing installations or features that have not been inspected and approved.

B. After installation, test, certify, and provide required warranties for the Electronic Safety and Security System installed per the requirements of this specification.

3.3 ADJUSTMENTS

A. The Contractor is responsible for coordinating and documenting with the Engineer the change order process. Coordinate specific needed forms and procedures for change orders with the Engineer.

3.4 LABELING

A. The Contractor is responsible for labeling and documenting all aspects of the installed infrastructure. The Contractor will not receive acceptance or final payments until the Owner agrees that labeling and documentation is completed for the project.

B. COS has multiple campuses and many individual buildings throughout the District. A labeling standard is required to develop a consistent database of infrastructure and networking documents. It is important to develop a unique labeling scheme that identifies individual buildings, Telecommunication Rooms (TRs), and cable drops identified for each unique campus. Please refer to the Owner to confirm codes and alphas for the particular campus and buildings that you are working with.

C. Each patch panel in the TR would be labeled with a patch panel number only (P1, P2, P3, etc). The manufacture jack labeling, numbers 01-48, would be used to indicate the jack number of the cables connected to the patch panel.

D. An as-built floor plan of the coverage area of the TR will be mounted inside each TR by the Contractor. The floor plan will show the rooms and drop locations fed by the TR. The physical drop faceplate and the drop location on the as-built floor plan will be labeled with the TR identification, patch panel, and jack number for each cable fed by the TR.

3.5 LIST OF REQUIRED AS-BUILT DRAWINGS

A. As stated under "Submittals" above, as-built drawing files shall be "AutoCAD" or "AutoCAD Lite" 2014 or later release.

B. Electronic Safety and Security drawings updated with final as-built information. This shall be in the form of a complete set of Electronic Safety and Security drawings with as-built information indicated in colored pen based upon actual field conditions.

C. System schematic and block diagrams for every system updated with final as-built information. These drawings shall define the exact arrangement of each system including wiring configuration, device locations, and cable types.

D. After review of as-built drawings by the Engineer, be prepared to make any required corrections for final submittal.

3.6 ACCEPTANCE

A. The project specified by this specification shall be considered completed and signed off as completed by the Engineer contingent upon the following:

B. All punch lists have been completed and signed as complete by the Engineer.

C. Required cable plant testing has been executed and required test result documentation has been submitted and approved by the Engineer.

D. Any required adjustments to as-built drawings including floor plans, rack elevations, wall elevations, and completed system wiring diagrams have been completed, submitted, and approved as complete by the Engineer.

E. Owner's manuals shall be provided for every item of equipment when available from the manufacturer. These shall be the technical manuals provided by the manufacturer and shall not consist of generic sales brochures. Technical manuals shall provide complete specifications for the equipment as well as complete operating, maintenance, troubleshooting, and product repair/replacement information. Where available only in electronic format, the Contractor may provide a CD with electronic versions of Owner's manuals. CDs containing electronic versions of Owner's manuals must contain the proper software viewers for each document type.

1. Security System Component Manuals.
    a. Keypads.
        1) test
    b. Door contacts.
    c. Motion Detector
2. Video Surveillance.
    a. Interior cameras.
    b. Exterior cameras.

F. System Operating Instructions: Provide a clear and concise description of operation that gives, in detail, the information required to properly operate the equipment and system.

G. Required warranty documentation has been submitted and approved as complete by the Engineer.

END OF SECTION 280000

SECTION 284600
FIRE ALARM SYSTEM

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, apply to this section.

1.2 SUMMARY:

A. Section Includes

1. This section includes the furnishing, installation, connection and programming of new microprocessor controlled, networked addressable reporting fire alarm equipment to form a complete coordinated system ready for operation. It shall include, but not be limited to a fire alarm panel, alarm initiating devices, alarm notification appliances, auxiliary monitoring and control devices.

2. This Section includes the furnishing of all labor, equipment, materials, and performance of all operations associated with the installation of the Fire Alarm System as required by the drawings and specified herein.

3. The Contractor shall furnish and install booster power panels, initiation devices and circuits, notification appliances and circuits, control relays, monitor modules and supervisory devices, as required to accomplish this intent whether or not specifically shown or specified.

B. The complete installation shall conform to the applicable sections of NFPA 72, state code requirements and the 2019 California Electrical Code with particular attention to Article 760.

C. The work specified herein shall be coordinated with the related work as specified elsewhere under the project specifications.

1.3 SUBMITTALS

A. Submittals for this Section shall be made according to the Conditions of the Contract, Division 01 Specification Sections and Specification Section 260100 “General Conditions for Electrical Work”.

B. General:

1. Electronic submittals shall be submitted to the Architect/Engineer for review.
2. For equipment other than that specified, the contractor shall supply proof that such substitute equipment equals or exceeds the features, functions, performance, and quality of the specified equipment.

C. Shop Drawings:

1. Sufficient information, clearly presented, shall be included to determine compliance with drawings and specifications.
2. Include manufacturer's name(s), model numbers, ratings, power requirements, equipment layout, device arrangement, complete wiring point-to-point diagrams, and conduit layouts.
3. Show remote annunciator(s) layout, configurations, and terminations.
4. Shop drawings shall show valid Contractor’s C-10 license, wet-signed by C-10 license holder.

D. Manuals:

1. Submit simultaneously with the shop drawings, complete operating and maintenance manual listing the manufacturer's name(s) including technical data sheets.
2. Wiring diagrams shall indicate internal wiring for each item of equipment and the interconnections between the items of equipment.
3. Provide a clear and concise description of operation that gives, in detail, the information required to properly operate the equipment and system.

E. Certifications:

1. Together with the shop drawing submittal, submit a certification from the major equipment manufacturer indicating that the proposed supervisor of installation and the proposed performer of contract maintenance is an authorized representative of the major equipment manufacturer. Include names and addresses in the certification.

1.4 WARRANTY

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 and is part of this Contract.

1.5 APPLICABLE STANDARDS:

A. The specifications and standards listed below form a part of this specification. The system shall fully comply with these standards.

1. 2016 NFPA 72 National Fire Alarm Code
2. 2019 California Electrical Code (CEC)
3. 2019 California Fire Code (CFC)
4. 2019 California Mechanical Code (CMC)
5. 2019 California Building Code (CBC)
6. Underwriters Laboratories Inc. (UL) - USA:
7. California State Fire Marshal
8. All requirements of the Authority Having Jurisdiction (AHJ).

1.6 APPROVALS:

A. The system shall have proper listing and/or approval from the following nationally recognized agencies:

1. UL Underwriters Laboratories Inc.
2. CSFM California State Fire Marshal

1.7 CLOSEOUT SUBMITTAL

A. The Contractor shall furnish a reduced set of “as-built” record drawings on 11”x17” bond paper in a plastic cover showing locations of all devices and the proper address of the device as it is displayed on the LCD annunciator at the fire alarm control panels and/or remote annunciators. This reduced set shall be located adjacent to the fire alarm control panel for the reference of the Authority Having Jurisdiction.

B. The Contractor shall submit closeout submittal documentation consisting of the following items:

1. Full size fire alarm “as-built” record drawings; drawings shall show valid Contractor’s C-10 license, wet-signed by C-10 license holder.
2. Device cut sheets and CSFM listing services;
3. A copy of the Fire Alarm System Record of Completion signed by the Installer and the Inspector of Record;
4. Owner’s Manuals and Operating Instructions.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

A. This emergency voice alarm communication and fire alarm system design is based on the use of microprocessor-based addressable emergency voice alarm communication and fire alarm control equipment, initiation devices and notification appliances equipment manufactured by Gamewell-FCI.

2.2 EMERGENCY VOICE ALARM COMMUNICATION AND FIRE ALARM CONTROL PANEL (FACP):

A. The Fire Alarm Control Panel shall be the Fire Control Instruments E3 Series Expandable Emergency Evacuation Addressable Fire Control Panel. The Fire Alarm Control Panel shall have the capacity to support ten (10) separate addressable signal loop circuits. The fire alarm control panel shall be complete with cabinets, batteries, battery charger and all miscellaneous components required for a complete and fully functional networked fire alarm system. In addition the fire alarm control panel shall include the following:

1. One (1) ILI-MB-E3 Intelligent Loop Interface – Main Board;
2. One (1) ILI-S-E3 Intelligent Loop Interface – Expansion Boards;
3. One (1) LCD-E3 LCD Keypad Displays;
4. One (1) DACT-E3 Digital Alarm Communicator Transmitter;
5. One (1) PM-9 Power Supply Module.
6. One (1) INI-VGX Intelligent Network Voice Gateway

B. Digital Alarm Communicator Transmitter (DACT)

1. Listed and labeled under UL 864 and NFPA 72.

2. Functional Performance: Unit receives an alarm, supervisory, or trouble signal from the FACP panel, and automatically captures one or two telephone lines and dials a preset number for a remote central station. When contact is made with the central station(s), the signal is transmitted. The unit supervises up to two telephone lines. Where supervising two lines, if service on either line is interrupted for longer than 45 seconds, the unit initiates a local trouble signal and transmits a signal indicating loss of telephone line to the remote alarm receiving station over the remaining line. When telephone service is restored, unit automatically reports that event to the central station. If service is lost on both telephone lines, the local trouble signal is initiated.

3. The DACT shall be Carrier Information Code (CIC) compliant and shall transmit all popular transmission formats and shall have a sixteen digit telephone number field. The Contractor shall coordinate with the District's UL Listed central monitoring station and ensure compatible transmission format.

4. Self Test: Conducted automatically every 24 hours with report transmitted to central station.

C. Batteries:

1. Shall be maintenance free, VRLA AGM lead-acid type.

2. Batteries shall have sufficient capacity to power the fire alarm system for not less than twenty-four hours plus 15 minutes of alarm upon a normal AC power failure.

3. The batteries are to be completely maintenance free. No liquids are required. Fluid level checks refilling, spills and leakage shall not be required.

2.3 INITIATION DEVICES

A. Manual Pull Stations

1. Manual Pull Station

a. Manual Pull Stations shall be the type that are acceptable to the DSA and that meet the DSA interpretation of ADA requirements for manual pull stations.

1) Manual Pull Stations shall not require tight grasping, pinching or twisting of the wrist, per CBC 11B-309.4.

2) Manual Pull Stations shall have Braille text operating instructions molded into the case.

b. Manual Pull Stations may be addressable devices or conventional non-addressable devices that are individually monitored through an addressable monitor module.

c. Manual Pull Stations shall use a key operated test-reset lock, and shall be designed so that after actual emergency operation, they cannot be restored to normal use except by the use of a key.

d. All operated stations shall have a positive, visual indication of operation that cannot be reset without the use of a key.

e. Manual Stations shall be constructed of LEXAN (or polycarbonate equivalent) with clearly visible operating instructions provided on the cover. The word FIRE shall appear on the front of the stations in raised letters, 1.75 inches or larger.

f. Stations shall be suitable for surface mounting or semi-flush mounting.

B. Smoke Detectors

1. Addressable Photoelectric Smoke Detectors

a. Smoke detectors shall be addressable and shall connect with two wires to the Fire Alarm Control Panel Signaling Line Circuit.

b. The detectors shall use the photoelectric (light-scattering) principal to measure smoke density.

c. The detectors shall be low profile ceiling-mount and shall include a twist-lock base.

d. The detectors shall provide a test means whereby they will simulate an alarm condition and report that condition to the control panel. Such a test may be initiated at the detector itself (by activating a switch) or initiated remotely on command from the control panel.

e. The detectors shall store an internal identifying code that the control panel shall use to identify the type of detector.

f. The detectors shall provide an alarm and power LED. The LED shall flash under normal conditions, indicating that the detector is operational and in regular communication with the control panel. The LED is placed into steady illumination by the control panel indicating that an alarm condition has been detected. An output connection shall also be provided in the base to connect an external remote alarm LED.

C. Waterflow Switches (System Sensor WFD Series)

1. Waterflow switches shall be integral, mechanical, non-coded, non-accumulative retard type.

2. Waterflow switches shall have an alarm transmission delay time that is conveniently adjustable from 0 to 60 seconds.

3. Waterflow switches shall be located a minimum of one (1) foot from a fitting that changes the direction of the flow and a minimum of three (3) feet from a valve.

4. Each waterflow switch shall be individually monitored by an addressable monitor module that is connected to the initiation device circuit of the fire alarm system.

D. Sprinkler and Standpipe Valve Supervisory Switches:

1. Each sprinkler system water supply control valve riser or zone control valve, and each standpipe system riser control valve shall be equipped with a supervisory switch. Standpipe hose valves, and test and drain valves shall not be equipped with supervisory switches.

2. Each Post Indicator Valve (PIV) shall be equipped with a supervisory switch.

3. Mount switch so as not to interfere with the normal operation of the valve and adjust to operate within two revolutions toward the closed position of the valve control, or when the stem has moved no more than one-fifth of the distance from its normal position.

4. The mechanism shall be contained in a weatherproof aluminum housing, that shall provide a 3/4-inch tapped conduit entrance and incorporate the necessary facilities for attachment to the valves.

5. Switch housing to be finished in red baked enamel.

6. The entire installed assembly shall be tamper proof and arranged to cause a switch operation if the housing cover is removed, or if the unit is removed from its mounting.

7. Each valve supervisory switch shall be individually monitored by an addressable monitor module that is connected to initiation device circuit of the fire alarm system.

2.4 ADDRESSABLE MODULES, CONTROL RELAYS, AND AUXILIARY DEVICES

A. Addressable Monitor Module

1. Addressable Monitor modules shall be provided to connect one supervised IDC (zone) of conventional Alarm Initiating Devices (any N.O. dry contact device) to the Fire Alarm Control Panel Signaling Line Circuit (SLC) Loop.

2. The monitor module shall be mounted in a 4-inch square, 2-1/8" deep electrical box.

3. The IDC (zone) may be wired for Style D (Class A) or Style B (Class B) operation. The Monitor module shall provide address-setting means using decimal switches and shall also store an internal identifying code that the Fire Alarm Control Panel shall use to identify the type of device. An LED shall be provided that shall flash under normal conditions, indicating that the Monitor module is operational and in regular communication with the control panel.

2.5 TRANSPONDERS

A. Operate in peer-to-peer fashion with other panels and transponders in system.

1. Each transponder shall store copy of audio evacuation messages and tones.

B. System shall be of multiprocessor design to allow maximum flexibility of capabilities and operation. INX shall receive, transmit, and regenerate voice, fire fighter phones, and data over single pair of wire or fiber optic cable.

C. INX shall provide full multi-channel distributed voice messaging, with integrated switching amplification, and SLC and extended phone riser. INX shall communicate with network system in true peer-to-peer fashion operating at 625 K baud over any combination of fiber or wire media. INX shall consist of the following units and components.

D. System Cabinet: System cabinet shall be surface or semi-flush mounted with texture finish and shall consist of 4 parts, back box, back plate, inner door, and outer door. System cabinet houses INI-VG, PM-9 power supply, up to 4 - AM50, microphone, and related circuitry.

E. Intelligent Network Interface Voice Gateway (INI-VG): INI-VG shall be a multi-function board interchangeable in both INCC and INX. Functions of board shall include the following features as a minimum:

F. Network interface operating at 625 K baud configurable with any combination of wire and/or fiber topologies. Interface shall communicate with up to 64 total INCC, INX, and 7100 control panels in peer-to-peer fashion.

G. Signaling Line Circuit (SLC): INI-VG shall generate local SLC to communicate with and control up to 16 AOM-TEL modules and 32 AOM-2S or AOM-MUX circuits for fire phone interfacing and additional split-speaker circuits. Provide one (1) ILI-S-E3 Intelligent Loop Interface – Expansion Board.

H. RS-485: Provide capability to communicate with up to 16 ASM-16 modules, when used in INX mode up to 3,000 feet.

I. Advanced Processing: INI-VG shall incorporate latest in digital signaling processing technology with supporting Boolean logic including AND, OR, NOT, TIME DELAY functions.

J. Voice Generation: INI-VG shall incorporate all processing to allow for 16 distinct pre-recorded messages used in priority fashion with message 1 as highest priority. Total length for 1 to 16 messages shall be up to 3 minutes.

K. Power Supply Module (PM-9): PM-9 power supply shall supply all power necessary under normal and emergency conditions. Power supply shall provide capacity to charge up to 55 amp-hour batteries while under full load. Technology used shall be of power-saving switching configuration, eliminating need of stepping transformer.

L. Audio Amplifier (AM-50): Include as a minimum, the following features:

M. 50-watt switching audio amplifier, requiring no transformer when used in 25-watt mode.

N. 2 individually addressable speaker circuits, each with capability of handling part or all of 50-watt supplied power.

O. Power shall be 24 VDC supplied via terminal block from local PM-9 power supply.

P. Ability to select from 1 of 16 pre-programmed messages in INI-VG, and paging from locally or from INCC Command Center.

Q. Back-up amplification configurable so 1 AM-50 can perform back-up or 3, or perform 1-to-1 back-up if configured to do so in programming.

R. Status LEDs to indicate normal operation and trouble condition.

2.6 NOTIFICATION APPLIANCES

A. Microphone Assembly: Include the following items:

1. Mounting cabinet
2. Interconnect cable for connection of microphone to INI-VG.
3. 1 noise canceling microphone with push-to-talk button.

B. Speakers

1. ADA/NFPA/ANSI compliant
2. Complies with OSHA 29 Part 1910.165
3. Ceiling mount strobe models are available with field selectable candela settings of 15/30/75/95cd or 115/177cd (Multi-candela models)
4. Strobes produce 1 flash per second over the regulated voltage range
5. 24 VDC with wide UL “Regulated Voltage” using filtered DC or unfiltered VRMS input voltage
6. Field selectable taps for 25 or 70 VRMS operation from 1/8 watt up to 2 watts (indoor), 1/8 watt up to 8 watt (outdoor)
7. High efficiency design for maximum output at minimum wattage across a frequency range of 400 to 4000 HZ
8. Fast installation with IN/OUT screw terminals using #12 to #18 AWG wires
9. Optional Extender (E60 Ext) is for mounting to 4” backboxes with no extension ring.
10. Weatherproof with extended temperature range of –40°F to 150°F (-40°C to 66°C)

C. Strobes

1. Strobes are visual notification appliances for the hearing impaired.
2. Strobes shall operate on 24 VDC nominal.
3. Strobes shall meet the requirements of the ADA (Americans with Disabilities Act) as well as UL Standard 1971 and CBC.
4. Strobes shall be flush mounted in an electrical box in accordance with the manufacturer’s installation instructions.

D. Combination Speaker/Strobes

1. ADA/NFPA/ANSI compliant
2. Complies with OSHA 29 Part 1910.165
3. Ceiling mount strobe models are available with field selectable candela settings of 15/30/75/95cd or 115/177cd (Multi-candela models)
4. Strobes produce 1 flash per second over the regulated voltage range
5. 24 VDC with wide UL “Regulated Voltage” using filtered DC or unfiltered VRMS input voltage
6. Field selectable taps for 25 or 70 VRMS operation from 1/8 watt up to 2 watts

7. High efficiency design for maximum output at minimum wattage across a frequency range of 400 to 4000 HZ

8. Fast installation with IN/OUT screw terminals using #12 to #18 AWG wires

9. Optional Extender (E60 Ext) is for mounting to 4” backboxes with no extension ring.

PART 3 - EXECUTION

3.1 EQUIPMENT INSTALLATION

A. Installation shall be in accordance with the CEC, NFPA 72, local and state codes, as shown on the drawings, and as recommended by the equipment manufacturer.

B. All fire detection and alarm system devices, control panels and remote annunciators shall be flush mounted when located in finished areas and may be surface mounted when located in unfinished areas.

3.2 WIRING INSTALLATION

A. Fire Alarm System initiation device circuits and notification appliance circuits shall be installed in conduit. The minimum conduit size shall be ¾”.

B. All conduit, junction boxes, conduit supports and hangers shall be concealed in finished areas and may be exposed in unfinished areas. Smoke detectors shall not be installed prior to the system programming and test period. If construction is ongoing during this period, measures shall be taken to protect smoke detectors from contamination and physical damage.

C. Power-Limited Circuits: CEC, Types FPL, FPLR, or FPLP, as recommended by manufacturer.

D. The Fire Alarm Control Panel shall be connected to a separate dedicated 120V, 20A branch circuit with a dedicated neutral conductor and an equipment grounding conductor. Provide and install circuit breaker locking devices on each circuit breaker supplying fire alarm system equipment and provide and install a red label that reads: "FIRE ALARM“ adjacent to the circuit breaker.

E. Fire Alarm Booster Power Panel Primary Power wiring shall be 12 AWG. The Fire Alarm Panel cabinet shall be grounded.

3.3 GROUNDING

A. Ground cable shields and equipment according to system manufacturer's written instructions to eliminate shock hazard and to minimize, to the greatest extent possible, ground loops, common-mode returns, noise pickup, cross talk, and other impairments.

B. Signal Ground Terminal: Locate at main equipment rack or cabinet. Isolate from power system and equipment grounding.

3.4 PROGRAMMING

A. The Contractor shall provide all programming of the Fire Alarm System to result in a complete and functional Fire Alarm System in accordance with all applicable codes and standards, and as specified herein.

B. Zone Programming:

1. The Contractor shall provide zone programming for the Fire Alarm System as follows:

a. Each section of a floor in a building that is separated by area separation walls or by horizontal exits shall be programmed as a separate zone.

b. Additional zones shall be programmed where deemed necessary by the authority having jurisdiction.

2. Zone programming for the Fire Alarm System shall match the zone map (refer to Article titled, IDENTIFICATION AND DOCUMENTATION, for zone map requirements.)

C. LCD Annunciation

1. The Contractor shall program the LCD annunciator at the Fire Alarm Control Panel and remote LCD annunciators to annunciate the following information:

a. The zone that is in alarm.

b. The type of alarm initiating device:

1) Smoke Detector.
2) Other.

c. The location of the device that is in alarm (refer to Part 3 Article titled, IDENTIFICATION AND DOCUMENTATION, for device map location requirements.)

D. Controls

1. The Contractor shall utilize addressable control relays and auxiliary relays and shall program the fire alarm system control panel to cause the closure of fire/smoke dampers and provide a signal for HVAC units to shut down.

E. Remote Monitoring Station

1. Contractor shall coordinate with the Remote Monitoring Station and program the system to report the number of points purchased by the Owner. Prior to the start of programming, Contractor shall verify how many point signals, above and beyond minimum code requirements, shall be transmitted to the monitoring station with Owner.

2. Where the new fire alarm control panel is tied to an existing fire alarm control panel, the Contractor shall program the existing fire alarm panel to accept and respond to alarm and trouble initiation signals from the new fire alarm control panel.

3.5 IDENTIFICATION AND DOCUMENTATION

A. Zone Map – The Contractor shall create an 11”x17” site plan identifying each building and identifying the zones. The zone map shall be created by a CAD program and shall be posted under plastic cover at the location of the fire alarm control panel.

B. Device Location Map – For each building, the Contractor shall create an 11”x17” floor plan of the building showing the location of each device and the device address as it is annunciated at the control panel and remote annunciator. The device location map shall be created by a CAD program and shall be posted under plastic cover at the location of the fire alarm control panel or fire alarm booster power supply within each building.

C. Documentation Cabinet – Provide a documentation cabinet marked “FIRE ALARM SYSTEM RECORD DOCUMENTS” located adjacent to each fire alarm control unit.

D. Provide a red label at each branch circuit breaker that supplies power to the Fire Alarm Control Panel and Fire Alarm Booster Power Panels that reads: "FIRE ALARM”.

3.6 ACCEPTANCE TESTING AND CERTIFICATION

A. Prior to the final acceptance test provide the service of a competent, factory-trained engineer or technician authorized by the manufacturer of the fire alarm equipment to technically supervise and participate during all of the adjustments and tests for the system:

1. Before energizing the cables and wires, check for correct connections and test for short circuits, ground faults, continuity, and insulation.
2. Open initiating device circuits and verify that the trouble signal actuates.
3. Open and short signaling line circuits and verify that the trouble signal actuates.
4. Open and short Notification Appliance Circuits and verify that trouble signal actuates.
5. Ground all circuits and verify response of trouble signals.
6. Check presence and audibility of tone at all alarm notification devices.
7. Check installation, supervision, and operation of all addressable smoke detectors using the Walk Test.
8. Each of the alarm conditions that the system is required to detect should be introduced on the system. Verify the proper receipt and the proper processing of the signal at the FACP and the correct activation of the control points.
9. When the system is equipped with optional features, the manufacturer's manual should be consulted to determine the proper testing procedures. This is intended to address such items as verifying the controls performance by individually addressed or grouped devices, sensitivity monitoring, verification functionality and similar.

B. At the final inspection a manufacturer-trained representative shall demonstrate that the system functions properly in every respect.

C. Upon completion of the installation, a test of the entire system shall be performed in the presence of the Project Inspector 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.

D. 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.

E. Complete the NFPA 72 Record of Completion, testing all devices and appliances. Provide a copy of the completed Record of Completion to the Owner (School District), Architect, Local Fire Authority and DSA via the Project Inspector.

3.7 DEMONSTRATION AND TRAINING

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 and/or the Systems Manufacturer's representatives shall provide a typewritten "Sequence of Operation" to the Owner.

