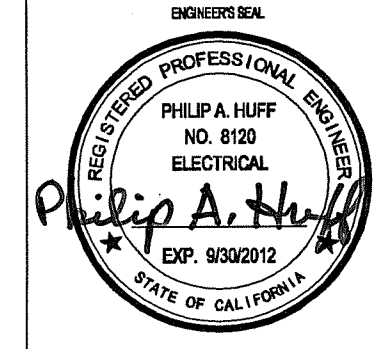


LOAD CALCULATIONS

PUBLIC WORKS BUILDING		GEN LOAD	PANEL DP1A	GAS PUMPS		GEN LOAD	PANEL DP
LIGHTING - NEC, NORTHEAST SIDE: OFFICES & BREAK 2353 sf @ est. 1.3 VA/sf = 3059 VA				PUMP MOTOR est. 50 HP, 460V, 3 PHASE, NEC 65A 65 x 480 x 1.732 = 54040 VA		54040	
HALLS, REST ROOMS: 526 sf @ 0.5 VA/sf = 263 VA		3059 VA	263	WIRE: 65 x 1.25 = 81A EXISTING #4 (85A @ 75° C) IS PROPER			103920
STORAGE: 41 sf @ 0.25 VA/sf = 10 VA		263	10	CB: 65 x 2.5 = 163A EXISTING 125A IS OK 125 x 480 x 1.732 = 103920 VA			
		3332 VA	3332 VA	FILLING ISLAND LIGHTING: 20A CB, est. 10A, 10 x 120 = 1200 VA		1200	1200 x 1.25 = 1500 VA
OUTLETS - NORTHEAST SIDE: 2353 sf @ 1 VA/sf = 2353 VA		2353	2353				105420 VA = 127A
OUTSIDE LIGHTING: SIX 120V CIRCUITS, @ est. 6A, 6 x 120 = 720 VA		720 x 6	720 x 1.25 x 6	EXISTING 200A SERVICE ok USE NEW 150A FEED, 1/0 CU (150A @ 75° C), PHASE & NEUTRAL			
WATER HEATER: est. 1500W, 277V		1500	1500	SOLID WASTE BUILDING & ANNEX			
DRINKING FOUNTAIN: est. 6A, 115V, 6 x 120 = 720 VA		720	720	LIGHTING - NEC: 4068 sf @ est. 1.3 VA/sf = 5288 VA		5288	5288 VA x 1.25
COPIERS, PRINTERS: est. 6A, 120V, 6 x 120 = 720 VA		720 x 6	720 x 6	OUTLETS: 4068 sf @ NEC 1 VA/sf = 4068 VA		4068	4068
TELEPHONE PANEL: est. 6A, 120V, 6 x 120 = 720 VA		720	720	ANNEX AC: est. 14A, 208V, 1 PHASE, 14 x 208 = 2910 VA		2910	2910
PANEL P AC UNIT 15 + 16: 60A CB, est. 35A, 208V, 3 PHASE, 35 x 208 x 1.732 = 12609 VA		12609	12609	LUBE SHOP			
PANEL Z AC UNIT 2D: 30A CB, est. 17A, 208V, 1 PHASE, 17 x 208 = 3744 VA		3536	3536	est. 20A LOAD, 208/120V, 1 PHASE, 20 x 208 = 4160 VA		4160	4160 x 1.25
PANEL Z AC UNIT: 60A CB, est. 35A, 208V, 3 PHASE, 35 x 208 x 1.732 = 12609 VA		12609	12609	STORAGE BUILDING			
PANEL A YARD LIGHTS: est. 8A, 120V, 8 x 120 = 960 VA		960	960 x 1.25	LIGHTING - NEC: 2400 sf @ 0.5 VA/sf = 1200 VA		1200	1200 x 1.25
PANEL C AC UNIT: 50A CB, est. 28A, 208V, 3 PHASE, 28 x 208 x 1.732 = 10440 VA		10440	10440	AIR COMPRESSOR: 5 HP, 208V, 3 PHASE, NEC 11.5A 11.5 x 208 x 1.732 = 4140 VA		4140	4140
PANEL C AC UNIT: 30A CB, est. 18A, 208V, 1 PHASE, 18 x 208 = 3744 VA		3744	3744	ICE MACHINE: est. 10A, 208V, 1 PHASE, 10 x 208 = 2080 VA		2080	2080
PANEL C AC UNIT: 20A CB, est. 12A, 208V, 1 PHASE, 12 x 208 = 2496 VA		2496	2496	AIR CONDITIONER: est. 10A, 208V, 1 PHASE, 10 x 208 = 2080 VA		2080	2080
PANEL C UPS UNIT: 30A CB, est. 24A, 208V, 1 PHASE, 24 x 208 = 4992 VA		4992	4992	EXISTING 125A FEEDER ok, 1/0 CU TW (125A @ 60° C) ok			
LIGHTING - NEC, NORTHWEST SIDE: OFFICES, LOBBY, CONFERENCES, COMPUTER, BLUEPRINT: 29294 sf @ est. 1.3 VA/sf = 38082 VA		38082 VA		PUBLIC WORKS MAINTENANCE BUILDING			
HALLS, REST ROOMS: 6252 sf @ 0.5 VA/sf = 3126 VA		3126	3126	LIGHTING - NEC: OFFICES: 6336 sf @ est. 1.3 VA/sf = 8237 VA		8237	8237 VA x 1.25
STORAGE: 985 sf @ 0.25 VA/sf = 246 VA		246	246	SERVICE SPACES: 768 sf @ 0.5 VA/sf = 384 VA		384	384 x 1.25
OUTLETS - NORTHWEST SIDE: 29294 sf @ 1 VA/sf = 29294 VA		41454	41454 x 1.25 = 51817.5	OUTLETS: 6336 sf @ NEC 1 VA/sf = 6336 VA		6336	6336
WATER HEATERS: est. 1500W, 120V		1500 x 2	1500 x 2	AC-1, AC-4, AC-5: 14A LOAD, 460V, 3 PHASE		34920	23280
RANGE TOP: est. 2000W, 208V, 20A CB		2000	2000	3 x 14 x 480 x 1.732 = 34920 VA			24940
COPIERS: est. 6A, 6 x 120 = 720 VA		720 x 3	720 x 3	2 x 14 x 480 x 1.732 = 23280 VA			
DRINKING FOUNTAIN: est. 6A, 115V, 6 x 120 = 720 VA		720	720	1 x 30 x 480 x 1.732 = 24940 VA			
SUMP PUMP, AIR COMPRESSOR: est. 6A EACH, 115V, 6 x 120 = 720 VA		720 x 2	720 x 2	AC-2, AC-3: 10.5A LOAD, 460V, 3 PHASE, 2 x 10.5 x 480 x 1.732 = 17460 VA		17460	17460
TELEPHONE PANEL: est. 6A, 120V, 6 x 120 = 720 VA		720	720	EF-1: est. 3 HP, 208V, 3 PHASE, NEC 11A, 11 x 208 x 1.732 = 3960 VA		3960	3960
LIGHTING - NEC, SOUTH SIDE: OFFICES: 8397 sf @ est. 1.3 VA/sf = 10916 VA		10916 VA		CLOTHES WASHER: NEC 1500 VA		1500	1500
HALLS: 1893 sf @ NEC 0.5 VA/sf = 947 VA		947	947	CLOTHES DRYER: NEC 5000W		5000	5000
STORAGE: 337 sf @ NEC 0.25 VA/sf = 84 VA		84	84	EXISTING 200A FEEDER ok, 300 KCMIL CU TW (240A @ 60° C) ok			
OUTLETS - SOUTH SIDE: 8397 sf @ NEC 1 VA/sf = 8397 VA		8397	8397	GENERATOR PANEL			
AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7, AC-8: 12.8A LOAD, 460V, 3 PHASE, 30A CB		10641 x 7	10641 x 7	GENERATOR WATER JACKET HEATER: 2000W		2000 VA x 1.25	
12.8 x 480 x 1.732 = 10641 VA		24941 x 1	24941 x 1	GENERATOR MISCELLANEOUS LOADING: est. 20A, 120V, 20 x 120 = 2400 VA		2400	2400
30 x 480 x 1.732 = 24941 VA		7500	7500	USE 10 kVA TRANSFORMER, 240/120V, 41.7A SEC, 41.7 x 1.25 = 52A USE 50A MCB, #6 CU (55A @ 60° C)		4500 VA	4500 VA
PANEL CP: USE TRANSFORMER RATING, 7.5 kVA		2080	2080	GENERATOR LOADING:		428484 VA	428484 VA
AC-10, SANYO AC: est. 10A, 208V, 1 PHASE, 10 x 208 = 2080 VA		2080	2080	= 515A			
EHC-1: 1.5 kW		1500	1500 x 1.25	450 kW/562 kVA/677A GENERATOR ok			
EHC-2: 2.0 kW		2000	2000 x 1.25	677 x 1.25 = 846A 800A OUTPUT CB ok			
EHC-3: 2.5 kW		2500	2500 x 1.25	USE TWO 600 KCMIL CU (2 x 420 = 840A @ 75° C), PHASE & NEUTRAL			
USE 400A FEED, 500 KCMIL CU (380A @ 75° C), PHASE & NEUTRAL							

