

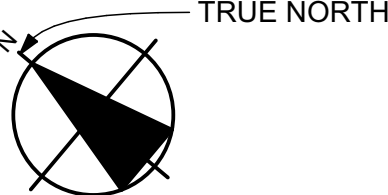
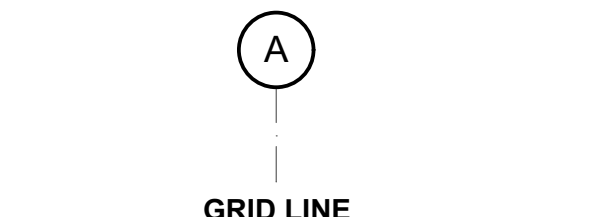

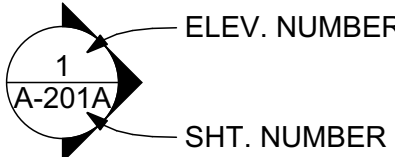
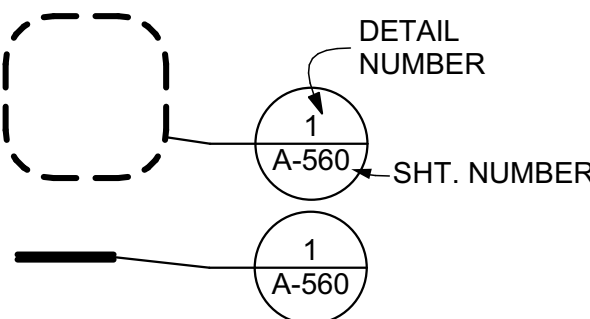
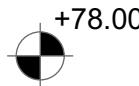
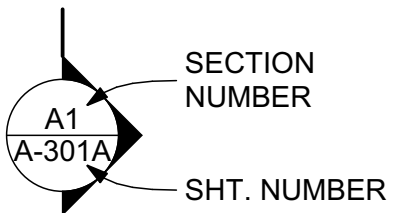
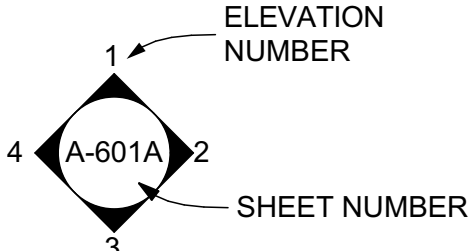
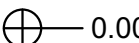