END OF SECTION 284600

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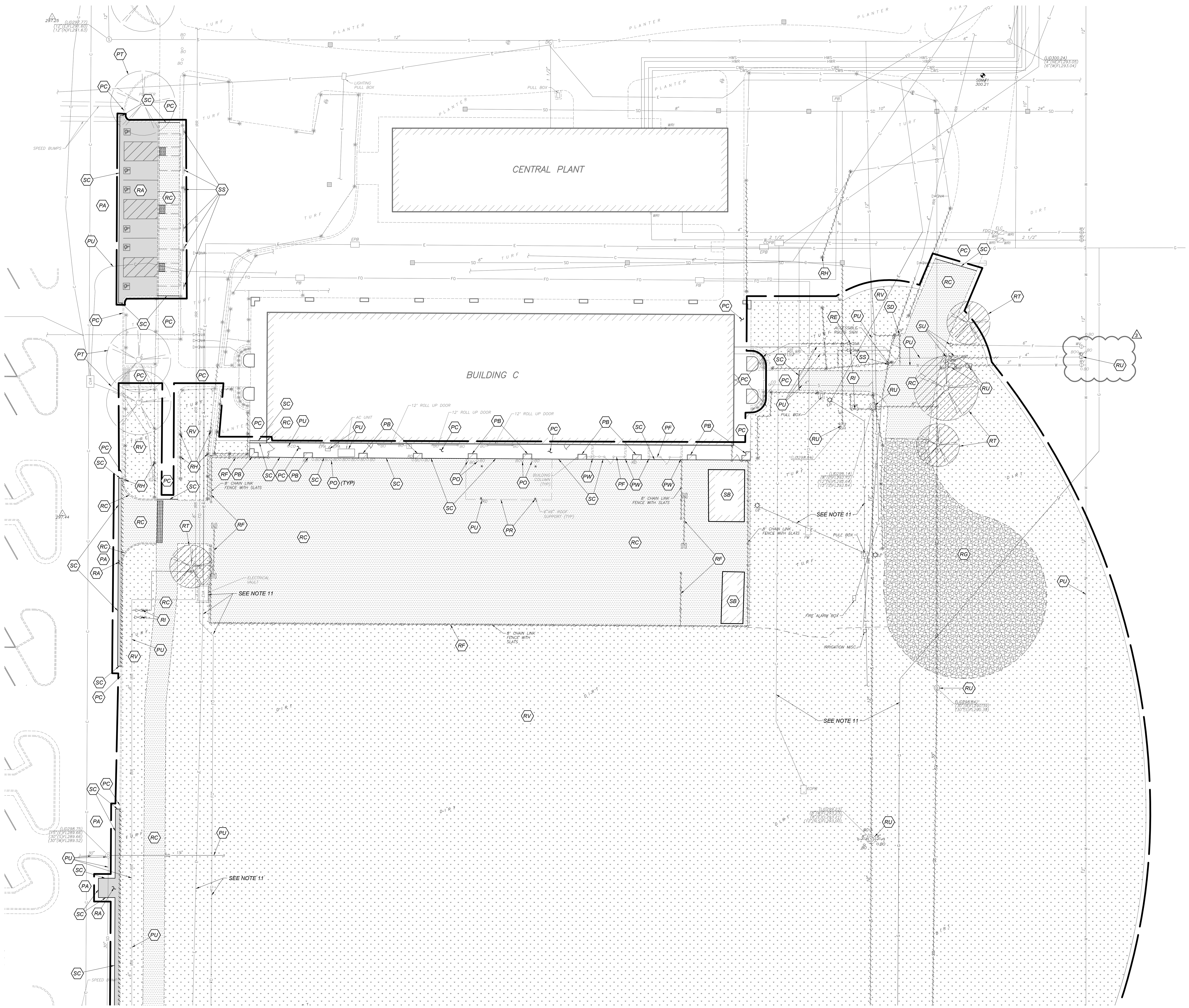

SEE SHEET C202

DEMOLITION LEGEND:

Symbol	Description
— — (heavy dashed line)	REMOVE EXISTING IMPROVEMENTS AS NECESSARY TO CONSTRUCT NEW IMPROVEMENTS SHOWN ON THESE PLANS UNLESS OTHERWISE NOTED. THE REMOVAL OF IMPROVEMENTS MUST BE COORDINATED WITH ALL PLAN SHEETS. CONTRACTOR MUST ALSO COORDINATE REMOVAL OF IMPROVEMENTS WITH UTILITY AGENCIES. PROTECT ALL IMPROVEMENTS NOT DESIGNATED FOR REMOVAL. SEE NOTE 1
(hatch)	LIMITS OF VEGETATION REMOVAL
(hatch)	LIMITS OF CONCRETE IMPROVEMENT REMOVAL
(hatch)	LIMITS OF ASPHALTIC CONCRETE IMPROVEMENT REMOVAL
(hatch)	LIMITS OF GRAVEL REMOVAL
CP	PLACE WATERTIGHT CAP ON EXISTING SEWER LINE 6" OUTSIDE MANHOLE.
PA	PROTECT ASPHALT CONCRETE PAVEMENT TO REMAIN
PB	PROTECT BUILDING TO REMAIN
PC	PROTECT CONCRETE IMPROVEMENTS TO REMAIN
PF	PROTECT FENCE TO REMAIN
PO	PROTECT BOLLARD TO REMAIN
PR	PROTECT ROOF OVERHANG AND COLUMNS
PS	PROTECT SIGN TO REMAIN
PT	PROTECT TREE AND ROOTS TO REMAIN
PU	PROTECT UTILITY TO REMAIN
PW	PROTECT CMU WALL TO REMAIN
RA	REMOVE AND LAWFULLY DISPOSE OF ASPHALT CONCRETE PAVEMENT STRUCTURAL SECTION
RC	REMOVE AND LAWFULLY DISPOSE OF CONCRETE IMPROVEMENTS
RE	SALVAGE AND RELOCATE EXISTING REMOTE CONTROL VALVE, SEE SHEET L101
RF	SALVAGE CHAIN LINK FENCE FABRIC WITH SLATS, POST, GATES, AND HARDWARE.
RG	REMOVE AND LAWFULLY DISPOSE OF GRAVEL
RH	SALVAGE AND RELOCATE SPRINKLER HEAD, SEE IRRIGATION PLAN - SHEET L101
RI	SALVAGE EXISTING REMOTE CONTROL VALVE AND RETURN TO OWNER
RO	REMOVE AND LAWFULLY DISPOSE OF PIPE BOLLARDS AND FOOTINGS
RT	REMOVE AND LAWFULLY DISPOSE OF TREE AND ROOTS
RU	REMOVE AND LAWFULLY DISPOSE OF UTILITY
RV	REMOVE VEGETATION TO A MINIMUM DEPTH OF 4"
SC	SAWCUT
SB	SALVAGE METAL STORAGE BUILDING, SEE SITE PLAN FOR NEW LOCATION
SD	REMOVE AND SALVAGE DRINKING FOUNTAIN, RETURN TO OWNER.
SS	SALVAGE SIGN AND POST FOR RELOCATION, SEE SITE PLAN
SU	SALVAGE UTILITY, SEE UTILITY PLAN FOR NEW LOCATION
(tree symbol)	REMOVE TREE
(line)	LIMIT OF CHAIN LINK FENCE REMOVAL
F	LIMIT OF FIRE LINE REMOVAL
IRR	LIMIT OF IRRIGATION MAIN LINE REMOVAL
SD	LIMIT OF STORM DRAIN LINE REMOVAL
S	LIMIT OF SEWER LINE REMOVAL
W	LIMIT OF WATER LINE REMOVAL
(line)	LIMIT OF STRIPING REMOVAL
L	LIMIT OF IRRIGATION LATERAL LINE REMOVAL
[	CONSTRUCT 8" THICK BRICK AND MORTAR PLUG

GENERAL DEMOLITION NOTES:

1. THE "LIMIT OF DEMOLITION" SHOWN IS APPROXIMATE AND IS GENERALLY CONSIDERED TO BE THE MINIMUM REMOVAL REQUIREMENTS. CONTRACTOR MUST COORDINATE AS NOTED IN THE LEGEND.
2. CONTRACTOR SHALL LEGALLY DISPOSE OF ALL DEMOLISHED MATERIALS OFF SITE.
3. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITY IMPROVEMENTS NOT SPECIFICALLY DESIGNATED FOR REMOVAL.
4. THE ON-SITE UNDERGROUND UTILITIES SHOWN ON THIS SHEET ARE AT APPROXIMATE LOCATIONS. THE EXTENT, LOCATIONS AND SIZES ARE UNKNOWN. THE CONTRACTOR SHALL POTHOLE TO LOCATE AND VERIFY THE UNDERGROUND UTILITY LINES PRIOR TO REMOVAL.
5. CONTRACTOR TO PROTECT AND PRESERVE IN PLACE ANY FOUND SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE RESET BY A CALIFORNIA LICENSED SURVEYOR AND THE APPROPRIATE PAPERWORK FILED WITH THE CITY OR COUNTY, AT CONTRACTOR'S EXPENSE.
6. ALL HAZARDOUS MATERIALS ENCOUNTERED DURING SITE DEMOLITION SHALL BE REMEDIATED AND DISPOSED OF PER STATE AND EPA REQUIREMENTS.
7. CONTRACTOR SHALL CONTACT AND COORDINATE WITH ALL UTILITY AGENCIES PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION.
8. ANY EXISTING UTILITIES AND/OR IMPROVEMENTS WHICH ARE TO REMAIN, THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE OWNER AND AGENCY HAVING AUTHORITY, AT THE CONTRACTOR'S SOLE EXPENSE.
9. REMOVE EXISTING IMPROVEMENTS AS NECESSARY TO CONSTRUCT NEW IMPROVEMENTS SHOWN ON THESE PLANS.
   a) FOR CONCRETE REMOVAL, REMOVE TO THE NEXT NEAREST TOOLED JOINT OR EXPANSION JOINT OF IMPROVEMENTS DESIGNATED TO REMAIN.
   b) FOR ASPHALTIC PAVEMENT REMOVAL. SAWCUT TO A STRAIGHT, CLEAN EDGE AT LOCATIONS INDICATED ON THE PLANS.
10. REMOVE TREE TO MINIMUM DEPTH OF 3' OR TO BOTTOM OF ROOTBALL, WHICHEVER IS DEEPER.
11. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND ARCHITECTURAL PLANS FOR ADDITIONAL DEMOLITION AND COORDINATION.
12. NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAVE BEEN APPROVED BY DSA.

SCALE: 1"=20'

0 5 20 40
SCALE IN FEET

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

MARK	DATE	DESCRIPTION
3	12/15/2022	ADDENDUM 03
	11/1/2022	DSA BACKCHECK

REGISTERED PROFESSIONAL ENGINEER LANE R. BADER No. 47033 CIVIL STATE OF CALIFORNIA

12/15/2022
Date Signed:

TETER, LLP
FRESNO HEADQUARTERS
VISALIA I BAKERSFIELD I MODESTO I SAN LUIS OBISPO
ARCHITECTS ENGINEERS CONNECTED
TETER

TULARE CAMPUS CTE
COLLEGE OF THE SEQUOIAS
4999 E. BARDSLEY AVE.
TULARE, CA

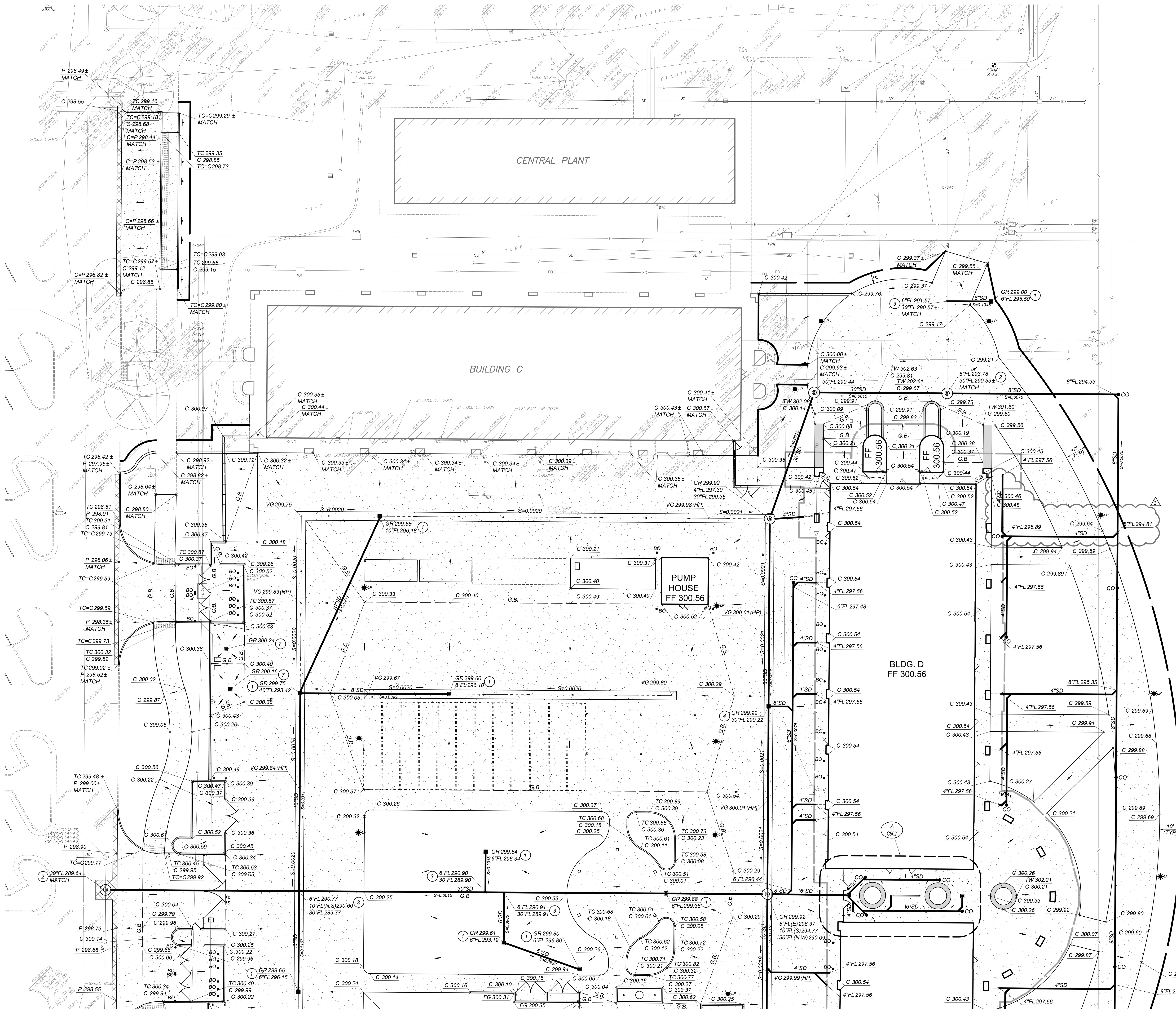
DRAWING TITLE
PARTIAL DEMOLITION PLAN

PROJECT NO.
20-12032

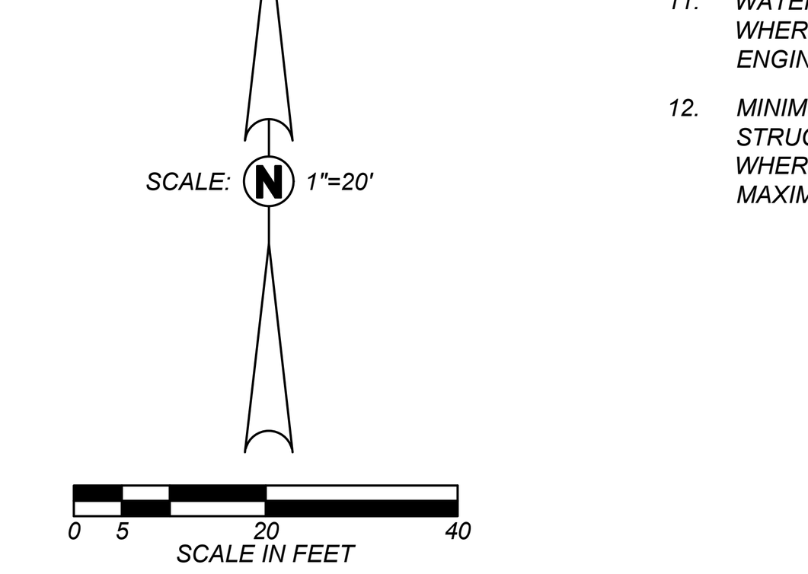
DRAWING
C201

Drawing: P:\221-0340\Site\productiondrawings\221340_de01.dwg; C201 - ----
Plot by: balvarez Dec 15, 2022 - 2:51pm

PLOT DATE: 12/15/2022 2:51:45 PM



SEE SHEET C502



GRADING AND DRAINAGE LEGEND:

C	CONCRETE
D	DIRT
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOWLINE
G	GUTTER
GR	STORM DRAIN GRATE
HP	HIGH POINT
MS	MOWSTRIP
P	PAVEMENT
TC	TOP OF CURB
TD	TRENCH DRAIN GRATE
TW	TOP OF WALL
VG	VALLEY GUTTER
(344.9)	EXISTING ELEVATION
328.78	NEW FINISHED GRADE
	DIRECTION OF SURFACE DRAINAGE
	BUILDING OVER-EXCAVATION LIMITS; SEE DETAIL [A/X102]
G.B.	GRADE BREAK
	LIMITS OF GRADING
S=0.0050	PIPE SLOPE AND DIRECTION OF FLOW
	SWALE AND DIRECTION OF FLOW
1	V12 STORM DRAIN INLET CASE 1 PER DETAIL [I/X102]
2	CONNECT TO EXISTING STORM DRAIN LINE WITH WATER-TIGHT CONNECTION. VERIFY SIZE, DEPTH, AND LOCATION.
3	CONNECT TO SPRINGLINE OF STORM DRAIN LINE WITH WATER-TIGHT CONNECTION.
4	V12 STORM DRAIN INLET CASE 2 PER DETAIL [I/X102]
5	TRENCH DRAIN PER DETAIL [O/X101]. FURNISH AND INSTALL CHANNEL NUMBERS: KS1-1 THROUGH KS1-4.
6	TRENCH DRAIN PER DETAIL [O/X101]. FURNISH AND INSTALL CHANNEL NUMBERS: KS1-1 THROUGH KS1-17.
7	PRESSURE WASHER DRAIN INLET, SEE PLUMBING PLANS
8	STORM DRAIN MANHOLE CLASS I PER DETAIL [F/X102]
D	STORM DRAIN MANHOLE PER DETAIL [F/X102]
●CO	SURFACE CLEANOUT PER DETAIL [H/X102]
6"SD	STORM DRAIN PIPELINE; SIZE AS NOTED. TRENCH AND BACKFILL PER DETAIL [C/X102]
S=0.0020	FLOWLINE SLOPE AND DIRECTION OF FLOW

GENERAL GRADING AND DRAINAGE NOTES:

THE REQUIREMENTS AND INFORMATION SET OUT BELOW ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE AND DO NOT ENCOMPASS ALL PROJECT REQUIREMENTS DESCRIBED BY THE PROJECT PLANS AND SPECIFICATIONS AND/OR APPLICABLE LAWS, REGULATIONS AND/OR BUILDING CODES.

1. CONSTRUCTION OF ALL PROJECT SITE IMPROVEMENTS SUBJECT TO ADA ACCESS COMPLIANCE, INCLUDING ACCESSIBLE PATH OF TRAVEL, CURB RETURNS, PARKING STALL(S) AND UNLOADING AREAS, BARRIER FREE AMENITIES AND/OR OTHER APPLICABLE SITE IMPROVEMENTS SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT, CALIFORNIA TITLE 24, THE CALIFORNIA BUILDING CODE, CURRENT EDITION(S).
2. CONTRACTOR SHALL FIELD VERIFY ALL GRADES AND SLOPES PRIOR TO THE PLACEMENT OF CONCRETE AND/OR PAVEMENT FOR CONFORMANCE WITH ADA ACCESS COMPLIANCE REQUIREMENTS. EXAMPLES OF MINIMUM AND MAXIMUM LIMITS RELATED TO ADA ACCESS COMPLIANCE INCLUDE, BUT ARE NOT LIMITED TO:
   a) ACCESSIBLE PATH OF TRAVEL CROSS-SLOPE SHALL NOT EXCEED 2%
   b) ACCESSIBLE PATH OF TRAVEL LONGITUDINAL SLOPES SHALL NOT EXCEED 5%
   c) RAMP LONGITUDINAL SLOPES SHALL NOT EXCEED 8.33%
   d) ACCESSIBLE WALKS SHALL NOT HAVE LESS THAN 48 INCHES IN UNOBSTRUCTED WIDTH
   e) ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION
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3. CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IDENTIFIED BY THE PROFESSIONAL ENGINEERING SEAL AND SIGNATURE ON THESE PLANS, OF ANY SITE CONDITION(S) AND/OR DESIGN INFORMATION THAT PREVENTS THE CONTRACTOR FROM COMPLYING WITH THE LAWS, REGULATIONS AND/OR BUILDING CODES GOVERNING ADA ACCESS COMPLIANCE.
4. GROUND SLOPES AWAY FROM BUILDING PADS IN LANDSCAPED OR DIRT AREAS SHALL BE NO LESS THAN 5% FOR AT LEAST TEN (10) FEET, OR AS OTHERWISE NOTED ON THE PLANS.
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8. THE CONTRACTOR SHALL IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE PROJECT SPECIFICATIONS AND THE STATE WATER RESOURCES CONTROL BOARD'S CONSTRUCTION GENERAL PERMIT. IMPLEMENT BEST MANAGEMENT PRACTICES WITHIN PUBLIC RIGHT OF WAY PER LOCAL JURISDICTION REQUIREMENTS.
9. AS A FIRST ORDER OF WORK, THE CONTRACTOR SHALL POT HOLE THE EXISTING UTILITY LINES AT THE POINT OF CONNECTION TO VERIFY THE LOCATION, SIZE, PIPE MATERIAL AND ELEVATION SO THAT THE ENGINEER CAN MAKE ELEVATION AND/OR ALIGNMENT ADJUSTMENTS IF NECESSARY. SHOULD POT HOLING DISCOVER ANY DISCREPANCIES, CONTACT THE ENGINEER AND OBTAIN WRITTEN DIRECTION BEFORE PROCEEDING.
10. ADJUST UTILITY LIDS WITHIN NEW CONSTRUCTION AREA TO FINISHED GRADE PER DETAIL [B/X102]. REPLACE ALL BROKEN LIDS WITH NEW. PROVIDE TRAFFIC RATED LIDS WITHIN VEHICLE LOADING AREAS.
11. WATER TEST PAVEMENT WITHIN NEW IMPROVEMENT AREA. REPLACE PAVEMENT WHERE BIRD BATHS OCCUR AFTER TEST AS DIRECTED BY THE INSPECTOR OR ENGINEER.
12. MINIMUM SLOPE ON IMPERVIOUS SURFACES PERPENDICULAR TO ADJACENT STRUCTURE(S), WITHIN ADA PATH, SHALL BE 1% MINIMUM AND 2% MAXIMUM. WHERE DOOR AND GATE LANDINGS OCCUR THE CROSS SLOPE SHALL BE 2% MAXIMUM IN ALL DIRECTIONS

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3	12/15/2022	ADDENDUM 03
	11/1/2022	DSA BACKCHECK

TULARE CAMPUS CTE
COLLEGE OF THE SEQUOIAS
4999 E. BARDSLEY AVE.
TULARE, CA

DRAWING TITLE
PARTIAL GRADING AND DRAINAGE PLAN

PROJECT NO.
20-12032

DRAWING
C501

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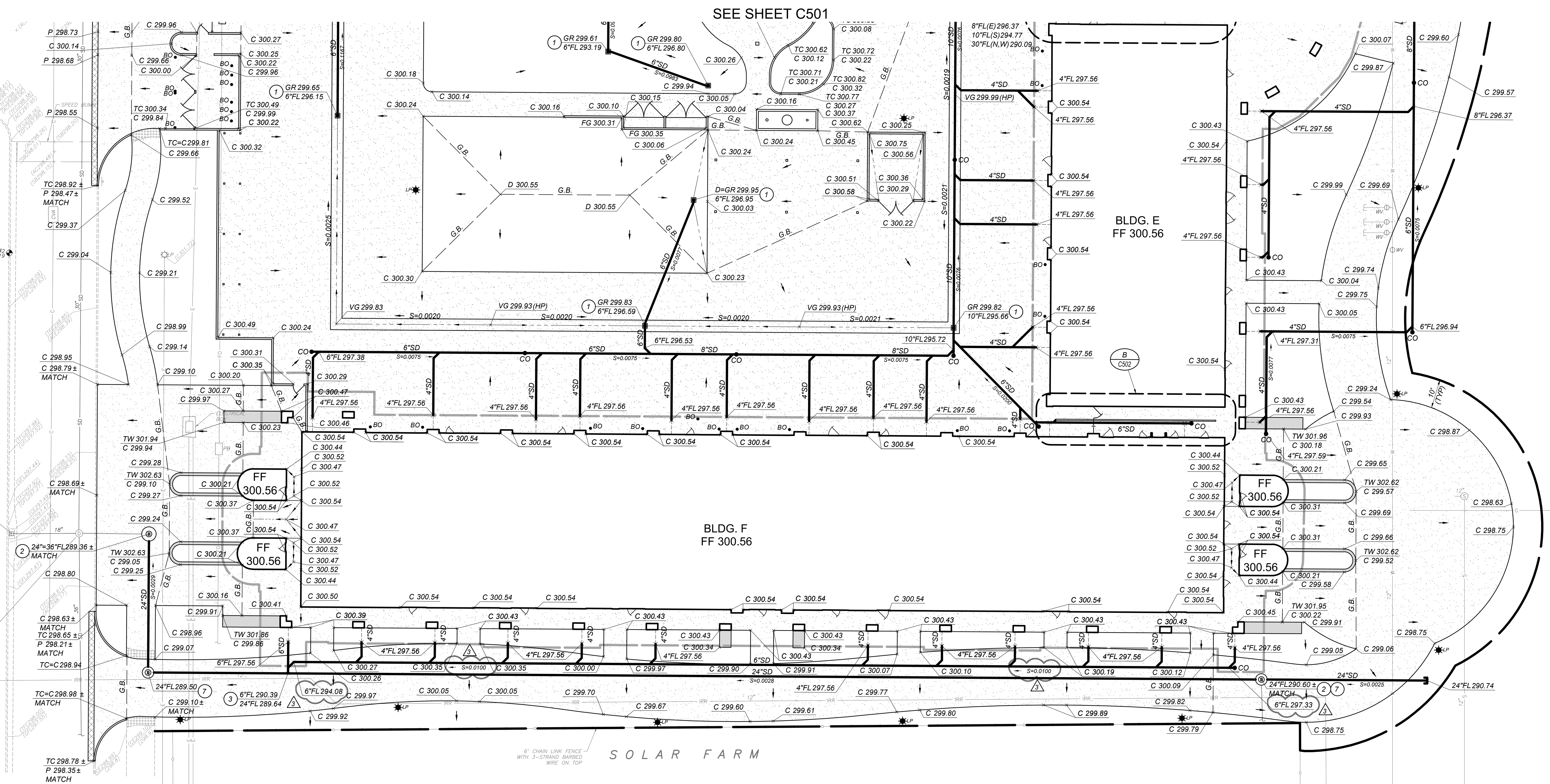
SEE SHEET C501



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G.B.	GRADE BREAK
	LIMITS OF GRADING
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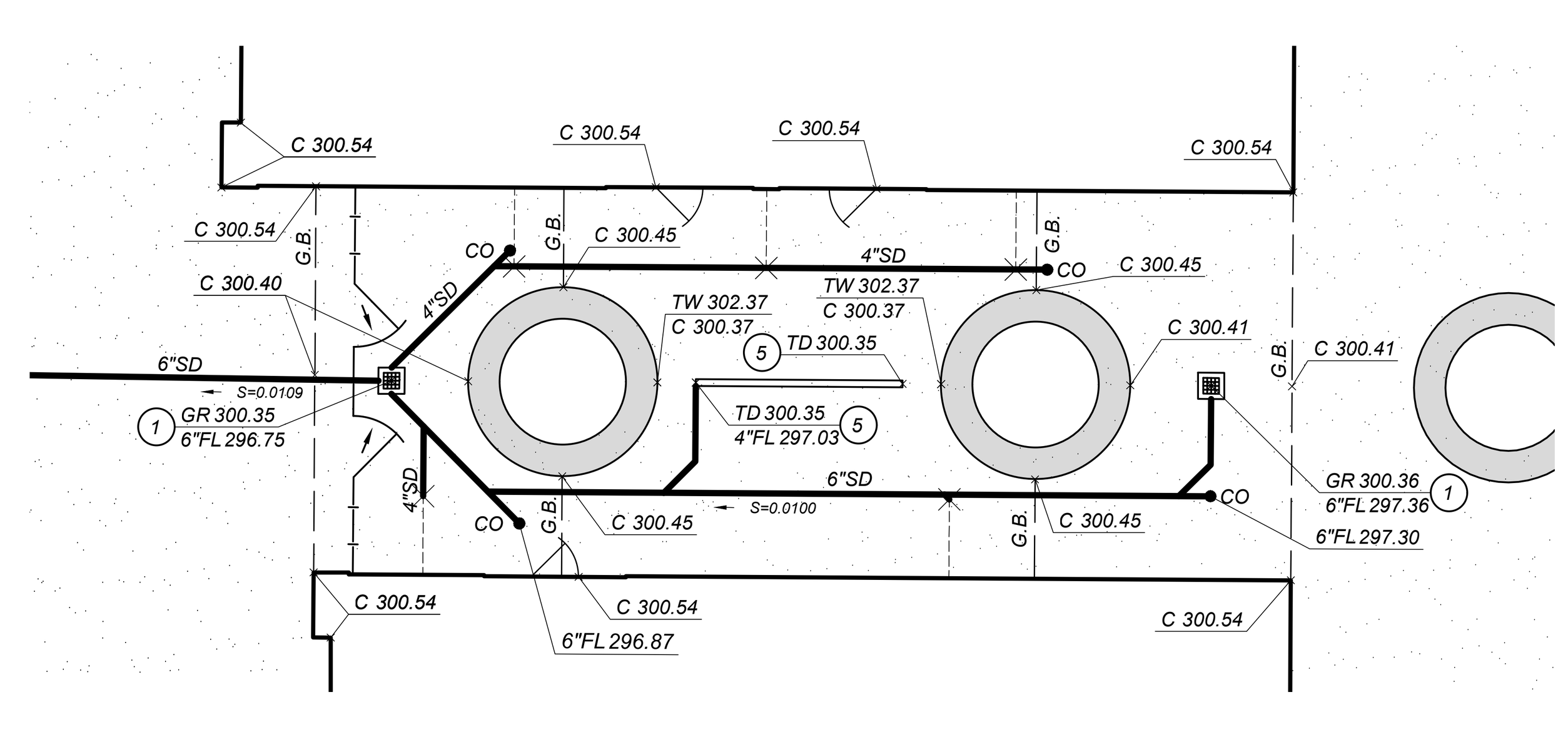