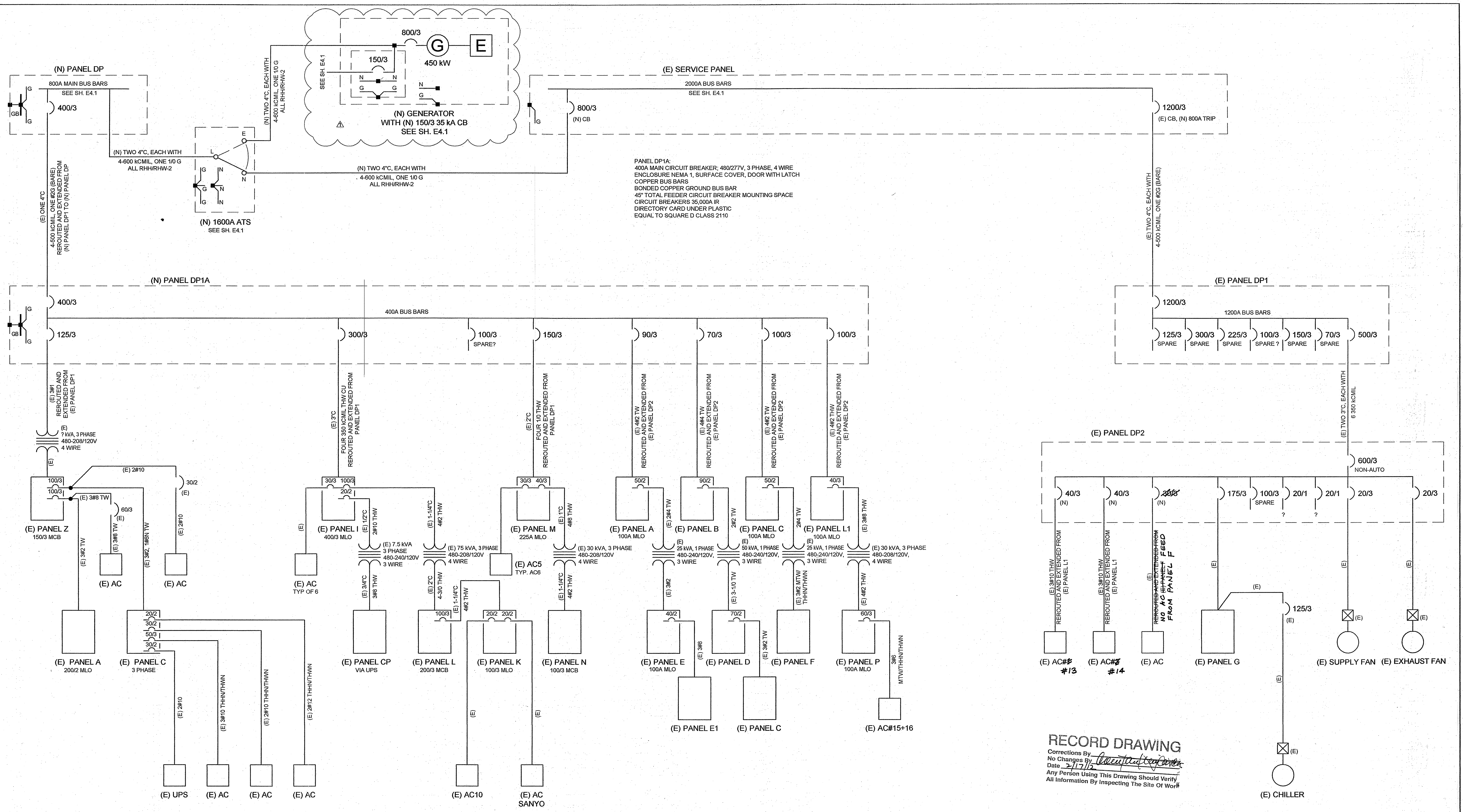
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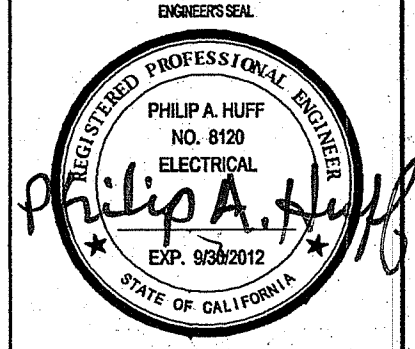
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PUBLIC WORKS BUILDING - AS MODIFIED

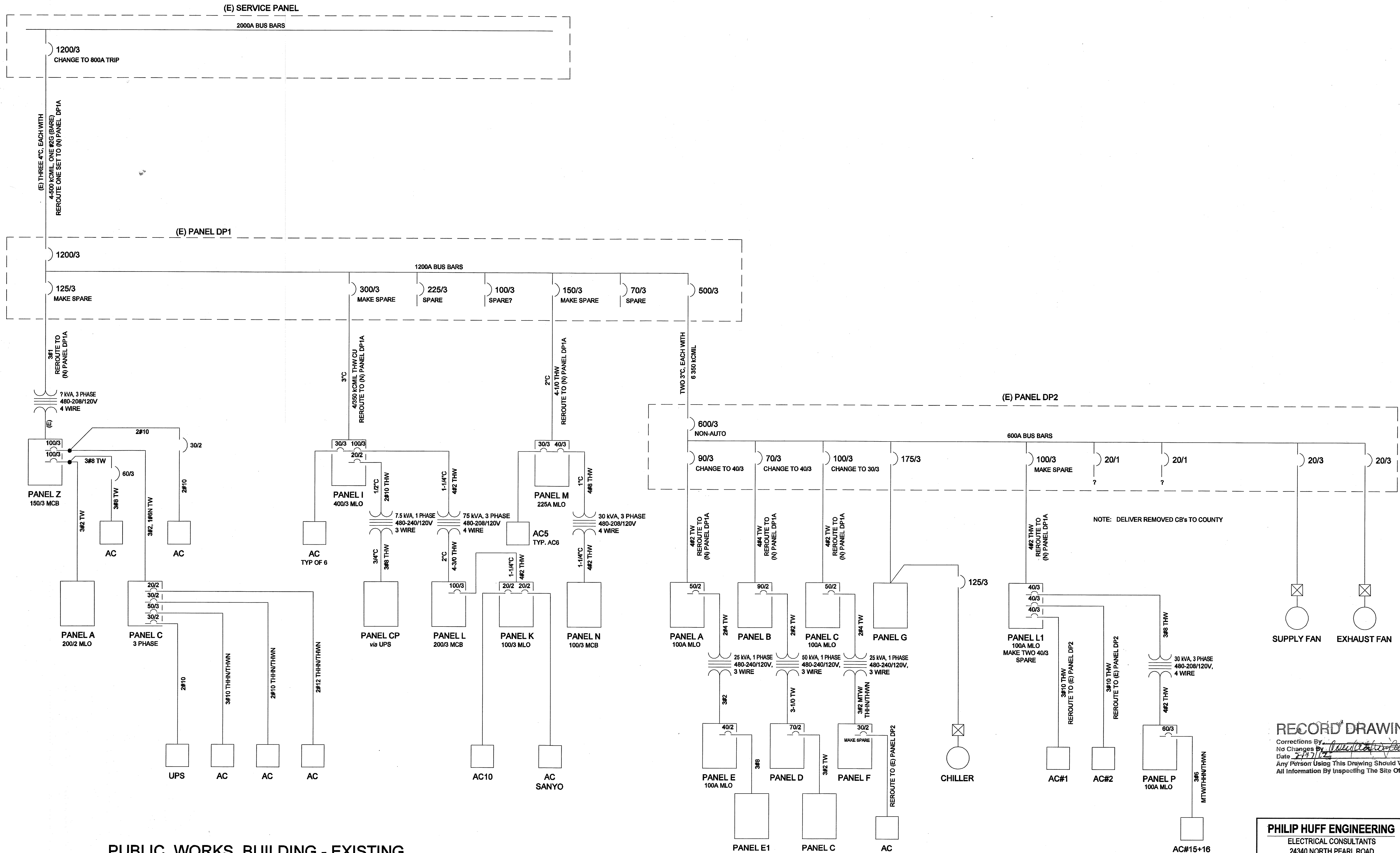
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SU 4530

SU 4531

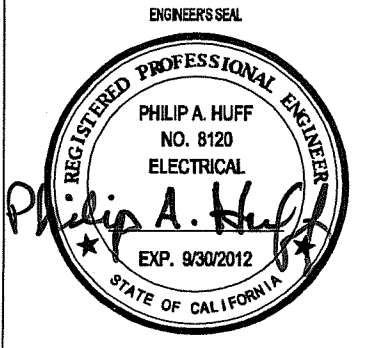


PUBLIC WORKS BUILDING - EXISTING

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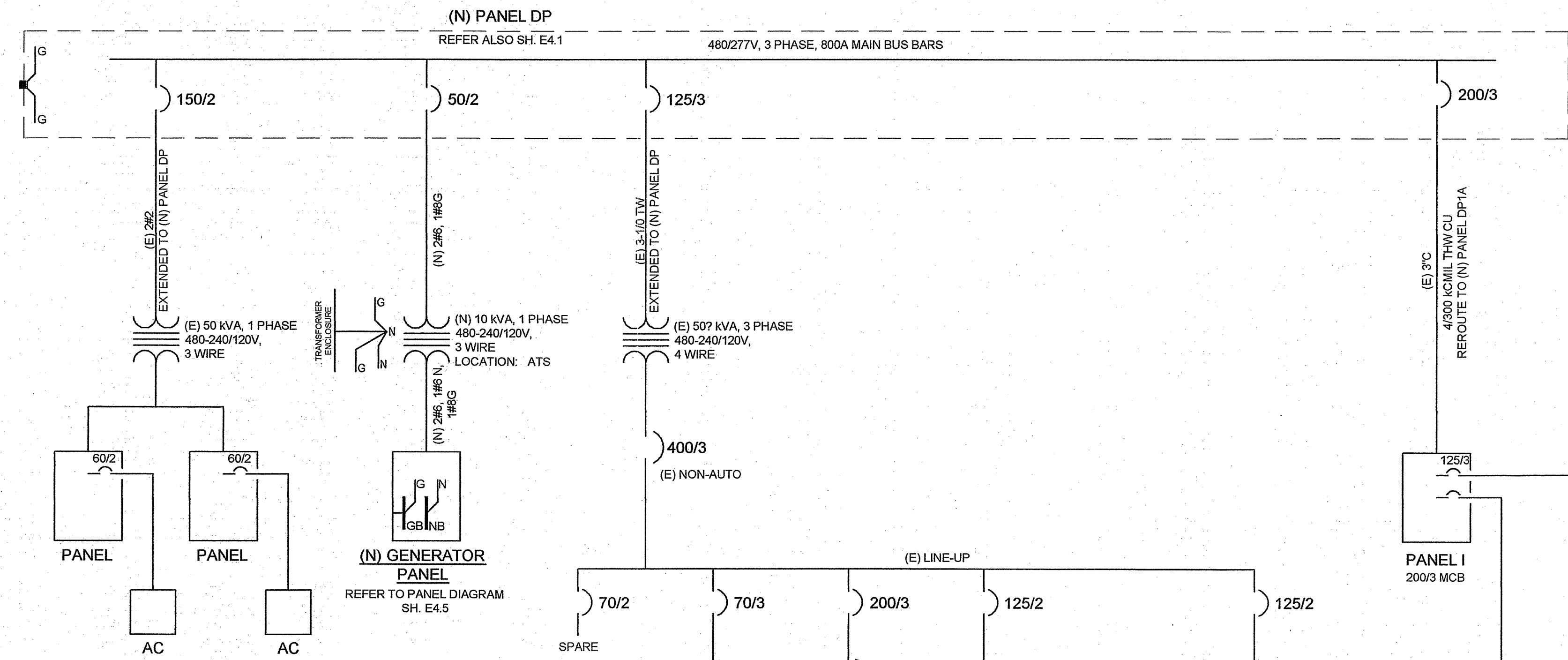
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GENERATOR		E4.3						

