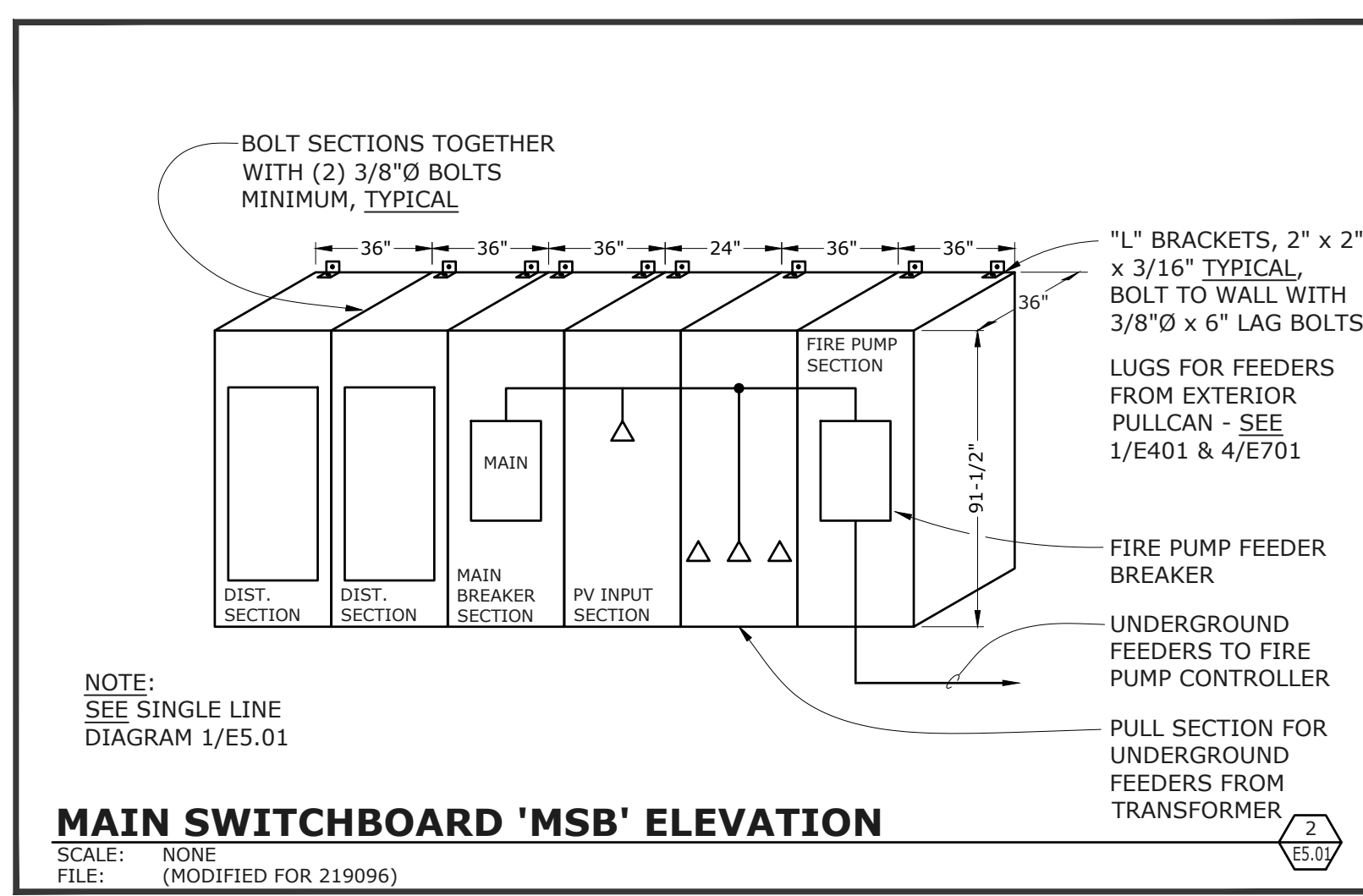


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- ### GENERAL NOTES
- PER CEC 110.06 PROVIDE AND INSTALL ELECTRIC ARC FLASH WARNING SIGNS ON ALL SWITCHBOARDS, PANELBOARDS, CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROLS.
 - UNDERGROUND SERVICE CONDUITS SHALL BE SEALED PER CEC 230.8.
 - BOND ALL COLD WATER PIPING SYSTEMS, GAS PIPING SYSTEMS, AND SPRINKLER PIPING SYSTEMS TO THE BUILDING GROUNDING ELECTRODE WITH (1) #4 CU. IN 3/4" CONDUIT. BOND WHEREVER THERE IS A BREAK IN THE CONTINUITY OF THESE SYSTEMS THROUGHOUT THE PROJECT.