H STREET, CITY OF DAVIS, CALIFORNIA 95616

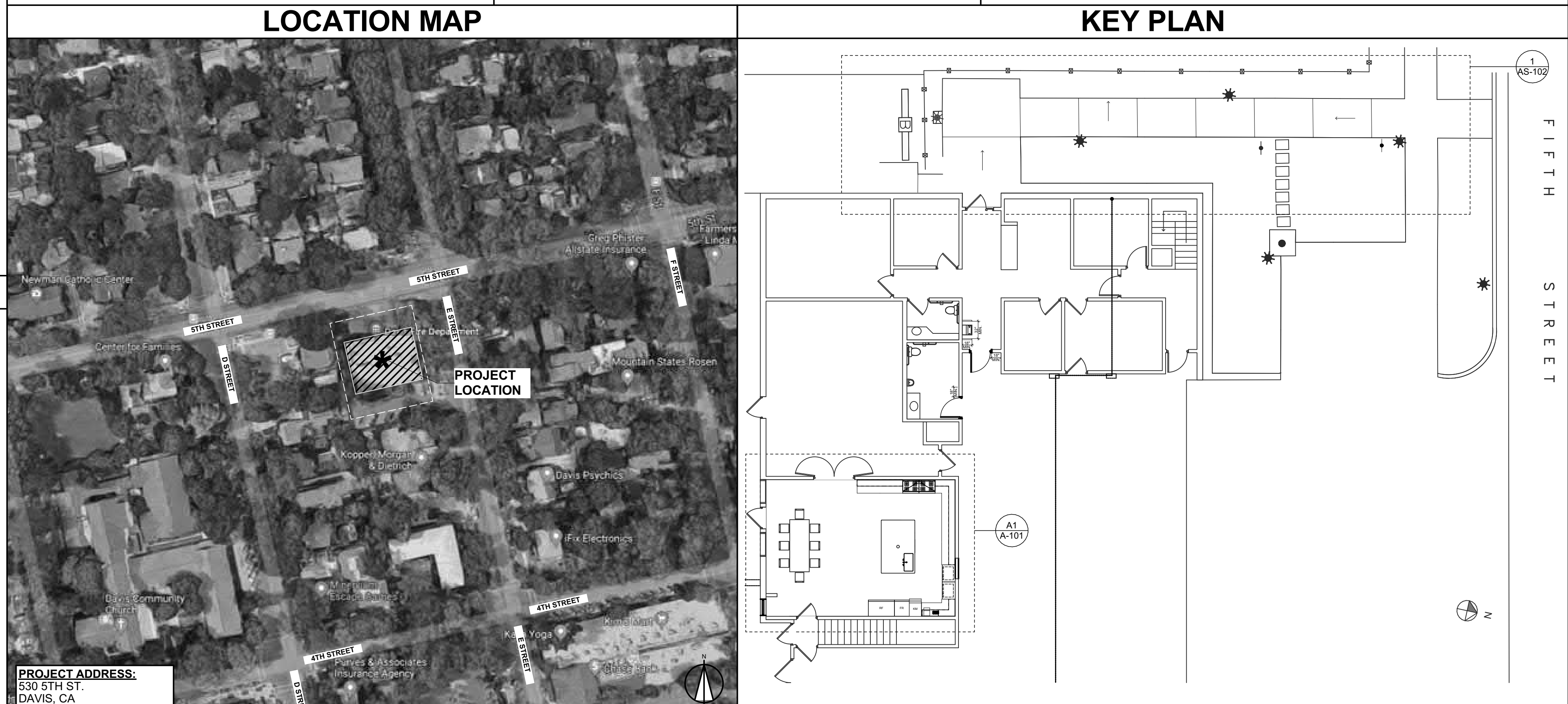
ABBREVIATIONS					SCOPE OF WORK	PROJECT DIRECTORY		SHEET INDEX
AFF	ABOVE FINISH FLOOR	GA	GAGE OR GAUGE	SG	SAFETY GLASS	CLIENT CITY OF DAVIS 1717 Fifth Street - 23 Russell Blvd. Davis, CA 95616 ph: 530-747-5846 email: jsmth@cityofdavis.org	MECHANICAL / ELECTRICAL / PLUMBING ENGINEER PETERS ENGINEERING Sean Tichenor, Principal Engineer 2411 Alhambra Blvd., Suite 100 Sacramento, CA 95817 ph: 916-447-2841 ext.315 email: stichenor@peterseng.com	GENERAL G-001 COVER SHEET - FIRE STATION 31
ACC	ACCESSIBLE	GAL	GALLON	SCHED	SCHEDULE			
ADJ	ADJACENT OR	GALV	HOT DIPPED	SED	SEE ELECTRICAL	ARCHITECT INDIGO HAMMOND + PLAYLE ARCHITECTS, LLP Jonathan Hammond, Architect of Record Prescott Nichols, Project Architect 909 Fifth Street Davis, CA 95616 ph: 530-750-0756 email: pnichols@indigoarch.com	SURVEYOR FRAME SURVEYING & MAPPING Jim Frame, Principal Land Surveyor 609 A Street Davis, CA 95616 ph: 530-756-8584 email: jhframe@dcn.org	ARCHITECTURAL DEMOLITION AD-101 DEMOLITION ACCESSIBILITY ROUTE - FIRE STATION 31 AD-102 DEMOLITION PLANS - FIRE STATION 31
ADMIN	ADMINISTRATION	GI	GALVANIZED IRON	SDST	SELF DRILLING SELF TAPPING			
AGGR	AGGREGATE	GC	GENERAL CONTRACTOR	SHTG	SHEATHING			
ADA	AMERICANS WITH DISABILITIES ACT	HT	HEIGHT	SHT	SHEET			
ALUM	ALUMINUM	HCWD	HOLLOW CORE	SMD	SEE MECHANICAL			
APPROX	APPROXIMATE		WOOD DOOR	SMF	DRAWINGS			
ARCH	ARCHITECTURAL	HM	HOLLOW METAL		SHEET METAL			
AD	AREA DRAIN	HMD	HOLLOW METAL DOOR		FASTENER			
AB	ASPHALT BASE				SHEET METAL SCREW			
ASPH	ASPHALT				SIMILAR			
AV	AUDIOVISUAL	HORIZ	HORIZONTAL	STC	SOUND			
					TRANSMISSION CLASS			
BD	BOARD	HORIZ	HORIZONTAL	S	SOUTH			
BLKG	BLOCKING	HB	HOSE BIB	SPD	SEE PLUMBING			
BOT	BOTTOM	HD	HOT DIPPED		DRAWINGS			