COUNTY OF SAN JOAQUIN

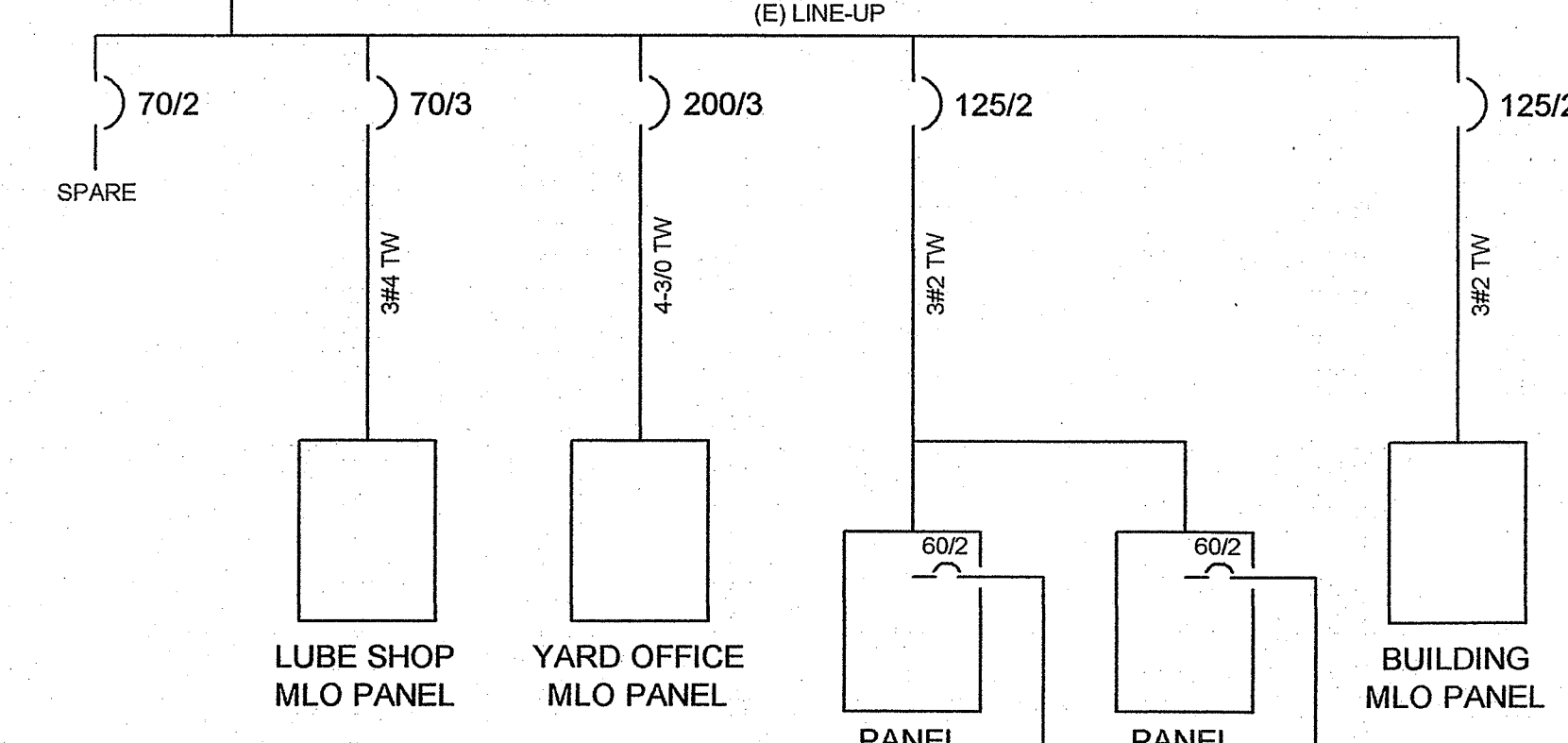
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STANDBY GENERATOR
PUBLIC WORKS COMPLEX

