

### EMERGENCY EXIT ILLUMINATION NOTES:

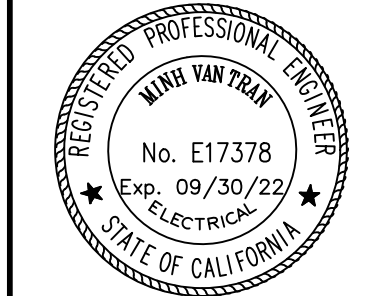
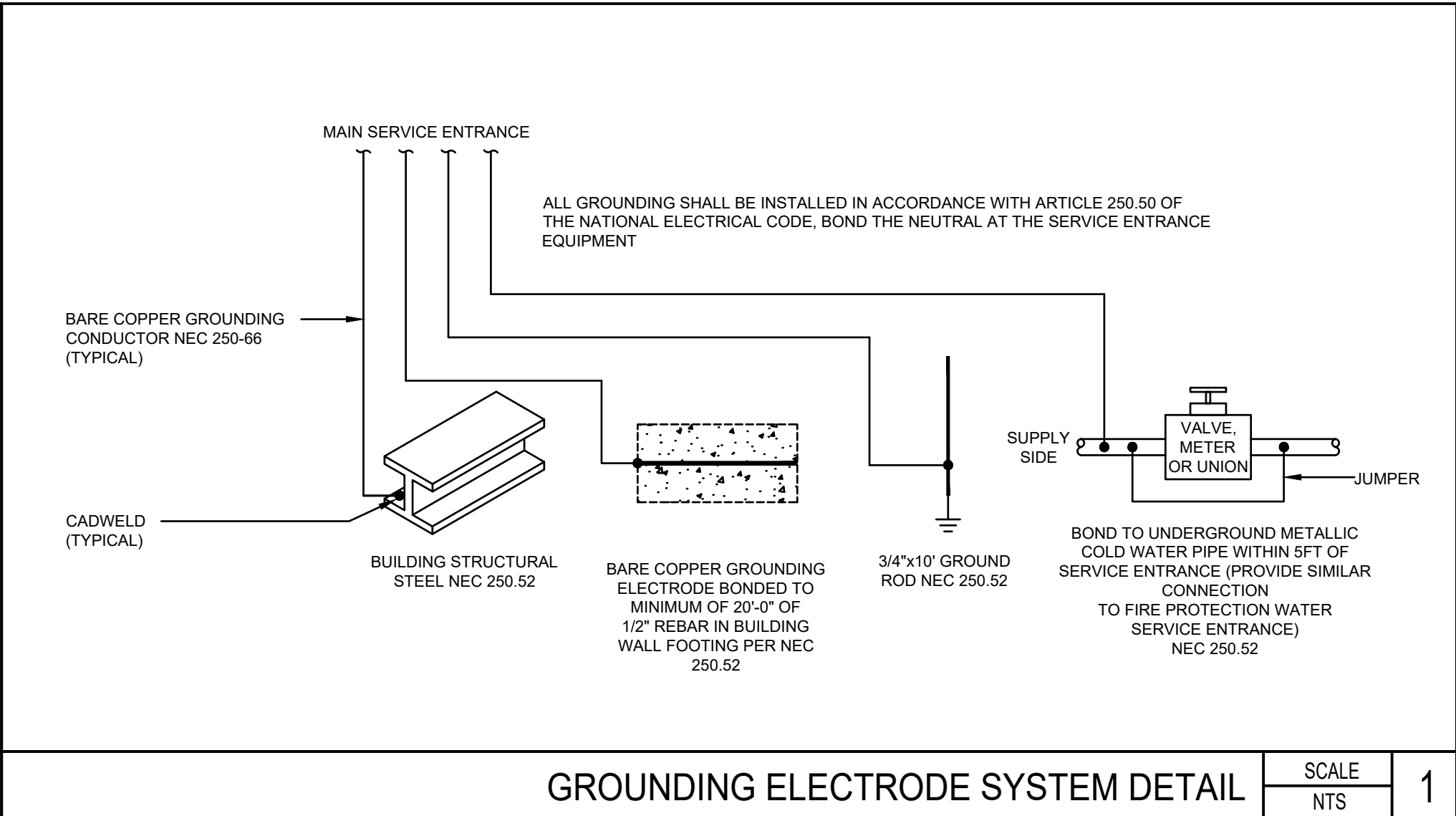
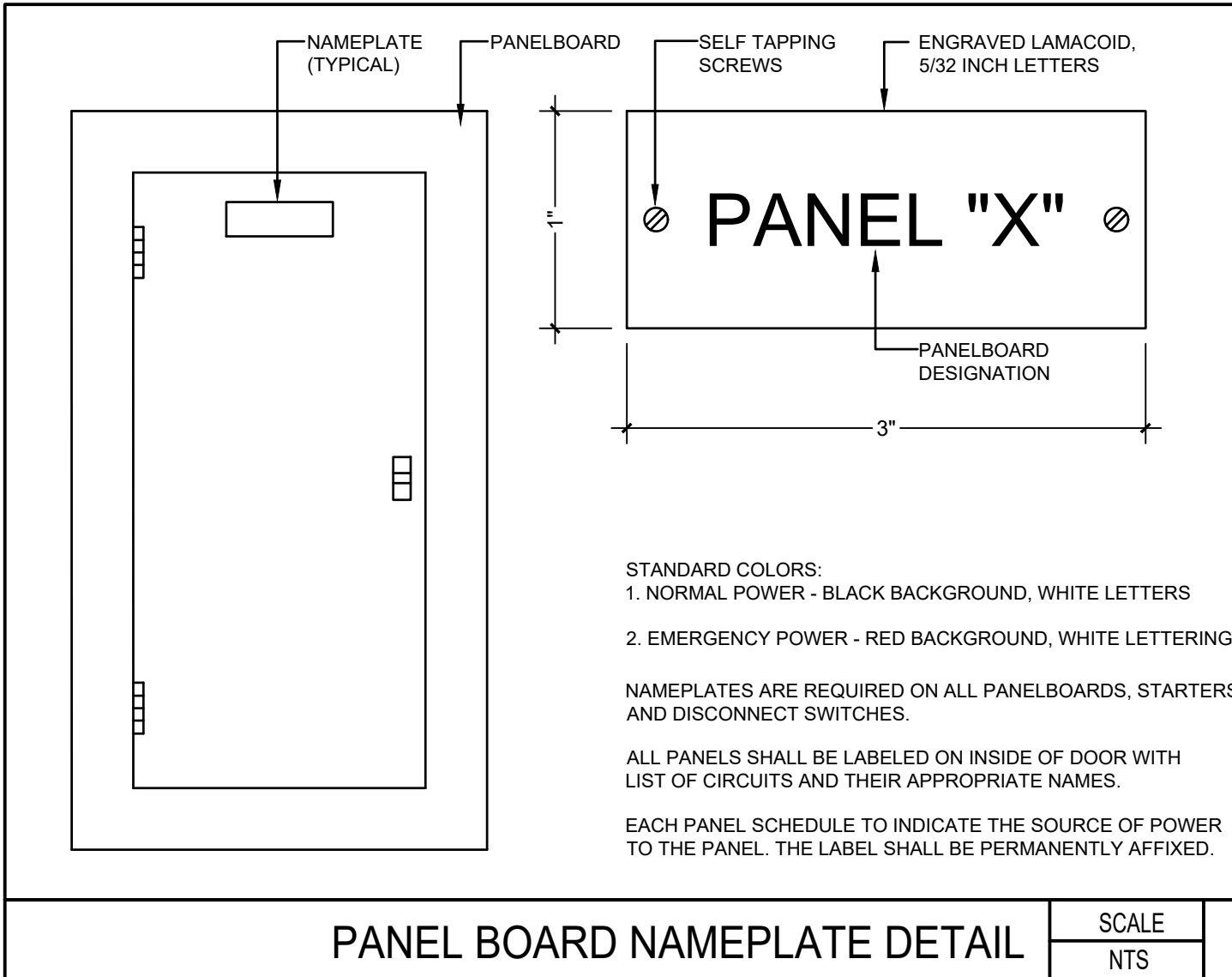
1. FIXTURES WITH 90 MIN. EMERGENCY BATTERY BACKUP SHALL BE WIRED AHEAD OF ANY LOCAL IN COMPLIANCE WITH NEC ARTICLE 700.
2. EMERGENCY LIGHTING UNITS SHALL BE EQUIPPED WITH FACTORY INSTALLED INTEGRAL TEST SWITCHES.
3. ILLUMINATION LEVELS IN THE ENTIRE EXIT ACCESS SHALL HAVE AVERAGE MINIMUM OF 1FT CANDLE. ILLUMINATION LEVELS AT ANY ONE POINT SHALL BE AT LEAST 0.1FT CANDLE AND MAX TO MIN UNIFORM RATIO OF 40 PER CFC1008.3.5.
4. THE EMERGENCY POWER SYSTEM SHALL PROVIDE POWER FOR A DURATION OF NOT LESS THAN 90 MINUTES AND SHALL CONSIST OF STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR. THE INSTALLATION OF THE EMERGENCY POWER SYSTEM SHALL BE IN ACCORDANCE WITH SECTION 2702. CBC 1008.3.4.
5. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES. TO ENSURE CONTINUED ILLUMINATION FOR A DURATION OF NOT LESS THAN 90 MINUTES IN CASE OF PRIMARY POWER LOSS, THE SIGN ILLUMINATION