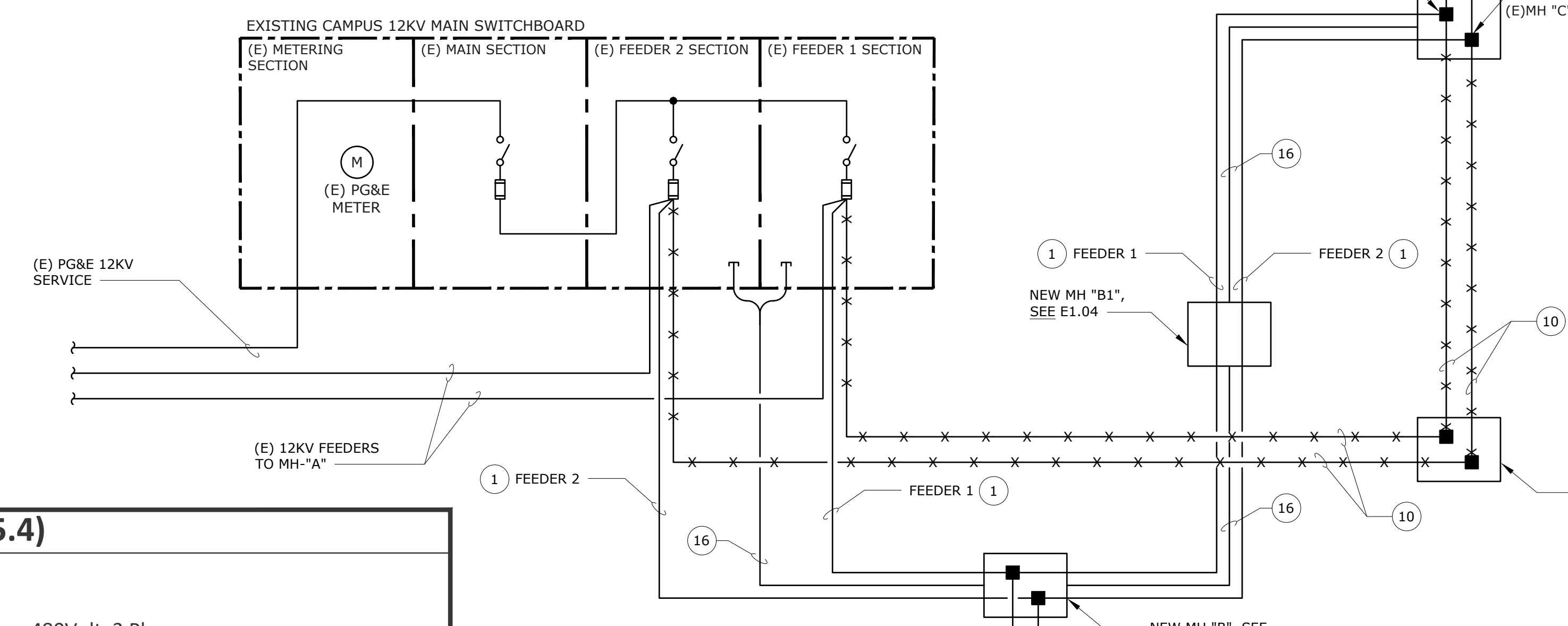
GROUNDING ELECTRICAL CONDUCTOR (G.E.C.) SCHEDULE

| G1 | (1) #4/0 CU TO GROUND ROD, SEE SPECS |
|----|--|
| G2 | (1) #4/0 BARE CU IN 1" C TO BLDG. STEEL, SEE SPECS. |
| G3 | (1) #4/0 BARE CU IN 1" C TO METALLIC COLD WATER SERVICE ENTRANCE, SEE SPECIFICATIONS |
| G4 | (1) #4/0 CU UFER GROUND, SEE SPECS |

