

KEYED NOTES:

- EXISTING SOUTHERN CALIFORNIA EDISON (SCE) POWER COMPANY PRIMARY FEEDERS.
- (6) 5" SECONDARY CONDUITS WITH PULL-WIRE FOR SCE COMPANY SERVICE CONDUCTORS.
- RELOCATED SOUTHERN CALIFORNIA EDISON (SCE) POWER COMPANY PAD MOUNTED TRANSFORMER.
- SERVICE GROUNDING DETAIL THIS SHEET.
- 1000A, 277/480V, 3PH, 4W AUTOMATIC TRANSFER SWITCH 'ATS' WITH 'T3/W3' OPTION. THE AUTOMATIC TRANSFER SWITCH MUST TRANSFER POWER WITHIN 10 SECONDS.
- NEW 4 #4/0 XHHW-2 CU., 1 #2 CU. GND., 3°C.
- NEW SERVICE ENTRANCE RATED 600V, 200A, 3P DISCONNECT SWITCH 'DSA' IN NEMA 1 ENCLOSURE WITH (3) 200A FUSES, 65KAIC MINIMUM.
- GROUNDING SYSTEM AS FOLLOWS.
 - #2 CU. MAIN BONDING JUMPER AND EQUIPMENT GROUND.
 - #2 CU. GROUND TO BUILDING STEEL AND METALLIC PIPING SYSTEM.
 - #4 CU. UFER GROUND OR GROUND TO (2) 5/8" x 8' COPPER CLAD GROUND RODS @ 6' MIN. APART.
 - DO NOT BOND NEUTRAL
- NEW 4 #4/0 CU., 1 #2 CU. GND., 3°C.
- NEW 3 #4 CU., 1 #3 CU. GND, 1-1/4°C.
- NEW 45KVA, 480-120/208V, 3PH, 4W, STEP DOWN TRANSFORMER.
- SEE DRY-TYPE TRANSFORMER GROUNDING DETAIL THIS SHEET.
- NEW 4 #1/0 CU., 1 #6 CU., ISO. GND., 1 #6 CU. GND., 2-1/2°C. IF PREFERENCE 3 ON DRY-TYPE TRANSFORMER GROUNDING DETAIL IS USED, PROVIDE #4 CU. ISO. GND. AND #4 CU. GND.
- NEW 4 #4 CU., 1 #3 CU. ISO. GND., 1 #3 CU. GND., 1-1/4°C.
- PROVIDE ELECTRICAL PANEL WITH ISOLATED (INSULATED) GROUND BUS.
- NEW 4 #1/0 CU., 1 #6 CU. GND., 2°C. IF PREFERENCE 3 ON DRY-TYPE TRANSFORMER GROUNDING DETAIL IS USED, PROVIDE #4 CU. GND.