SHEET NO.	TOTAL SHEETS
E4.3	10



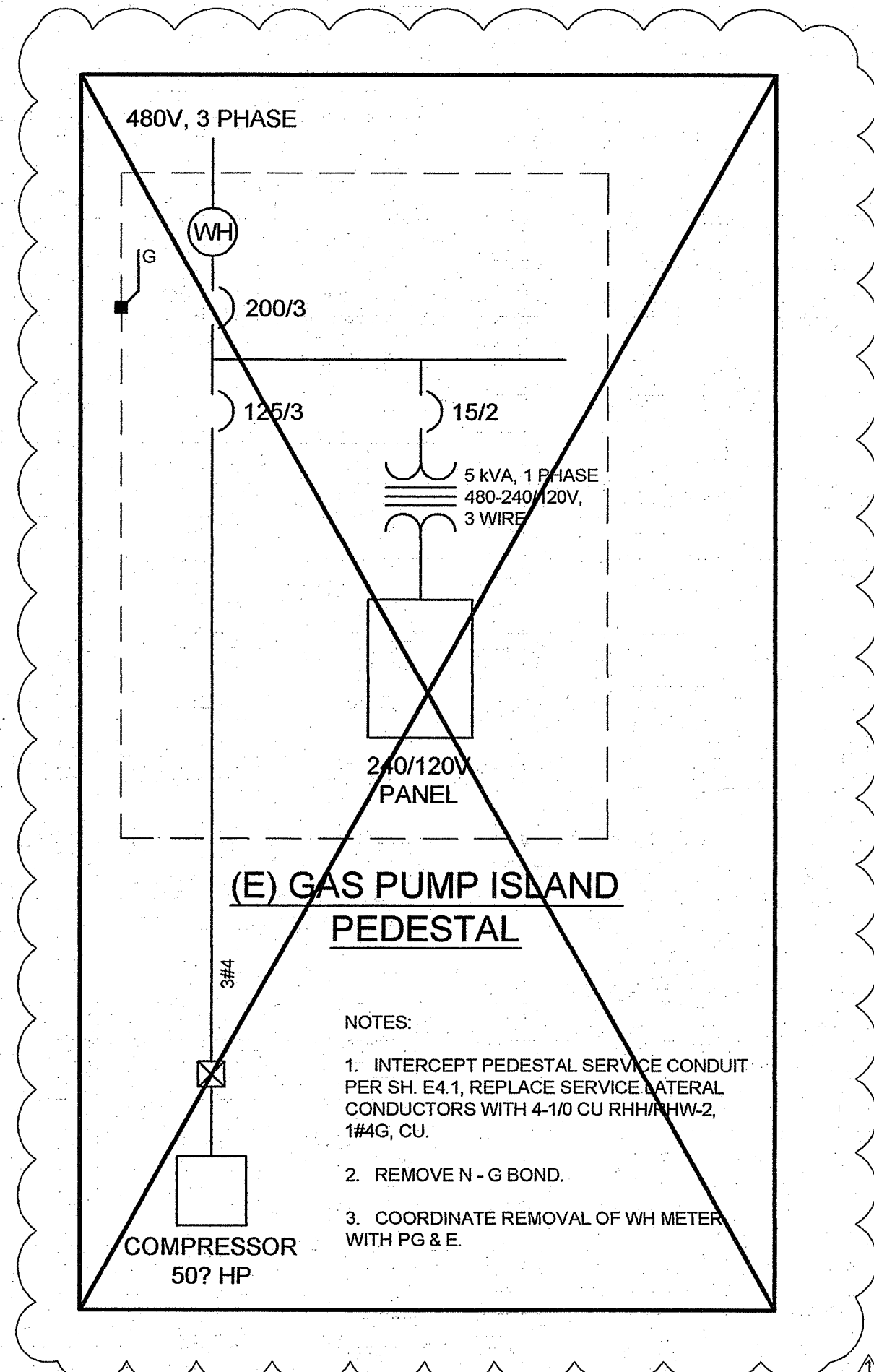
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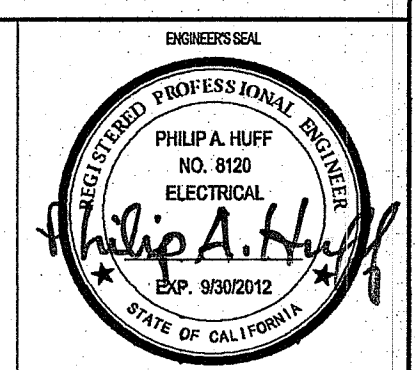
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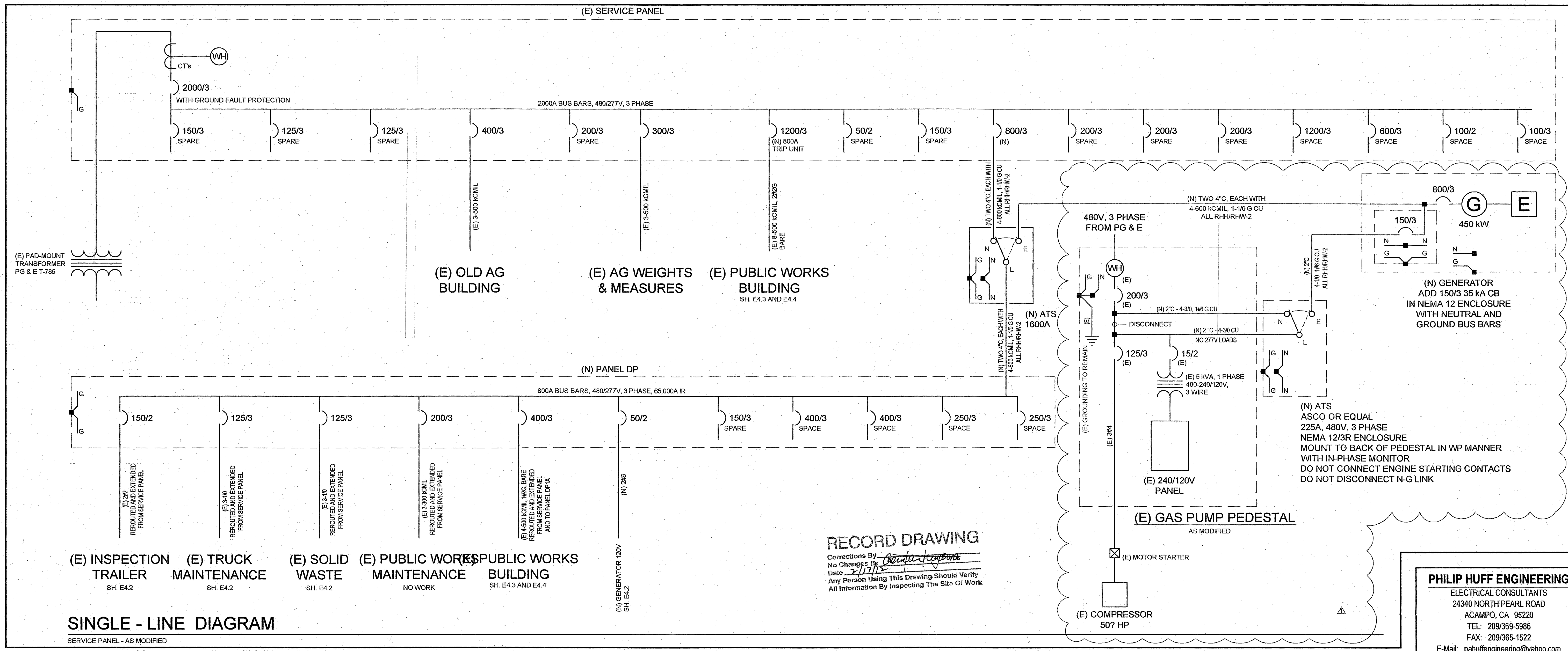
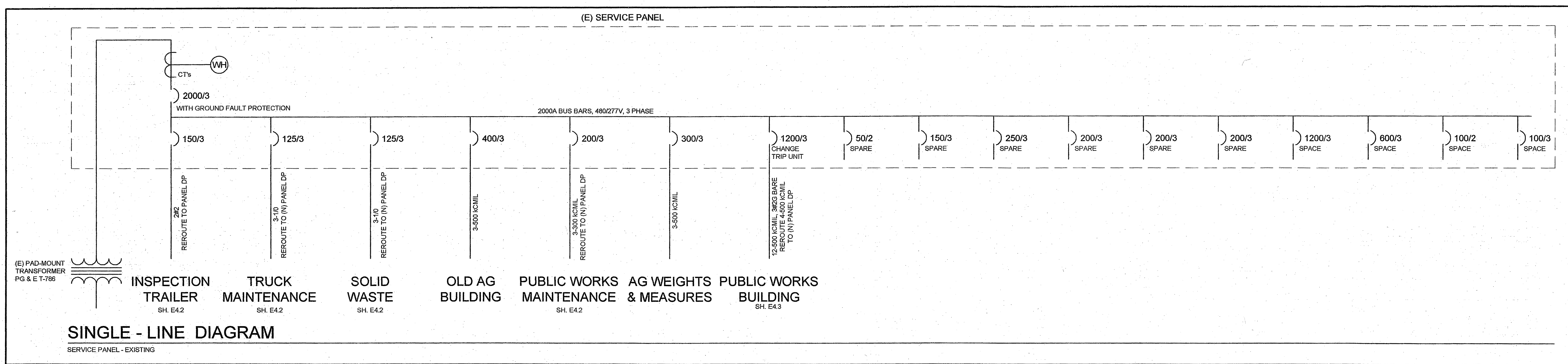
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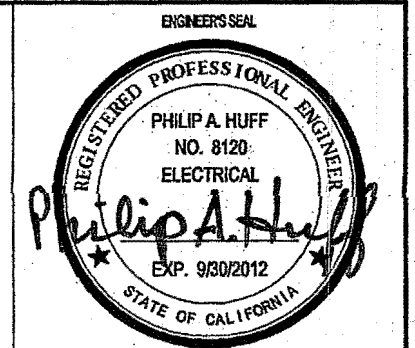
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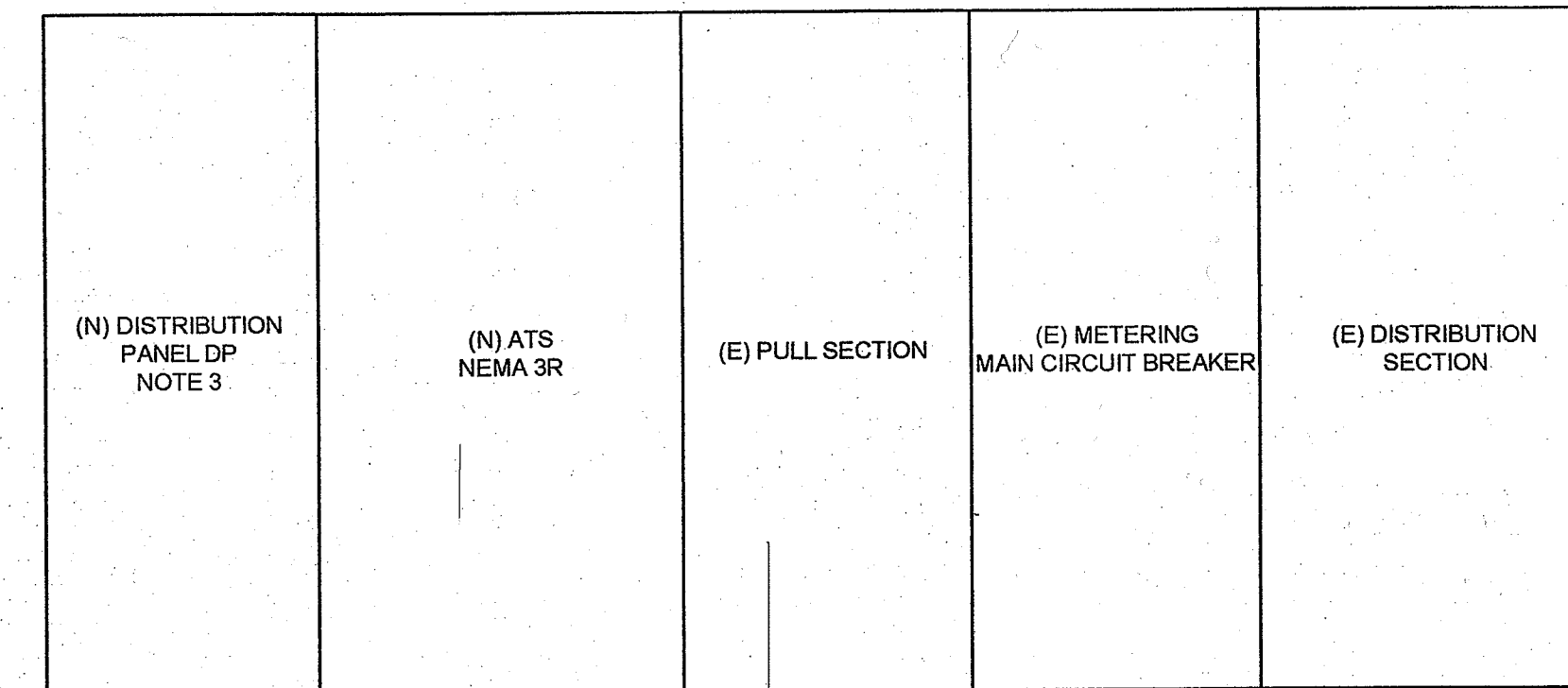
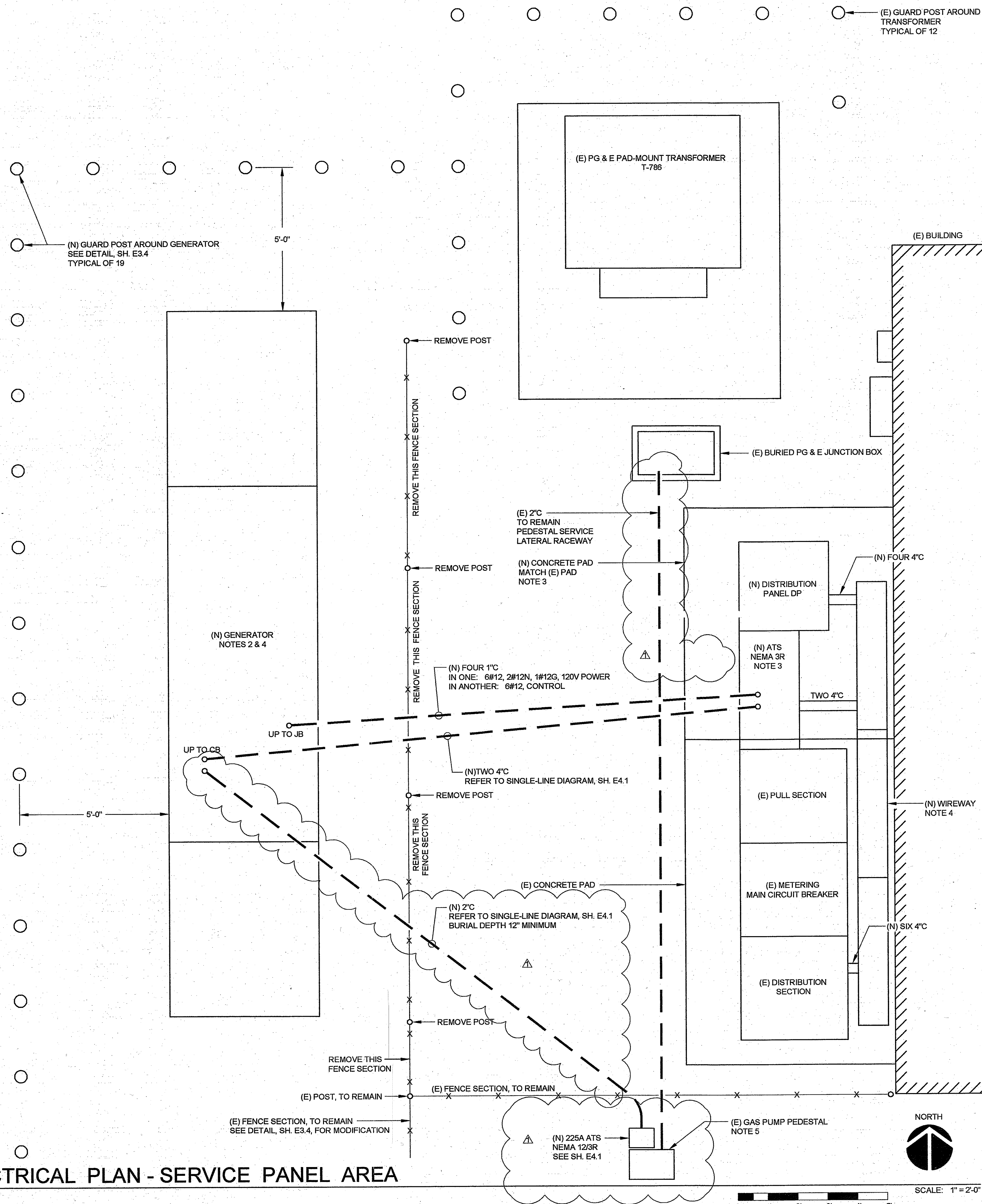
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DRAWN BY	DATE	PROJECT ENGINEER	DATE	CHECKED	DATE	SUBMITTED	DATE	APPROVAL	RECOMMENDED	DATE	COUNTY OF SAN JOAQUIN	SINGLE - LINE DIAGRAMS	STANDBY GENERATOR	SHEET NO.	TOTAL SHEETS
PH	8/1/06			PH	8/1/06	PH	12/22/10					CAMPUS SERVICE PANEL	PUBLIC WORKS COMPLEX	E4.1	10
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GENERATOR		E4.1			▲	7/11/2011									