MEANS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM PROVIDED FROM STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR. THE INSTALLATION OF THE EMERGENCY POWER SYSTEM SHALL BE IN ACCORDANCE WITH CHAPTER 27.
6. EXIT AND EXIT ACCESS DOORS SHALL BE MARKED BY AN APPROVED EXIT SIGN READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. PATH OF EGRESS TRAVEL TO EXITS AND WITHIN EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGN TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL. INTERVENING MEANS OF EGRESS DOORS WITH EXITS SHALL BE MARKED BY EXIT SIGNS. CBC 1013.1.
7. THE BOTTOM OF THE SIGN SHALL NOT BE LESS THAN 6 INCHES OR MORE THAN 8 INCHES ABOVE THE FLOOR LEVEL AND SHALL INDICATE THE PATH OF EXIT TRAVEL. FOR EXIT AND EXIT ACCESS DOORS, THE SIGN SHALL BE ON THE DOOR OR ADJACENT TO THE DOOR WITH THE CLOSEST EDGE OF THE SIGN OR MARKER WITHIN 4 INCHES OF THE DOOR FRAME.
8. TACTILE EXIT SIGNS SHALL BE PROVIDED WITH APPROPRIATE WORDS AT EXIT DOORS LEADING TO ENCLOSED EXIT STAIRWAYS AND EXIT DOORS LEADING TO OUTSIDE. CBC 1013.4.