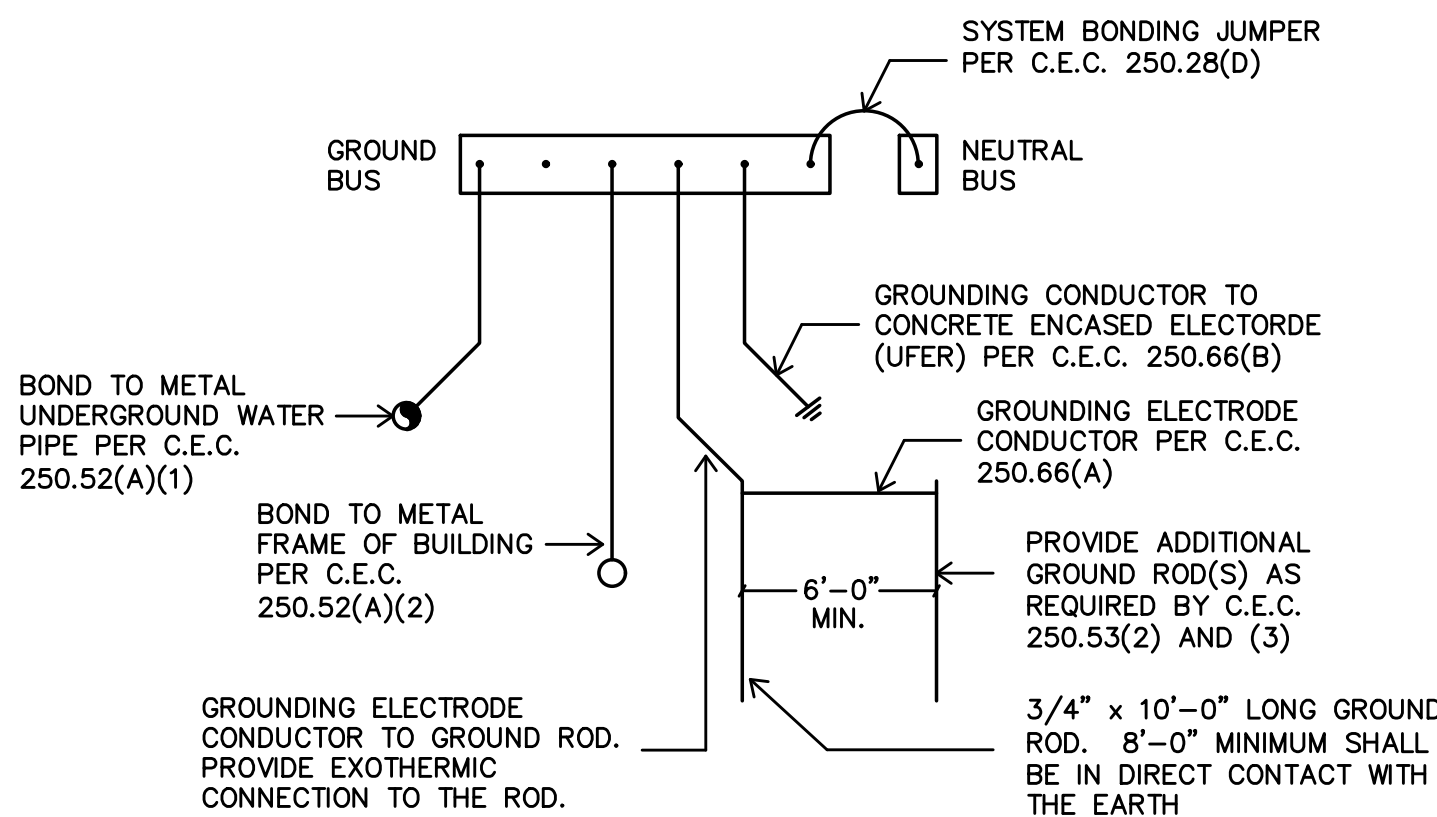
NOTE: THE ELECTRICAL PLANS WERE DESIGNED USING INFORMATION AVAILABLE TO ENGINEER. EXISTING INFORMATION MAY BE INCOMPLETE OR MAY HAVE DISCREPANCIES FROM THE EXISTING BUILDING ELECTRICAL SYSTEM. THE CONTRACTOR SHALL VISIT THE SITE TO UNDERSTAND THE NATURE AND SCOPE OF ALL WORK TO BE PERFORMED AND VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID. ANY CHANGES REQUIRED DUE TO INCORRECT EXISTING INFORMATION WILL BE THE CONTRACTOR'S RESPONSIBILITY.

NOTES:

- PROVIDE ARC-FLASH MARKINGS. SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS THAT ARE IN OTHER THAN DWELLING OCCUPANCIES AND ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT. IN COMPLIANCE WITH C.E.C. 110.16.
- ALL CONDUCTOR TERMINATIONS SHALL BE RATED AT 75°C. U.L. LISTED.