A
C502
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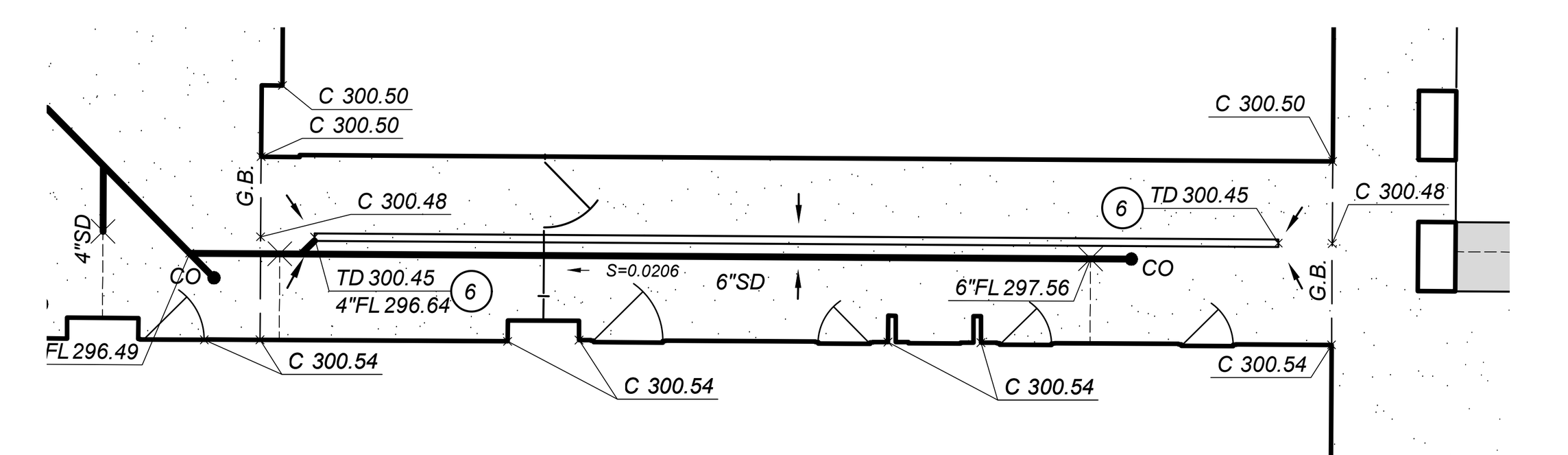
SCALE: 1"=10'



B
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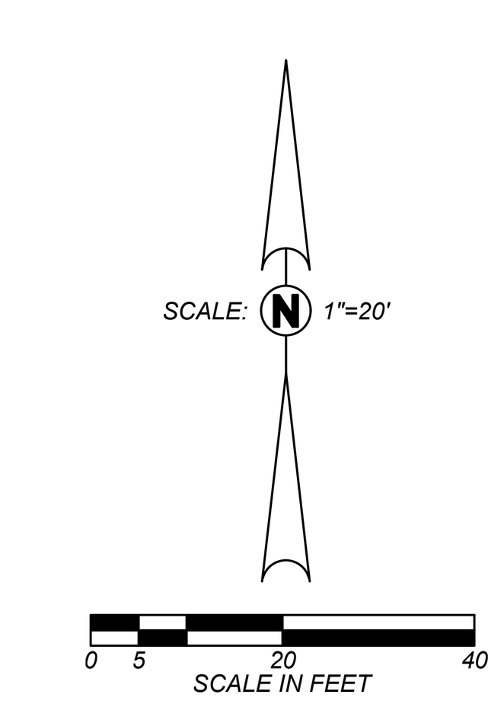
ENLARGEMENT
SCALE: 1"=10'



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3	12/15/2022	ADDENDUM 03
	11/1/2022	DSA BACKCHECK
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COLLEGE OF THE SEQUOIAS
4999 E. BARDSLEY AVE.
TULARE, CA

DRAWING TITLE
PARTIAL GRADING AND DRAINAGE PLAN

PROJECT NO.
20-12032

DRAWING
C502

PLOT DATE: 12/15/2022 2:39:31 PM

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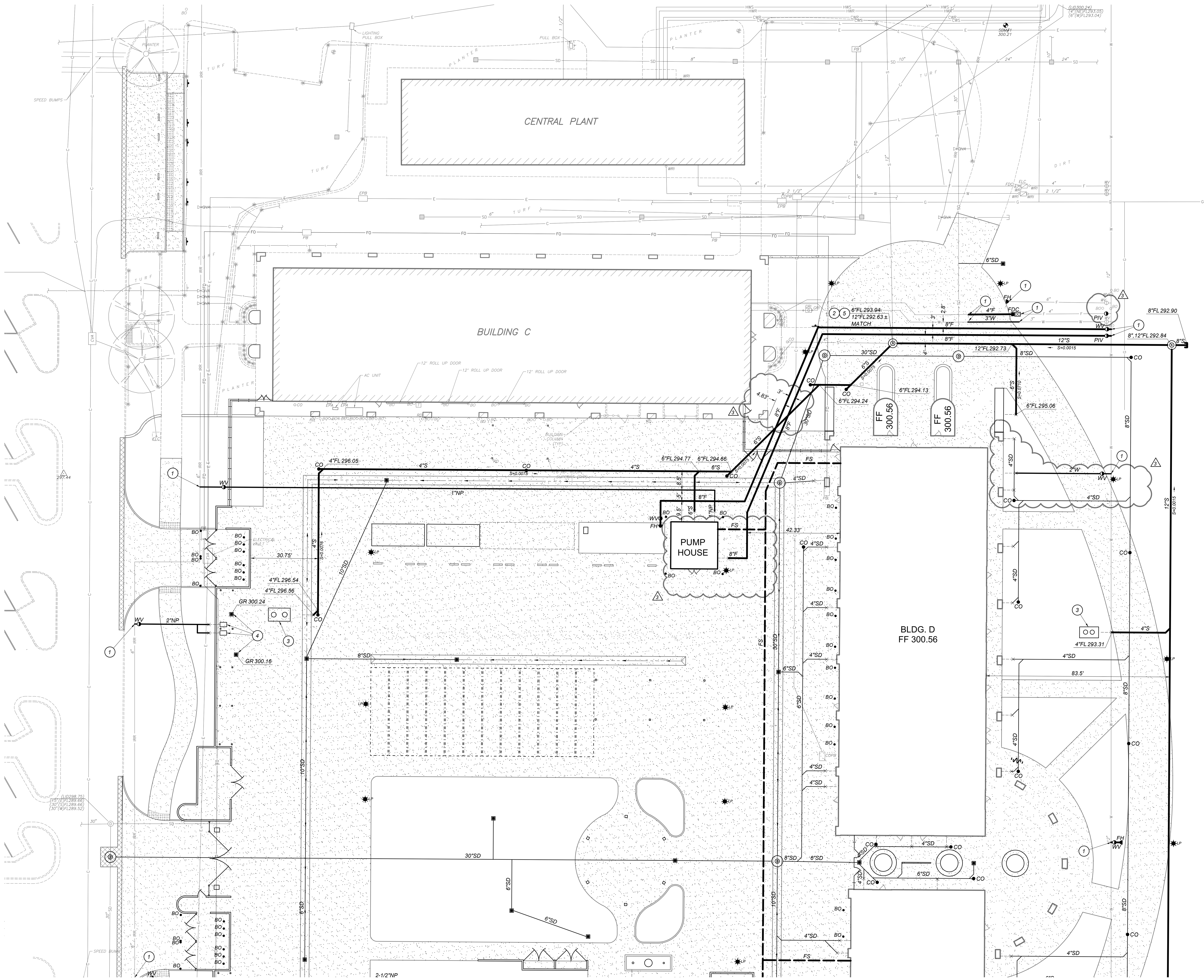

SEE SHEET C602

SCALE: 1"=20'

0 5 20 40 SCALE IN FEET

UTILITY LEGEND:

6"S	SEWER MAIN, SIZE AS NOTED ON PLANS. PIPE BEDDING AND BACKFILL PER DETAIL [C/X102]
6"W	WATER MAIN, SIZE AS NOTED ON PLANS, MIN. 30" COVER. THRUST BLOCKS PER DETAIL [D/X102]. PIPE BEDDING AND BACKFILL PER DETAIL [C/X102]
2"NP	NON-POTABLE WATER MAIN, SIZE AS NOTED ON PLANS, MIN. 30" COVER. THRUST BLOCKS PER DETAIL [D/X102]. PIPE BEDDING AND BACKFILL PER DETAIL [C/X102]
FS	FIRE SPRINKLER LATERAL, SEE FIRE PROTECTION PLANS
8"F	FIRE MAIN, SIZE AS NOTED ON PLANS, MIN. 42" COVER. THRUST BLOCKS PER DETAIL [D/X102]. PIPE BEDDING AND BACKFILL PER [C/X102]
6"SD	STORM DRAIN PIPE, SEE GRADING PLAN
FF	FINISHED FLOOR
FL	FLOWLINE
CO	SEWER CLEANOUT PER DETAIL [H/X102]
DC	DOUBLE CHECK DETECTOR ASSEMBLY PER CITY STD 6411 SEE DETAIL [B/X103]
FDC	FIRE DEPARTMENT CONNECTION PER CITY STD 6411 SEE DETAIL [B/X103]
PIV	POST INDICATOR VALVE PER [D/X102]
FH	FIRE HYDRANT ASSEMBLY PER CITY STD 6315 SEE DETAIL [A/X103]
WV	WATER VALVE PER [J/X102]
S	SEWER MANHOLE PER DETAIL [E/X102]
	CAP OR PLUG END OF UTILITY LINE
	POINT OF CONNECTION TO PROPOSED UTILITY, COORDINATE WITH PLUMBING PLANS PRIOR TO CONNECTION.
S=0.0020	FLOWLINE SLOPE AND DIRECTION OF FLOW
1	CONNECT TO EXISTING WATER LINE WITH WATER- TIGHT CONNECTION. VERIFY SIZE, DEPTH, AND LOCATION.
2	CONNECT TO EXISTING SEWER LINE WITH WATER-TIGHT CONNECTION. VERIFY SIZE, DEPTH, AND LOCATION.
3	SAND/OIL SEPARATOR, SEE PLUMBING PLANS
4	PRESSURE WASHER AND DRAIN INLET, SEE PLUMBING PLANS
5	MANHOLE DROP DOWN CONNECTION PER DETAIL [F/X103]

GENERAL SITE UTILITY NOTES:

1. AS FIRST ORDER OF WORK, CONTRACTOR SHALL POTHOLE EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF LOCATIONS, SIZE AND DEPTH.
2. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION, SIZE, DEPTH, AND TYPE OF ALL EXISTING UTILITIES AND INTERFERENCES SITUATED ALONG THE ROUTE OF THE PROPOSED CONSTRUCTION PRIOR TO COMMENCEMENT OF EXCAVATION, FABRICATION, AND INSTALLATION. THE CONTRACTOR SHALL CONSTRUCT ALL IMPROVEMENTS IN SUCH A MANNER AS WILL PROTECT ALL EXISTING UNDERGROUND UTILITIES AND, IN THE EVENT OF ANY CONFLICTS, SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING.
3. SEE IRRIGATION PLANS FOR PROPOSED IRRIGATION PIPE ALIGNMENT.
4. COORDINATE EXACT POINTS OF CONNECTION TO BUILDING PLUMBING AND NOTIFY THE ENGINEER OF ANY CONFLICT SO THAT ADJUSTMENTS CAN BE MADE IF NEEDED.
5. SAWCUT EXISTING CONCRETE IMPROVEMENTS AS NECESSARY TO INSTALL NEW WATER OR SEWER IMPROVEMENTS. CONSTRUCT NEW CONCRETE IMPROVEMENTS TO MATCH ADJACENT CONCRETE IMPROVEMENTS AND JOIN TOGETHER WITH DOWEL BARS PER DETAIL [F/X101]
6. INSTALLATION, TYPE, AND MANUFACTURER'S MODELS OF DOMESTIC WATER METERS, DRAIN INLETS/OUTLETS AND OTHER APPURTENANCES OF SITE UTILITY SYSTEMS SHALL BE DONE IN STRICT ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
7. LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY. THE ACTUAL LOCATIONS OF ALL MATERIALS, PIPING, FIXTURES, EQUIPMENT, SUPPORTS, ETC., SHALL BE CAREFULLY PLANNED PRIOR TO INSTALLATION OF ANY WORK TO AVOID ALL INTERFERENCES WITH EACH OTHER OR WITH STRUCTURAL, ELECTRICAL, PLUMBING AND MECHANICAL, ARCHITECTURAL OR ANY OTHER ELEMENTS. ALL CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO THE INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.
8. ANY INSPECTION TO BE MADE BY THE AUTHORITY HAVING JURISDICTION SHALL REQUIRE A MINIMUM OF 24 HOUR NOTICE.
9. PURITY TESTS ARE REQUIRED ON ALL WATER SYSTEM INSTALLATIONS. CONTRACTOR TO COORDINATE WITH THE AUTHORITY HAVING JURISDICTION.
10. IF THE TOP OF THE STEM OF ANY WATER GATE VALVE IS DEEPER THAN 4' BELOW FINISHED PAVEMENT GRADE, THE CONTRACTOR SHALL INSTALL A STEM EXTENSION SO THAT THE TOP OF THE STEM, WITH EXTENSION, SHALL BE NO DEEPER THAN 4' NOR SHALLOWER THAN 2' FROM FINISHED GRADE.
11. BACKFILL UTILITY TRENCHES PER DETAIL [C/X102]
12. ADJUST EXISTING UTILITY LIDS TO FINISHED GRADE PER UTILITY COMPANY STANDARDS AND DETAIL [B/X102] AND INSTALL TRAFFIC RATED LIDS WHERE LOCATED IN A TRAFFIC AREA.

811 Know what's below. Call before you dig.

Blair, Church & Flynn
CONSULTING ENGINEERS

MARK	DATE	DESCRIPTION
3	12/15/2022	ADDENDUM 03
	11/1/2022	DSA BACKCHECK

12/15/2022
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4999 E. BARDSLEY AVE.
TULARE, CA

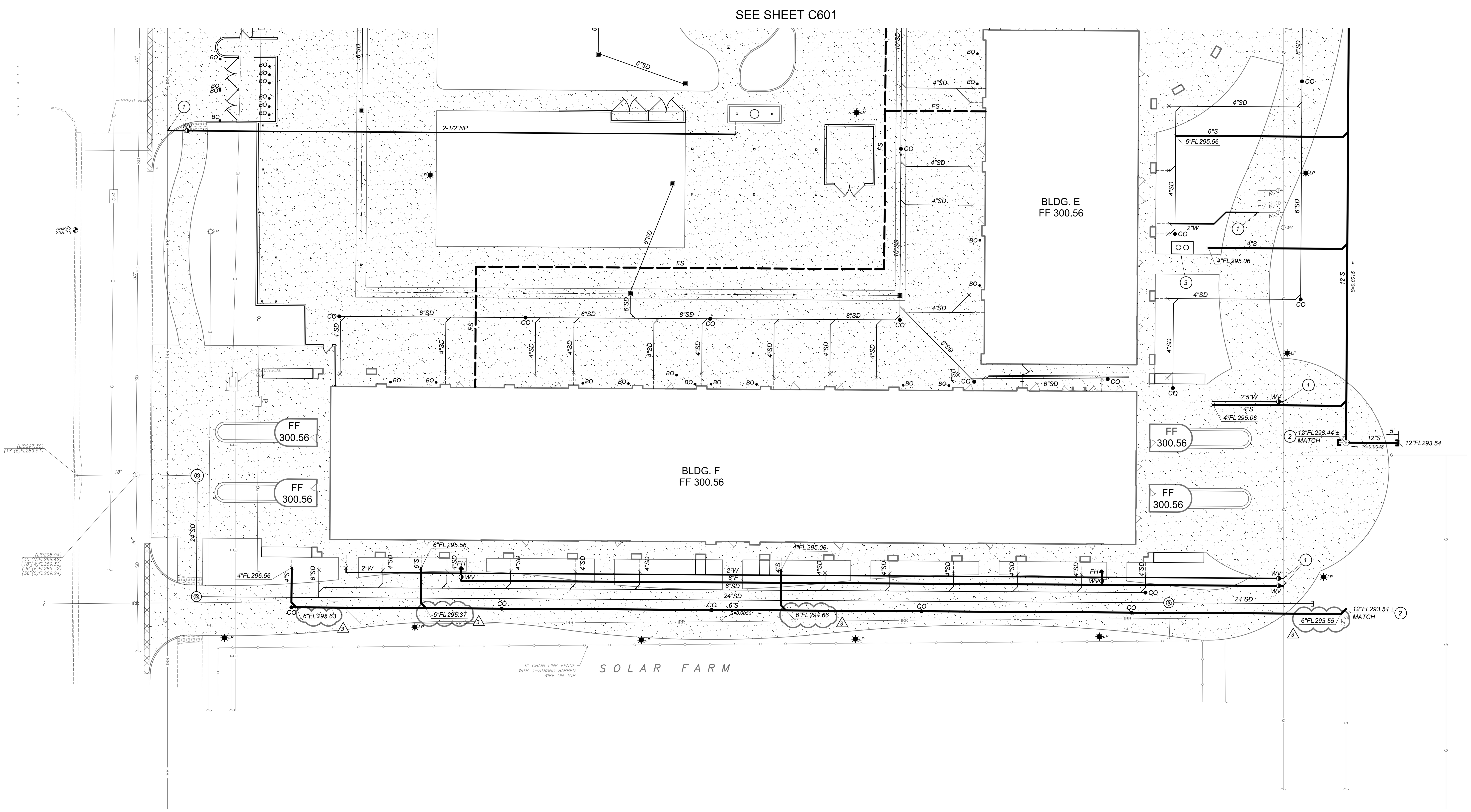
DRAWING TITLE
PARTIAL UTILITY PLAN

PROJECT NO.
20-12032

DRAWING
C601

PLOT DATE: 12/15/2022 2:48:06 PM

SEE SHEET C601



UTILITY LEGEND:

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	CAP OR PLUG END OF UTILITY LINE
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GENERAL SITE UTILITY NOTES:

1. AS FIRST ORDER OF WORK, CONTRACTOR SHALL POTHOLE EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF LOCATIONS, SIZE AND DEPTH.
2. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION, SIZE, DEPTH, AND TYPE OF ALL EXISTING UTILITIES AND INTERFERENCES SITUATED ALONG THE ROUTE OF THE PROPOSED CONSTRUCTION PRIOR TO COMMENCEMENT OF EXCAVATION, FABRICATION, AND INSTALLATION. THE CONTRACTOR SHALL CONSTRUCT ALL IMPROVEMENTS IN SUCH A MANNER AS WILL PROTECT ALL EXISTING UNDERGROUND UTILITIES AND, IN THE EVENT OF ANY CONFLICTS, SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING.
3. SEE IRRIGATION PLANS FOR PROPOSED IRRIGATION PIPE ALIGNMENT.
4. COORDINATE EXACT POINTS OF CONNECTION TO BUILDING PLUMBING AND NOTIFY THE ENGINEER OF ANY CONFLICT SO THAT ADJUSTMENTS CAN BE MADE IF NEEDED.
5. SAWCUT EXISTING CONCRETE IMPROVEMENTS AS NECESSARY TO INSTALL NEW WATER OR SEWER IMPROVEMENTS. CONSTRUCT NEW CONCRETE IMPROVEMENTS TO MATCH ADJACENT CONCRETE IMPROVEMENTS AND JOIN TOGETHER WITH DOWEL BARS PER DETAIL [F/X101]
6. INSTALLATION, TYPE, AND MANUFACTURER'S MODELS OF DOMESTIC WATER METERS, DRAIN INLETS/OUTLETS AND OTHER APPURTENANCES OF SITE UTILITY SYSTEMS SHALL BE DONE IN STRICT ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
7. LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY. THE ACTUAL LOCATIONS OF ALL MATERIALS, PIPING, FIXTURES, EQUIPMENT, SUPPORTS, ETC., SHALL BE CAREFULLY PLANNED PRIOR TO INSTALLATION OF ANY WORK TO AVOID ALL INTERFERENCES WITH EACH OTHER OR WITH STRUCTURAL, ELECTRICAL, PLUMBING AND MECHANICAL, ARCHITECTURAL OR ANY OTHER ELEMENTS. ALL CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO THE INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.
8. ANY INSPECTION TO BE MADE BY THE AUTHORITY HAVING JURISDICTION SHALL REQUIRE A MINIMUM OF 24 HOUR NOTICE.
9. PURITY TESTS ARE REQUIRED ON ALL WATER SYSTEM INSTALLATIONS. CONTRACTOR TO COORDINATE WITH THE AUTHORITY HAVING JURISDICTION.
10. IF THE TOP OF THE STEM OF ANY WATER GATE VALVE IS DEEPER THAN 4' BELOW FINISHED PAVEMENT GRADE, THE CONTRACTOR SHALL INSTALL A STEM EXTENSION SO THAT THE TOP OF THE STEM, WITH EXTENSION, SHALL BE NO DEEPER THAN 4' NOR SHALLOWER THAN 2' FROM FINISHED GRADE.
11. BACKFILL UTILITY TRENCHES PER DETAIL [C/X102]
12. ADJUST EXISTING UTILITY LIDS TO FINISHED GRADE PER UTILITY COMPANY STANDARDS AND DETAIL [B/X102] AND INSTALL TRAFFIC RATED LIDS WHERE LOCATED IN A TRAFFIC AREA.

SCALE: 1"=20'

0 5 20 40
SCALE IN FEET

Blair, Church & Flynn
CONSULTING ENGINEERS
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Clovis, California 93612
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MARK	DATE	DESCRIPTION
3	12/15/2022	ADDENDUM 03
	11/1/2022	DSA BACKCHECK

12/15/2022
Date Signed:

TETER, LLP
FRESNO HEADQUARTERS
VISALIA | BAKERSFIELD | MODESTO | SAN LUIS OBISPO
ARCHITECTS ENGINEERS CONNECTED

TULARE CAMPUS CTE
COLLEGE OF THE SEQUOIAS
4999 E. BARDSLEY AVE.
TULARE, CA

DRAWING TITLE
PARTIAL UTILITY PLAN

PROJECT NO.
20-12032

DRAWING
C602

PLOT DATE: 12/15/2022 2:47:30 PM
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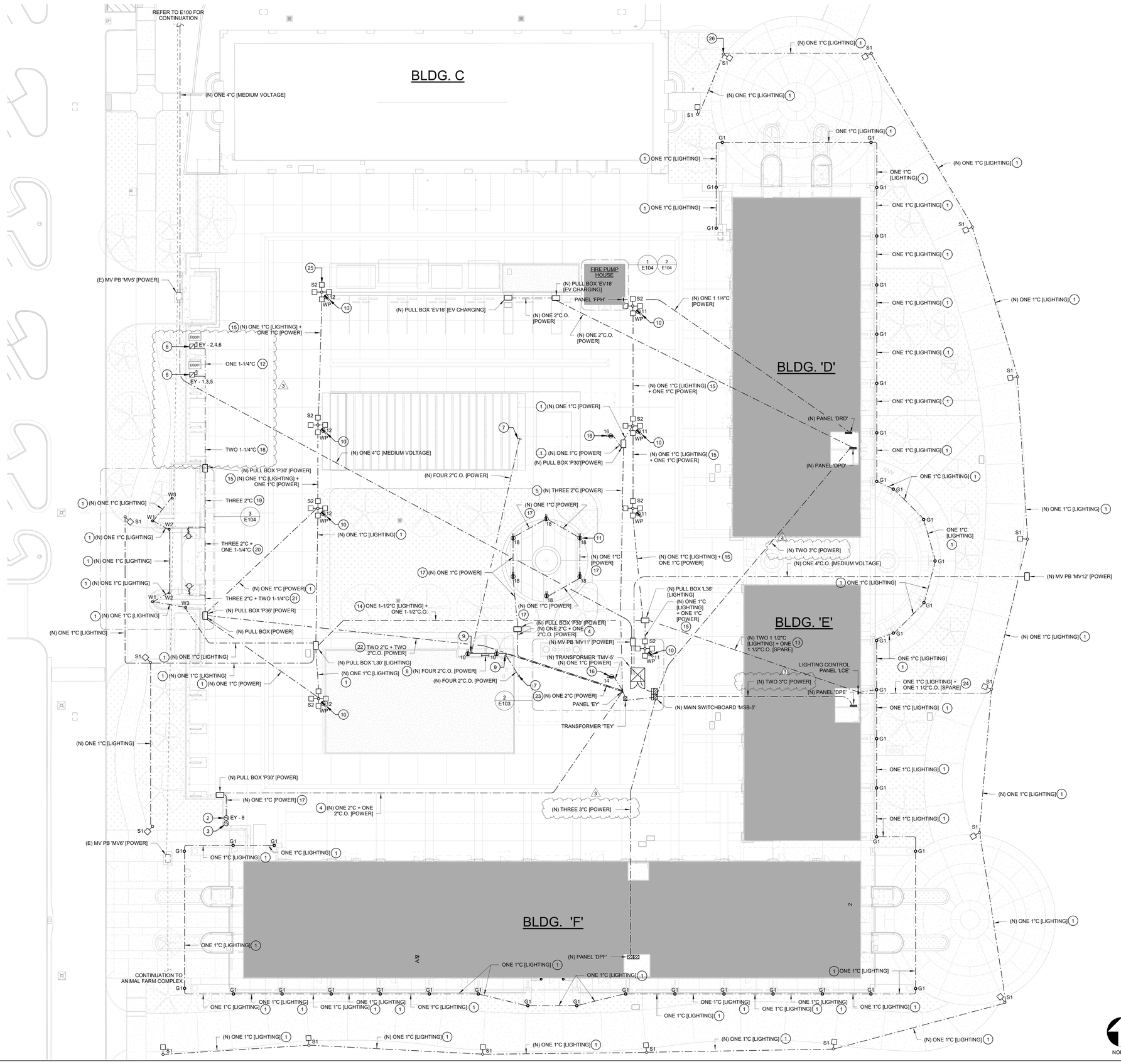