					SPECIFICATION			
CA	CALIFORNIA	INC	INCLUDING	SPEC	SQUARE			
CBC	CA BUILDING CODE	ID	INSIDE DIAMETER	SQ	SQUARE FEET			
CCR	CA CODE OF REGULATION'S	INT	INTERIOR	SS	STAINLESS STEEL			
		ISA	INTERNATIONAL	STD	STANDARD			
CTR	CENTER		SYMBOL OF ACCESSIBILITY	SFM	STATE FIRE MARSHAL			
CL	CENTER LINE			STL	STEEL			
CLR	CLEAR			STOR	STORAGE			
COL	COLUMN	JAN	JANITOR	STRUCT	STRUCTURAL			
CONC	CONCRETE			SUSP	SUSPENDED			
CMU	CONCRETE	MFR	MANUFACTURER	SYS	SYSTEM			
	MASONRY UNIT	MAX	MAXIMUM					
CONT	CONTINUOUS	MECH	MECHANICAL	TB	TUBE			
CJ	CONTROL JOINT	MTL	METAL	T&B	TOP AND BOTTOM			
CORR	CORRIDOR	MIN	MINIMUM	TBR	TO BE REMOVED			
		MISC	MISCELLANEOUS	THK	THICKNESS			
DG	DECOMPOSED			THRES	THRESHOLD			
	GRANITE	(N)	NEW	THRU	THROUGH			
DEG	DEGREES	NOM	NOMINAL	TO	TOP OF			
DEMO	DEMOLITION	N	NORTH	TOB	TOP OF BEAM			
DTL	DETAIL	NIC	NOT IN CONTRACT	TOC	TOP OF CONCRETE			
DIA	DIAMETER	NTS	NOT TO SCALE	TOS	TOP OF SLAB			
DIV	DIVISION			TPO	THERMOPLASTIC			
DR	DOOR	O/	OVER		POLYOLEFIN			
DBL	DOUBLE	OFF	OFFICE	TRTD	TREATED			
DS	DOWNSPOUT	OC	ON CENTER	TS	TOP OF SLAB OR TUBE STEEL			
		OH	OPPOSITE HAND	TYP	TYPICAL			
		OD	OUTSIDE DIAMETER					
EA	EACH							
E	EAST							
ELEC	ELECTRICAL	PR	PAIR	UBC	UNIFORM BUILDING CODE			
EQ	EQUAL	PT	PAINT OR POINT					
EQUIP	EQUIPMENT	PL	PROPERTY LINE	UON	UNLESS OTHERWISE NOTED			
EXIST OR (E)	EXISTING	PREFIN	PREFINISHED					
EXT	EXTERIOR	PROP	PROPERTY					
				VTR	VENT THROUGH ROOF			
FF	FINISH FLOOR	RWL	RAIN WATER LEADER	VIF	VEEY IN FEILD			
FE	FIRE	RWD	REDWOOD	VERT	VERTICAL			
FEC	EXTINGUISHER	REINF	REINFORCED	VWF	VINYL WALL FABRIC			
	EXTINGUISHER	R	RADIUS					
	CABINET	RD	ROOF DRAIN	WT	WEIGHT			
FSR	FIRE SPRINKLER	RO	ROUGH OPENING	W	WEST			
	RISER	RM	ROOM	W/	WITH			
FD	FLOOR DRAIN			W/O	WITHOUT			
				WI	WOOD INSTITUTE			