1 ONE-LINE DIAGRAM

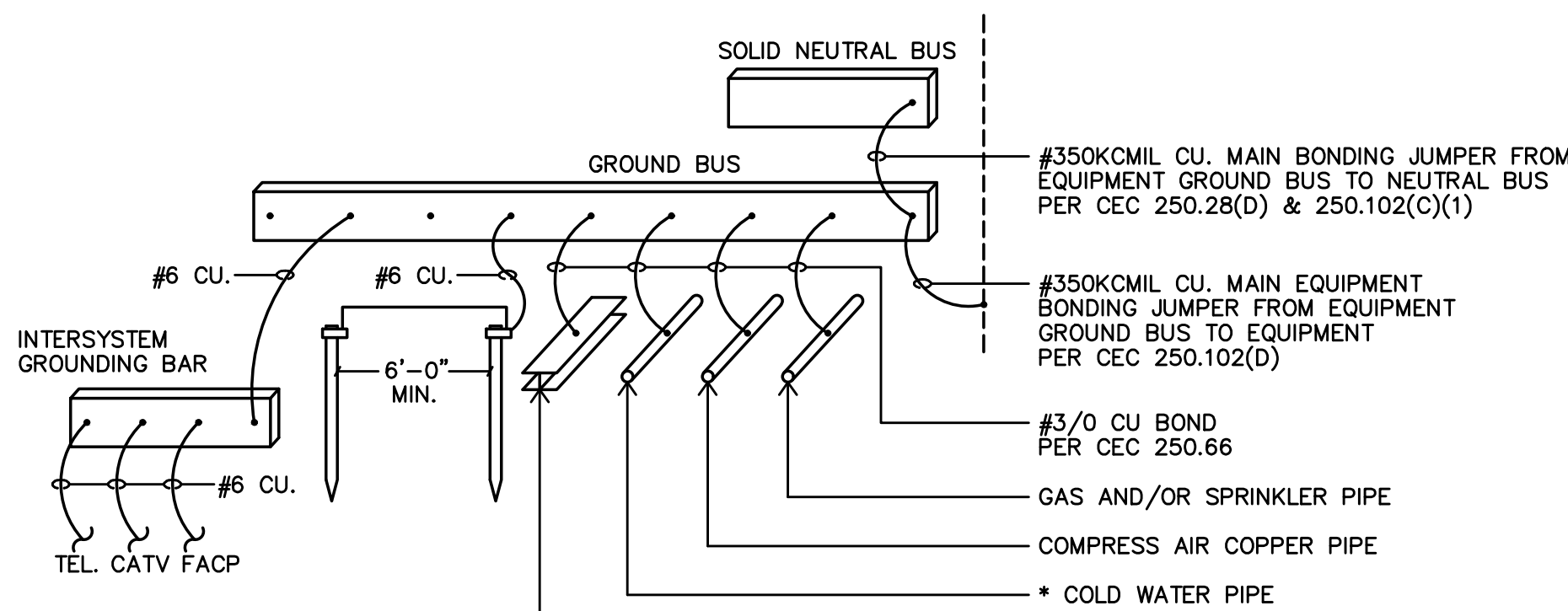
SCALE: NTS



DRY-TYPE TRANSFORMER GROUNDING DETAIL

SYSTEM SHALL BE GROUND BY ONE OF THE FOLLOWING METHODS. PREFERENCE 1 OR 2 ARE TO BE USED FIRST. IF 1 OR 2 ARE NOT AVAILABLE, THEN, PREFERENCE 3 OR 4 ARE TO BE USED. WIRING IS COPPER.

	PREFERENCE 1	PREFERENCE 2	PREFERENCE 3	PREFERENCE 4
XFMR KVA	XFMR BONDING JUMPER	XFMR GND ELECTRODE BUILDING STEEL	XFMR GND ELECTRODE COLD WATER PIPING	XFMR GND ELECTRODE UFER
45 KVA	1 #6 CU.	1 #6 CU.	1 #6 CU.	1 #4 CU.
				1 #6 CU.



* CONNECTION TO 10'-0" OR MORE OF METALLIC UNDERGROUND COLD WATER PIPE.

2 SERVICE GROUNDING DETAIL

N.T.S

FAULT CURRENT CALCULATIONS (THREE PHASE)

MARK	POINT OF CALCULATED FAULT	FAULT ORIGIN	FAULT @ ORIGIN AFC	XFMR KVA	XFMR PRI VOLTS	XFMR SEC VOLTS	XFMR %Z	XFMR "r" FACTOR	XFMR "m" FACTOR	XFMR SEC AFC	LINE VOLTS EL	CU-MAG=1 CU-NMAG=2 AL-MAG=3 AL-NMAG=4	WIRE LENGTH L (FT)	WIRE SIZE (AWG)	NO OF SETS N	"C" VALUE	"F" FACTOR	"M" FACTOR 1/(1+F)	CALCULATED FAULT
FC4	PANEL 'LA'	XFMR 'TA'	15,225	45	480	208	4.6	12.92	0.07	2523	208	1	4	1/0	1	8925	0.01	0.99	2,500
FC9	PANEL 'EV'	XFMR 'TEV'	14,230	45	480	208	4.6	12.08	0.08	2511	208	1	4	1/0	1	8925	0.01	0.99	2,487