KEYNOTES

1. ONE 1"C WITH 2#10 CU THWN AND 1#10 CU GND.
2. PROVIDE 120V POWER CONNECTION WITH ONE 1"C WITH 2#12 CU THWN AND 1#12 CU GND TO IRRIGATION CONTROLLER. COORDINATE PRECISE LOCATION WITH IRRIGATION SYSTEM INSTALLER.
3. PROVIDE ONE 1"C WITH ONE TYPE 'D' CABLE. ROUTE CABLE TO BUILDING 'F' IDF. COORDINATE PRECISE LOCATION WITH IRRIGATION SYSTEM INSTALLER.
4. ONE 2"C WITH 2#12 CU THWN AND 1#12 CU GND + ONE 2"C.O. SPARE.
5. TWO 2"C WITH 2#10 CU THWN AND 1#10 CU GND IN EACH CONDUIT + ONE 2"C.O. SPARE.
6. PROVIDE GENERAL DUTY WEATHERPROOF 250V, 60A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 3ϕ, 7.5HP, ELECTRIC PRESSURE WASHER, 'EQ001'.
7. STUB CONDUITS WITHIN 6" OF BASE OF CANOPY STRUCTURE COLUMN.
8. STUB CONDUITS BETWEEN ELECTRICAL CABINETS TO FACILITATE FUTURE CABLE ROUTING.
9. STUB CONDUITS AT REAR OF CABINET.
10. PROVIDE WEATHERPROOF GFCI RECEPTACLE LOCATED ON LIGHT POLE WITH 'IN-USE' TYPE COVER.
11. PROVIDE WEATHERPROOF GFCI RECEPTACLE LOCATED ON COLUMN OF SHADE CANOPY WITH 'IN-USE' TYPE COVER. MOUNT AT +18" A.F.G. TYPICAL OF ALL SHADE COLUMNS.
12. ONE 1-1/4"C WITH 3#6 CU THWN AND 1#6 CU GND.
13. ONE 1-1/2"C WITH 2#10 CU THWN AND 1#10 CU GND + ONE 1-1/2"C WITH 4# 10 CU THWN AND 1#10 CU GND + ONE 1-1/2"C.O. SPARE.
14. ONE 1-1/2"C WITH 4#10 CU THWN AND 1#10 CU GND + ONE 1-1/2"C.O. SPARE.
15. ONE 1"C WITH 2#10 CU THWN AND 1#10 CU GND FOR THE POLE LIGHT + ONE 1"C WITH 2#10 CU THWN AND 1#10 CU GND FOR THE MOUNTED RECEPTACLE.
16. PROVIDE WEATHERPROOF GFCI RECEPTACLE LOCATED ON COLUMN WITH 'IN-USE' TYPE COVER. MOUNT AT +18" A.F.G.
17. ONE 1"C WITH 2#12 CU THWN AND 1#12 CU GND.
18. TWO 1-1/4"C WITH 3#6 CU THWN AND 1#6 CU GND IN EACH CONDUIT.
19. ONE 2"C WITH 6#6 CU THWN AND 2#6 CU GND + TWO 2"C.O. SPARES.
20. ONE 2"C WITH 6#6 CU THWN AND 2#6 CU GND FOR ELECTRIC PRESSURE WASHERS + ONE 1-1/4"C WITH 2#8 CU THWN AND 1#8 CU GND FOR GATE MOTOR OPERATOR + TWO 2"C.O. SPARE.
21. ONE 2"C WITH 6#6 CU THWN AND 2#6 CU GND FOR ELECTRIC PRESSURE WASHERS + TWO 1-1/4"C WITH 2#8 CU THWN AND 1#8 CU GND IN EACH CONDUIT FOR GATE MOTOR OPERATORS + TWO 2"C.O. SPARES.
22. ONE 2"C WITH 6#6 CU THWN AND 2#6 CU GND FOR ELECTRIC PRESSURE WASHERS + ONE 2"C WITH 4#8 CU THWN, 2#12 CU THWN, 1#12 CU GND AND 2#8 CU GND + TWO 2"C.O. SPARES.
23. ONE 2"C WITH 2#12 CU THWN AND 1#12 CU GND.
24. ONE 1-1/2"C WITH 2#10 CU THWN AND 1#10 CU GND + ONE 1-1/2"C.O. SPARE.
25. PROVIDE ONE TYPE 'L16' UNDERGROUND PULLBOX ADJACENT TO LIGHTING POLE BASE. ALL POWER, LIGHTING AND SIGNAL CONDUIT CONDUITS SHOWN DIAGRAMATICALLY ROUTING TO POLE SHALL ROUTE TO THIS PULLBOX. FROM PULL BOX RUN ONE 1"C (RECEPTACLE), ONE 1"C (LIGHTING) AND ONE 1"C.O.(SIGNAL) INTO POLE. TYPICAL FOR ALL TYPE 'S2' FIXTURES.
26. PROVIDE ONE TYPE 'L16' UNDERGROUND PULLBOX ADJACENT TO LIGHTING POLE BASE. ALL POWER, LIGHTING AND SIGNAL CONDUIT CONDUITS SHOWN DIAGRAMATICALLY ROUTING TO POLE SHALL ROUTE TO THIS PULLBOX. FROM PULL BOX RUN ONE 1"C (LIGHTING) AND ONE 1"C.O.(SIGNAL) INTO POLE. TYPICAL FOR ALL TYPE 'S1' FIXTURES.

GENERAL NOTES

A. ELECTRICAL FACILITIES SHOWN DASHED ARE EXISTING:
   a. THOSE SHOWN LIGHTWEIGHT (FADED) ARE EXISTING TO REMAIN OR REQUIRE MODIFICATION AS NOTED.
   b. THOSE SHOWN HEAVYWEIGHT (DARK) REQUIRE REMOVAL AS NOTED.

B. EXISTING ELECTRICAL FACILITIES AND CIRCUITING SHOWN ARE BASED ON LIMITED RECORD DRAWINGS AND LIMITED SITE VISITS. THE DRAWINGS MAY NOT ACCURATELY REPRESENT ACTUAL EXISTING CONDITIONS IN THE FIELD. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND RING OUT EXISTING CIRCUITS TO DETERMINE EXACT ROUTING.

C. PROVIDE ELECTRICAL FEEDERS PER SINGLE LINE DIAGRAM ON DRAWING E700.

D. PROVIDE PULLBOXES PER DETAILS 1/E600.

E. PROVIDE MEDIUM VOLTAGE PULLBOXES PER DETAIL 28/E600.

F. MEDIUM VOLTAGE CONDUITS SHALL BE INSTALLED PER DETAIL 12/E600, ALL OTHER SITE CONDUITS SHALL BE INSTALLED A MINIMUM OF 48" BELOW FINAL GRADE TO TOP OF CONDUIT.

G. SPECIAL PRECAUTION SHALL BE TAKEN WHEN TRENCHING TO LOCATE, PROTECT AND PRESERVE EXISTING UNDERGROUND UTILITIES. ANY DAMAGE CAUSED DURING THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED.

NORTH

ENLARGED ELECTRICAL SITE PLAN - POWER & LIGHTING

1" = 20'-0" | 1

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MARK	DATE	DESCRIPTION
3	12/14/22	ADDENDUM NO. 3
	11/1/22	DSA BACKCHECK

TETER, LLP
ARCHITECTS ENGINEERS CONNECTED
FRESNO HEADQUARTERS
VISALIA | BAKERSFIELD | MODESTO | SAN LUIS OBISPO

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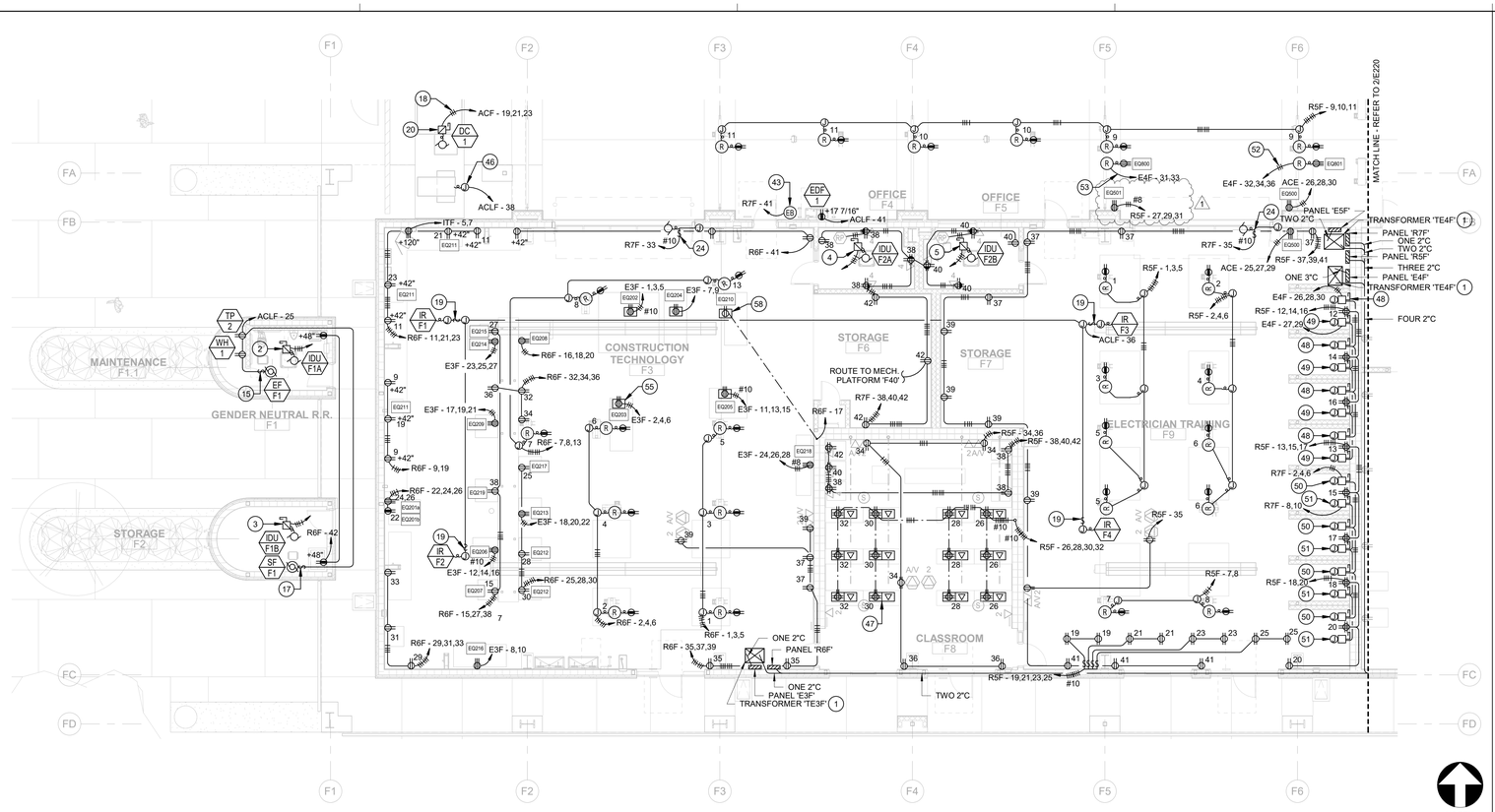
4999 E. BARDSLEY AVE.
TULARE, CA

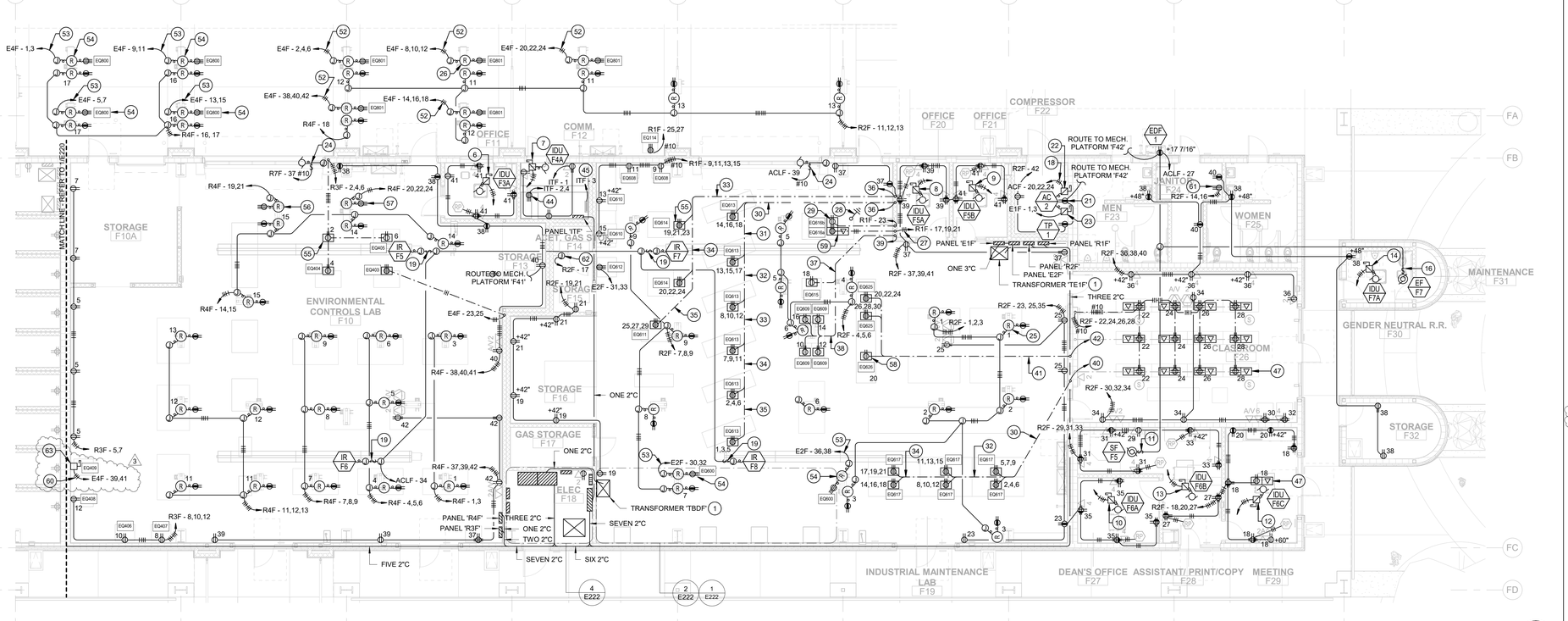
DRAWING TITLE
ENLARGED ELECTRICAL SITE PLAN - POWER & LIGHTING

PROJECT NO.
21-12032

DRAWING
E101



POWER PLAN - BUILDING 'F' (WEST) — 1/8" = 1'-0" — 1



POWER PLAN - BUILDING 'F' (EAST) — 1/8" = 1'-0" — 2

PLOT DATE: 12/15/2022 8:22:34 AM

KEYNOTES

1. TRANSFORMER MOUNTED TO WALL PER DETAIL 8/E600. SHOWN OFFSET ON DRAWING FOR CLARITY.
2. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ, 0.2 MCA, INDOOR UNIT 'IDU-F1A' FROM OUTDOOR UNIT 'ODU-F1'. INDOOR UNIT BRANCH CIRUIT SHALL CONSIST OF ONE 3/4"C WITH 3#12 CU THWN AND 1#12 CU GND.
3. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ, 0.2 MCA, INDOOR UNIT 'IDU-F1B' FROM OUTDOOR UNIT 'ODU-F1'. INDOOR UNIT BRANCH CIRUIT SHALL CONSIST OF ONE 3/4"C WITH 3#12 CU THWN AND 1#12 CU GND.
4. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ, 0.2 MCA, INDOOR UNIT 'IDU-F2A' FROM OUTDOOR UNIT 'ODU-F2'. INDOOR UNIT BRANCH CIRUIT SHALL CONSIST OF ONE 3/4"C WITH 3#12 CU THWN AND 1#12 CU GND.
5. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ, 0.2 MCA, INDOOR UNIT 'IDU-F2B' FROM OUTDOOR UNIT 'ODU-F2'. INDOOR UNIT BRANCH CIRUIT SHALL CONSIST OF ONE 3/4"C WITH 3#12 CU THWN AND 1#12 CU GND.
6. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ, 0.2 MCA, INDOOR UNIT 'IDU-F3A' FROM OUTDOOR UNIT 'ODU-F3'. INDOOR UNIT BRANCH CIRUIT SHALL CONSIST OF ONE 3/4"C WITH 3#12 CU THWN AND 1#12 CU GND.
7. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ, 0.63 MCA, INDOOR UNIT 'IDU-F4A' FROM OUTDOOR UNIT 'ODU-F4'. INDOOR UNIT BRANCH CIRUIT SHALL CONSIST OF ONE 3/4"C WITH 3#12 CU THWN AND 1#12 CU GND.
8. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ, 0.2 MCA, INDOOR UNIT 'IDU-F5A' FROM OUTDOOR UNIT 'ODU-F5'. INDOOR UNIT BRANCH CIRUIT SHALL CONSIST OF ONE 3/4"C WITH 3#12 CU THWN AND 1#12 CU GND.
9. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ, 0.2 MCA, INDOOR UNIT 'IDU-F5B' FROM OUTDOOR UNIT 'ODU-F5'. INDOOR UNIT BRANCH CIRUIT SHALL CONSIST OF ONE 3/4"C WITH 3#12 CU THWN AND 1#12 CU GND.
10. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ, 1.11 MCA, INDOOR UNIT 'IDU-F6A' FROM OUTDOOR UNIT 'ODU-F6'. INDOOR UNIT BRANCH CIRUIT SHALL CONSIST OF ONE 3/4"C WITH 3#12 CU THWN AND 1#12 CU GND.
11. PROVIDE MOTOR RATED A/C SNAP SWITCH DISCONNECT. PROVIDE CONNECTION FOR 120V, 1ϕ, 1/10 HP, SUPPLY FAN 'SF-F5'. PROVIDE ADDITIONAL CONDUIT ROUTED TO ROOF TO INTERLOCK SUPPLY FAN WITH OUTDOOR UNIT 'ODU-F6'.
12. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ, 1.2 MCA, INDOOR UNIT 'IDU-F6C' FROM OUTDOOR UNIT 'ODU-F6'. INDOOR UNIT BRANCH CIRUIT SHALL CONSIST OF ONE 3/4"C WITH 3#12 CU THWN AND 1#12 CU GND.
13. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ, 1.2 MCA, INDOOR UNIT 'IDU-F6B' FROM OUTDOOR UNIT 'ODU-F6'. INDOOR UNIT BRANCH CIRUIT SHALL CONSIST OF ONE 3/4"C WITH 3#12 CU THWN AND 1#12 CU GND.
14. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ, 0.2 MCA, INDOOR UNIT 'IDU-F7A' FROM OUTDOOR UNIT 'ODU-F7'. INDOOR UNIT BRANCH CIRUIT SHALL CONSIST OF ONE 3/4"C WITH 3#12 CU THWN AND 1#12 CU GND.
15. PROVIDE MOTOR RATED A/C SNAP SWITCH DISCONNECT. PROVIDE CONNECTION FOR 120V, 1ϕ, 54 WATT, EXHAUST FAN 'EF-F1'.
16. PROVIDE MOTOR RATED A/C SNAP SWITCH DISCONNECT. PROVIDE CONNECTION FOR 120V, 1ϕ, 54 WATT, EXHAUST FAN 'EF-F7'.
17. PROVIDE MOTOR RATED A/C SNAP SWITCH DISCONNECT. PROVIDE CONNECTION FOR 120V, 1ϕ, 1/15 HP, SUPPLY FAN 'SF-F1'. PROVIDE ADDITIONAL CONDUIT ROUTED TO ROOF TO INTERLOCK SUPPLY FAN WITH OUTDOOR UNIT 'ODU-F1'.
18. ONE 1 1/4"C WITH 3#4 CU THWN AND 1#8 CU GND.
19. PROVIDE A/C SNAP SWITCH DISCONNECT LOCATED ADJACENT TO 120V, 1ϕ, 1.3 FLA INFRARED RADIANT HEATER.
20. PROVIDE HEAVY DUTY WEATHERPROOF 600V, 100A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 480V, 3ϕ, DUST COLLECTOR 'DC-1' THROUGH REMOTE VFD MOTOR CONTROLLER.
21. PROVIDE 120V RECEPTACLE AT +48" FOR POWER TO ELECTRONIC TIMER DRAIN FOR EQUIPMENT 'AC-2'.
22. PROVIDE GENERAL DUTY 600V, 60A, 3-POLE FUSED DISCONNECT. PROVIDE CONNECTION FOR 480V, 3ϕ, 25 HP, COMPRESSOR 'AC-2'.
23. PROVIDE GENERAL DUTY 250V, 15A, 3-POLE FUSED DISCONNECT PROVIDE CONNECTION FOR 240V, 1ϕ, 0.75 HP, COMPRESSOR DRYER 'AC-2'.
24. PROVIDE A/C SNAP SWITCH DISCONNECT LOCATED ADJACENT TO OVERHEAD DOOR MOTOR. PROVIDE CONNECTION FOR 120V, 1ϕ, 1 HP OVERHEAD DOOR ELECTRIC OPERATOR. PROVIDE ONE 3/4"C Ø BETWEEN OPERATOR AND RECESSED JUNCTION BOX MOUNTED AT + 48"A.F.F TO TOP OF BOX TO FACILITATE DOOR CONTROL WIRING.
25. PROVIDE CORD REEL, REELCRAFT EQUIPMENT #L45451239G OR EQUIVALENT. CORD REELS SHALL BE MOUNTED PER ARCHITECTURAL PLANS. TYPICAL OF ALL NEMA 5-15R CORD REELS.
26. PROVIDE CORD REEL, REELCRAFT EQUIPMENT #L7000 OR EQUIVALENT WITH A 35', #6 SOOW, 4 CONDUCTOR CABLE. CORD REELS SHALL BE MOUNTED PER ARCHITECTURAL PLANS. TYPICAL OF ALL CORD REELS, 'EQ801'.
27. PROVIDE ONE 3/4"C, 3#8 CU THWN AND 1#10 CU GND FOR POWER CONNECTION TO EQ616a.
28. PROVIDE #6 CU THHN GND FROM STAR GROUND ON TABLE TO DEDICATED EARTH GROUND ROD.
29. DUPLEX RECEPTACLE MOUNTED IN FLOOR BOX. SHOWN OFFSET FOR CLARITY.
30. PROVIDE SIX 1"C WITH 3#10 CU THWN AND 1#10 CU GND IN EACH.
31. PROVIDE FIVE 1"C WITH 3#10 CU THWN AND 1#10 CU GND IN EACH.
32. PROVIDE FOUR 1"C WITH 3#10 CU THWN AND 1#10 CU GND IN EACH.
33. PROVIDE THREE 1"C WITH 3#10 CU THWN AND 1#10 CU GND IN EACH.
34. PROVIDE TWO 1"C WITH 3#10 CU THWN AND 1#10 CU GND IN EACH.
35. PROVIDE ONE 1"C WITH 3#10 CU THWN AND 1#10 CU GND.
36. ROUTE ALL 1"C FROM PANEL 'E2F' TO FLOOR BOXES SUPPORTING EQUIPMENT, 'EQ613' AND 'EQ614'.
37. PROVIDE FIVE 1"C WITH 2#12 CU THWN AND 1#12 CU GND IN EACH.
38. PROVIDE FOUR 1"C WITH 2#12 CU THWN AND 1#12 CU GND IN EACH.
39. ROUTE ALL 1"C FROM PANEL 'R1F' TO FLOOR BOXES SUPPORTING EQUIPMENT, 'EQ615' AND 'EQ609'.
40. ROUTE ALL 1"C FROM PANEL 'E1F' TO FLOOR BOXES SUPPORTING EQUIPMENT, 'EQ617'.
41. PROVIDE TWO 1"C WITH 3#12 CU THWN AND 1#12 CU GND IN EACH CONDUIT TO ROUTE TO TWO FLOOR BOXS FOR 'EQ625' AND ONE 1"C WITH 2#12 CU THWN AND 1#12 CU GND IN CONDUIT TO ROUTE TO FLOOR BOX FOR 'EQ626'.
42. ROUTE CONDUIT FOR 'EQ626' BACK TO PANEL 'R1F' AND CONDUIT FOR TWO 'EQ625' TO PANEL 'E1F'.
43. PROVIDE 120VAC POWER CONNECTION TO FIRE SPRINKLER RISER ELECTRIC BELL THROUGH AUXILIARY CONTACT AT WATERFLOW SWITCH. SOURCE CIRCUIT BREAKER SHALL HAVE A RED MECHANICAL LOCK-ON DEVICE.
44. PROVIDE RACK MOUNTED NEMA L6-20R RECEPTACLE PER DETAIL 4/E602.
45. PROVIDE DEDICATED 120VAC POWER CONNECTION TO FIRE ALARM TRANSPONDER PANEL. SOURCE PANEL AND CIRCUIT NUMBERS SHALL BE LABELED AT FIRE ALARM PANEL. SOURCE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM/ECS" AND SHALL HAVE A RED MECHANICAL LOCK-ON DEVICE.
46. PROVIDE POWER CONNECTION TO 120V, 1Φ DUST COLLECTOR ABORT GATE.
47. PROVIDE WIREMOLD #RFB9-OG FLOOR BOX WITH RFB119CTCAL TOP GUARD, ONE RFB119-2SAB DEVICE PLATES, TWO RFB119-SD DEVICE PLATES AND PROVIDE BLANK FACE PLATES FOR ALL UNUSED SPACES, TYPICAL FOR ALL FLOOR BOXES IN THIS ROOM.
48. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE DISCONNECT. PROVIDE CONNECTION FOR 240V, 3ϕ AT ELECTRICAL TRAINING BOOTH.
49. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE DISCONNECT. PROVIDE CONNECTION FOR 240V, 1ϕ AT ELECTRICAL TRAINING BOOTH.
50. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE DISCONNECT. PROVIDE CONNECTION FOR 208V, 3ϕ AT ELECTRICAL TRAINING BOOTH.
51. PROVIDE GENERAL DUTY 250V, 30A, 3-POLE DISCONNECT. PROVIDE CONNECTION FOR 208V, 1ϕ AT ELECTRICAL TRAINING BOOTH.
52. ONE 1"C WITH 3#6 CU THWN AND 1#6 CU GND.
53. ONE 1"C WITH 2#6 CU THWN AND 1#6 CU GND.
54. PROVIDE CORD REEL, REELCRAFT EQUIPMENT #L7000 OR EQUIVALENT WITH A 35', #6 SOOW, 3 CONDUCTOR CABLE. CORD REELS SHALL BE MOUNTED PER ARCHITECTURAL PLANS. TYPICAL OF ALL CORD REELS, 'EQ800' and 'EQ600'.
55. PROVIDE WIREMOLD #RFB9-OG FLOOR BOX WITH RFB119CTCAL TOP GUARD, ONE RFB119-SR2 DEVICE PLATE AND PROVIDE BLANK FACE PLATES FOR ALL UNUSED SPACES, TYPICAL FOR ALL SPECIAL PURPOSE RECEPTACLE FLOOR BOXES IN THIS ROOM U. O. N.
56. PROVIDE CORD REEL, REELCRAFT EQUIPMENT #L4545123X OR EQUIVALENT WITH A 45', #12 SJEOOW, 3 CONDUCTOR CABLE. CORD REELS SHALL BE MOUNTED PER ARCHITECTURAL PLANS. PROVIDE NEMA L6-20R ON CORD END.
57. PROVIDE CORD REEL, REELCRAFT EQUIPMENT #L5550124X OR EQUIVALENT WITH A 50', #12 SEOOW, 4 CONDUCTOR CABLE. CORD REELS SHALL BE MOUNTED PER ARCHITECTURAL PLANS. PROVIDE NEMA L15-20R ON CORD END.
58. PROVIDE WIREMOLD #RFB9-OG FLOOR BOX WITH RFB119CTCAL TOP GUARD, ONE RFB119-SD DEVICE PLATE AND PROVIDE BLANK FACE PLATES FOR ALL UNUSED SPACES.
59. PROVIDE WIREMOLD #RFB9-OG FLOOR BOX WITH RFB119CTCAL TOP GUARD, ONE RFB119-SR3 DEVICE PLATE, ONE RFB119-SD DEVICE PLATE, ONE RFB119-2SAB DEVICE PLATE, AND PROVIDE BLANK FACE PLATES FOR ALL UNUSED SPACES.
60. ONE 1 1/4"C WITH 3#2 CU THWN AND 1#6 CU GND.
61. PROVIDE ONE 3/4"C WITH 3#10 CU THWN AND 1#10 CU GND AND A NEMA 14-30R RECEPTACLE FOR AN ELECTRIC DRYER CONNECTION.
62. PROVIDE 120V, 1ϕ POWER CONNECTION TO FIRE SMOKE DAMPER. ROUTE BRANCH CIRCUIT THROUGH FIRE ALARM CONTROL RELAY CONTACTS PER DETAIL 13/E602.
63. PROVIDE HEAVY DUTY 250V, 100A, 3-POLE NON-FUSED DISCONNECT. PROVIDE CONNECTION FOR 240V, 1ϕ, SPOT WELDER. (1)

GENERAL NOTES

A. PROVIDE ELECTRICAL FEEDERS PER SINGLE LINE DIAGRAM.

B. CONDUIT AND CONDUCTORS FOR NEW OUTLETS SHALL BE CONCEALED, U.O.N.

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

D. 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.

E. REFER TO E801 FOR EQUIPMENT SCHEDULE SHOWING SPECIAL RECEPTACLE REQUIRMENTS.

F. ALL EXPOSED CONDUIT IN ROOMS WITH NO CEILINGS SHALL BE ROUTED PARALLEL OR PERPENDICULAR TO TRUSSES AND GIRDERS. LINES SHOWN AS SPLINES AND ARCS ARE FOR DIAGRAMATIC PURPOSES ONLY.