- ### NUMBERED SHEET NOTES
- PROVIDE AND INSTALL (3) #350MCM COPPER 15kV RATED FEEDERS IN 4" CONCRETE ENCASED CONDUIT. SEE SITE PLAN E1.01.
 - FUSED DISCONNECT WITH SHUNT TRIP, SEE 1/E7.02.
 - MINI POWER CENTER WITH TRANSFORMER, 480V 3PHASE PRIMARY, 120/208VOLT 3P 4W SECONDARY. SEE PANEL SCHEDULE.
 - FEEDER INCREASED FOR VOLT DROP.
 - AS REQUIRED BY CEC695.4 (B) (3) PROVIDE AND INSTALL PLACARD ON COVER OF MAIN SWITCHBOARD MARKED "FIRE PUMP DISCONNECTING MEANS". THE LETTERS SHALL BE AT LEAST 1" IN HEIGHT AND THEY SHALL BE VISIBLE WITHOUT OPENING ENCLOSURE DOORS OR COVERS. LABEL TO BE SCREWED ON TO COVER.
 - PROVIDE AND INSTALL MANUAL TRANSFER SWITCH IN NEMA 3R ENCLOSURE, ASCO 300 MTS OR EQUAL.
 - PROVIDE AND INSTALL NEMA 3R CIRCUIT BREAKER ON BUILDING EXTERIOR. SEE 1/E4.01, NOTE 35.
 - FIRE PUMP CIRCUIT BREAKER AND FEEDER BASED ON CEC695.4.
 - FIRE PUMP FEEDER SIZE BASED ON FLA TIMES 1.25, MINIMUM.
 - REMOVE EXISTING 12KV FEEDERS, SEE E1.01 AND NOTES 6 & 7 ABOVE.
 - SPLICE NEW FEEDERS TO EXISTING FEEDERS IN EXISTING MANHOLE MH "C".
 - PROVIDE AND INSTALL SUB-METERING AND C.T.'S, SEE E5.04.
 - PROVIDE AND INSTALL CIRCUIT BREAKER FOR METERING REFERENCE VOLTAGE, SEE 1/E5.04.
 - PROVIDE AND INSTALL WIRING IN CONDUIT. VERIFY REQUIREMENTS WITH GENERATOR MANUFACTURER, SEE 4/E5.03.
 - SEE 5/E5.03 FOR GROUNDING.
 - PROVIDE AND INSTALL (2) SPARE 12KVA 4" CONDUITS, CONCRETE ENCLOSED. SEE 1/E1.01.
 - ATS SWITCHES TO START AS FOLLOWS:
ATS #1: CLOSE WITHIN 10 SECONDS
ATS #2: SET TO CLOSE WITHIN 30 SECONDS
FIRE PUMP: SET TO CLOSE WITHIN 10 SECONDS
 - PROVIDE AND INSTALL 1000AMP, 277/480V, 3P, 4 WIRE PORTABLE GENERATOR DOCKING STATION WITH BREAKER IN NEMA 3R ENCLOSURE. GENERATOR DOCKING STATION SHALL BE TAP AS MANUFACTURED BY PSL-POWER SYSTEMS INC. OR APPROVED EQUAL. SEE 1/E5.04.
 - PROVIDE AND INSTALL CIRCUIT BREAKER AUXILIARY SWITCH WITH ONE N.O. AND ONE N.C. CONTACTS. THE CIRCUIT BREAKER 'OPEN' POSITION IS TO ALLOW MONITORING BY THE FIRE ALARM SYSTEM.
 - PROVIDE AND INSTALL CONTACTS ON 'ATS' AND 'MIS' TO MONITOR NORMAL POSITION, EMERGENCY POSITION AND 'OFF' POSITION.

FIRE PUMP CALCULATIONS (CEC 695.4)

| | | | |
|-------------------------------|-------------------------------|-----------------|---|
| Service Size: | Fire Pump Size | 75 HP | 480Volt, 3 Phase |
| | Locked Rotor Current (LRC): | | Based on CODE Letter G & Table 430.7(B) |
| | Fire Pump (LRC) | 471 Amps | 75HP x 6.29 = 471 Amps |
| | Next Standard Service Size: | 600 Amps | 480Volt, 3 Phase |
| Fire Pump Feeder Size: | Fire Pump Full Load Amps | 96 Amps | CEC Table 430.250 |
| | Fire Pump Minimum Feeder size | 96 Amps x 1.25= | 120 Amps |