SU 4533



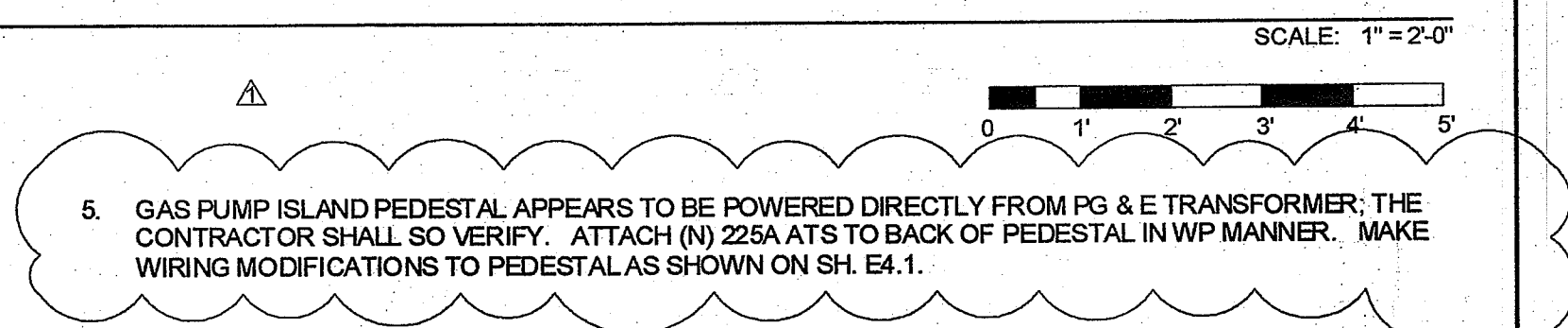
ELEVATION - SERVICE PANEL

NOTES

- THE GENERATOR WITH FUEL TANK AND THE AUTOMATIC TRANSFER SWITCH (ATS) HAVE BEEN PURCHASED BY THE COUNTY AND ARE TO BE INSTALLED, WIRED, CONNECTED, AND TESTED BY THE ELECTRICAL CONTRACTOR UNDER THIS CONTRACT. THE GENERATOR FOUNDATION IS TO BE BUILT AND THE SERVICE PANEL CONCRETE PAD IS TO BE EXTENDED UNDER THIS CONTRACT. THE COUNTY WILL PROVIDE FUEL AND THE STARTING BATTERY. THE CONTRACTOR SHALL PROVIDE ENGINE COOLANT AND LUBRICATING OIL.
THE GENERATOR AND AUTOMATIC TRANSFER SWITCH SYSTEM SHALL BE MADE COMPLETE AND OPERABLE TO SUIT THE COUNTY AND SHALL BE PER CA TITLE 24, PART 3, ARTICLE 702 - OPTIONAL STANDBY SYSTEMS.
- EXACT LOCATION OF THE GENERATOR FOUNDATION SHALL SUIT THE COUNTY. BUILD THE FOUNDATION PER SH. E3.4 AND SPECIFICATION SECTION 10-1.10. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROPER BOLT PLACEMENT. THE COUNTY MAY REQUIRE THE PAD TO NOT BE LEVEL TO FACILITATE TANK DRAINAGE. REFER TO THE COUNTY. STUB BURIED CONDUITS UP 6" ABOVE THE CONCRETE FOUNDATION. USE PVC-COATED RSC FOR RISERS, INCLUDING THE BENDS, EXTEND BURIED PVC-COATED RSC TO 2' BEYOND THE CONCRETE FOUNDATION. BOLT GENERATOR AND TANK TO FOUNDATION TO SUIT THE COUNTY, USING NUTS AND LOCK NUTS.
PROVIDE POWER AND CONTROL WIRING AND MAKE CONNECTIONS AS REQUIRED. IN ENCLOSURES, NEATLY TRAIN AND SECURE CONDUCTORS. CONNECT STRANDED CONDUCTORS TO SCREW OR BOLT TERMINALS USING PRE-INSULATED LOCKING FORK CRIMP TERMINAL LUGS OR COMPRESSION LUGS. UNIQUELY LABEL EACH END OF EACH CONTROL WIRE. ALL CONTRACTOR-PROVIDED WIRING INSIDE GENERATOR ENCLOSURE, 120V AND HIGHER, SHALL BE IN RACEWAY AND SHALL BE AS FOR WET LOCATIONS AS NOTED HEREIN. USE RSC EXCEPT FOR SHORT LENGTHS OF LIQUID-TIGHT FLEXIBLE CONDUIT WHERE NEEDED FOR CONNECTION TO ENGINE-GENERATOR-MOUNTED EQUIPMENT. USE GALVANIZED MALLEABLE IRON DEVICE AND JUNCTION BOXES WITH GASKETED MALLEABLE IRON COVER PLATES WITHOUT CAPS EQUAL TO APLETON FSK-1T5G-C AND FSK-1DR-C. USE SS HARDWARE; USE SELF-LOCKING NUTS OR LOCK WASHERS.
PROVIDE TWO (2) DUPLEX CONVENIENCE RECEPTACLE OUTLETS IN GENERATOR ENCLOSURE, LOCATIONS TO SUIT THE COUNTY. BOND OUTLET BOXES TO GROUND USING GROUND WIRES RUN WITH CIRCUIT CONDUCTORS. BOND RECEPTACLE GROUND TERMINALS TO OUTLET BOXES WITH BONDING JUMPERS SIZED PER THE NEC, NOT MERELY BY YOKE OR SCREW CONTACT. LABEL EACH RECEPTACLE OUTLET COVER PLATE WITH BRANCH CIRCUIT NUMBER.
PROVIDE FOUR (4) VAPORPROOF LIGHT FIXTURES IN GENERATOR EQUAL TO APLETON VD1050G, EACH WITH A LIGHT SWITCH DIRECTLY BELOW, LOCATIONS TO SUIT THE COUNTY. PROVIDE 60 WATT 120V INSIDE FROSTED A-19 VIBRATION-RESISTANT LAMPS. LABEL EACH SWITCH BOX COVER PLATE WITH BRANCH CIRCUIT NUMBER.
WIRE AND CONNECT FUEL PUMP AS REQUIRED; USE A MANUAL MOTOR STARTER FOR A DISCONNECT.
MOUNT BATTERY CHARGER TO SUIT THE COUNTY. CONNECT CHARGER TO BATTERY USING MINIMUM #8 AWG CU RHHRHW-2 CONDUCTORS. PROPERLY COAT BATTERY CONNECTIONS FOR CORROSION RESISTANCE AND PROVIDE PROTECTOR(S) OVER EXPOSED BATTERY CONNECTIONS; PROTECTOR MAY BE A PRESSURE-TREATED HINGED PLYWOOD COVER, SECURED BY HINGE(S) ONE SIDE.
SET WATER HEATER THERMOSTAT TO SUIT THE COUNTY.
PROVIDE REQUIRED FUEL AND OIL DRAIN PIPES. USE PROPER PIPE MATERIALS. PROVIDE ANY REQUIRED FLEXIBLE PIPING. USE SS HARDWARE AND PIPE SUPPORTS; USE SELF-LOCKING NUTS OR LOCK WASHERS.
- PROVIDE NEW CONCRETE PAD UNDER PANEL DP AND ATS TO MATCH EXISTING SERVICE PANEL PAD, INCLUDING REINFORCEMENT. STUB BURIED CONDUITS UP 2" ABOVE THE PAD.
THE EXISTING ATS ENCLOSURE IS NEMA 1 RATED. PROVIDE (N) NEMA 3R ATS ENCLOSURE OR ATS OR MODIFY EXISTING ENCLOSURE FOR OUTDOOR USE TO SUIT COUNTY. FOR ATS MANUFACTURER'S ASSISTANCE, REFER TO THE LOCAL ASCO REPRESENTATIVE, MIKE HAFFNER, 209/483-8897.
BOLT ATS AND PANEL DP TO PAD USING 1/2" BOLTS AND INSERTS AND BOLT ENCLOSURES TOGETHER IN WT MANNER. NEATLY TRAIN AND SECURE POWER CONDUCTORS AND MAKE CONNECTIONS PER SINGLE-LINE DIAGRAMS, SH. E4.1; IN ATS, SEPARATE LINE, LOAD, AND GENERATOR POWER CONDUCTORS. PROVIDE EACH CIRCUIT BREAKER IN PANEL DP WITH AN ENGRAVED LAMINATED NAMEPLATE, ENGRAVED TO SUIT THE COUNTY WITH 1/4" HIGH BLACK CHARACTERS ON WHITE BACKGROUND. IN ATS, NEATLY TRAIN AND SECURE CONTROL CONDUCTORS. CONNECT STRANDED CONDUCTORS TO SCREW TERMINALS USING PRE-INSULATED LOCKING FORK CRIMP TERMINAL. UNIQUELY LABEL EACH END OF EACH CONTROL WIRE.
MOUNT (N) GENERATOR PANEL AND TRANSFORMER IN SUITABLE LOCATIONS INSIDE ATS. REFER TO SINGLE-LINE DIAGRAM, SH. E4.2, FOR PANEL FEEDER AND CONNECTIONS. EQUIP AND WIRE PANEL AS SHOWN, EXCEPT FOR UNAVOIDABLE CHANGES. PROVIDE PANEL WITH TYPED DIRECTORY PER PANEL DIAGRAM, EXCEPT REFLECTING AS-BUILT CONDITIONS. INSIDE PANEL, BUNDLE WIRES NEATLY, AND LABEL EACH UNGROUNDED CONDUCTOR WITH BRANCH CIRCUIT NUMBER ADJACENT TO ITS CONNECTION POINT. INTERIOR ATS WIRING WILL BE AS FOR DRY INDOOR LOCATIONS, EXCEPT RACEWAYS WILL NOT BE REQUIRED BEHIND DEADFRONT INTERIOR PANEL.
LOCATE RECEPTACLE OUTLET IN ATS TO SUIT COUNTY. BOND OUTLET BOX TO GROUND USING GROUND WIRES RUN WITH CIRCUIT CONDUCTORS. BOND RECEPTACLE GROUND TERMINAL TO OUTLET BOX WITH BONDING JUMPER SIZED PER THE NEC, NOT MERELY BY YOKE OR SCREW CONTACT. LABEL RECEPTACLE OUTLET COVER PLATE WITH BRANCH CIRCUIT NUMBER.
- PROVIDE WHERE SHOWN A NEMA 12/3R WIREWAY IN 5' LENGTHS AND WITH TOP COVER, EQUAL TO SQUARE D CLASS 5120 CATALOG NUMBER L1125. PROVIDE ALL REQUIRED HANGERS, APPURTENANCES AND HARDWARE FOR MOUNTING TO BUILDING WALL AT HEIGHT TO SUIT. MAKE CONDUIT CONNECTIONS TO WIREWAY AND ENCLOSURES WT USING HUBS OR SEALING LOCKNUTS.

NOTES

- FAULT CURRENT AVAILABLE FROM PACIFIC GAS AND ELECTRIC COMPANY (PG & E) AT THE (E) SERVICE PANEL IS ESTIMATED TO NOT EXCEED 37,000A; THE CONTRACTOR SHALL SO CONFIRM WITH THE UTILITY. EXPECTED MOTOR CONTRIBUTION SHOULD NOT EXCEED 7,000A. 65,000A IR CIRCUIT BREAKERS MUST BE USED IN PANEL DP.
- (N) PANEL DP AND ALL COMPONENTS SHALL BE DESIGNED, MANUFACTURED, AND TESTED IN ACCORDANCE WITH THE LATEST APPLICABLE UL AND NEMA STANDARDS. PANEL SHALL BE RATED 800A, 480/277V, THREE-PHASE, 4 WIRE, SHALL BE IN A NEMA 3R FREE-STANDING ENCLOSURE WITH FRONT ACCESS ONLY, AND SHALL BE ARRANGED AND EQUIPPED AS SHOWN. PANEL SHALL HAVE SUITABLE INCOMING LINE LUGS, 800A BUS BARS BRACED FOR 65,000A, FEEDER CIRCUIT BREAKERS RATED 65,000A IR, 100% NEUTRAL BUS BAR, AND COPPER GROUND BUS BAR.
- PANEL DP MANUFACTURER SHALL PROVIDE ELECTRICAL CONTRACTOR WITH A MOUNTING PLAN MEETING UBC 2338 (OR CURRENT EQUIVALENT) FOR SEISMIC ZONE 4, $C_p = 0.75$, $I = 1.0$, AND SIGNED BY A PROPERLY LICENSED CIVIL OR STRUCTURAL ENGINEER. PLAN SHALL SHOW MOUNTING BOLT SIZE (MINIMUM 1/2") AND LOCATIONS.