GENERAL NOTES	
1. GENERAL CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION RELATED TO THE INSTALLATION AND ASSOCIATED REQUIRED TESTS & INSPECTIONS PRIOR TO COVERING OR CONCEALING THESE MATERIALS.	
2. FOR APPLICABLE CODE DATA AND PROJECT DATA INFORMATION SEE THIS SHEET.	
3. FOR ADDITIONAL SUPPLEMENTARY INFORMATION SEE PROJECT MANUAL.	
4. SEE PLANS & PROJECT MANUAL FOR SPECIFIC GREEN BUILDING REQUIREMENTS & COMMISSIONING ACTIVITY REQUIREMENTS.	
5. BY REVIEW OF THESE PLANS, THE GOVERNING AGENCY'S REVIEWER HAS DONE A THOROUGH REVIEW AND ANALYSIS AND APPROVAL INDICATES COMPLIANCE UNDER SB1608.	
6. THIS PROJECT IS IN FULL COMPLIANCE WITH CBC CHAPTER 11B FOR ACCESSIBILITY.	
7. OWNER SHALL PROVIDE REQUIRED NFPA 70E ARC FLASH STUDY.	

AP	
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SYMBOL LEGEND

 <p><u>NORTH INDICATOR</u></p>	 <p><u>GRID LINE</u></p>	 <p><u>SIGNAGE INDICATOR</u></p>
 <p><u>BUILDING ELEVATION INDICATOR</u></p>	 <p><u>DETAIL INDICATORS</u></p>	 <p><u>VERTICAL DIMENSION POINT</u></p>
 <p><u>BUILDING SECTION INDICATOR</u></p>	 <p><u>INTERIOR ELEVATION</u></p>	 <p><u>DATUM POINT</u></p>
		 <p><u>DOOR OPENING INDICATOR</u></p>



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1

2



A circular professional seal for Jonathan Hammond, a Licensed Architect in the State of California. The seal features the text "LICENSED ARCHITECT" at the top, "JONATHAN HAMMOND" in the center, "C27121" below the name, and "5/31/21" for the expiration date. The words "ARCHITECT" and "STATE OF CALIFORNIA" are also present. There are two stars on the left side of the seal.

3	Consultant
---	------------

5	Agency Approvals
---	------------------

Issue: CONSTRUCTION DOCUMENTS		
No.	Date	Description
	12/18/2020	CITY REVIEW
	3/1/2021	FINAL REVIEW