G. REFER TO PANEL SCHEDULES ON SHEETS E810-E813 FOR REFERENCE TO THE APPROPRIATE PANEL MOUNTING DETAIL ON E600.

H. REFER TO TRANSFORMER SCHEDULE ON SHEET E800 FOR REFERENCE TO THE APPROPRIATE MOUNTING DETAIL ON E600.

MARK	DATE	DESCRIPTION
3	12/14/22	ADDENDUM NO. 3
	11/1/22	DSA BACKCHECK

TETER, LLP
FRESNO HEADQUARTERS
VISALIA | BAKERSFIELD | MODESTO | SAN LUIS OBISPO
ARCHITECTS ENGINEERS CONNECTED

TULARE CAMPUS CTE
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4999 E. BARDSLEY AVE.
TULARE, CA

DRAWING TITLE
POWER PLAN - BUILDING 'F'

PROJECT NO.
21-12032

DRAWING
E220

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3

PANEL: 'MSB-5'

NEW
MAIN SWITCHBOARD

BUS: 2000 AMP BUS
VOLTAGE: 277/480V, 3 PH, 4 W
NEUTRAL: 100% RATED NEUTRAL

MAIN: 2000A CB LSIG
TRIP: ELECTRONIC LSIG
A.I.C.: 65000

LOCATION: ELECTRICAL YARD
MOUNTING: PAD PER 13/E600
ENCLOSURE: NEMA 3R

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	VOLT-AMPERES LOAD	A	B	C
					116904	116904		
1	1	600	3	BUILDING 'D' PANEL 'DPD'	114580		114580	
					107685			107685
					109337	109337		
2	2	600	3	BUILDING 'E' PANEL 'DPE'	101298		101298	
					84764			84764
					273549	273549		
3	3	1000	3	BUILDING 'F' PANEL 'DPF'	263178		263178	
					261793			261793
					1801	1801		
4	4	15	3	IRRIGATION PUMP TRAINER - 'EQ312'	1801		1801	
					1801			1801
					8816	8816		
5	5	70	3	TRANSFORMER 'TEY' PANEL 'EY'	8996		8996	
					9356			9356
					0	0		
6	6		3	SPACE	0		0	
					0			0
					0	0		
7	7		3	SPACE	0		0	
					0			0
					0	0		
8	8		3	SPACE	0		0	
					0			0
				TOTAL CONNECTED LOAD (VA) :		510407	489854	465399
				25% LCL/LML (VA) :		0	0	0
				TOTAL CALCULATED LOAD (VA) :		510407	489854	465399
				TOTAL CALCULATED LOAD (AMPS) :		1842.6	1768.4	1680.1

PANEL: 'DPD'

NEW
BUILDING D DISTRIBUTION PANEL

BUS: 600 AMP BUS
VOLTAGE: 277/480V, 3 PH, 4 W
NEUTRAL: 100% RATED NEUTRAL

MAIN: 600A CB
TRIP: ELECTRONIC LSI
A.I.C.: 42000

LOCATION: ELEC. RM. - D11
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	VOLT-AMPERES LOAD	A	B	C
					30290	30290		
1	1	150	3	PANEL 'ACD'	30290		30290	
					30290			30290
					40373	40373		
2	2	225	3	TRANSFORMER 'TDRD' PANEL 'DRD'	44852		44852	
					29732			29732
					42069	42069		
3	3	225	3	TRANSFORMER 'TED' PANEL 'ED'	36333		36333	
					44712			44712
					4173	4173		
4	4	100	3	PANEL 'LD'	3105		3105	
					2951			2951
					0	0		
5	5		3	SPACE	0		0	
					0			0
					0	0		
6	6		3	SPACE	0		0	
					0			0
					0	0		
7	7		3	SPACE	0		0	
					0			0
					0	0		
8	8		3	SPACE	0		0	
					0			0
				TOTAL CONNECTED LOAD (VA) :		116904	114580	107685
				25% LCL/LML (VA) :		0	0	0
				TOTAL CALCULATED LOAD (VA) :		116904	114580	107685
				TOTAL CALCULATED LOAD (AMPS) :		422.0	413.6	388.8

3

PANEL: 'DPE'

NEW
BUILDING E DISTRIBUTION PANEL

BUS: 600 AMP BUS
VOLTAGE: 277/480V, 3 PH, 4 W
NEUTRAL: 100% RATED NEUTRAL

MAIN: 600A CB
TRIP: ELECTRONIC LSI
A.I.C.: 42000

LOCATION: ELEC. RM. - E9
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	VOLT-AMPERES LOAD	A	B	C
					28142	28142		
1	1	150	3	PANEL 'ACE'	28142		28142	
					28142			28142
					37166	37166		
2	2	225	3	TRANSFORMER 'TDRE' PANEL 'DRE'	31576		31576	
					26582			26582
					16969	16969		
3	3	125	3	TRANSFORMER 'TE1E' PANEL 'E1E'	16969		16969	
					10045			10045
					17828	17828		
4	4	125	3	TRANSFORMER 'TE2E' PANEL 'E2E'	17828		17828	
					16628			16628
					9231	9231		
5	5	100	3	PANEL 'LE'	6783		6783	
					3366			3366
					0	0		
6	6		3	SPACE	0		0	
					0			0
					0	0		
7	7		3	SPACE	0		0	
					0			0
					0	0		
8	8		3	SPACE	0		0	
					0			0
				TOTAL CONNECTED LOAD (VA) :		109337	101298	84764
				25% LCL/LML (VA) :		0	0	0
				TOTAL CALCULATED LOAD (VA) :		109337	101298	84764
				TOTAL CALCULATED LOAD (AMPS) :		394.7	365.7	306.0

3

PANEL: 'DPF'

NEW
BUILDING F DISTRIBUTION PANEL

BUS: 1200 AMP BUS
VOLTAGE: 277/480V, 3 PH, 4 W
NEUTRAL: 100% RATED NEUTRAL

MAIN: 1000A CB
TRIP: ELECTRONIC LSIG
A.I.C.: 42000

LOCATION: ELEC. RM. - F18
MOUNTING: PAD PER 14/E600
ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	VOLT-AMPERES LOAD	A	B	C
					47486	47486		
1	1	200	3	PANEL 'ACF'	47486		47486	
					47486			47486
					75652	75652		
2	2	450	3	TRANSFORMER 'TDRF' PANEL 'DRF'	75890		75890	
					67407			67407
					32237	32237		
3	3	175	3	TRANSFORMER 'TE1F' PANEL 'E1F'	22637		22637	
					29969			29969
					15233	15233		
4	4	125	3	TRANSFORMER 'TE3F' PANEL 'E3F'	15233		15233	
					13205			13205
					19200	19200		
5	5	125	3	TRANSFORMER 'TE4F' PANEL 'E4F'	23820		23820	
					23820			23820
					35841	35841		
6	6	175	3	TRANSFORMER 'TE5F' PANEL 'E5F'	35841		35841	
					34641			34641
					5428	5428		
7	7	100	3	PANEL 'LF'	4299		4299	
					7293			7293
					44393	44393		
8	8	225	3	TRANSFORMER 'TBDF' PANEL 'BDF'	44393		44393	
					44393			44393
				TOTAL CONNECTED LOAD (VA) :		275470	269599	268214
				GROUP WELDER LOAD ADJUSTMENT		-1921	-6421	-6421
				TOTAL CALCULATED LOAD (VA) :		273549	263178	261793
				TOTAL CALCULATED LOAD (AMPS) :		987.5	950.1	945.1

3

PANEL: 'DRD'

NEW
DISTRIBUITION PANEL

BUS: 600 AMP BUS
VOLTAGE: 120/208V, 3 PH, 4 W
NEUTRAL: 100% RATED NEUTRAL

MAIN: 600A CB
TRIP: THERMAL-MAGNETIC
A.I.C.: 22000

LOCATION: ELEC. RM. - D11
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	VOLT-AMPERES LOAD	A	B	C
					11212	11212		
1	1	200	3	PANEL 'R1D'	14060		14060	
					9548			9548
					2070	2070		
2	2	100	3	PANEL 'R2D'	2124		2124	
					1764			1764
					9360	9360		
3	3	200	3	PANEL 'R3D'	9180		9180	
					8280			8280
					14441	14441		
4	4	150	3	PANEL 'ACLD'	14571		14571	
					7439			7439
					1650	1650		
5	5	100	3	PANEL 'FPH'	3217		3217	
					2521			2521
					0	0		
6	6		3	SPACE	0		0	
					0			0
					0	0		
7	7		3	SPACE	0		0	
					0			0
					1640	1640		
8	8	100	3	PANEL 'ITD'	1700		1700	
					180			180
				TOTAL CONNECTED LOAD (VA) :		40373	44852	29732
				25% LCL/LML (VA) :		0	0	0
				TOTAL CALCULATED LOAD (VA) :		40373	44852	29732
				TOTAL CALCULATED LOAD (AMPS) :		336.4	373.8	247.8

PANEL: 'ACD'

NEW
PANELBOARD

150 AMP BUS
277/480V, 3 PH, 4 W
100% RATED NEUTRAL

MAIN: 150A CB
TRIP: THERMAL-MAGNETIC
A.I.C.: 22000 A

LOCATION: ELEC. RM. - D11
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1				3326	6651			3326				2	2
3	3	20	3	HEATING COOLING UNIT 'HC-D1'	3326		6651		3326	HEATING COOLING UNIT 'HC-D2'	20	3	4	4
5	5				3326			6651	3326				6	6
7	7				3048	6097			3048				8	8
9	9	20	3	EVAPORATIVE COOLER 'EC-D1' BLOWER	3048		6097		3048	EVAPORATIVE COOLER 'EC-D2' BLOWER	20	3	10	10
11	11				3048			6097	3048				12	12
13	13				1330	2217			887				14	14
15	15	15	3	VEHICLE EXHAUST REEL 'ER-D1' & 'ER-D2' & 'ER-D9'	1330		2217		887	VEHICLE EXHAUST REEL 'ER-D3' & 'ER-D4'	15	3	16	16
17	17				1330			2217	887				18	18
19	19				887	2217			1330				20	20
21	21	15	3	VEHICLE EXHAUST REEL 'ER-D5' & 'ER-D6'	887		2217		1330	VEHICLE EXHAUST REEL 'ER-D7'	15	3	22	22
23	23				887			2217	1330				24	24
25	25				1330	10753			9422				26	26
27	27	15	3	VEHICLE EXHAUST REEL 'ER-D8'	1330		10753		9422	COMPRESSOR 'AC-2'	70	3	28	28
29	29				1330			10753	9422				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) :		27935	27935	27935						
				25% LCL/LML (VA) :		2356	2356	2356						
				TOTAL CALCULATED LOAD (VA) :		30290	30290	30290	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		109.4	109.4	109.4	90870 VA					

PANEL: 'ACE'

NEW
PANELBOARD

150 AMP BUS
277/480V, 3 PH, 4 W
100% RATED NEUTRAL

MAIN: 150A CB
TRIP: THERMAL-MAGNETIC
A.I.C.: 22000 A

LOCATION: ELEC. RM. - E9
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1				3353	5764			2411				2	2
3	3	20	3	HEATING COOLING UNIT 'HC-E1'	3353		5764		2411	HEATING COOLING UNIT 'HC-E2'	20	3	4	4
5	5				3353			5764	2411				6	6
7	7				3048	3880			831				8	8
9	9	20	3	EVAPORATIVE COOLER 'EC-E1' BLOWER	3048		3880		831	VEHICLE EXHAUST FAN 'VEF-E1'	15	3	10	10
11	11				3048			3880	831				12	12
13	13				582	6402			5820				14	14
15	15	15	3	VEHICLE EXHAUST REEL 'ER-E5'	582		6402		5820	COMPRESSOR 'AC-1'	40	3	16	16
17	17				582			6402	5820				18	18
19	19				2744	10226			7482				20	20
21	21	20	3	HOIST CRANE, EQ317 - AG. MECH. E11	2744		10226		7482	HYDROSTATIC TRAINER, EQ320 - AG. MECH. E11	60	3	22	22
23	23				2744			10226	7482				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) :		26272	26272	26272						
				25% LCL/LML (VA) :		1871	1871	1871						
				TOTAL CALCULATED LOAD (VA) :		28142	28142	28142	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		101.6	101.6	101.6	84427 VA					

PANEL: 'ACF'

NEW
PANELBOARD

200 AMP BUS
277/480V, 3 PH, 4 W
100% RATED NEUTRAL

MAIN: 200A CB
TRIP: THERMAL-MAGNETIC
A.I.C.: 22000 A

LOCATION: ELEC. RM. - F18
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1				3326	6651			3326				2	2
3	3	20	3	HEATING COOLING UNIT 'HC-F1'	3326		6651		3326	HEATING COOLING UNIT 'HC-F2'	20	3	4	4
5	5				3326			6651	3326				6	6
7	7				3880	5986			2106				8	8
9	9	25	3	EVAPORATIVE COOLER 'EC-F1' BLOWER	3880		5986		2106	EVAPORATIVE COOLER 'EC-F2' BLOWER	15	3	10	10
11	11				3880			5986	2106				12	12
13	13				3048	6097			3048				14	14
15	15	20	3	EVAPORATIVE COOLER 'EC-F3' BLOWER	3048		6097		3048	EVAPORATIVE COOLER 'EC-F4' BLOWER	20	3	16	16
17	17				3048			6097	3048				18	18
19	19				8369	17792			9422				20	20
21	21	70	3	DUST COLLECTOR 'DC-1'	8369		17792		9422	COMPRESSOR 'AC-2'	70	3	22	22
23	23				8369			17792	9422				24	24
25	25				4434	8868			4434				26	26
27	27	20	3	FUTURE 480V CONNECTION, 'EQ500'	4434		8868		4434	FUTURE 480V CONNECTION, 'EQ500'	20	3	28	28
29	29				4434			8868	4434				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) :		45394	45394	45394						
				25% LCL/LML (VA) :		2092	2092	2092						
				TOTAL CALCULATED LOAD (VA) :		47486	47486	47486	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		171.4	171.4	171.4	142458 VA					

PANEL: 'LD'

NEW
PANELBOARD

100 AMP BUS
277/480V, 3 PH, 4 W
100% RATED NEUTRAL

MAIN: 100A CB
TRIP: THERMAL-MAGNETIC
A.I.C.: 22000 A

LOCATION: ELEC. RM. - D11
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1	20	1	LIGHTING - AUTO TECH D8 SOUTH	2116	3188			1072	LIGHTING - EXTERIOR EAST SIDE	20	1	2	2
3	3	20	1	LIGHTING - AUTO TECH D8 NORTH	1872		2484		612	LIGHTING - EXTERIOR WEST SIDE	20	1	4	4
5	5	20	1	LIGHTING - RMS. D1-D7	855			2361	1506	LIGHTING - RMS. D9-D14	20	1	6	6
7	7	20	1	SPARE	150	150			0	SPARE	20	1	8	8
9	9	20	1	SPARE	0		0		0	SPARE	20	1	10	10
11	11	20	1	SPARE	0			0	0	SPARE	20	1	12	12
13	13	20	1	SPARE	0	0			0	SPARE	20	1	14	14
15	15	20	1	SPARE	0		0		0	SPARE	20	1	16	16
17	17	20	1	SPARE	0			0	0	SPARE	20	1	18	18
19	19	20	1	SPARE	0	0			0	SPARE	20	1	20	20
21	21	20	1	SPARE	0		0		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	24	24
				TOTAL CONNECTED LOAD (VA) :		3338	2484	2361						
				25% LCL/LML (VA) :		835	621	590						
				TOTAL CALCULATED LOAD (VA) :		4173	3105	2951	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		15.1	11.2	10.7	10229 VA					

PANEL: 'LE'

NEW
PANELBOARD

100 AMP BUS
277/480V, 3 PH, 4 W
100% RATED NEUTRAL

MAIN: 100A CB
TRIP: THERMAL-MAGNETIC
A.I.C.: 22000 A

LOCATION: ELEC. RM. - E9
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1	20	1	LIGHTING - AG. MECH. E11	2044	2169			125	LIGHTING - MECH. PLATFORM E21	20	1	2	2
3	3	20	1	LIGHTING - RMS. E2-E3, E5-E10	619		1095		476	LIGHTING - EXTERIOR WEST SIDE	20	1	4	4
5	5	20	1	LIGHTING - IND. AUTO. E1 & E4	2148			2407	259	LIGHTING - EXTERIOR EAST SIDE	20	1	6	6
7	7	20	1	EXTERIOR COURTYARD WEST	2608	5216			2608	EXTERIOR COURTYARD EAST	20	1	8	8
9	9	20	1	EXTERIOR PATHWAY POLES	2445		4331		1886	BUILDING FAÇADE UPLIGHTS	20	1	10	10
11	11	20	1	GATE WALL PACKS	286			286	0	SPARE	20	1	12	12
13	13	20	1	SPARE	0	0			0	SPARE	20	1	14	14
15	15	20	1	SPARE	0		0		0	SPARE	20	1	16	16
17	17	20	1	SPARE	0			0	0	SPARE	20	1	18	18
19	19	20	1	SPARE	0	0			0	SPARE	20	1	20	20
21	21	20	1	SPARE	0		0		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	24	24
				TOTAL CONNECTED LOAD (VA) :		7385	5426	2693						
				25% LCL/LML (VA) :		1846	1357	673						
				TOTAL CALCULATED LOAD (VA) :		9231	6783	3366	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		33.3	24.5	12.2	19380 VA					

PANEL: 'LF'

NEW
PANELBOARD

100 AMP BUS
277/480V, 3 PH, 4 W
100% RATED NEUTRAL

MAIN: 100A CB
TRIP: THERMAL-MAGNETIC
A.I.C.: 22000 A

LOCATION: ELEC. RM. - F18
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1	20	1	LIGHTING - IND. MAIN. LAB 'F19'	2314	2314			0	SPARE	20	1	2	2
3	3	20	1	LIGHTING - ENV. CNTRL. LAB 'F10'	2146		3064		918	LIGHTING - EXTERIOR NORTH SIDE	20	1	4	4
5	5	20	1	LIGHTING - F1 - F3	2045			3986	1941	LIGHTING - EXTERIOR SOUTH SIDE	20	1	6	6
7	7	20	1	LIGHTING - F4 - F9	2028	2028			0	SPARE	20	1	8	8
9	9	20	1	LIGHTING - MECHANICAL PLATFORMS	375		375		0	SPARE	20	1	10	10
11	11	20	1	LIGHTING - F11-F18 & F20-F32	1848			1848	0	SPARE	20	1	12	12
13	13	20	1	SPARE	0	0			0	SPARE	20	1	14	14
15	15	20	1	SPARE	0		0		0	SPARE	20	1	16	16
17	17	20	1	SPARE	0			0	0	SPARE	20	1	18	18
19	19	20	1	SPARE	0	0			0	SPARE	20	1	20	20
21	21	20	1	SPARE	0		0		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	24	24
				TOTAL CONNECTED LOAD (VA) :		4342	3439	5834						
				25% LCL/LML (VA) :		1086	860	1459						
				TOTAL CALCULATED LOAD (VA) :		5428	4299	7293	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		19.6	15.5	26.3	17019 VA					

PANEL: 'DRE'

NEW
DISTRIBUITION PANEL

BUS: 600 AMP BUS
VOLTAGE: 120/208V, 3 PH, 4 W
NEUTRAL: 100% RATED NEUTRAL

MAIN: 600A CB
TRIP: THERMAL-MAGNETIC
A.I.C.: 22000

LOCATION: ELEC. RM. - E9
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	VOLT-AMPERES LOAD	A	B	C
					10125	10125		
1	1	125	3	PANEL 'R1E'	8635		8635	
					6555			6555
					15789	15789		
2	2	200	3	PANEL 'R2E'	10153		10153	
					13113			13113
					3240	3240		
3	3	100	3	PANEL 'R3E'	3600		3600	
					3600			3600
					6552	6552		
4	4	100	3	PANEL 'ACLE'	7488		7488	
					3314			3314
					0	0		
5	5		3	SPACE	0		0	
					0			0
					0	0		
6	6		3	SPACE	0		0	
					0			0
					0	0		
7	7		3	SPACE	0		0	
					0			0
					1460	1460		
8	8	100	3	PANEL 'ITE'	1700		1700	
					0			0
				TOTAL CONNECTED LOAD (VA) :		37166	31576	26582
				25% LCL/LML (VA) :		0	0	0
				TOTAL CALCULATED LOAD (VA) :		37166	31576	26582
				TOTAL CALCULATED LOAD (AMPS) :		309.7	263.1	221.5

3

PANEL: 'DRF'

NEW
DISTRIBUITION PANEL

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

MAIN: 800A CB
TRIP: THERMAL-MAGNETIC
A.I.C.: 22000

LOCATION: ELEC. RM. - F18
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	VOLT-AMPERES LOAD	A	B	C
					18340	18340		
1	1	200	3	PANEL 'R1F'	18132		18132	
					15796			15796
					9740	9740		
2	2	125	3	PANEL 'R2F'	9200		9200	
					9410			9410
					1956	1956		
3	3	100	3	PANEL 'R3F'	1956		1956	
					2760			2760
					6375	6375		
4	4	200	3	PANEL 'R4F'	6105		6105	
					6151			6151
					11104	11104		
5	5	100	3	PANEL 'R5F'	10204		10204	
					10744			10744
					7274	7274		
6	6	125	3	PANEL 'R6F'	7404		7404	
					7748			7748
					11664	11664		
7	7	125	3	PANLE 'R7F'	12804		12804	
					8924			8924
					15322	15322		
8	8	200	3	PANLE 'ACLF'	17248		17248	
					13637			13637
					2740	2740		
9	9	100	3	PANEL 'ITF'	1700		1700	
					1100			1100
				TOTAL CONNECTED LOAD (VA) :		84515	84753	76270
				RECEPTACLE LOAD REDUCTION FACTOR:		-8863	-8863	-8863
				TOTAL CALCULATED LOAD (VA) :		75652	75890	67407
				TOTAL CALCULATED LOAD (AMPS) :		630.4	632.4	561.7

MARK	DATE	DESCRIPTION
3	12/14/22	ADDENDUM NO. 3
	11/1/22	DSA BACKCHECK

REGISTERED PROFESSIONAL ENGINEER
BRYAN A. GLASS
No. E 17773
06-30-24
ELECTRICAL
STATE OF CALIFORNIA

TETER, LLP
FRESNO HEADQUARTERS
VISALIA | BAKERSFIELD | MODESTO | SAN LUIS OBISPO
ARCHITECTS ENGINEERS CONNECTED

TETER

TULARE CAMPUS CTE
COLLEGE OF THE SEQUOIAS
4999 E. BARDSLEY AVE.
TULARE, CA

DRAWING TITLE
PANEL SCHEDULES

PROJECT NO.
21-12032

DRAWING
E810

PLOT DATE: 12/15/2022 8:24:09 AM

\\tetr-file1\Users\jason.march\Documents\12032-E-COS Tulare CTE_march.jason.rvt

PANEL: 'R1D'

NEW PANELBOARD — 200 AMP BUS, 120/208V, 3 PH, 4 W, 100% RATED NEUTRAL
MAIN: 200A CB — TRIP: THERMAL-MAGNETIC — A.I.C.: 14000 A
LOCATION: AUTOMOTIVE TECHNOLOGY - D8 — MOUNTING: SURFACE PER 11/E600 — ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	2	VEHICLE LIFT #1 'EQ103'	1248	2496			1248	VEHICLE LIFT #4 'EQ103'	20	2	2	2
3	3				1248		2496		1248				4	4
5	5	20	2	VEHICLE LIFT #2 'EQ103'	1248			2496	1248	VEHICLE LIFT #5 'EQ103'	20	2	6	6
7	7				1248	2496			1248				8	8
9	9	20	2	VEHICLE LIFT #3 'EQ103'	1248		3952		2704	ALIGNMENT RACK 'EQ104'	60	2	10	10
11	11				1248			3952	2704				12	12
13	13	30	1	BRAKE LATHE EQ110	1920	4416			2496	AQUEOUS PARTS WASHER, EQ114	30	2	14	14
15	15	30	1	DRILL PRESS EQ118	1920		4416		2496				16	16
17	17	20	1	PEDESTEL GRINDER EQ117	864			1344	480	WHEEL ALIGNER EQ109	20	1	18	18
19	19	20	1	PEDESTEL GRINDER EQ117	864	1344			480	ENGINE DISPLAY EQ105	20	1	20	20
21	21	20	1	RECPT. - DISPLAY SPACE D6	360		2160		1800	DRIVE TRAIN DISPLAY EQ107	20	1	22	22
23	23	20	1	RECPT. - STORAGE D7	720			900	180	EIS SMOG	20	1	24	24
25	25	20	1	RECPT. WEST WALL - AUTO TECH D8	180	280			100	FIRE RISER ELECTRIC BELL	20	1	26	26
27	27	20	1	RECPT. WEST WALL - AUTO TECH D8	180		180		0	SPARE	20	1	28	28
29	29	20	1	RECPT. WEST WALL - AUTO TECH D8	180			180	0	SPARE	20	1	30	30
31	31	20	1	RECPT. WEST WALL - AUTO TECH D8	180	180			0	SPARE	20	1	32	32
33	33	20	1	RECPT. WEST WALL - AUTO TECH D8	180		180		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) :		11212	13384	8872						
				25% LCL/LML (VA) :		0	676	676						
				TOTAL CALCULATED LOAD (VA) :		11212	14060	9548		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		93.4	117.2	79.6		34820 VA				

PANEL: 'R2E'