LIGHTING FIXTURE SCHEDULE				
TYPE	DESCRIPTION	LAMP	VOLT	WATT
L2	LED RECESSED DOWNLIGHT, DIMMABLE LITHONIA WF6 SERIES OR APPROVED EQUAL	LED	120	15
EMX	COMBINATION EMERGENCY LED LIGHT/EXIT SIGN 90 MINUTES BATTERY PACK LITHONIA ECC SERIES OR EQUIVALENT	---	120	---
EM	EMERGENCY LED LIGHT WITH 90 MINUTES BATTERY PACK LITHONIA EU2L (WALL), ELR2 (CEILING) SERIES OR EQUIVALENT	---	120	---
NOTES: 1. FIXTURE SHALL HAVE MIN. OF 10 YEARS MANUFACTURER WARRANTY ON ALL COMPONENTS. 2. FIXTURES SHALL HAVE APPROPRIATE U.L. LABEL (i.e., DAMP OR WET) AS REQUIRED BY CODES AND ORDINANCES. 3. FIXTURES SHALL INCLUDE ALL ACCESSORIES FOR INSTALLATION ACCORDING TO MANUFACTURER'S SHOP DRAWINGS AND AS REQUIRED BY CODES AND LOCAL ORDINANCES. 4. PRIOR TO ORDERING ANY LIGHTING EQUIPMENT, THE CONTRACTOR SHALL COORDINATE ALL FIXTURE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND CEILING CAVITY DEPTHS. 5. ALL LAMPS SHALL BE PROVIDED AND INSTALLED ACCORDING TO THE ATTACHED FIXTURE SCHEDULE AND SPECIFICATIONS. ENSURE COMPATIBILITY BETWEEN FIXTURE, LAMP(S) AND BALLAST(S). 6. CONTRACTOR SHALL VERIFY FIXTURE VOLTAGES AND CEILING TRIM COMPATIBILITY PRIOR TO ORDERING FIXTURE. 7. PROVIDE APPROVED FIRE-RATED ENCLOSURES FOR ALL LIGHTING FIXTURES LOCATED IN FIRE-RATED CEILINGS. 8. LIGHTING FIXTURE CATALOG NUMBERS ARE SERIES TYPE ONLY. PROVIDE ALL NECESSARY HARDWARE AS REQUIRED BY THE SPECIFICATIONS, DRAWINGS, AND PROJECT CONDITIONS FOR A COMPLETE INSTALLATION. 9. ALL FIXTURES SHALL BE ORDERED WITH APPROPRIATE BALLAST(S) THAT HAVE U.L. AND CBM LABELS. PROVIDE MULTIPLE BALLASTS FOR DUAL-LEVEL SWITCHING AND WIRING AS INDICATED ON THE PLANS. 10. ENSURE COMPATIBILITY OF ALL LIGHTING SYSTEM COMPONENTS, ESPECIALLY DIMMED SYSTEMS, FIXTURES, LAMPS, BALLAST(S), AND DIMMING SYSTEMS/INDIVIDUAL CONTROLS MUST BE FACTORY CERTIFIED COMPATIBLE FOR FULL RANGE OF DIMMING COMPATIBILITY. 11. LIGHTING FIXTURE MANUFACTURER & MODEL IS FOR REFERENCE ONLY. FIXTURE SHALL BE SELECTED BY ARCHITECT. POWER AND QUALITY SHALL BE SPECIFICATION GRADE.				