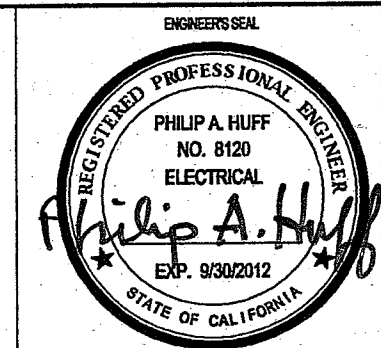


- OBTAIN THE SERVICES OF ENGINE-GENERATOR AND ATS FACTORY REPRESENTATIVES FOR A MINIMUM OF 12 HOURS. HAVE THEM CHECK THE INSTALLATION AND CERTIFY IN WRITING TO THE COUNTY THAT THE INSTALLATION IS COMPLETE AND CORRECT.
- AT LEAST ONE WEEK PRIOR TO OPERATING THE EQUIPMENT, PROVIDE THE COUNTY AND THE FACTORY REPRESENTATIVES WITH THE BREAK-IN PROCEDURE AND THE TEST SCHEDULE. HAVE THE FACTORY REPRESENTATIVES ON HAND TO WITNESS THE BREAK-IN PROCEDURE AND THE LOAD TESTS.
- OPERATE THE ENGINE UNLOADED FOR THE REQUIRED BREAK-IN PERIOD, THEN CHANGE ENGINE OIL AND FUEL, OIL, AND AIR FILTERS.
- AFTER THE BREAK-IN PERIOD, PROVIDE A LOAD BANK AND OPERATE THE ENGINE-GENERATOR AT ITS RATED LOAD AND POWER FACTOR FOR 24 HOURS. PERIODICALLY LOG ENGINE TEMPERATURE, OIL AND FUEL PRESSURES, FUEL CONSUMPTION, VOLTAGE, CURRENT, POWER, KILOWATT-HOURS, AND POWER FACTOR; NOTE ANY ALARMS. SHOULD AN AUTOMATIC SHUT-DOWN OCCUR, CORRECT THE PROBLEM AND REPEAT THE TEST.
- AT LEAST 8 HOURS AFTER A SUCCESSFUL LOAD TEST AND DURING A TYPICAL COUNTY WORK DAY, OPERATE THE SYSTEM THROUGH ITS CYCLE, DEMONSTRATING TO THE COUNTY AND THE FACTORY REPRESENTATIVES THE FOLLOWING:
- ENGINE STARTING FOLLOWING A POWER OUTAGE (OPEN MAIN CIRCUIT BREAKER) AND ALSO FOLLOWING A 20% BROWNOUT.
 - SUCCESSFUL LOAD PICK-UP (TRANSFER OF LOAD TO GENERATOR).
 - MINIMUM 30 MINUTE OPERATION UNDER THE THEN EXISTING COUNTY LOAD. PERIODICALLY LOG THE ABOVE ENGINE AND GENERATOR PARAMETERS AND NOTE ANY ALARMS.
 - RETRANSFER OF LOAD TO LINE AFTER RESTORATION OF POWER (AND AFTER MINIMUM 30 MINUTE OPERATION) (CLOSE MAIN CIRCUIT BREAKER).
 - ENGINE COOL-DOWN PERIOD AND SHUT-DOWN.
- ALSO DEMONSTRATE THE FOLLOWING:
- ENGINE-GENERATOR EXERCISE BOTH UNLOADED AND LOADED.
 - PROPER OPERATION OF ALL ALARMS AND SHUT-DOWN DEVICES.
- CHANGE ENGINE OIL AND FUEL, OIL, AND AIR FILTERS. CHECK AND RECORD BATTERY SPECIFIC GRAVITY
- HAVE THE FACTORY REPRESENTATIVES CERTIFY IN WRITING TO THE COUNTY THAT THE EQUIPMENT IS PROPERLY ADJUSTED AND IS READY FOR OPERATION.
- WITH THE AID OF THE FACTORY REPRESENTATIVES, CONDUCT A MINIMUM 4-HOUR TRAINING SESSION FOR THE COUNTY IN EQUIPMENT OPERATION, ADJUSTMENT, AND MAINTENANCE.
- MAKE AVAILABLE TO THE COUNTY A FACTORY-AUTHORIZED EQUIPMENT MAINTENANCE PROGRAM FOR THE NUMBER OF YEARS CHOSEN BY THE COUNTY. THE COUNTY WILL CONTRACT DIRECTLY FOR THE PROGRAM.
- LEAVE INSIDE THE ATS ENGINE-GENERATOR AND ATS FACTORY AND FIELD WIRING DIAGRAMS AND OPERATING INSTRUCTIONS IN LAMINATED PLASTIC. PROVIDE THE COUNTY WITH SIX COPIES OF COMPLETE ENGINE-GENERATOR AND ATS OPERATING AND MAINTENANCE MANUALS.

RECORD DRAWING

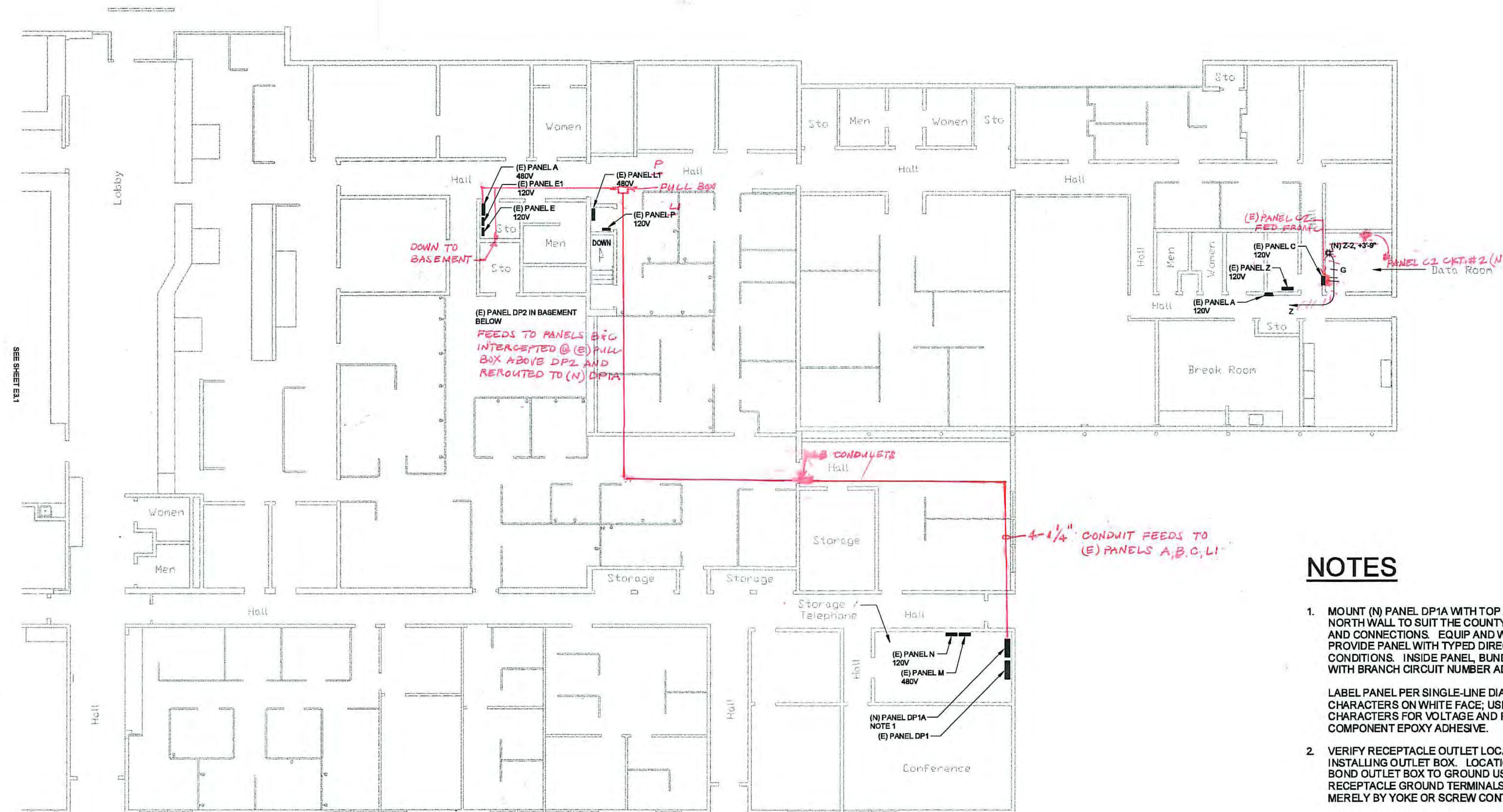
Corrections By: *Philip A. Huff*
 No Changes By: *Philip A. Huff*
 Date: 2/11/12
 Any Person Using This Drawing Should Verify All Information by Inspecting The Site Of Work

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ELECTRICAL PLAN - SERVICE PANEL AREA

DRAWN BY PH	DATE 8/1/06	PROJECT ENGINEER	DATE	CHECKED PH	DATE 8/1/06	SUBMITTED PH	DATE 12/22/10	APPROVAL RECOMMENDED	DATE	COUNTY OF SAN JOAQUIN	SCALE AS SHOWN	ELECTRICAL PLAN SERVICE PANEL AREA	STANDBY GENERATOR PUBLIC WORKS COMPLEX	SHEET NO. E3.3	TOTAL SHEETS 10
FILE NAME GENERATOR	DRAWER	SHEET NO. E3.3	ACAD	REVISIONS	DATE 7/11/2011										



NOTES

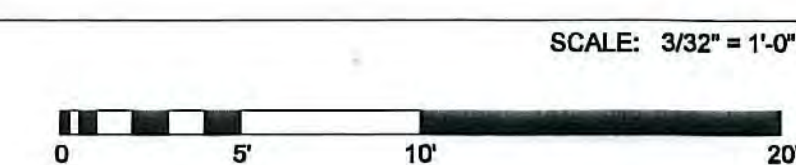
1. MOUNT (N) PANEL DP1A WITH TOP AT 6'-3" AFF. RELOCATE (E) FIRE ALARM EQUIPMENT TO ROOM NORTH WALL TO SUIT THE COUNTY. REFER TO SINGLE-LINE DIAGRAM, SH. E4.4, FOR PANEL FEEDERS AND CONNECTIONS. EQUIP AND WIRE PANEL AS SHOWN, EXCEPT FOR UNAVOIDABLE CHANGES. PROVIDE PANEL WITH TYPED DIRECTORY PER PANEL SINGLE-DIAGRAM, EXCEPT REFLECTING AS-BUILT CONDITIONS. INSIDE PANEL, BUNDLE WIRES NEATLY, AND LABEL EACH UNGROUNDED CONDUCTOR WITH BRANCH CIRCUIT NUMBER ADJACENT TO ITS CONNECTION POINT.

 LABEL PANEL PER SINGLE-LINE DIAGRAM WITH ENGRAVED LAMINATED PLASTIC NAMEPLATE, BLACK CHARACTERS ON WHITE FACE; USE 1/2" HIGH CHARACTERS FOR PANEL DESIGNATION AND 1/4" HIGH CHARACTERS FOR VOLTAGE AND PHASE RATINGS. ATTACH NAMEPLATE WITH RIVETS OR A TWO-COMPONENT EPOXY ADHESIVE.
2. VERIFY RECEPTACLE OUTLET LOCATION SHOWN ON THIS DRAWING WITH THE COUNTY, JUST PRIOR TO INSTALLING OUTLET BOX. LOCATION CHANGE SHALL BE AT NO ADDITIONAL COST TO THE COUNTY. BOND OUTLET BOX TO GROUND USING A GROUND WIRE RUN WITH CIRCUIT CONDUCTORS. BOND RECEPTACLE GROUND TERMINALS TO OUTLET BOX WITH BONDING JUMPER SIZED PER THE NEC, NOT MERELY BY YOKE OR SCREW CONTACT.