NEW PANELBOARD — 200 AMP BUS, 120/208V, 3 PH, 4 W, 100% RATED NEUTRAL
MAIN: 200A CB — TRIP: THERMAL-MAGNETIC — A.I.C.: 14000 A
LOCATION: AGRICULTURAL MECHANICS - E11 — MOUNTING: SURFACE PER 11/E600 — ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	15	2	HORIZONTAL BAND SAW, EQ304- AG. MECH. STOR. 'E7'	832	1373			541				2	2
3	3				832		1373		541	DRILL PRESS, EQ306 - AG. MECH. E11	15	3	4	4
5	5	20	1	GRINDING WHEEL, EQ313 - AG. MECH. E11	1656			2197	541				6	6
7	7	20	1	GRINDING WHEEL, EQ313 - AG. MECH. E11	1656	2197			541				8	8
9	9	20	1	BUFFING WHEEL, EQ314 - AG. MECH. E11	1656		2197		541	DRILL PRESS, EQ306 - AG. MECH. E11	15	3	10	10
11	11	20	1	WIRE WHEEL, EQ315- AG. MECH. E11	1656			2197	541				12	12
13	13	40	1	BELT SANDER, EQ316 - AG. MECH. E11	2400	7324			4924				14	14
15	15	20	1	FLOOR BOX - AG. MECH. E11	360		5284		4924	PLASMA CUTTER, EQ311a - AG. MECH. E11	50	3	16	16
17	17	30	2	AQUEOUS PARTS WASHER, EQ114	2496			7420	4924				18	18
19	19				2496	4296			1800	PLASMA CUTTER, EQ311b - AG. MECH. E11	20	1	20	20
21	21	20	1	SPARE	0		1040		1040	LATHE, EQ307 - AG. MECH. E11	20	2	22	22
23	23	20	1	SPARE	0			1040	1040				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) :		15189	9893	12853						
				25% LCL/LML (VA) :		600	260	260						
				TOTAL CALCULATED LOAD (VA) :		15789	10153	13113		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		131.6	84.6	109.3		39056 VA				

PANEL: 'R3F'

NEW PANELBOARD — 200 AMP BUS, 120/208V, 3 PH, 4 W, 100% RATED NEUTRAL
MAIN: 100A CB — TRIP: THERMAL-MAGNETIC — A.I.C.: 14000 A
LOCATION: ENVIRONMENTAL CONTROLS LAB - F10 — MOUNTING: SURFACE PER 11/E600 — ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	SPARE	0	360			360	RECPT. FLOOR BOX - ENV. CNTRL. F10	20	1	2	2
3	3	20	1	SPARE	0		360		360	RECPT. FLOOR BOX - ENV. CNTRL. F11	20	1	4	4
5	5	20	1	SPARE	0			360	360	RECPT. FLOOR BOX - ENV. CNTRL. F12	20	1	6	6
7	7	20	1	SPARE	0	1596			1596	GRINDER, EQ407 - ENV. CNTRL. F10	20	1	8	8
9	9	20	1	SPARE	0		1596		1596	BUFFER/WIRE, EQ406 - ENV. CNTRL. F10	20	1	10	10
11	11	20	1	SPARE	0			1920	1920	DRILL PRESS, EQ408 - ENV. CNTRL. F10	20	1	12	12
13	13	20	1	SPARE	0	0			0	SPARE	20	1	14	14
15	15	20	1	SPARE	0		0		0	SPARE	20	1	16	16
17	17	20	1	SPARE	0			0	0	SPARE	20	1	18	18
19	19	20	1	SPARE	0	0			0	SPARE	20	1	20	20
21	21	20	1	SPARE	0		0		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	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) :		1956	1956	2280						
				25% LCL/LML (VA) :		0	0	480						
				TOTAL CALCULATED LOAD (VA) :		1956	1956	2760		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		16.3	16.3	23.0		6672 VA				

PANEL: 'R2D'

NEW PANELBOARD — 100 AMP BUS, 120/208V, 3 PH, 4 W, 100% RATED NEUTRAL
MAIN: 100A CB — TRIP: THERMAL-MAGNETIC — A.I.C.: 14000 A
LOCATION: AUTOMOTIVE TECHNOLOGY - D8 — MOUNTING: SURFACE PER 11/E600 — ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	CORD REEL - AUTO. TECH. D8	306	612			306	CORD REEL - AUTO. TECH. D8	20	1	2	2
3	3	20	1	CORD REEL - AUTO. TECH. D8	306		612		306	CORD REEL - AUTO. TECH. D8	20	1	4	4
5	5	20	1	CORD REEL - AUTO. TECH. D8	306			612	306	CORD REEL - AUTO. TECH. D8	20	1	6	6
7	7	20	1	CORD REEL - AUTO. TECH. D8	306	612			306	CORD REEL - AUTO. TECH. D8	20	1	8	8
9	9	20	1	CORD REEL - AUTO. TECH. D8	306		612		306	CORD REEL - AUTO. TECH. D8	20	1	10	10
11	11	20	1	CORD REEL - AUTO. TECH. D8	306			612	306	CORD REEL - AUTO. TECH. D8	20	1	12	12
13	13	20	1	CORD REEL - AUTO. TECH. D8	306	576			270	EXTERIOR CORD REEL - BUILDING 'E'	20	1	14	14
15	15	20	1	EXTERIOR CORD REEL - BUILDING 'E'	270		540		270	EXTERIOR CORD REEL - BUILDING 'E'	20	1	16	16
17	17	20	1	EXTERIOR CORD REEL - BUILDING 'E'	270			540	270	EXTERIOR CORD REEL - BUILDING 'E'	20	1	18	18
19	19	20	1	EXTERIOR CORD REEL - BUILDING 'E'	270	270			0	SPARE	20	1	20	20
21	21	20	1	RECPT. LAPTOP CART - COMPUTER LAB D13	360		360		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	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) :		2070	2124	1764						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		2070	2124	1764		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		17.3	17.7	14.7		5958 VA				

PANEL: 'R3E'

NEW PANELBOARD — 200 AMP BUS, 120/208V, 3 PH, 4 W, 100% RATED NEUTRAL
MAIN: 100A CB — TRIP: THERMAL-MAGNETIC — A.I.C.: 14000 A
LOCATION: AGRICULTURAL MECHANICS - E11 — MOUNTING: SURFACE PER 11/E600 — ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	CORD REELS - AG. MECH. 'E11'	270	540			270	CORD REELS - AG. MECH. 'E11'	20	1	2	2
3	3	20	1	CORD REELS - AG. MECH. 'E11'	270		540		270	CORD REELS - AG. MECH. 'E11'	20	1	4	4
5	5	20	1	CORD REELS - AG. MECH. 'E11'	270			540	270	CORD REELS - AG. MECH. 'E11'	20	1	6	6
7	7	20	1	CORD REELS - AG. MECH. 'E11'	540	810			270	CORD REELS - AG. MECH. 'E11'	20	1	8	8
9	9	20	1	CORD REELS - AG. MECH. 'E11'	270		540		270	CORD REELS - AG. MECH. 'E11'	20	1	10	10
11	11	20	1	CORD REELS - AG. MECH. 'E11'	270			540	270	CORD REELS - AG. MECH. 'E11'	20	1	12	12
13	13	20	1	CORD REELS - AG. MECH. 'E11'	270	540			270	CORD REELS - AG. MECH. 'E11'	20	1	14	14
15	15	20	1	CORD REELS - AG. MECH. 'E11'	270		540		270	CORD REELS - AG. MECH. 'E11'	20	1	16	16
17	17	20	1	CORD REELS - AG. MECH. 'E11'	270			540	270	CORD REELS - AG. MECH. 'E11'	20	1	18	18
19	19	20	1	CORD REELS - AG. MECH. 'E11'	270	270			0	SPARE	20	1	20	20
21	21	20	1	SPARE	0		0		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	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	RECPT. - STORAGE E7	900		900		0	SPARE	20	1	34	34
35	35	20	1	RECPT. - OFFICE E5	900			900	0	SPARE	20	1	36	36
37	37	20	1	RECPT. - OFFICE E6	900	1080			180	RECPT. NO. WEST - AG. MECH E11	20	1	38	38
39	39	20	1	RECPT. SO. WALL - AG. MECH. E11	540		1080		540	RECPT. EAST WALL - AG. MECH. E11	20	1	40	40
41	41	20	1	RECPT. TEACH WALL - AG. MECH. E11	360			1080	720	RECPT. - ELEC. E9, COMP. E8, MECH. PLAT. E21	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		3240	3600	3600						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		3240	3600	3600		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		27.0	30.0	30.0		10440 VA				

PANEL: 'R4F'

NEW PANELBOARD — 200 AMP BUS, 120/208V, 3 PH, 4 W, 100% RATED NEUTRAL
MAIN: 200A CB — TRIP: THERMAL-MAGNETIC — A.I.C.: 14000 A
LOCATION: ENVIRONMENTAL CONTROLS LAB - F10 — MOUNTING: SURFACE PER 11/E600 — ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	CORD REELS - ENV. CNTRL. LAB 'F10'	270	540			270	CORD REELS - ENV. CNTRL. LAB 'F10'	20	1	2	2
3	3	20	1	CORD REELS - ENV. CNTRL. LAB 'F10'	270		270		0	SPARE	20	1	4	4
5	5	20	1	CORD REELS - ENV. CNTRL. LAB 'F10'	270			540	270	CORD REELS - ENV. CNTRL. LAB 'F10'	20	1	6	6
7	7	20	1	CORD REELS - ENV. CNTRL. LAB 'F10'	270	540			270	CORD REELS - ENV. CNTRL. LAB 'F10'	20	1	8	8
9	9	20	1	CORD REELS - ENV. CNTRL. LAB 'F10'	270		270		0	SPARE	20	1	10	10
11	11	20	1	CORD REELS - ENV. CNTRL. LAB 'F10'	540			1080	540	CORD REELS - ENV. CNTRL. LAB 'F10'	20	1	12	12
13	13	20	1	CORD REELS - ENV. CNTRL. LAB 'F10'	270	810			540	CORD REELS - ENV. CNTRL. LAB 'F10'	20	1	14	14
15	15	20	1	CORD REELS - ENV. CNTRL. LAB 'F10'	540		1080		540	EXTERIOR CORD REELS - BUILDING F	20	1	16	16
17	17	20	1	EXTERIOR CORD REELS - BUILDING F	540			810	270	EXTERIOR CORD REELS - BUILDING F	20	1	18	18
19	19	20	2	CORD REELS - ENV. CNTRL. LAB 'F10'	1664	3585			1921				20	20
21	21				1664		3585		1921	CORD REELS - ENV. CNTRL. LAB 'F10'	20	3	22	22
23	23	20	1	SPARE	0			1921	1921				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	RECPT. LAPTOP CART - ENV. CNTRL. LAB F10	360	900			540	RECPT. NO. WALL - ENV. CNTRL. LAB F10	20	1	38	38
39	39	20	1	RECPT. SO. WALL - ENV. CNTRL LAB F10	360		900		540	RECPT. STORAGE F13 & MECH. PLAT. F41	20	1	40	40
41	41	20	1	RECPT. - OFFICE F11	1260			1800	540	RECPT. TEACH WALL - ENV. CNTRL. F10	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		6375	6105	6151						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		6375	6105	6151		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		53.1	50.9	51.3		18632 VA				

PANEL: 'R3D'

NEW PANELBOARD — 200 AMP BUS, 120/208V, 3 PH, 4 W, 100% RATED NEUTRAL
MAIN: 200A CB — TRIP: THERMAL-MAGNETIC — A.I.C.: 14000 A
LOCATION: AUTOMOTIVE TECHNOLOGY - D8 — MOUNTING: SURFACE PER 11/E600 — ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	RECPT. FLR BX SO. - COMPUTER LAB D14	720	1440			720	RECPT. FLR BX NO.- COMPUTER LAB D14	20	1	2	2
3	3	20	1	RECPT. FLR BX SO. - COMPUTER LAB D14	720		1440		720	RECPT. FLR BX NO.- COMPUTER LAB D14	20	1	4	4
5	5	20	1	RECPT. FLR BX SO. - COMPUTER LAB D14	720			1440	720	RECPT. FLR BX NO.- COMPUTER LAB D14	20	1	6	6
7	7	20	1	RECPT. FLR BX SO. - COMPUTER LAB D14	720	1440			720	RECPT. FLR BX NO.- COMPUTER LAB D14	20	1	8	8
9	9	20	1	RECPT. SO. & WEST - COMPUTER LAB D13	720		1080		360	RECPT. NORTH - COMPUTER LAB D13	20	1	10	10
11	11	20	1	RECPT. TEACH WALL - COMP LAB D13	540			900	360	RECPT. NORTH - COMPUTER LAB D13	20	1	12	12
13	13	20	1	RECPT. TEACH WALL - COMP LAB D14	540	900			360	RECPT. NORTH - COMPUTER LAB D13	20	1	14	14
15	15	20	1	RECPT. EAST - COMPUTER LAB D14	360		1260		900	RECPT. - STORAGE D9	20	1	16	16
17	17	20	1	RECPT. LAPTOP CART - COMPUTER LAB D14	360			720	360	RECPT. - OUTSIDE COMP. LAB D13	20	1	18	18
19	19	20	1	RECPT. PRINTER/COPIER - COMPUTER LAB D14	360	720			360	RECPT. SO. WEST - STORAGE D10	20	1	20	20
21	21	20	1	RECPT. - RESTROOM D1 & D2	360		720		360	RECPT. SO. EAST - STORAGE D10	20	1	22	22
23	23	20	1	RECPT. SO. WEST - AUTO. TECH. D8	360			720	360	RECPT. NO. WEST - STORAGE D10	20	1	24	24
25	25	20	1	RECPT. SO. TEACH WALL - AUTO. TECH. D8	540	900			360	RECPT. NO. EAST - STORAGE D10	20	1	26	26
27	27	20	1	RECPT. SO. EAST - AUTO. TECH. D8	360		1080		720	RECPT. FLOOR BOX - AUTO. TECH. D8	20	1	28	28
29	29	20	1	RECPT. - TV DISP SPC D6, AUTO. TECH. D8	360			1080	720	RECPT. FLOOR BOX - AUTO. TECH. D8	20	1	30	30
31	31	20	1	RECPT. - OFFICE D4	1080	1800			720	RECPT. FLOOR BOX - AUTO. TECH. D8	20	1	32	32
33	33	20	1	RECPT. - OFFICE D5	900		1440		540	RECPT. EAST - AUTO. TECH. D8	20	1	34	34
35	35	20	1	RECPT. FLOOR BOX - CLASSROOM D13	1440			1620	180	RECPT. - MECH. PLATFORM D21	20	1	36	36
37	37	20	1	RECPT. FLOOR BOX - CLASSROOM D14	1440	2160			720	RECPT. FLR BX SO. - COMPUTER LAB D14	20	1	38	38
39	39	20	1	RECPT. FLOOR BOX - CLASSROOM D15	1440		2160		720	RECPT. FLR BX SO. - COMPUTER LAB D14	20	1	40	40
41	41	20	1	RECPT. FLOOR BOX - CLASSROOM D16	1440			1800	360	RECPT. SO. WEST - STORAGE D10	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		9360	9180	8280						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		9360	9180	8280		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		78.0	76.5	69.0		26820 VA				

PANEL: 'R1F'

NEW PANELBOARD — 200 AMP BUS, 120/208V, 3 PH, 4 W, 100% RATED NEUTRAL
MAIN: 200A CB — TRIP: THERMAL-MAGNETIC — A.I.C.: 14000 A
LOCATION: INDUSTRIAL MAINTENANCE LAB - F19 — MOUNTING: SURFACE PER 11/E600 — ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	WELD EXHAUST - 'WE-1a'	1920	3840			1920	WELD EXHAUST - 'WE-3a'	20	1	2	2
3	3	20	1	WELD EXHAUST - 'WE-1b'	1920		3840		1920	WELD EXHAUST - 'WE-3b'	20	1	4	4
5	5	20	1	WELD EXHAUST - 'WE-2a'	1920			3840	1920	WELD EXHAUST - 'WE-4a'	20	1	6	6
7	7	20	1	WELD EXHAUST - 'WE-2b'	1920	3840			1920	WELD EXHAUST - 'WE-4b'	20	1	8	8
9	9	25	1	PEDESTAL GRINDER, EQ608 - IND. MAIN. F19	1656		3312		1656	BENCHTOP GRINDER, EQ609 - IND. MAIN. F19	25	1	10	10
11	11	25	1	PEDESTAL GRINDER, EQ608 - IND. MAIN. F19	1656			3312	1656	BENCHTOP GRINDER, EQ609 - IND. MAIN. F19	25	1	12	12
13	13	20	1	BENCHTOP DRILL PRESS, EQ610-IND. MAIN....	924	2580			1656	BENCHTOP GRINDER, EQ609 - IND. MAIN. F19	25	1	14	14
15	15	20	1	BENCHTOP DRILL PRESS, EQ610-IND. MAIN....	924		2580		1656	BENCHTOP GRINDER, EQ609 - IND. MAIN. F19	25	1	16	16
17	17				4924			6844	1920	WHEEL/BELT SANDER, EQ615 - IND. MAIN. F19	30	1	18	18
19	19	50	3	PLASMA CUTTER, EQ616a - IND. MAIN. LAB F19	4924	5104			180	PNEUMATIC TRAINER, EQ626 - IND. MAIN. F19	20	1	20	20
21	21				4924		5424		500	WELDING EXHAUST FAN CONTROLLER	20	1	22	22
23	23	20	1	PLASMA CUTTER TABLE, EQ616b - IND. MAIN...	1800			1800	0	SPARE	20	1	24	24
25	25	30	2	AQUEOUS PARTS WASHER, EQ114	2496	2496			0	SPARE	20	1	26	26
27	27				2496		2496		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) :		17860	17652	15796						
				25% LCL/LML (VA) :		480	480	0						
				TOTAL CALCULATED LOAD (VA) :		18340	18132	15796		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		152.8	151.1	131.6		52267 VA				

PANEL: 'R5F'

NEW PANELBOARD — 200 AMP BUS, 120/208V, 3 PH, 4 W, 100% RATED NEUTRAL
MAIN: 100A CB — TRIP: THERMAL-MAGNETIC — A.I.C.: 14000 A
LOCATION: ELECTRICIAN TRAINING - F9 — MOUNTING: SURFACE PER 11/E600 — ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	CORD REELS - ELEC. TRAIN. 'F9'	270	540			270	CORD REELS - ELEC. TRAIN. 'F9'	20	1	2	2
3	3	20	1	CORD REELS - ELEC. TRAIN. 'F9'	270		540		270	CORD REELS - ELEC. TRAIN. 'F9'	20	1	4	4
5	5	20	1	CORD REELS - ELEC. TRAIN. 'F9'	540			1080	540	CORD REELS - ELEC. TRAIN. 'F9'	20	1	6	6
7	7	20	1	CORD REELS - ELEC. TRAIN. 'F9'	270	540			270	CORD REELS - ELEC. TRAIN. 'F9'	20	1	8	8
9	9	20	1	EXTERIOR CORD REELS	540		1080		540	EXTERIOR CORD REELS	20	1	10	10
11	11	20	1	EXTERIOR CORD REELS	540			900	360	RECPT. - ELECT. TRAIN. 'F9'	20	1	12	12
13	13	20	1	RECPT. - ELECT. TRAIN. 'F9'	360	720			360	RECPT. - ELECT. TRAIN. 'F9'	20	1	14	14
15	15	20	1	RECPT. - ELECT. TRAIN. 'F9'	360		720		360	RECPT. - ELECT. TRAIN. 'F9'	20	1	16	16
17	17	20	1	RECPT. - ELECT. TRAIN. 'F9'	360			720	360	RECPT. - ELECT. TRAIN. 'F9'	20	1	18	18
19	19	20	1	RECPT. LIGHT SHWRM - ELECT. TRAIN. 'F9'	360	900			540	RECPT. SO. WALL - ELECT. TRAIN. 'F9'	20	1	20	20
21	21	20	1	RECPT. LIGHT SHWRM - ELECT. TRAIN. 'F9'	360		360		0	SPARE	20	1	22	22
23	23	20	1	RECPT. LIGHT SHWRM - ELECT. TRAIN. 'F9'	360			360	0	SPARE	20	1	24	24
25	25	20	1	RECPT. LIGHT SHWRM - ELECT. TRAIN. 'F9'	360	1440			1080	RECPT. FLOOR BOX - CLASSROOM F8	20	1	26	26
27	27				4804		5884		1080	RECPT. FLOOR BOX - CLASSROOM F8	20	1	28	28
29	29	50	3	WELDER - EQ. 501	4804			5884	1080	RECPT. FLOOR BOX - CLASSROOM F8	20	1	30	30
31	31				4804	5884			1080	RECPT. FLOOR BOX - CLASSROOM F8	20	1	32	32
33	33	20	1	SPARE	0		540		540	RECPT. - PROJ. & GEN. CLRM F8	20	1	34	34
35	35	20	1	RECPT. PROJ., TEACH. - ELECT. TRAIN. 'F9'	360			720	360	RECPT. - CLRM F8	20	1	36	36
37	37	20	1	RECPT. NO. WALL - ELECT. TRAIN. 'F9'	720	1080			360	RECPT. - PLOT/ 3D PRINT CLRM F8	20	1	38	38
39	39	20	1	RECPT. W. WALL - ELECT. TRAIN. 'F9'	720		1080		360	RECPT. - LAPTOP CART CLRM F8	20	1	40	40
41	41	20	1	RECPT. SO. WALL - ELECT. TRAIN. 'F9'	720			1080	360	RECPT. - LAPTOP CART CLRM F9	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		11104	10204	10744						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		11104	10204	10744		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		92.5	85.0	89.5		32051 VA				

PANEL: 'R1E'

NEW PANELBOARD — 200 AMP BUS, 120/208V, 3 PH, 4 W, 100% RATED NEUTRAL
MAIN: 125A CB — TRIP: THERMAL-MAGNETIC — A.I.C.: 14000 A
LOCATION: INDUSTRIAL AUTOMATION TECH. - E1 — MOUNTING: SURFACE PER 11/E600 — ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	CORD REEL - IND AUTO 'E1'	270	540			270	CORD REEL - IND AUTO 'E1'	20	1	2	2
3	3	20	1	CORD REEL - IND AUTO 'E1'	270		540		270	CORD REEL - IND AUTO 'E1'	20	1	4	4
5	5	20	1	CORD REEL - IND AUTO 'E1'	270			540	270	CORD REEL - IND AUTO 'E1'	20	1	6	6
7	7	20	1	CORD REEL - IND AUTO 'E1'	270	540			270	CORD REEL - IND AUTO 'E1'	20	1	8	8
9	9	20	1	CORD REEL - IND AUTO 'E1'	270		540		270	CORD REEL - IND AUTO 'E1'	20	1	10	10
11	11	20	1	CORD REEL - IND AUTO 'E1'	270			540	270	CORD REEL - IND AUTO 'E1'	20	1	12	12
13	13	20	1	FANUC LR MATE ROBOT - EQ707	1560	2280			720	RECPT. SO. WALL - IND. AUTO. ROBOT. E4	20	1	14	14
15	15	20	1	AMETRAL PEGASUS - EQ709	1440		1980		540	RECPT. NO. WALL - IND. AUTO. ROBOT. E4	20	1	16	16
17	17	20	1	FUTURE ROBOT - EQ710	180			540	360	RECPT. - STORAGE E3	20	1	18	18
19	19	20	1	FUTURE ROBOT - EQ710	180	1440			1260	RECPT. - OFFICE E2	20	1	20	20
21	21	20	1	LAPTOP CART - IND. AUTO. E1	360		1080		720	RECPT. TEACH WALL - IND. AUTO. TECH. E1	20	1	22	22
23	23	20	1	EXTERIOR CORD REEL - BUILDING 'E'	540			540	0	SPARE	20	1	24	24
25	25	20	1	EXTERIOR CORD REEL - BUILDING 'E'	540	2005			1465				26	26
27	27	20	1	FIRE RISER ELECTRIC BELL	100		1565		1465	CORD REEL - IND AUTO 'E1'	20	3	28	28
29	29	20	1	SPARE	0			1465	1465				30	30
31	31	20	1	SPARE	0	1465			1465				32	32
33	33	20	1	SPARE	0		1465		1465	CORD REEL - IND AUTO 'E1'	20	3	34	34
35	35	20	1	SPARE	0			1465	1465				36	36
37	37	20	1	SPARE	0	1465			1465				38	38
39	39	20	1	SPARE	0		1465		1465	CORD REEL - IND AUTO 'E1'	20	3	40	40
41	41	20	1	SPARE	0			1465	1465				42	42
				TOTAL CONNECTED LOAD (VA) :		9735	8635	6555						
				25% LCL/LML (VA) :		390	0	0						
				TOTAL CALCULATED LOAD (VA) :		10125	8635	6555		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		84.4	72.0	54.6		25316 VA				

PANEL: 'R2F'

NEW PANELBOARD — 200 AMP BUS, 120/208V, 3 PH, 4 W, 100% RATED NEUTRAL
MAIN: 125A CB — TRIP: THERMAL-MAGNETIC — A.I.C.: 14000 A
LOCATION: INDUSTRIAL MAINTENANCE LAB - F19 — MOUNTING: SURFACE PER 11/E600 — ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	CORD REELS - IND. MAIN. LAB 'F19'	540	1080			540	CORD REELS - IND. MAIN. LAB 'F19'	20	1	2	2
3	3	20	1	CORD REELS - IND. MAIN. LAB 'F19'	540		810		270	CORD REELS - IND. MAIN. LAB 'F19'	20	1	4	4
5	5	20	1	CORD REELS - IND. MAIN. LAB 'F19'	540			1080	540	CORD REELS - IND. MAIN. LAB 'F19'	20	1	6	6
7	7	20	1	CORD REELS - IND. MAIN. LAB 'F19'	270	540			270	CORD REELS - IND. MAIN. LAB 'F19'	20	1	8	8
9	9	20	1	CORD REELS - IND. MAIN. LAB 'F19'	270		270		0	SPARE	20	1	10	10
11	11	20	1	EXTERIOR CORD REELS	540			1080	540	EXTERIOR CORD REELS	20	1	12	12
13	13	20	1	EXTERIOR CORD REELS	540	2540			2000	ELECTRIC DRYER - JANITOR 'F24'	30	2	14	14
15	15	20	1	SPARE	0		2000		2000				16	16
17	17	20	1	FIRE SMOKE DAMPER	50			1490	1440	RECPT. - MEETING, 'F29'	20	1	18	18
19	19	20	1	RECPT. - STORAGE F16	540	900			360	RECPT. - MEETING, 'F29'	20	1	20	20
21	21	20	1	RECPT. - STORAGE F16	540		1620		1080	RECPT. FLOOR BOX - CLASSROOM F26	20	1	22	22
23	23	20	1	RECPT. SO. EAST WALL - IND. MAIN F19	360			1440	1080	RECPT. FLOOR BOX - CLASSROOM F26	20	1	24	24
25	25	20	1	RECPT. TEACH WALL - IND. MAIN. F19	540	1620			1080	RECPT. FLOOR BOX - CLASSROOM F26	20	1	26	26
27	27	20	1	RECPT. - ASSISTANT/PRINT/COPY F28	720		1800		1080	RECPT. FLOOR BOX - CLASSROOM F26	20	1	28	28
29	29	20	1	RECPT. - ASSISTANT/PRINT/COPY F28	180			540	360	RECPT. PRINTER/COPIER - CLSRM F26	20	1	30	30
31	31	20	1	RECPT. - ASSISTANT/PRINT/COPY F28	1080	1440			360	RECPT. LAPTOP CART - CLSRM F26	20	1	32	32
33	33	20	1	RECPT. - ASSISTANT/PRINT/COPY F28	720		1260		540	RECPT. PROJ, AV WALL - CLSRM F26	20	1	34	34
35	35	20	1	RECPT. - DEAN'S OFFICE F27	1440			2160	720	RECPT. NORTH - CLASSROOM F26	20	1	36	36
37	37	20	1	RECPT. - IND. MAIN. LAB F19	720	1620			900	RECPT. - MEN F23 & WOMEN F25	20	1	38	38
39	39	20	1	RECPT. - OFFICE F20	1080		1440		360	RECPT. - JANITOR F24	20	1	40	40
41	41	20	1	RECPT. - OFFICE F21	1080			1620	540	TRP PRMR / SF-F4 / AC-2 TNK DRAIN	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		9740	9200	9410						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		9740	9200	9410		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		81.2	76.7	78.4		28350 VA				

PANEL: 'R6F'