120V, SINGLE POLE, MAX 3% VOLTAGE DROP						
LENGTH OF RUN						
	25'	50'	100'	150'	200'	AMP LOAD
COPPER	14	12	10	8	6	15 AMP
COPPER	12	12	8	6	4	20AMP
COPPER	10	10	6	4	4	30 AMP
COPPER	1	1	1	2/0	4/0	100 AMP
ALUMINUM	1/0	1/0	2/0	4/0	300	100 AMP
COPPER	3/0	3/0	3/0	300	500	200 AMP
ALUMINUM	250	250	300	600	900	200 AMP
NOTE: THE MAXIMUM COMBINED VOLTAGE DROP ON BOTH INSTALLED FEEDER CONDUCTORS AND BRANCH CIRCUIT CONDUCTORS TO THE FARTHEST CONNECTED LOAD OR OUTLET SHALL NOT EXCEED 5 PERCENT.						

PANEL "A"																
VOLTS:120/208V				PHASE: 3				SHORT CIRCUIT RATING: 10000A				MAIN: LUGS ONLY				
MOUNTING: FLUSHED				WIRE: 4				ENCLOSURE: NEMA 1 RATED MIN.				BUSSING: 400A				
LOAD	*	A-VA	B-VA	C-VA	BKR	CT	CT BKR	A-VA	B-VA	C-VA	*	LOAD				
EMERGENCY LIGHT, EXIT SIGNS	L	50			20/1	1	2	80/3	6485		M	RTU-1				
INSTAHOT 1	C		1800		20/1	3	4	---	6485		M	-----				
INSTAHOT 2	C			1800	20/1	5	6	---	6485		M	-----				
RESTROOM LIGHTS/FANS	L	200			15/1	7	8	80/3	6485		M	RTU-2				
SIGNAGE	C		1200		20/1	9	10	---	6485		M	-----				
SPARE					20/1	11	12	---	6485		M	-----				
SPARE					20/1	13	14	80/3	6485		M	RTU-3				
SPARE					20/1	15	16	---	6485		M	-----				
SPARE					20/1	17	18	---	6485		M	-----				
SPARE					20/1	19	20	20/1	540		R	ROOF RECEPT.				
SPARE					20/1	21	22	20/1				SPARE				
SPARE					20/1	23	24	20/1				SPARE				
SPARE					20/1	25	26	20/1				SPARE				
SPARE					20/1	27	28	20/1				SPARE				
SPARE					20/1	29	30	20/1				SPARE				
						31	32									
						33	34									
						35	36									
						37	38									
						39	40									
						41	42									
PHASE TOTALS:		20245	22455	21255	63955 =TOTAL CONNECTED LOAD VA (FOR DEMAND LOAD SEE BELOW)											
PHASE AMPERES:		168.6	187.0	177.0												
*DEMAND LOAD CALCULATION:																
L=LIGHTING LOADS:					1.25	X	250	=	313	VA	<div>NOTES:</div> <div>- EMPTY LOAD: SPACE</div>					
C=CONTINUOUS LOADS, OTHER:					1.25	X	4800	=	6000	VA						
M=MOTOR LOADS (INCL LGST):					1.00	X	58365	=	58365	VA						
LARGEST, VA:					0.25	X	0	=	0	VA						
R=RECEPTACLES: 1ST 10K:					1.00	X	540	=	540	VA						
BALANCE:					0.50	X	0	=	0	VA						
K=KITCHEN LOADS: QTY:					0	1.00	X	0	=	0				VA		
N=NONCONTINUOUS LOADS, OTHER:					1.00	X	0	=	0	VA						
(P=PANEL, INCL. IN ABOVE)					TOTAL N.E.C. DEMAND LOAD									=	65218	VA
														=	181.0	AMPERES

FUTURE RESTAURANT LOAD ESTIMATION				
GROSS SQUARE FOOTAGE	3851	SQFT		
LIGHTING	4621.2	VA X	125 % =	4621.2 VA
RECEPTACLE	1ST 10K	10000	VA X	100 % = 10000.0 VA
	REMAIN	3000	VA X	50 % = 1500.0 VA
MOTORS W/25% LARGEST (AC/HEATING)	57765	VA X	100 % =	57765.0 VA
NON-COINCIDENT LOAD	7702	VA X	100 % =	7702.0 VA
KITCHEN	65467	VA X	65 % =	42553.6 VA
MISCELLANEOUS	30808	VA X	100 % =	30808.0 VA
TOTAL DEMAND LOAD @ 208V/3PH = 154.95 kVA 430.11 A				



REVISION				
DATE:	11/24/2021	SCALE:	N.T.S.	
SHEET TITLE: SINGLE LINE DIAGRAM/ SCHEDULES				
SHEET NO.: E001				