Project

FIRE STATION 31

**530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616**

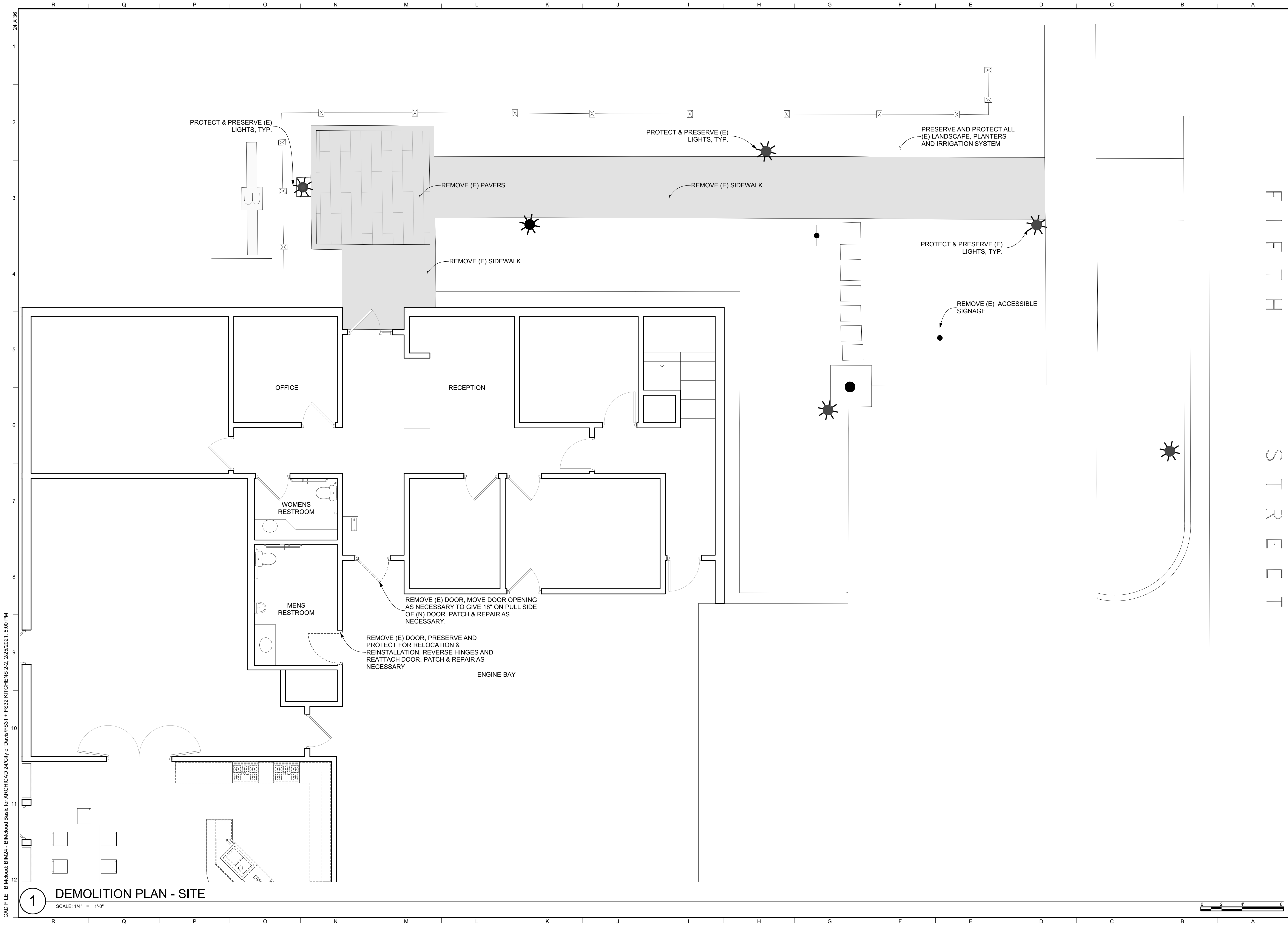
Architect of Record	JH
Project Architect	PN
Drafted By	PN/ OA
Checked By	PN

File Date	9/1/2020
Sheet Title	

11 COVER SHEET -
FIRE STATION 31

Project Number	20258-31
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12	G-001
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Project