NEW PANELBOARD — 200 AMP BUS, 120/208V, 3 PH, 4 W, 100% RATED NEUTRAL
MAIN: 125A CB — TRIP: THERMAL-MAGNETIC — A.I.C.: 14000 A
LOCATION: CONSTRUCTION TECHNOLOGY - F3 — MOUNTING: SURFACE PER 11/E600 — ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	CORD REELS - CONST. TECH. 'F3'	270	540			270	CORD REELS - CONST. TECH. 'F3'	20	1	2	2
3	3	20	1	CORD REELS - CONST. TECH. 'F3'	270		540		270	CORD REELS - CONST. TECH. 'F3'	20	1	4	4
5	5	20	1	CORD REELS - CONST. TECH. 'F3'	270			540	270	CORD REELS - CONST. TECH. 'F3'	20	1	6	6
7	7	20	1	CORD REELS - CONST. TECH. 'F3'	270	540			270	CORD REELS - CONST. TECH. 'F3'	20	1	8	8
9	9	20	1	RECPT. - WEST - CONST. TECH. F3	360		360		0	SPARE	20	1	10	10
11	11	20	1	RECPT. - WEST - CONST. TECH. F3	360			360	0	SPARE	20	1	12	12
13	13	20	1	CORD REELS - CONST. TECH. 'F3'	270	270			0	SPARE	20	1	14	14
15	15	30	1	BAND SAW - CONST. TECH. 'EQ207'	1200		1668		468				16	16
17	17	20	1	BELT SANDER - CONST. TECH. 'EQ210'	180			648	468	DRUM SANDER - CONST. TECH. 'EQ208'	15	3	18	18
19	19	20	1	MITER SAW - CONST. TECH. 'EQ211'	1800	2268			468				20	20
21	21	20	1	MITER SAW - CONST. TECH. 'EQ211'	1800		2496		696	CNC RTR COOL PMP - CNST. TECH. 'EQ201b'	20	1	22	22
23	23	20	1	MITER SAW - CONST. TECH. 'EQ211'	1800			3880	2080	CNC ROUTER SPINDLE - CONST. TECH. 'EQ201a'	30	2	24	24
25	25	20	1	SCROLL SAW - CONST. TECH. 'EQ217'	156	2236			2080				26	26
27	27	20	1	SHAPER AUTO FEED - CONST. TECH. 'EQ215'	696		1620		924	DRILL PRESS - CONST. TECH. 'EQ212'	20	1	28	28
29	29	20	1	RECPT. - SO. WEST - CONST. TECH. F3	180			360	180	FUTURE DRILL PRESS - CONST. TECH. 'EQ212'	20	1	30	30
31	31	20	1	RECPT. - SO. WEST - CONST. TECH. F3	180	360			180	RECPT. PONY WALL - CONST. TECH. F3	20	1	32	32
33	33	20	1	RECPT. - SO. WEST - CONST. TECH. F3	180		360		180	RECPT. PONY WALL - CONST. TECH. F3	20	1	34	34
35	35	20	1	RECPT. S0. EAST - CONST. TECH. F3	360			540	180	RECPT. PONY WALL - CONST. TECH. F3	20	1	36	36
37	37	20	1	RECPT. S0. EAST - CONST. TECH. F3	360	540			180	FUTURE MILL, EQ219 - CONST. TECH. F3	20	1	38	38
39	39	20	1	RECPT. S0. EAST - CONST. TECH. F3	360		360		0	SPARE	20	1	40	40
41	41	20	1	RECPT. NO WALL - CONST. TECH. F3	540			900	360	RECPT. - GEND. NEUT. RR F1 / STOR. F2	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		6754	7404	7228						
				25% LCL/LML (VA) :		520	0	520						
				TOTAL CALCULATED LOAD (VA) :		7274	7404	7748		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		60.6	61.7	64.6		22427 VA				

MARK	DATE	DESCRIPTION
3	12/14/22	ADDENDUM NO. 3
	11/1/22	DSA BACKCHECK

REGISTERED PROFESSIONAL ENGINEER — BRYAN A. GLASS — No. E 17773 — 06-30-24 — ELECTRICAL — STATE OF CALIFORNIA

TETER, LLP
FRESNO HEADQUARTERS
VISALIA | BAKERSFIELD | MODESTO | SAN LUIS OBISPO
ARCHITECTS ENGINEERS CONNECTED

TETER

TULARE CAMPUS CTE
COLLEGE OF THE SEQUOIAS
4999 E. BARDSLEY AVE.
TULARE, CA

DRAWING TITLE
PANEL SCHEDULES

PROJECT NO.
21-12032

DRAWING
E811

PLOT DATE: 12/15/2022 8:24:20 AM

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PANEL: 'ED'

NEW PANELBOARD	600 AMP BUS 120/240V, 3PH, 4W (DELTA CONNECTED) 100% RATED NEUTRAL	MAIN: 400A CB TRIP: THERMAL-MAGNETIC A.I.C.: 22000 A	LOCATION: AUTOMOTIVE TECHNOLOGY - D8 MOUNTING: SURFACE PER 11/E600 ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	15	2	COMPRESSOR DRYER 'AC-2'	828	2928			2100	EMISSIONS TEST RACK 'EQ106a'	20	2	2	2
3	3				828		2928		2100				4	4
5	5	70	2	MOBILE WELDER CORD REEL 'EQ115'	6096			12192	6096	MOBILE WELDER CORD REEL 'EQ115'	70	2	6	6
7	7				6096	12192			6096				8	8
9	9	70	2	MOBILE WELDER CORD REEL 'EQ115'	6096		12192		6096	MOBILE WELDER CORD REEL 'EQ115'	70	2	10	10
11	11				6096			12192	6096				12	12
13	13	70	2	MOBILE WELDER CORD REEL 'EQ115'	6096	12192			6096	MOBILE WELDER CORD REEL 'EQ115'	70	2	14	14
15	15				6096		12192		6096				16	16
17	17	70	2	MOBILE WELDER CORD REEL 'EQ115'	6096			6936	840	TIRE CHANGER - EQ108	15	2	18	18
19	19				6096	6936			840				20	20
21	21	20	2	FUTURE BRAKE LATHE - EQ110a	0		1200		1200	TIRE BALANCER - EQ111	15	2	22	22
23	23				0			1200	1200				24	24
25	25	20	1	SPARE	0	1200			1200	TIRE BALANCER - EQ111	15	2	22	26
27	27			"DO NOT USE" (2)	0		1200		1200				24	28
29	29	20	1	SPARE	0			6096	6096	MOBILE WELDER CORD REEL 'EQ115'	70	2	30	30
31	31	20	1	SPARE	0	6096			6096				32	32
33	33			"DO NOT USE" (2)	0		6096		6096	MOBILE WELDER CORD REEL 'EQ115'	70	2	34	34
35	35	20	1	SPARE	0			6096	6096				36	36
37	37	20	1	SPARE	0	0			0	SPARE	20	1	38	38
39	39			"DO NOT USE" (2)	0		0		0	"DO NOT USE" (2)			40	40
41	41	20	1	SPARE	0			0	0	SPARE	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		41544	35808	44712						
				25% LCL/LML (VA) :		525	525	0						
				TOTAL CALCULATED LOAD (VA) :		42069	36333	44712	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		350.6	302.8	372.6	123114 VA					

PANEL SCHEDULE NOTES:

(1) PHASE B IS HIGH-LIGHTED TO INDICATE THAT IT IS THE HIGH-LEG OF A 3-PHASE, 4-WIRE, DELTA-CONNECTED SYSTEM.
CONDUCTOR COLOR CODING AND PHASE ARRANGEMENT SHALL BE IN ACCORDANCE WITH 2019 CEC ARTICLES 110.15, 408.3[E][1] & 408.3[F].
(2) SINGLE PHASE LOADS SHALL NOT BE CONNECTED TO THE B-PHASE OF THIS PANEL.
FIELD APPLY PERMANENT LABEL INDICATING "CAUTION B-PHASE HAS 208V TO GROUND".

3

PANEL: 'E1F'

NEW PANELBOARD	400 AMP BUS 120/240V, 3PH, 4W (DELTA CONNECTED) 100% RATED NEUTRAL	MAIN: 300A CB TRIP: THERMAL-MAGNETIC A.I.C.: 22000 A	LOCATION: INDUSTRIAL MAINTENANCE LAB - F19 MOUNTING: SURFACE PER 11/E600 ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	15	2	COMPRESSOR DRYER 'AC-2'	828	1133			305				2	2
3	3				828		1133		305	MOTOR CONTROL TRAINER, EQ617 - IND. MAIN.LAB F19	15	3	4	4
5	5				305			610	305				6	6
7	7	15	3	MOTOR CONTROL TRAINER, EQ617 - IND. MAIN.LAB F19	305	610			305				8	8
9	9				305		610		305	MOTOR CONTROL TRAINER, EQ617 - IND. MAIN.LAB F19	15	3	10	10
11	11				305			610	305				12	12
13	13	15	3	MOTOR CONTROL TRAINER, EQ617 - IND. MAIN.LAB F19	305	610			305				14	14
15	15				305		610		305	MOTOR CONTROL TRAINER, EQ617 - IND. MAIN.LAB F19	15	3	16	16
17	17				305			610	305				18	18
19	19	15	3	MOTOR CONTROL TRAINER, EQ617 - IND. MAIN.LAB F19	305	610			305				20	20
21	21				305		610		305	HYDRAULIC TRAINER, EQ625 - IND. MAIN.LAB F19	15	3	22	22
23	23	20	1	SPARE	0			305	305				24	24
25	25	20	1	SPARE	0	305			305				26	26
27	27			"DO NOT USE" (2)	0		305		305	HYDRAULIC TRAINER, EQ625 - IND. MAIN.LAB F19	15	3	28	28
29	29	20	1	SPARE	0			305	305				30	30
31	31	20	1	SPARE	0	0			0	SPARE	20	1	32	32
33	33			"DO NOT USE" (2)	0		0		0	"DO NOT USE" (2)			34	34
35	35	20	1	SPARE	0			0	0	SPARE	20	1	36	36
37	37				28970	28970			0	SPARE	20	1	38	38
39	39	300	3	PANEL 'E2F'	19370		19370		0	"DO NOT USE" (2)			40	40
41	41				27530			27530	0	SPARE	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		32237	22637	29969						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		32237	22637	29969	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		268.6	188.6	249.7	84843 VA					

PANEL SCHEDULE NOTES:

(1) PHASE B IS HIGH-LIGHTED TO INDICATE THAT IT IS THE HIGH-LEG OF A 3-PHASE, 4-WIRE, DELTA-CONNECTED SYSTEM.
CONDUCTOR COLOR CODING AND PHASE ARRANGEMENT SHALL BE IN ACCORDANCE WITH 2019 CEC ARTICLES 110.15, 408.3[E][1] & 408.3[F].
(2) SINGLE PHASE LOADS SHALL NOT BE CONNECTED TO THE B-PHASE OF THIS PANEL.
FIELD APPLY PERMANENT LABEL INDICATING "CAUTION B-PHASE HAS 208V TO GROUND".

PANEL: 'ITD'

NEW PANELBOARD	100 AMP BUS 120/208V, 3 PH, 4 W 100% RATED NEUTRAL	MAIN: 100A CB TRIP: THERMAL-MAGNETIC A.I.C.: 14000 A	LOCATION: COMM. RM. - D12 MOUNTING: SURFACE PER 11/E600 ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	RECPT. - COMM. 'D12'	540	1640			1100	RECPT. - IDF 'D'	20	2	2	2
3	3	20	1	FIRE ALARM CONTROL PANEL	600		1700		1100				4	4
5	5	20	1	SPARE	0			180	180	RECPT. - ELEC. D11	20	1	6	6
7	7	20	1	SPARE	0	0			0	SPARE	20	1	8	8
9	9	20	1	SPARE	0		0		0	SPARE	20	1	10	10
11	11	20	1	SPARE	0			0	0	SPARE	20	1	12	12
13	13	20	1	SPARE	0	0			0	SPARE	20	1	14	14
15	15	20	1	SPARE	0		0		0	SPARE	20	1	16	16
17	17	20	1	SPARE	0			0	0	SPARE	20	1	18	18
19	19	20	1	SPARE	0	0			0	SPARE	20	1	20	20
21	21	20	1	SPARE	0		0		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	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) :		1640	1700	180						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		1640	1700	180	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		13.7	14.2	1.5	3520 VA					

3

PANEL: 'E1E'

NEW PANELBOARD	200 AMP BUS 120/240V, 3PH, 4W (DELTA CONNECTED) 100% RATED NEUTRAL	MAIN: 200A CB TRIP: THERMAL-MAGNETIC A.I.C.: 22000 A	LOCATION: AGRICULTURAL MECHANICS - E11 MOUNTING: SURFACE PER 11/E600 ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	15	2	COMPRESSOR DRYER 'AC-1'	828	2934			2106				2	2
3	3				828		2934		2106	CUT OFF SAW, EQ305 - AG. MECH. E11	30	3	4	4
5	5	20	2	AG MECH TABLE CORD REEL	180			2286	2106				6	6
7	7				180	5182			5002				8	8
9	9	20	2	AG MECH TABLE CORD REEL	180		5182		5002	EXTERIOR WELDER CORD REEL 'EQ309' & 'EQ310'	50	3	10	10
11	11				180			5182	5002				12	12
13	13	20	2	AG MECH TABLE CORD REEL	180	6276			6096	EXTERIOR WELDER CORD REEL 'EQ308'	70	2	14	14
15	15				180		6276		6096				16	16
17	17	20	2	AG MECH TABLE CORD REEL	180			1510	1330				18	18
19	19				180	1510			1330	SHEAR, EQ318 - AG. MECH. E11	20	3	20	20
21	21	20	2	AG MECH TABLE CORD REEL	180		1510		1330				22	22
23	23				180			180	0	SPARE	20	1	24	24
25	25	20	2	AG MECH TABLE CORD REEL	180	180			0	SPARE	20	1	26	26
27	27				180		180		0	"DO NOT USE" (2)			28	28
29	29	20	2	AG MECH TABLE CORD REEL	180			180	0	SPARE	20	1	30	30
31	31				180	180			0	SPARE	20	1	32	32
33	33	20	2	AG MECH TABLE CORD REEL	180		180		0	"DO NOT USE" (2)			34	34
35	35				180			180	0	SPARE	20	1	36	36
37	37	20	2	AG MECH TABLE CORD REEL	180	180			0	SPARE	20	1	38	38
39	39				180		180		0	"DO NOT USE" (2)			40	40
41	41	20	1	SPARE	0			0	0	SPARE	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		16443	16443	9519						
				25% LCL/LML (VA) :		527	527	527						
				TOTAL CALCULATED LOAD (VA) :		16969	16969	10045	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		141.4	141.4	83.7	43983 VA					

PANEL SCHEDULE NOTES:

(1) PHASE B IS HIGH-LIGHTED TO INDICATE THAT IT IS THE HIGH-LEG OF A 3-PHASE, 4-WIRE, DELTA-CONNECTED SYSTEM.
CONDUCTOR COLOR CODING AND PHASE ARRANGEMENT SHALL BE IN ACCORDANCE WITH 2019 CEC ARTICLES 110.15, 408.3[E][1] & 408.3[F].
(2) SINGLE PHASE LOADS SHALL NOT BE CONNECTED TO THE B-PHASE OF THIS PANEL.
FIELD APPLY PERMANENT LABEL INDICATING "CAUTION B-PHASE HAS 208V TO GROUND".

PANEL: 'E2F'

NEW PANELBOARD	400 AMP BUS 120/240V, 3PH, 4W (DELTA CONNECTED) 100% RATED NEUTRAL	MAIN: 300A CB TRIP: THERMAL-MAGNETIC A.I.C.: 22000 A	LOCATION: INDUSTRIAL MAINTENANCE LAB - F19 MOUNTING: SURFACE PER 11/E600 ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1				2106	4212			2106				2	2
3	3	30	3	LATHE, EQ613 - IND. MAIN. LAB F19	2106		4212		2106	LATHE, EQ613 - IND. MAIN. LAB F19	30	3	4	4
5	5				2106			4212	2106				6	6
7	7				2106	4212			2106				8	8
9	9	30	3	LATHE, EQ613 - IND. MAIN. LAB F19	2106		4212		2106	LATHE, EQ613 - IND. MAIN. LAB F19	30	3	10	10
11	11				2106			4212	2106				12	12
13	13				2106	4212			2106				14	14
15	15	30	3	LATHE, EQ613 - IND. MAIN. LAB F19	2106		4212		2106	LATHE, EQ613 - IND. MAIN. LAB F19	30	3	16	16
17	17				2106			4212	2106				18	18
19	19				1330	2660			1330				20	20
21	21	20	3	MILLING MACHINE, EQ614 - IND. MAIN. LAB F19	1330		2660		1330	MILLING MACHINE, EQ614 - IND. MAIN. LAB F19	20	3	22	22
23	23				1330			2660	1330				24	24
25	25				2106	2106			0	SPARE	20	1	26	26
27	27	30	3	HORIZONTAL BAND SAW, EQ611 - IND. MAIN. LAB F19	2106		2106		0	"DO NOT USE" (2)			28	28
29	29				2106			6906	4800	CORD REEL - IND. MAIN. LAB F19	50	2	30	30
31	31	25	2	VERTICAL BAND SAW, EQ612 - IND. MAIN. LAB F19	1440	6240			4800				32	32
33	33				1440		1440		0	"DO NOT USE" (2)			34	34
35	35	20	1	SPARE	0			4800	4800	CORD REEL - IND. MAIN. LAB F19	50	2	36	36
37	37	20	1	SPARE	0	4800			4800				38	38
39	39			"DO NOT USE" (2)	0		0		0	"DO NOT USE" (2)			40	40
41	41	20	1	SPARE	0			0	0	SPARE	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		28444	18844	27004						
				25% LCL/LML (VA) :		527	527	527						
				TOTAL CALCULATED LOAD (VA) :		28970	19370	27530	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		241.4	161.4	229.4	75871 VA					

PANEL SCHEDULE NOTES:

(1) PHASE B IS HIGH-LIGHTED TO INDICATE THAT IT IS THE HIGH-LEG OF A 3-PHASE, 4-WIRE, DELTA-CONNECTED SYSTEM.
CONDUCTOR COLOR CODING AND PHASE ARRANGEMENT SHALL BE IN ACCORDANCE WITH 2019 CEC ARTICLES 110.15, 408.3[E][1] & 408.3[F].
(2) SINGLE PHASE LOADS SHALL NOT BE CONNECTED TO THE B-PHASE OF THIS PANEL.
FIELD APPLY PERMANENT LABEL INDICATING "CAUTION B-PHASE HAS 208V TO GROUND".

PANEL: 'ITE'

NEW PANELBOARD	100 AMP BUS 120/208V, 3 PH, 4 W 100% RATED NEUTRAL	MAIN: 100A CB TRIP: THERMAL-MAGNETIC A.I.C.: 14000 A	LOCATION: COMM. RM. - E10 MOUNTING: SURFACE PER 11/E600 ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	RECPT. - COMM. 'E10'	360	1460			1100	RECPT. - IDF 'E'	20	2	2	2
3	3	20	1	FIRE ALARM CONTROL PANEL	600		1700		1100				4	4
5	5	20	1	SPARE	0			0	0	SPARE	20	1	6	6
7	7	20	1	SPARE	0	0			0	SPARE	20	1	8	8
9	9	20	1	SPARE	0		0		0	SPARE	20	1	10	10
11	11	20	1	SPARE	0			0	0	SPARE	20	1	12	12
13	13	20	1	SPARE	0	0			0	SPARE	20	1	14	14
15	15	20	1	SPARE	0		0		0	SPARE	20	1	16	16
17	17	20	1	SPARE	0			0	0	SPARE	20	1	18	18
19	19	20	1	SPARE	0	0			0	SPARE	20	1	20	20
21	21	20	1	SPARE	0		0		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	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) :		1460	1700	0						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		1460	1700	0	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		12.2	14.2	0.0	3160 VA					

PANEL: 'ITF'

NEW PANELBOARD	100 AMP BUS 120/208V, 3 PH, 4 W 100% RATED NEUTRAL	MAIN: 100A CB TRIP: THERMAL-MAGNETIC A.I.C.: 14000 A	LOCATION: COMM. RM. - F12 MOUNTING: SURFACE PER 11/E600 ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	20	1	RECPT. - COMM. 'F12'	540	1640			1100	RECPT. - IDF 'F'	20	2	2	2
3	3	20	1	FIRE ALARM CONTROL PANEL	600		1700		1100				4	4
5	5	20	2	RECPT. - IDF-2 'F'	1100			1100	0	SPARE	20	1	6	6
7	7				1100	1100			0	SPARE	20	1	8	8
9	9	20	1	SPARE	0		0		0	SPARE	20	1	10	10
11	11	20	1	SPARE	0			0	0	SPARE	20	1	12	12
13	13	20	1	SPARE	0	0			0	SPARE	20	1	14	14
15	15	20	1	SPARE	0		0		0	SPARE	20	1	16	16
17	17	20	1	SPARE	0			0	0	SPARE	20	1	18	18
19	19	20	1	SPARE	0	0			0	SPARE	20	1	20	20
21	21	20	1	SPARE	0		0		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	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) :		2740	1700	1100						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		2740	1700	1100	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		22.8	14.2	9.2	5540 VA					

PANEL: 'E2E'

NEW PANELBOARD	200 AMP BUS 120/240V, 3PH, 4W (DELTA CONNECTED) 100% RATED NEUTRAL	MAIN: 200A CB TRIP: THERMAL-MAGNETIC A.I.C.: 22000 A	LOCATION: INDUSTRIAL AUTOMATION TECH. - E1 MOUNTING: SURFACE PER 11/E600 ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1				1386	2771			1386				2	2
3	3	20	3	TRAINING BOARDS - IND. AUTO. TECH. 'EQ705'	1386		2771		1386	TRAINING BOARDS - IND. AUTO. TECH. 'EQ705'	20	3	4	4
5	5				1386			2771	1386				6	6
7	7				1386	2771			1386				8	8
9	9	20	3	TRAINING BOARDS - IND. AUTO. TECH. 'EQ705'	1386		2771		1386	TRAINING BOARDS - IND. AUTO. TECH. 'EQ705'	20	3	10	10
11	11				1386			2771	1386				12	12
13	13				1386	2771			1386				14	14
15	15	20	3	TRAINING BOARDS - IND. AUTO. TECH. 'EQ705'	1386		2771		1386	TRAINING BOARDS - IND. AUTO. TECH. 'EQ705'	20	3	16	16
17	17				1386			2771	1386				18	18
19	19				1386	2771			1386				20	20
21	21	20	3	TRAINING BOARDS - IND. AUTO. TECH. 'EQ705'	1386		2771		1386	TRAINING BOARDS - IND. AUTO. TECH. 'EQ705'	20	3	22	22
23	23				1386			2771	1386				24	24
25	25				1386	2771			1386				26	26
27	27	20	3	TRAINING BOARDS - IND. AUTO. TECH. 'EQ705'	1386		2771		1386	TRAINING BOARDS - IND. AUTO. TECH. 'EQ705'	20	3	28	28
29	29				1386			2771	1386				30	30
31	31				1386	2771			1386				32	32
33	33	20	3	TRAINING BOARDS - IND. AUTO. TECH. 'EQ705'	1386		2771		1386	TRAINING BOARDS - IND. AUTO. TECH. 'EQ705'	20	3	34	34
35	35				1386			2771	1386				36	36
37	37	20	1	SPARE	0	1200			1200	FANUC ARC MATE ROBOT - IND. AUTO. ROBOTICS - 'EQ708'	20	2	38	38
39	39			"DO NOT USE" (2)	0		1200		1200				40	40
41	41	20	1	SPARE	0			0	0	SPARE	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		17828	17828	16628						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		17828	17828	16628	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		148.6	148.6	138.6	52283 VA					

PANEL SCHEDULE NOTES:

(1) PHASE B IS HIGH-LIGHTED TO INDICATE THAT IT IS THE HIGH-LEG OF A 3-PHASE, 4-WIRE, DELTA-CONNECTED SYSTEM.
CONDUCTOR COLOR CODING AND PHASE ARRANGEMENT SHALL BE IN ACCORDANCE WITH 2019 CEC ARTICLES 110.15, 408.3[E][1] & 408.3[F].
(2) SINGLE PHASE LOADS SHALL NOT BE CONNECTED TO THE B-PHASE OF THIS PANEL.
FIELD APPLY PERMANENT LABEL INDICATING "CAUTION B-PHASE HAS 208V TO GROUND".

PANEL: 'E3F'

NEW PANELBOARD	200 AMP BUS 120/240V, 3PH, 4W (DELTA CONNECTED) 100% RATED NEUTRAL	MAIN: 175A CB TRIP: THERMAL-MAGNETIC A.I.C.: 22000 A	LOCATION: CONSTRUCTION TECHNOLOGY - F3 MOUNTING: SURFACE PER 11/E600 ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1				3048	5155			2106				2	2
3	3	45	3	TABLE SAW - CNST. TECH. 'EQ202'	3048		5155		2106	TABLE SAW - CNST. TECH. 'EQ203'	30	3	4	4
5	5				3048			5155	2106				6	6
7	7	20	2	JOINTER - CNST. TECH. 'EQ204'	1200	2028			828	LATHE - CNST. TECH. 'EQ216'	15	2	8	8
9	9				1200		2028		828				10	10
11	11				2106			4212	2106				12	12
13	13	30	3	THICKNESS PLANAR - CNST. TECH. 'EQ205'	2106	4212			2106	BAND SAW - CNST. TECH. 'EQ206'	30	3	14	14
15	15				2106		4212		2106				16	16
17	17				831			1413	582				18	18
19	19	15	3	DISC SANDER - CNST. TECH. 'EQ209'	831	1413			582	SPINDLE SANDER - CNST. TECH. 'EQ213'	15	3	20	20
21	21				831		1413		582				22	22
23	23				1663			1663	0				24	24
25	25	30	3	SHAPER - CNST. TECH. 'EQ214'	1663	1663			0	(FUTURE) EDGE BANDING MACHINE - CNST. TECH. 'EQ218'	40	3	26	26
27	27				1663		1663		0				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			"DO NOT USE" (2)	0		0		0	"DO NOT USE" (2)			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			"DO NOT USE" (2)	0		0		0	"DO NOT USE" (2)			40	40
41	41	20	1	SPARE	0			0	0	SPARE	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		14471	14471	12443						
				25% LCL/LML (VA) :		762	762	762						
				TOTAL CALCULATED LOAD (VA) :		15233	15233	13205	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		126.9	126.9	110.0	43671 VA					

PANEL SCHEDULE NOTES:

(1) PHASE B IS HIGH-LIGHTED TO INDICATE THAT IT IS THE HIGH-LEG OF A 3-PHASE, 4-WIRE, DELTA-CONNECTED SYSTEM.
CONDUCTOR COLOR CODING AND PHASE ARRANGEMENT SHALL BE IN ACCORDANCE WITH 2019 CEC ARTICLES 110.15, 408.3[E][1] & 408.3[F].
(2) SINGLE PHASE LOADS SHALL NOT BE CONNECTED TO THE B-PHASE OF THIS PANEL.
FIELD APPLY PERMANENT LABEL INDICATING "CAUTION B-PHASE HAS 208V TO GROUND".