 LABEL RECEPTACLE OUTLET COVER PLATE WITH SOURCE PANEL AND BRANCH CIRCUIT NUMBER.

RECORD DRAWING
 Corrections By: *Philip A. Huff*
 No Changes By: *Philip A. Huff*
 Date: *2/28/11*
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ELECTRICAL PLAN
 MAIN FLOOR EAST

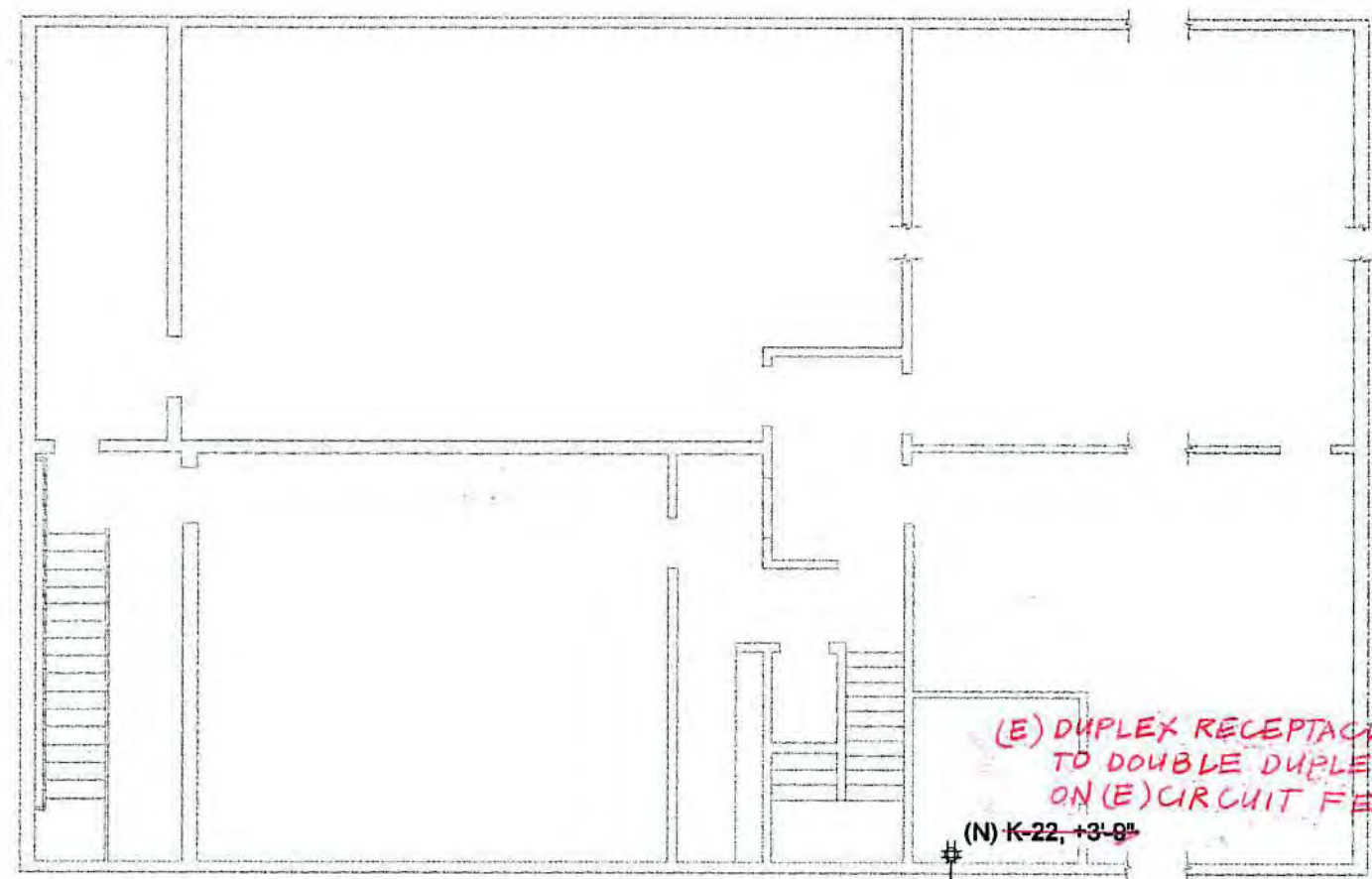


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SU 4536

DRAWN BY PH	DATE 8/1/06	PROJECT ENGINEER PH	DATE 2/28/11	CHECKED PH	DATE 8/1/06	SUBMITTED PH	DATE 12/22/10	COUNTY OF SAN JOAQUIN	SCALE AS SHOWN	ELECTRICAL PLAN PUBLIC WORKS BUILDING	STANDBY GENERATOR PUBLIC WORKS COMPLEX	SHEET NO. E3.2	TOTAL SHEETS 10
FILE NAME GENERATOR	DRAWER	SHEET NO. E3.2	ACAD	REVISIONS	DATE								



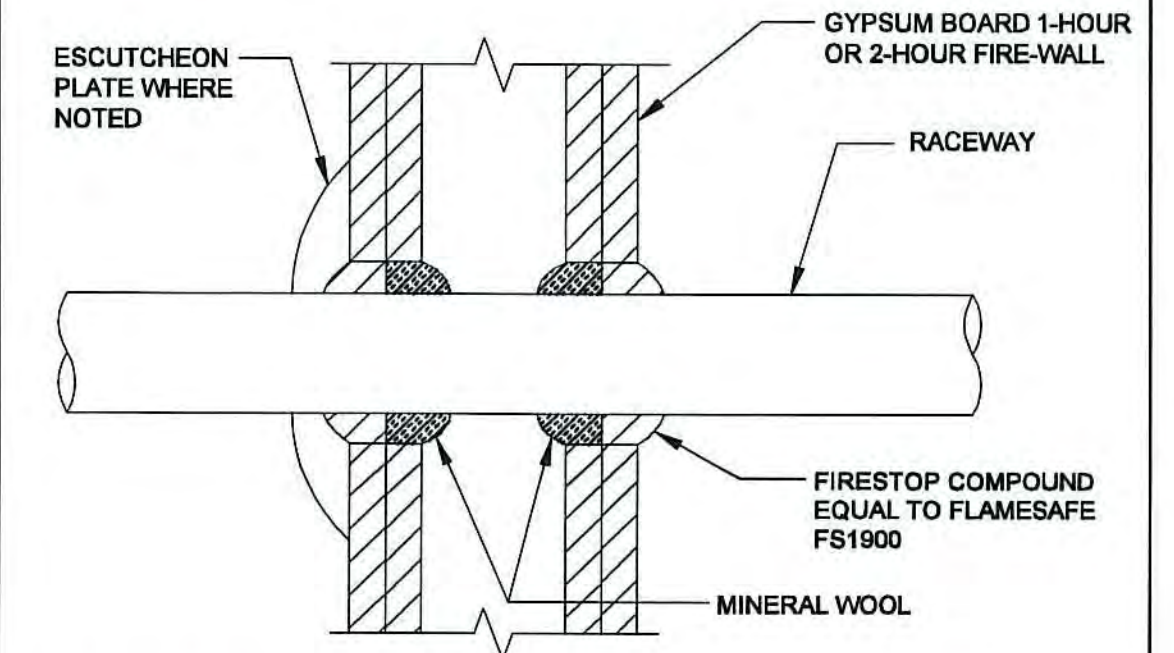
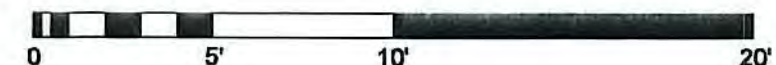
(E) DUPLEX RECEPTACLE CHANGED TO DOUBLE DUPLEX, REMAINED ON (E) CIRCUIT FED FROM PANEL F



ELECTRICAL PLAN

BASEMENT LEVEL - WEST

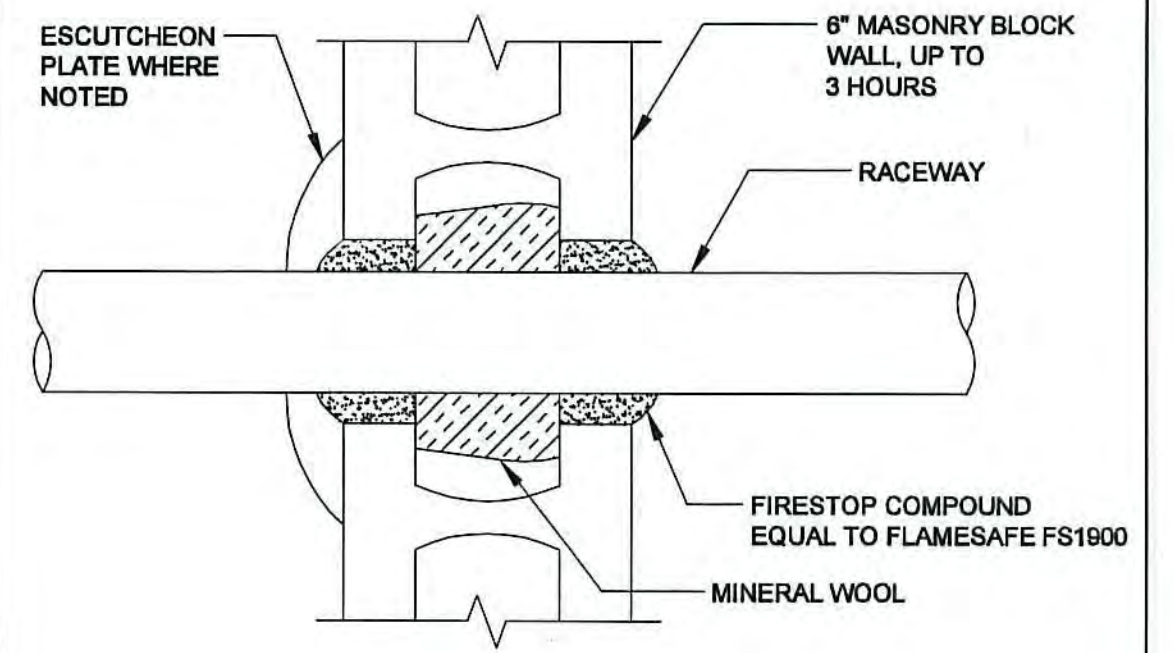
SCALE: 3/32" = 1'-0"