FIRE STATION 31
530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616

Architect of Record	JH
Project Architect	PN
Drafted By	PN/OA
Checked By	PN

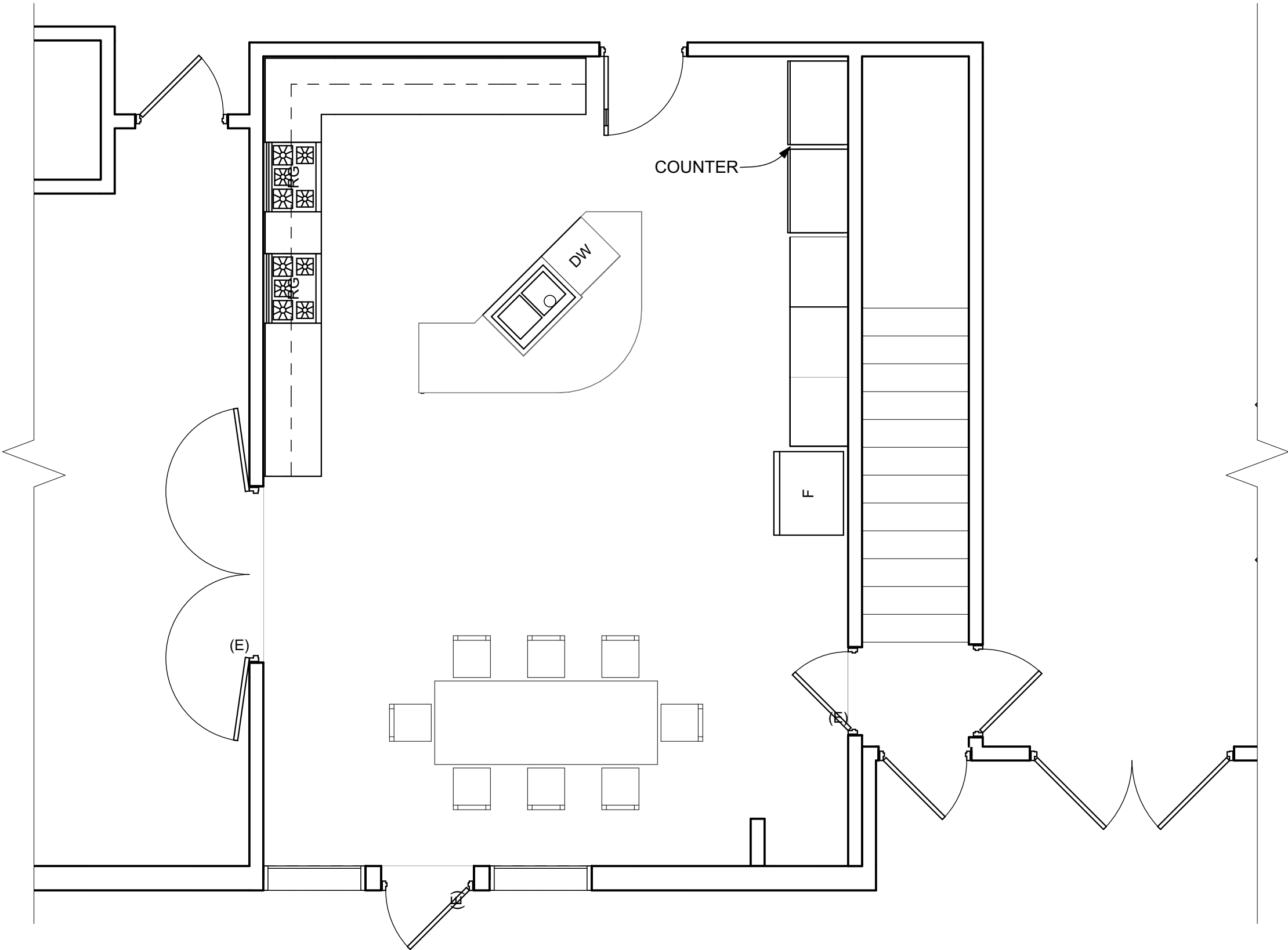
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9/1/2020