3

PANEL: 'E4F'

NEW PANELBOARD	400 AMP BUS 120/240V, 3PH, 4W (DELTA CONNECTED) 100% RATED NEUTRAL	MAIN: 300A CB TRIP: THERMAL-MAGNETIC A.I.C.: 22000 A	LOCATION: ELECTRICIAN TRAINING - F9 MOUNTING: SURFACE PER 11/E600 ENCLOSURE: NEMA 1

CIRCUIT CKT NO.	CIRCUIT PNL SPACE	BREAKER AMP	BREAKER POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	BREAKER AMP	BREAKER POLE	CIRCUIT PNL SPACE	CIRCUIT CKT NO.
1	1	50	2	EXTERIOR CORD REEL - BUILDING 'F'	4800	9600			4800	EXTERIOR CORD REEL - BUILDING 'F'	50	2	2	2
3	3				4800		9600		4800				4	4
5	5	50	2	EXTERIOR CORD REEL - BUILDING 'F'	4800			9600	4800	EXTERIOR CORD REEL - BUILDING 'F'	50	2	6	6
7	7				4800	9600			4800				8	8
9	9	50	2	EXTERIOR CORD REEL - BUILDING 'F'	4800		6720		1920	HVAC TRAINER, EQ403 - ENV. CNTRL. F10	20	2	10	10
11	11				4800			6720	1920				12	12
13	13	20	1	SPARE	0	0			0	SPARE	20	1	14	14
15	15			"DO NOT USE" (2)	0		0		0	"DO NOT USE" (2)			16	16
17	17	20	1	SPARE	0			0	0	SPARE	20	1	18	18
19	19	20	1	SPARE	0	0			0	SPARE	20	1	20	20
21	21			"DO NOT USE" (2)	0		0		0	"DO NOT USE" (2)			22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	24	24
25	25	20	1	SPARE	0	0			0	SPARE	20	1	26	26
27	27			"DO NOT USE" (2)	0		0		0	"DO NOT USE" (2)			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			"DO NOT USE" (2)	0		0		0	"DO NOT USE" (2)			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	100	2	SPOT WELDER EQ409 - ENV. CONT. F10	7500		7500		0	"DO NOT USE" (2)			40	40
41	41				7500			7500	0	SPARE	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		19200	23820	23820						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		19200	23820	23820	TOTAL CALCULATED LOAD FOR PANEL:					
				TOTAL CALCULATED LOAD (AMPS) :		160.0	198.5	198.5	66840 VA					

PANEL SCHEDULE NOTES:

(1) PHASE B IS HIGH-LIGHTED TO INDICATE THAT IT IS THE HIGH-LEG OF A 3-PHASE, 4-WIRE, DELTA-CONNECTED SYSTEM.
CONDUCTOR COLOR CODING AND PHASE ARRANGEMENT SHALL BE IN ACCORDANCE WITH 2019 CEC ARTICLES 110.15, 408.3[E][1] & 408.3[F].
(2) SINGLE PHASE LOADS SHALL NOT BE CONNECTED TO THE B-PHASE OF THIS PANEL.
FIELD APPLY PERMANENT LABEL INDICATING "CAUTION B-PHASE HAS 208V TO GROUND".

PLOT DATE: 12/15/2022 8:24:30 AM

MARK	DATE	DESCRIPTION
3	12/14/22	ADDENDUM NO. 3
	11/1/22	DSA BACKCHECK

REGISTERED PROFESSIONAL ENGINEER BRYAN A. GLASS No. E 17773 06-30-24 ELECTRICAL STATE OF CALIFORNIA

TETER, LLP
FRESNO HEADQUARTERS
VISALIA | BAKERSFIELD | MODESTO | SAN LUIS OBISPO
ARCHITECTS ENGINEERS CONNECTED
TETER

TULARE CAMPUS CTE
COLLEGE OF THE SEQUOIAS
4999 E. BARDSLEY AVE.
TULARE, CA

DRAWING TITLE
PANEL SCHEDULES

PROJECT NO.
21-12032

DRAWING
E812

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PANEL: 'ACLD'

NEW PANELBOARD | 150 AMP BUS | 120/208V, 3 PH, 4 W | 100% RATED NEUTRAL
MAIN: 150A CB | TRIP: THERMAL-MAGNETIC | A.I.C.: 14000 A
LOCATION: ELEC. RM. - D11 | MOUNTING: SURFACE PER 11/E600 | ENCLOSURE: NEMA 1

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1	50	2	OUTDOOR UNIT 'ODU-D1'	3640	7280			3640	OUTDOOR UNIT 'ODU-D2'	50	2	2	2
3	3				3640		7280		3640				4	4
5	5	35	2	OUTDOOR UNIT 'ODU-D3'	1872			1872	0	SPARE	20	1	6	6
7	7				1872	1872			0	SPARE	20	1	8	8
9	9	20	1	SPARE	0		0		0	SPARE	20	1	10	10
11	11	20	1	SPARE	0			0	0	SPARE	20	1	12	12
13	13	25	2	EXHAUST FAN 'EF-D3'	1248	2496			1248	EXHAUST FAN 'EF-D4'	25	2	14	14
15	15				1248		2496		1248				16	16
17	17	15	1	EXHST FAN 'EF-D1', 'EF-D2', SUPPLY FAN 'SF-D1'	327			1647	1320	WTR HTR / TRP PRMR / DRINK FOUNTN	20	1	18	18
19	19	20	1	ROOF RECEPTACLES	720	1188			468	INFRARED RADIANT HEATER	20	1	20	20
21	21	30	1	OVERHEAD DOOR MOTOR	1920		3840		1920	OVERHEAD DOOR MOTOR	30	1	22	22
23	23	30	1	OVERHEAD DOOR MOTOR	1920			3840	1920	OVERHEAD DOOR MOTOR	30	1	24	24
25	25	15	1	EXHAUST FAN 'EF-D6'	95	695			600	WATER HEATER / TRAP PRIMERS	20	1	26	26
27	27	15	1	EXHAUST FAN 'EF-D7'	45		45		0	SPARE	20	1	28	28
29	29	15	1	EXHAUST FAN 'EF-D5'	80			80	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) :		13531	13661	7439						
				25% LCL/LML (VA) :		910	910	0						
				TOTAL CALCULATED LOAD (VA) :		14441	14571	7439		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		120.3	121.4	62.0		36451 VA				

PANEL: 'ACLE'

NEW PANELBOARD | 150 AMP BUS | 120/208V, 3 PH, 4 W | 100% RATED NEUTRAL
MAIN: 100A CB | TRIP: THERMAL-MAGNETIC | A.I.C.: 14000 A
LOCATION: ELEC. RM. - E9 | MOUNTING: SURFACE PER 11/E600 | ENCLOSURE: NEMA 1

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1	45	2	OUTDOOR UNIT 'ODU-E1'	3120	4992			1872	OUTDOOR UNIT 'ODU-E2'	35	2	2	2
3	3				3120		4992		1872				4	4
5	5	20	1	SPARE	0			0	0	SPARE	20	1	6	6
7	7	20	1	SPARE	0	0			0	SPARE	20	1	8	8
9	9	25	2	EXHAUST FAN 'EF-E1'	1248		1404		156	SUPPLY FAN 'SF-E1'	15	1	10	10
11	11				1248			1394	146	EXHAUST FAN 'EF-E2'	15	1	12	12
13	13	20	1	ROOF RECEPTACLES	360	780			420	WATER HEATER	20	1	14	14
15	15	20	1	SPARE	0		312		312	INFRARED RADIANT HEATER	25	1	16	16
17	17	20	1	SPARE	0			1920	1920	OVERHEAD DOOR MOTOR	30	1	18	18
19	19	20	1	SPARE	0	0			0	SPARE	20	1	20	20
21	21	20	1	SPARE	0		0		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	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) :		5772	6708	3314						
				25% LCL/LML (VA) :		780	780	0						
				TOTAL CALCULATED LOAD (VA) :		6552	7488	3314		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		54.6	62.4	27.6		17354 VA				

PANEL: 'ACLF'

NEW PANELBOARD | 200 AMP BUS | 120/208V, 3 PH, 4 W | 100% RATED NEUTRAL
MAIN: 200A CB | TRIP: THERMAL-MAGNETIC | A.I.C.: 14000 A
LOCATION: ELEC. RM. - F18 | MOUNTING: SURFACE PER 11/E600 | ENCLOSURE: NEMA 1

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1	45	2	OUTDOOR UNIT 'ODU-F1'	3120	4992			1872	OUTDOOR UNIT 'ODU-F2'	25	2	2	2
3	3				3120		4992		1872				4	4
5	5	15	2	OUTDOOR UNIT 'ODU-F3'	1560			3432	1872	OUTDOOR UNIT 'ODU-F4'	35	2	6	6
7	7				1560	3432			1872				8	8
9	9	25	2	OUTDOOR UNIT 'ODU-F5'	1872		5512		3640	OUTDOOR UNIT 'ODU-F6'	50	2	10	10
11	11				1872			5512	3640				12	12
13	13	25	2	OUTDOOR UNIT 'ODU-F7'	1664	1664			0	SPARE	20	1	14	14
15	15				1664		1664		0	SPARE	20	1	16	16
17	17	15	1	EXHAUST FAN 'EF-F10'	50			590	540	TRP PRMR / SF-F4 / AC-2 TNK DRAIN	20	1	18	18
19	19	20	1	SPARE	0	312			312	SF-F2 / SF - F3	20	1	20	20
21	21	20	1	SPARE	0		1176		1176	EXHAUST FAN 'EF-F2'	20	1	22	22
23	23	20	1	SPARE	0			696	696	EXHAUST FAN 'EF-F3'	15	1	24	24
25	25	20	1	WTR HTR / TRP PRMR / EF-F1 / SF-F1	630	1806			1176	EXHAUST FAN 'EF-F4'	20	1	26	26
27	27	20	1	DRINK FOUNTN / SF-F4 / SF-F5 / EF-F7	1086		2262		1176	EXHAUST FAN 'EF-F5'	20	1	28	28
29	29	20	1	WATER HEATER 'WH-2' / CIRC. PUMP 'CP-1'	627			1323	696	EXHAUST FAN 'EF-F6'	15	1	30	30
31	31	20	1	ROOF RECEPTACLES	1260	2916			1656	EXHAUST FAN 'EF-F8'	25	1	32	32
33	33	20	1	SPARE	0		624		624	INFRARED RADIANT HEATER F10 & F19	20	1	34	34
35	35	20	1	SPARE	0			624	624	INFRARED RADIANT HEATER F3 & F9	20	1	36	36
37	37	20	1	SPARE	0	200			200	DUST COLLECTOR ABORT GATE	20	1	38	38
39	39	20	1	SPARE	0		108		108	EXHAUST FAN 'EF-F9'	15	1	40	40
41	41	20	1	WATER FOUNTAIN 'EDF-1'	370			550	180	RECPT. EMS - ELEC F18	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		15322	16338	12727						
				25% LCL/LML (VA) :		0	910	910						
				TOTAL CALCULATED LOAD (VA) :		15322	17248	13637		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		127.7	143.7	113.6		46207 VA				

3

PANEL: 'R7F'

NEW PANELBOARD | 200 AMP BUS | 120/208V, 3 PH, 4 W | 100% RATED NEUTRAL
MAIN: 125A CB | TRIP: THERMAL-MAGNETIC | A.I.C.: 14000 A
LOCATION: ELECTRICIAN TRAINING - F9 | MOUNTING: SURFACE PER 11/E600 | ENCLOSURE: NEMA 1

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1	80	3	WELDER, EQ501 - EXTERIOR BUILDING 'F'	4804	6004			1201	ELECTRICIAN TRAINING BOOTHS, 'F9'	20	3	2	2
3	3				4804		6004		1201				4	4
5	5				4804			6004	1201				6	6
7	7	20	2	CORD REELS - CONST. TECH. 'F3'	180	1220			1040	ELECTRICIAN TRAINING BOOTHS, 'F9'	20	2	8	8
9	9				180		1220		1040				10	10
11	11	20	1	SPARE	0			0	0	SPARE	20	1	12	12
13	13	20	1	SPARE	0	0			0	SPARE	20	1	14	14
15	15	20	1	SPARE	0		0		0	SPARE	20	1	16	16
17	17	20	1	SPARE	0			0	0	SPARE	20	1	18	18
19	19	20	1	SPARE	0	0			0	SPARE	20	1	20	20
21	21	20	1	SPARE	0		0		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	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	ROOF RECEPTACLES	1260	1260			0	SPARE	20	1	32	32
33	33	30	1	OVERHEAD DOOR MOTOR, 'F3'	1920		1920		0	SPARE	20	1	34	34
35	35	30	1	OVERHEAD DOOR MOTOR, 'F9'	1920			1920	0	SPARE	20	1	36	36
37	37	30	1	OVERHEAD DOOR MOTOR, 'F10'	1920	3180			1260	RECPT. - OFFICE F4	20	1	38	38
39	39	30	1	OVERHEAD DOOR MOTOR, 'F19'	1920		3180		1260	RECPT. - OFFICE F5	20	1	40	40
41	41	20	1	FIRE RISER ELECTRIC BELL	100			1000	900	RECPT. - STORAGE F6, MECH. PLAT F40	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		11664	12324	8924						
				25% LCL/LML (VA) :		0	480	0						
				TOTAL CALCULATED LOAD (VA) :		11664	12804	8924		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		97.2	106.7	74.4		33393 VA				

3

PANEL: 'FPH'

NEW PANELBOARD | 100 AMP BUS | 120/208V, 3 PH, 4 W | 100% RATED NEUTRAL
MAIN: 100A CB | TRIP: THERMAL-MAGNETIC | A.I.C.: 14000 A
LOCATION: FIRE PUMP HOUSE | MOUNTING: SURFACE PER 21/E600 | ENCLOSURE: NEMA 1

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1	20	1	RECEPTACLES - PUMP HOUSE	360	495			135	LIGHTING - PUMP HOUSE	20	2	2	2
3	3	20	1	CONTROLLER	750		1500		750	ELECTRIC BASEBOARD HEATER 'EH-1'	15	2	4	4
5	5	20	1	BATTERY CHARGER	750			1500	750				6	6
7	7	20	1	SPARE	0	100			100	FIRE RISER ELECTRIC BELL	20	1	8	8
9	9	15	1	EXHAUST FAN 'EF-4'	696		696		0	SPARE	20	1	10	10
11	11	15	3	JOCKEY PUMP (2HP)	817			817	0	SPARE	20	1	12	12
13	13				817	817			0	SPARE	20	1	14	14
15	15				817		817		0	SPARE	20	1	16	16
17	17	20	1	SPARE	0			0	0	SPARE	20	1	18	18
19	19	20	1	SPARE	0	0			0	SPARE	20	1	20	20
21	21	20	1	SPARE	0		0		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	24	24
				TOTAL CONNECTED LOAD (VA) :		1412	3013	2317						
				25% LCL/LML (VA) :		238	204	204						
				TOTAL CALCULATED LOAD (VA) :		1650	3217	2521		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		13.7	26.8	21.0		7387 VA				

PANEL: 'EY'

NEW PANELBOARD | 200 AMP BUS | 120/208V, 3 PH, 4 W | 100% RATED NEUTRAL
MAIN: 175A CB | TRIP: THERMAL-MAGNETIC | A.I.C.: 14000 A
LOCATION: ELECTRICAL YARD | MOUNTING: SURFACE PER 21/E600 | ENCLOSURE: NEMA 3R

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1	50	3	ELECTRIC PRESSURE WASHER, EQ001	3038	6076			3038	ELECTRIC PRESSURE WASHER, EQ001	50	3	2	2
3	3				3038		6076		3038				4	4
5	5				3038			6076	3038				6	6
7	7	30	1	ELECTRIC GATE OPERATOR	1440	1620			180	IRRIGATION CONTROLLER	20	1	8	8
9	9	30	1	ELECTRIC GATE OPERATOR	1440		1800		360	RECPT. - ELECTRICAL YARD CABINETS	20	1	10	10
11	11	20	1	RECPT. - EAST POLE LIGHTS	720			1440	720	RECPT. - WEST POLE LIGHTS	20	1	12	12
13	13	20	1	RECPT. - ELECTRICAL YARD	180	360			180	RECPT. - SOUTH SOLAR ARRAY	20	1	14	14
15	15	20	1	RECPT. - HUB CONTROLLER	180		360		180	RECPT. - NORTH SOLAR ARRAY	20	1	16	16
17	17	20	1	SPARE	0			1080	1080	RECPT. - CENTRAL PLAZA	20	1	18	18
19	19	20	1	SPARE	0	0			0	SPARE	20	1	20	20
21	21	20	1	SPARE	0		0		0	SPARE	20	1	22	22
23	23	20	1	SPARE	0			0	0	SPARE	20	1	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) :		8056	8236	8596						
				25% LCL/LML (VA) :		760	760	760						
				TOTAL CALCULATED LOAD (VA) :		8816	8996	9356		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		73.5	75.0	78.0		27168 VA				

3

BUSWAY: 'BDF'

NEW BUILDING F BUS DUCT
BUS: 400 AMP BUS
VOLTAGE: 240V, 3 PH, 3 W
NEUTRAL: 100% RATED NEUTRAL
A.I.C.: 14000
LOCATION: INDUSTRIAL MAINTENANCE LAB - F19

CKT NO.	AMP	POLE	SERVES	LOAD	A	B	C
1	50	3	STICK WELDER, EQ607 - IND. MAIN. LAB F19	5002	5002		
				5002		5002	
				5002			5002
2	70	2	MIG WELDER, EQ605 - IND. MAIN. LAB F19	6096	6096		
				6096		6096	
3	50	3	STICK WELDER, EQ607 - IND. MAIN. LAB F19	5002			5002
				5002	5002		
				5002		5002	
4	70	2	MIG WELDER, EQ605 - IND. MAIN. LAB F19	6096			6096
				6096	6096		
5	50	3	STICK WELDER, EQ607 - IND. MAIN. LAB F19	5002		5002	
				5002			5002
				5002	5002		
6	70	2	MIG WELDER, EQ605 - IND. MAIN. LAB F19	6096		6096	
				6096			6096
7	50	3	STICK WELDER, EQ607 - IND. MAIN. LAB F19	5002	5002		
				5002		5002	
				5002			5002
8	70	2	MIG WELDER, EQ605 - IND. MAIN. LAB F19	6096	6096		
				6096		6096	
9	50	3	STICK WELDER, EQ607 - IND. MAIN. LAB F19	5002			5002
				5002	5002		
				5002		5002	
10	70	2	MIG WELDER, EQ605 - IND. MAIN. LAB F19	6096			6096
				6096	6096		
11	50	3	STICK WELDER, EQ607 - IND. MAIN. LAB F19	5002		5002	
				5002			5002
				5002	5002		
12	70	2	MIG WELDER, EQ605 - IND. MAIN. LAB F19	6096		6096	
				6096			6096
13	50	3	TIG WELDER, EQ606 - IND. MAIN. LAB F19	5002	5002		
				5002		5002	
				5002			5002
14	50	3	TIG WELDER, EQ606 - IND. MAIN. LAB F19	5002	5002		
				5002		5002	
				5002			5002
			TOTAL CONNECTED LOAD (VA) :		64401	64401	64401
			GROUP WELDER LOAD ADJUSTMENT:		-20008	-20008	-20008
			TOTAL CALCULATED LOAD (VA) :		44393	44393	44393
			TOTAL CALCULATED LOAD (AMPS) :		369.9	369.9	369.9

PANEL: 'E5F'

NEW PANELBOARD | 400 AMP BUS | 120/240V, 3PH, 4W (DELTA CONNECTED) | 100% RATED NEUTRAL
MAIN: 300A CB | TRIP: THERMAL-MAGNETIC | A.I.C.: 22000 A
LOCATION: ELECTRICIAN TRAINING - F9 | MOUNTING: SURFACE PER 11/E600 | ENCLOSURE: NEMA 1

CKT NO.	PNL SPACE	AMP	POLE	SERVES	LOAD	A	B	C	LOAD	SERVES	AMP	POLE	PNL SPACE	CKT NO.
1	1	20	3	ELECTRICIAN TRAINING BOOTHS, 'F9'	1386	6928			5543				2	2
3	3				1386		6928		5543	EXTERIOR CORD REEL - BUILDING 'F'	50	3	4	4
5	5				1386			6928	5543				6	6
7	7	20	2	ELECTRICIAN TRAINING BOOTHS, 'F9'	1200	6743			5543				8	8
9	9				1200		6743		5543	EXTERIOR CORD REEL - BUILDING 'F'	50	3	10	10
11	11	20	1	SPARE				5543	5543				12	12
13	13	20	1	SPARE		5543			5543				14	14
15	15			"DO NOT USE" (2)			5543		5543	EXTERIOR CORD REEL - BUILDING 'F'	50	3	16	16
17	17	20	1	SPARE				5543	5543				18	18
19	19	20	1	SPARE		5543			5543				20	20
21	21			"DO NOT USE" (2)			5543		5543	EXTERIOR CORD REEL - BUILDING 'F'	50	3	22	22
23	23	20	1	SPARE				5543	5543				24	24
25	25	20	1	SPARE		5543			5543				26	26
27	27			"DO NOT USE" (2)			5543		5543	EXTERIOR CORD REEL - BUILDING 'F'	50	3	28	28
29	29	20	1	SPARE				5543	5543				30	30
31	31	20	1	SPARE		5543			5543				32	32
33	33			"DO NOT USE" (2)			5543		5543	EXTERIOR CORD REEL - BUILDING 'F'	50	3	34	34
35	35	20	1	SPARE				5543	5543				36	36
37	37	20	1	SPARE		0				SPARE	20	1	38	38
39	39			"DO NOT USE" (2)			0			"DO NOT USE" (2)			40	40
41	41	20	1	SPARE				0		SPARE	20	1	42	42
				TOTAL CONNECTED LOAD (VA) :		35841	35841	34641						
				25% LCL/LML (VA) :		0	0	0						
				TOTAL CALCULATED LOAD (VA) :		35841	35841	34641		TOTAL CALCULATED LOAD FOR PANEL:				
				TOTAL CALCULATED LOAD (AMPS) :		298.7	298.7	288.7		106323 VA				

PANEL SCHEDULE NOTES:

(1) PHASE B IS HIGH-LIGHTED TO INDICATE THAT IT IS THE HIGH-LEG OF A 3-PHASE, 4-WIRE, DELTA-CONNECTED SYSTEM. CONDUCTOR COLOR CODING AND PHASE ARRANGEMENT SHALL BE IN ACCORDANCE WITH 2019 CEC ARTICLES 110.15, 408.3[E][1] & 408.3[F].
(2) SINGLE PHASE LOADS SHALL NOT BE CONNECTED TO THE B-PHASE OF THIS PANEL. FIELD APPLY PERMANENT LABEL INDICATING "CAUTION B-PHASE HAS 208V TO GROUND".

LIGHTING CONTROL PANEL 'LCD'

nLIGHT RELAY PANEL MODEL: ARP INTENC08 NLT 4FCR MVOLT 1VB HLK SM
120V - 277V WITH EIGHT 20AMP RELAYS AND
CA TITLE 24 COMPLIANT ASTRONOMIC TIME CLOCK

LOCATION: ELEC. RM. - D11
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

LOW VOLTAGE INPUT			HIGH VOLTAGE OUTPUT			
CONTROL SCHEME	DEVICE ADDRESS	DEVICE	PANEL	CIRCUIT	WATTAGE	DESCRIPTION
ATC*	nRP 1 Relay 1	Relay 1	LD	2	440	LIGHTING - EXTERIOR EAST SIDE
ATC*	nRP 2 Relay 2	Relay 2	LD	4	612	LIGHTING - EXTERIOR WEST SIDE
ATC*	nRP 3 Relay 3	Relay 3	LD	2	632	LIGHTING - EXTERIOR TAPE LIGHT
ATC*	nRP 4 Relay 4	Relay 4				SPARE
ATC*	nRP 5 Relay 5					
ATC*	nRP 6 Relay 6					
ATC*	nRP 7 Relay 7					
ATC*	nRP 8 Relay 8					
	nRP Main (Sensor)	*SPACE*				

NOTES:
* Astronomic Time Clock (ATC) through SensorView software.

LIGHTING CONTROL PANEL 'LCE'

nLIGHT RELAY PANEL MODEL: ARP INTENC08 NLT 8FCR MVOLT 1VB HLK SM
120V - 277V WITH EIGHT 20AMP RELAYS AND
CA TITLE 24 COMPLIANT ASTRONOMIC TIME CLOCK

LOCATION: ELEC. RM. - E9
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

LOW VOLTAGE INPUT			HIGH VOLTAGE OUTPUT			
CONTROL SCHEME	DEVICE ADDRESS	DEVICE	PANEL	CIRCUIT	WATTAGE	DESCRIPTION
ATC*	nRP 1 Relay 1	Relay 1	LE	4	476	LIGHTING - EXTERIOR WEST SIDE
ATC*	nRP 2 Relay 2	Relay 2	LE	6	259	LIGHTING - EXTERIOR EAST SIDE
ATC*	nRP 3 Relay 3	Relay 3	LE	7	2608	EXTERIOR COURTYARD WEST
ATC*	nRP 4 Relay 4	Relay 4	LE	8	2608	EXTERIOR COURTYARD EAST
ATC*	nRP 5 Relay 5	Relay 5	LE	10	1886	BUILDING FAÇADE UPLIGHTS
ATC*	nRP 6 Relay 6	Relay 6	LE	9	2445	EXTERIOR PATHWAY POLES
ATC*	nRP 7 Relay 7	Relay 7	LE	11	286	GATE WALL PACKS
ATC*	nRP 8 Relay 8	Relay 8				SPARE
	nRP Main (Sensor)	*SPACE*				

NOTES:
* Astronomic Time Clock (ATC) through SensorView software.

LIGHTING CONTROL PANEL 'LCF'

nLIGHT RELAY PANEL MODEL: ARP INTENC08 NLT 4FCR MVOLT 1VB HLK SM
120V - 277V WITH EIGHT 20AMP RELAYS AND
CA TITLE 24 COMPLIANT ASTRONOMIC TIME CLOCK

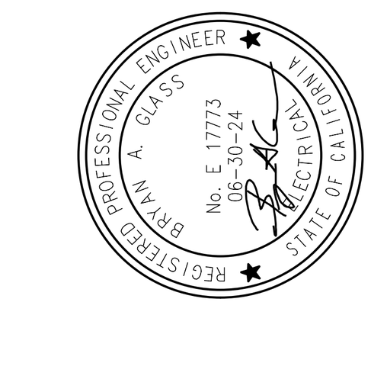
LOCATION: ELEC. RM. - F18
MOUNTING: SURFACE PER 11/E600
ENCLOSURE: NEMA 1

LOW VOLTAGE INPUT			HIGH VOLTAGE OUTPUT			
CONTROL SCHEME	DEVICE ADDRESS	DEVICE	PANEL	CIRCUIT	WATTAGE	DESCRIPTION
ATC*	nRP 1 Relay 1	Relay 1	LF	4	918	LIGHTING - EXTERIOR NORTH SIDE
ATC*	nRP 2 Relay 2	Relay 2	LF	6	677	LIGHTING - EXTERIOR SOUTH SIDE
ATC*	nRP 3 Relay 3	Relay 3	LF	8	1264	LIGHTING - EXTERIOR TAPE LIGHT
ATC*	nRP 4 Relay 4	Relay 4				SPARE
ATC*	nRP 5 Relay 5					
ATC*	nRP 6 Relay 6					
ATC*	nRP 7 Relay 7					
ATC*	nRP 8 Relay 8					
	nRP Main (Sensor)	*SPACE*				

NOTES:
* Astronomic Time Clock (ATC) through SensorView software.

PLOT DATE: 12/15/2022 8:24:39 AM

MARK	DATE	DESCRIPTION
3	12/14/22	ADDENDUM NO. 3
	11/1/22	DSA BACKCHECK



TETER, LLP
FRESNO HEADQUARTERS
VISALIA | BAKERSFIELD | MODESTO | SAN LUIS OBISPO
ARCHITECTS ENGINEERS CONNECTED
TETER

TULARE CAMPUS CTE
COLLEGE OF THE SEQUOIAS
4999 E. BARDSLEY AVE.
TULARE, CA

DRAWING TITLE
PANEL SCHEDULES

PROJECT NO.
21-12032

DRAWING
E813