FAULT CURRENT CALCULATIONS (THREE PHASE)												
FAULT 'FCn'	POINT OF CALCULATED FAULT	FAULT ORIGIN	FAULT @ ORIGIN AFC	LINE VOLTS EL	CU-MAG=1 CU-NMAG=2 AL-MAG=3 AL-NMAG=4	WIRE LENGTH L (FT)	WIRE SIZE (AWG)	NO OF SETS N	"C" VALUE (COND.)	"F" FACTOR	"M" FACTOR 1 (1+F)	CALCULATED FAULT
FC1	DISC. SW. 'DSA'	SES	31,800	480	2	90	4/0	1	16673	0.62	0.62	19,646
FC2	PANEL 'HA'	DISC. SW. 'DSA'	19,646	480	1	46	4/0	1	15082	0.22	0.82	16,157
FC3	XFMR 'TA'	PANEL 'HA'	16,157	480	1	4	4	1	3806	0.06	0.94	15,225
FC5	PANEL 'SR'	PANEL 'LA'	2,500	208	1	32	4	1	3806	0.17	0.85	2,128
FC8	XFMR 'TEV'	SES	31,800	480	1	41	4	1	3806	1.23	0.45	14,230

FAULT CURRENT CALCULATIONS (SINGLE PHASE)

FAULT 'Fn'	POINT OF CALCULATED FAULT	FAULT ORIGIN	FAULT @ ORIGIN	LINE VOLTS EL	CU-MAG=1 CU-NMAG=2 AL-MAG=3 AL-NMAG=4 CU-NM SER=5 AL-NM SER=6	WIRE LENGTH L (FT)	WIRE SIZE	NO OF SETS N	"C" VALUE (CONDUCT OR)	"F" FACTOR	"M" FACTOR 1/(1+F)	CALCULATED FAULT
FC6	TC1	PANEL 'LA'	2,500	120	1	4	12	1	617	0.27	0.79	1,968
FC7	TC2	PANEL 'SR'	2,026	120	1	4	12	1	617	0.22	0.82	1,662

SEE CONTINUATION THIS SHEET

GOLETA
WEST
SANITARY DISTRICT

Your environmental partner since 1954

UCSB Campus
Parking Lot 32
Santa Barbara, CA 93106
(p) 805 968-2617 (f) 805 562-8987

ADMINISTRATION BUILDING

EDUARDO GALINDO
ARCHITECT

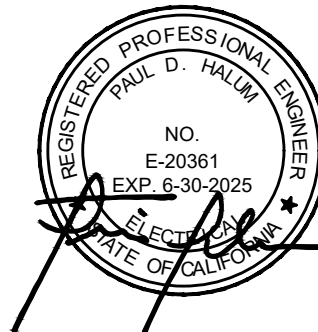
9733 W. SUNNYSLOPE LANE
PEORIA, ARIZONA 85345

480.751.8780 ed@egadesign.net

egadesign.net

deDesign Group Inc.
Electrical Design and Consulting
2413 East Camelback Road, Suite 700,
Phoenix, AZ 85016
T: 602-560-3344 E: info@dedesigngroup.org
Proj: Hgr_Bldg_11 Proj: No: 12-045

ISSUED	REV	DATE
DART Submittal		15 May 2015
Site Development Plan 1		23 June 2015
30% Schematic Design		30 Oct. 2015
Pre-App & Architectural Board of Review Submittal		23 Apr. 2016
Architectural Board of Review Submittal		25 Jan. 2017
Architectural Board of Review		10 OCT 2022
Building Permit Review		28 AUG 2023



DRAWING

ONE-LINE DIAGRAM, & FAULT CURRENT CALCULATIONS

NTS

SCALE 40903

PROJECT NUMBER

DRAWING NUMBER

A-E5.0