RACEWAY PENETRATION OF GYPSUM BOARD FIREWALL

UL CLASSIFIED SYSTEM WL1089

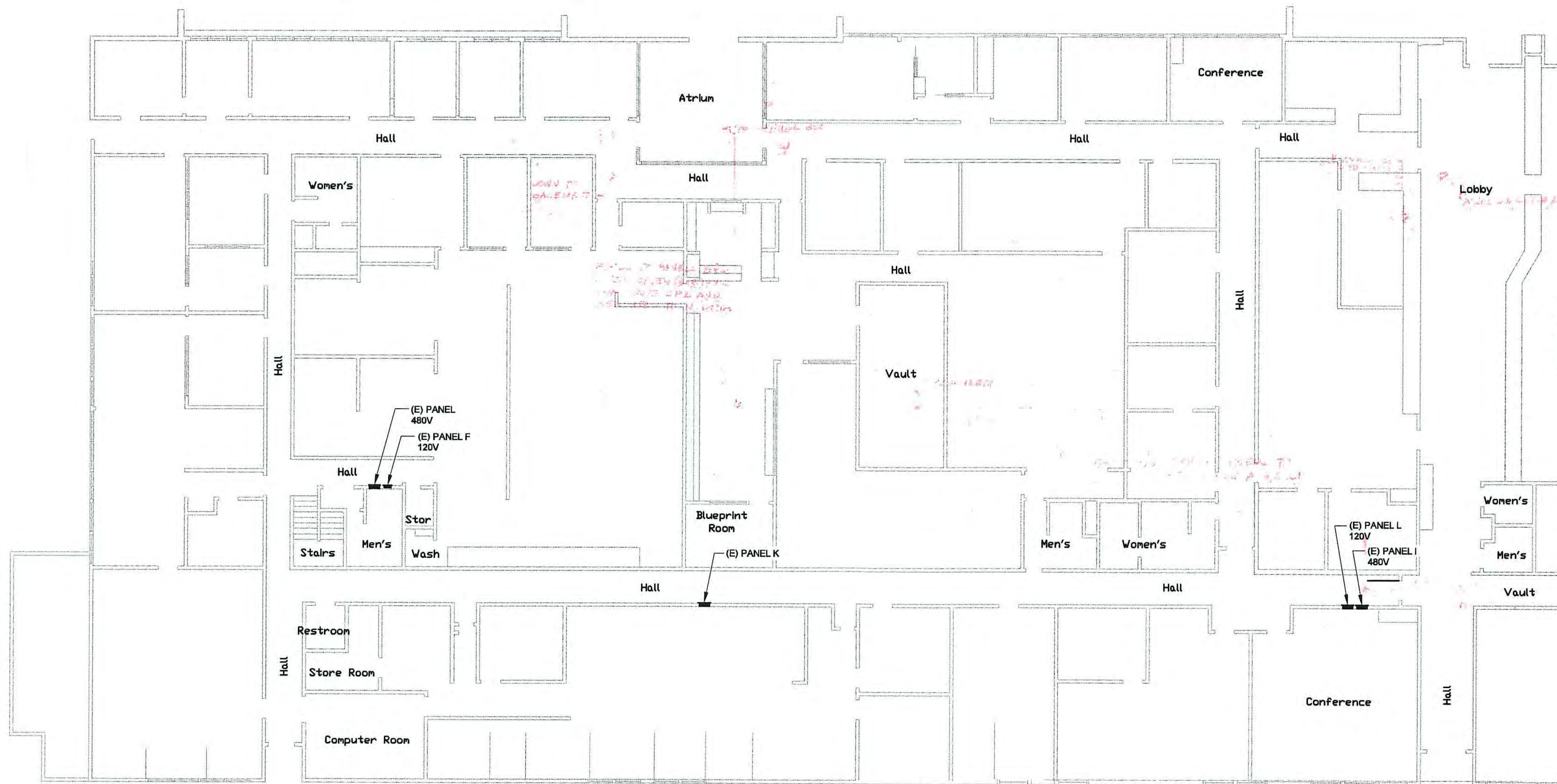
SCALE: NONE



RACEWAY PENETRATION OF MASONRY BLOCK FIREWALL

UL CLASSIFIED SYSTEM CBJ1035-W

SCALE: NONE



ELECTRICAL PLAN

MAIN FLOOR - WEST



SCALE: 3/32" = 1'-0"



RECORD DRAWING
 Corrections By: *[Signature]*
 No Changes By: _____
 Date: 2/17/12
 Any Person Using This Drawing Should Verify All Information By Inspecting The Site Of Work

NOTE

1. VERIFY RECEPTACLE OUTLET LOCATION SHOWN ON THIS DRAWING WITH THE COUNTY. JUST PRIOR TO INSTALLING OUTLET BOX. LOCATION CHANGE SHALL BE AT NO ADDITIONAL COST TO THE COUNTY. BOND OUTLET BOX TO GROUND USING A GROUND WIRE RUN WITH CIRCUIT CONDUCTORS. BOND RECEPTACLE GROUND TERMINALS TO OUTLET BOX WITH BONDING JUMPER SIZED PER THE NEC, NOT MERELY BY YOKE OR SCREW CONTACT.

LABEL RECEPTACLE OUTLET COVER PLATE WITH SOURCE PANEL AND BRANCH CIRCUIT NUMBER.

SU 4537

DRAWN BY	DATE	PROJECT ENGINEER	DATE	CHECKED	DATE	SUBMITTED	DATE
PH	5/22/08	PH	2/28/11	PH	5/22/08	PH	12/22/10
FILE NAME	DRAWER	SHEET NO.	ACAD	REVISIONS	DATE		
GENERATOR		E1					

COUNTY OF SAN JOAQUIN

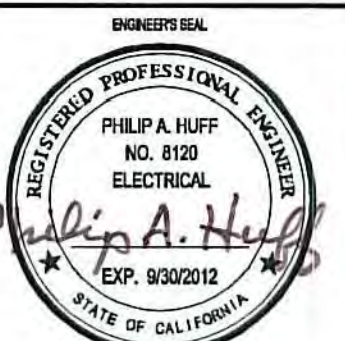
SCALE AS SHOWN

ELECTRICAL PLAN
PUBLIC WORKS BUILDING

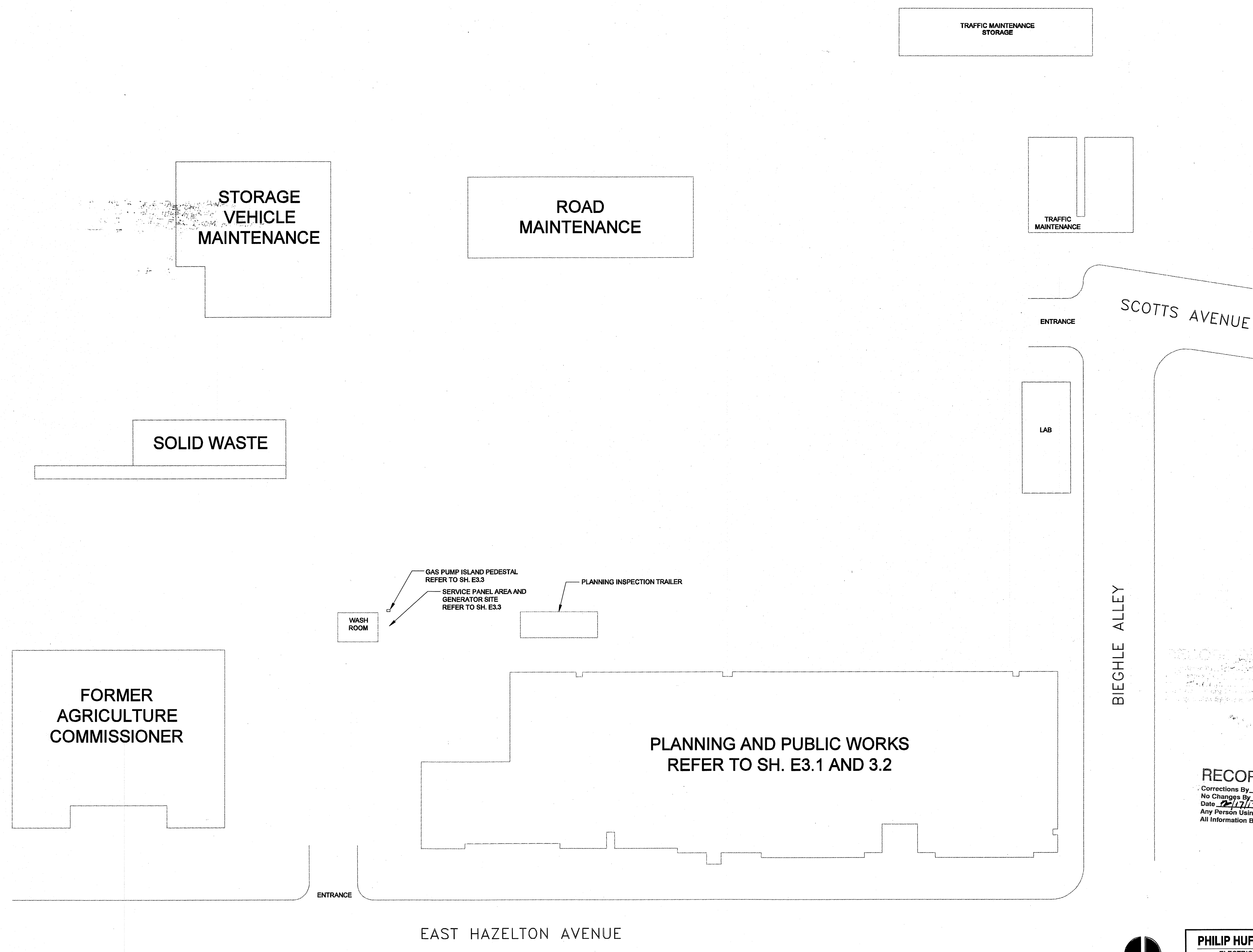
STANDBY GENERATOR
PUBLIC WORKS COMPLEX

SHEET NO.	TOTAL SHEETS
E3.1	10

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SU 4538

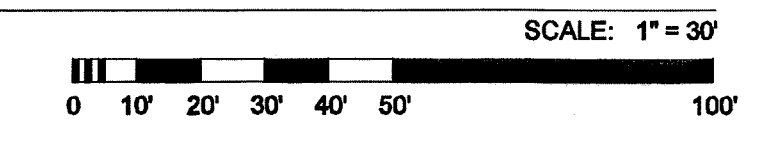


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 Corrections By: *Philip A. Huff*
 No Changes By: *Philip A. Huff*
 Date: 12/17/12
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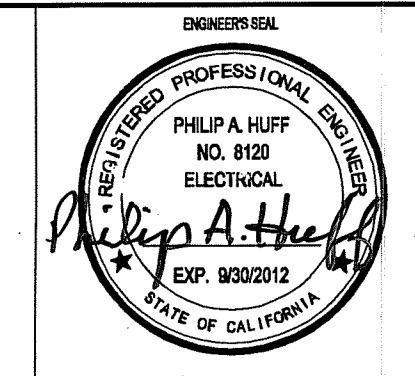
ELECTRICAL SITE PLAN



NORTH



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FILE NAME	DRAWER	SHEET NO.	ACAD	REVISIONS	DATE
GENERATOR		E2			

DRAWN BY	DATE	PROJECT ENGINEER	DATE	CHECKED	DATE	SUBMITTED	DATE	COUNTY OF SAN JOAQUIN	SCALE AS SHOWN	SITE PLAN	STANDBY GENERATOR PUBLIC WORKS COMPLEX	SHEET NO.	TOTAL SHEETS
PH	8/1/06	PH	1/26/11	PH	8/1/06	PH	12/22/10					E2	10