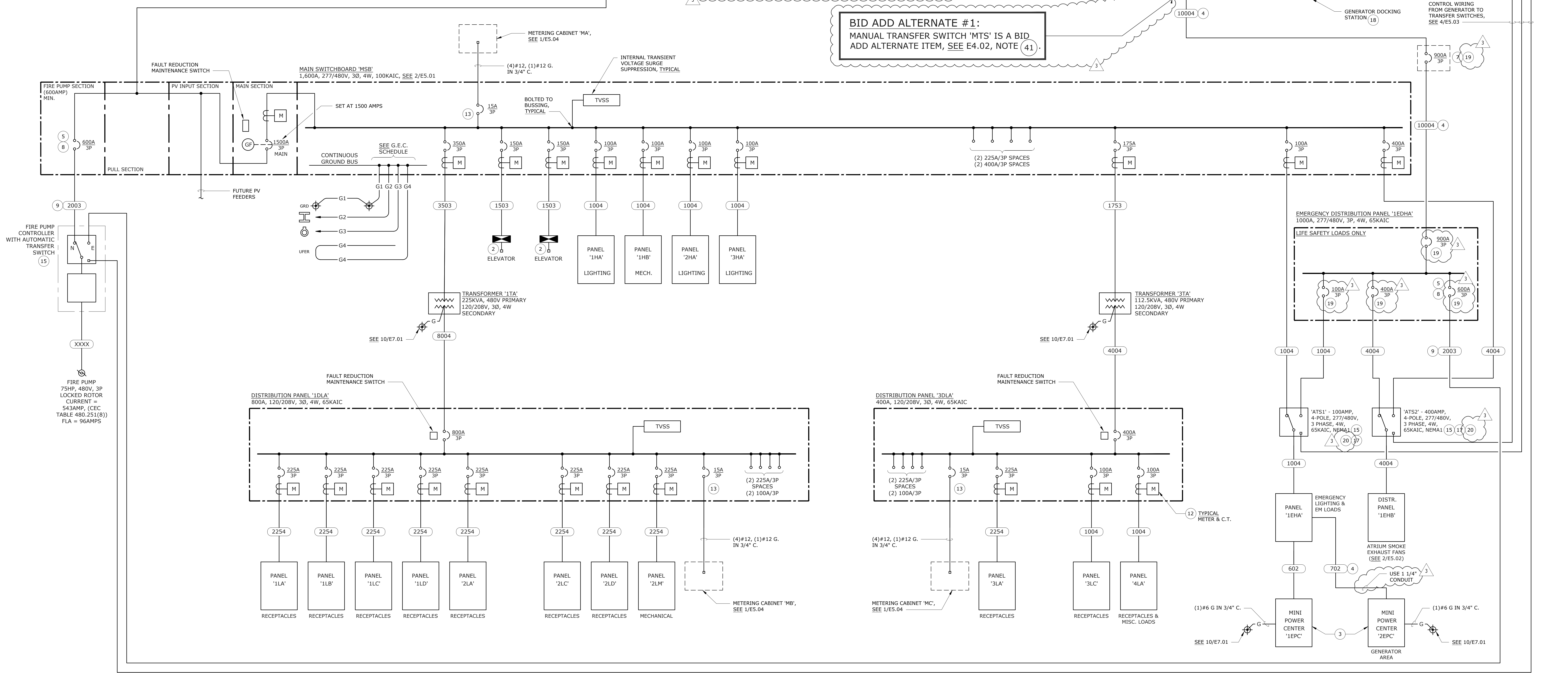


BID ADD ALTERNATE #1:
EMERGENCY GENERATOR IS A BID ADD ALTERNATE ITEM, SEE E4.02, NOTE (39).

BID ADD ALTERNATE #1:
GENERATOR DOCKING STATION IS A BID ADD ALTERNATE ITEM, SEE E4.02, NOTE (40).

BID ADD ALTERNATE #1:
'UNIT SUB STATION A' 12KV TRANSFORMER IS A BID ADD ALTERNATE ITEM, SEE E4.02, NOTE (38).

BID ADD ALTERNATE #1:
MANUAL TRANSFER SWITCH 'MTS' IS A BID ADD ALTERNATE ITEM, SEE E4.02, NOTE (41).



NOTE: SEE E5.04 FOR METERING, SEE E6.01 FOR FEEDER SCHEDULE.

APPROVALS

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PROJECT TITLE

**Peralta Community College District
Laney Library & Learning Resource Center
(Building 100 Replacement)**

900 Fallon Street, Oakland, CA 94607

ISSUE FOR BID

ISSUE DATE: 3/31/23
MAT JOB NUMBER: 21942

REVISIONS:

| DATE | DESCRIPTION |
|------------|-----------------|
| 05/16/2024 | ADDENDUM NO. 03 |

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DIAGRAMS

SHEET NUMBER

E5.01