Sheet Title
DEMOLITION
ROUTE - FIRE
STATION 31

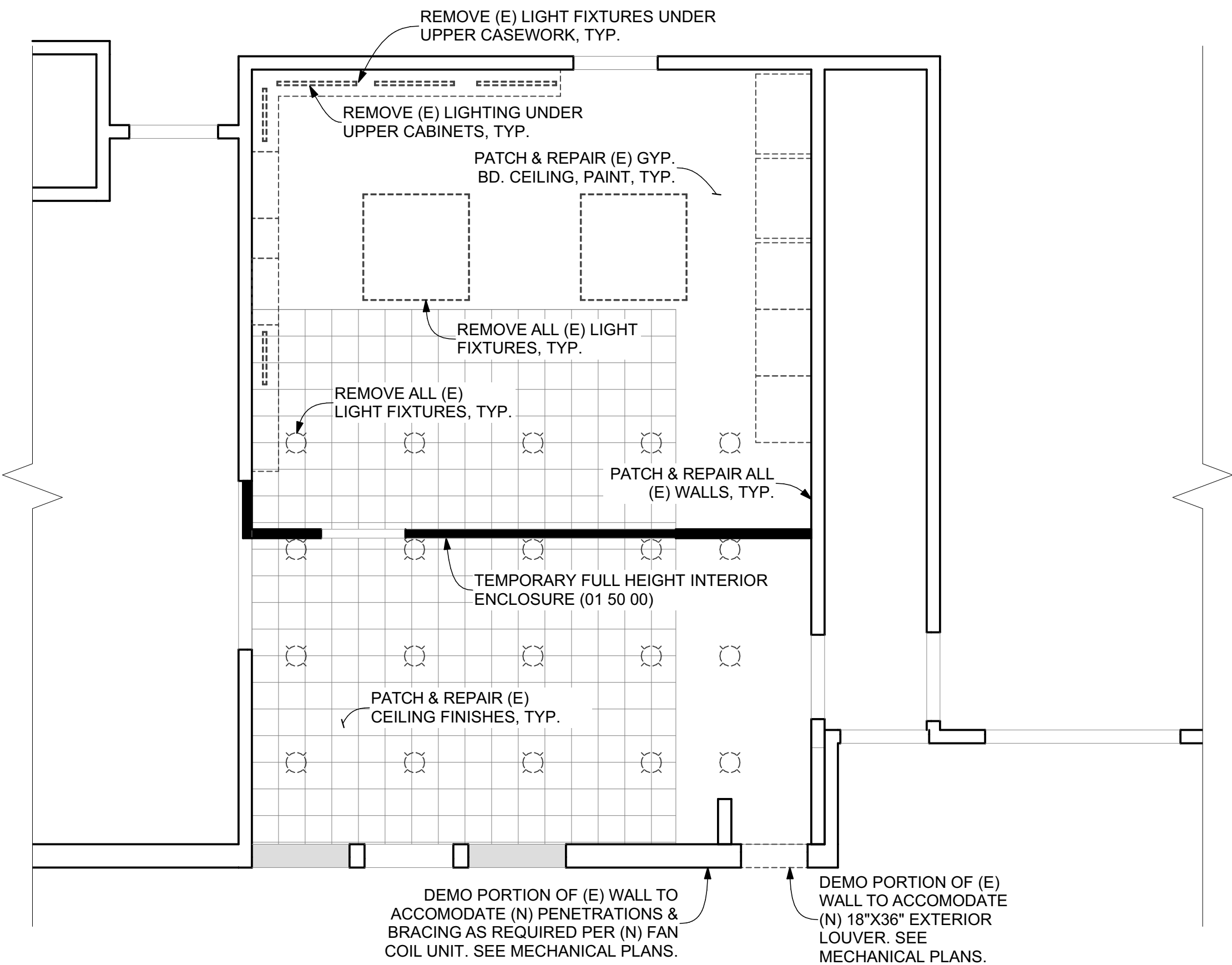
Project Number
20258-31

AD-101

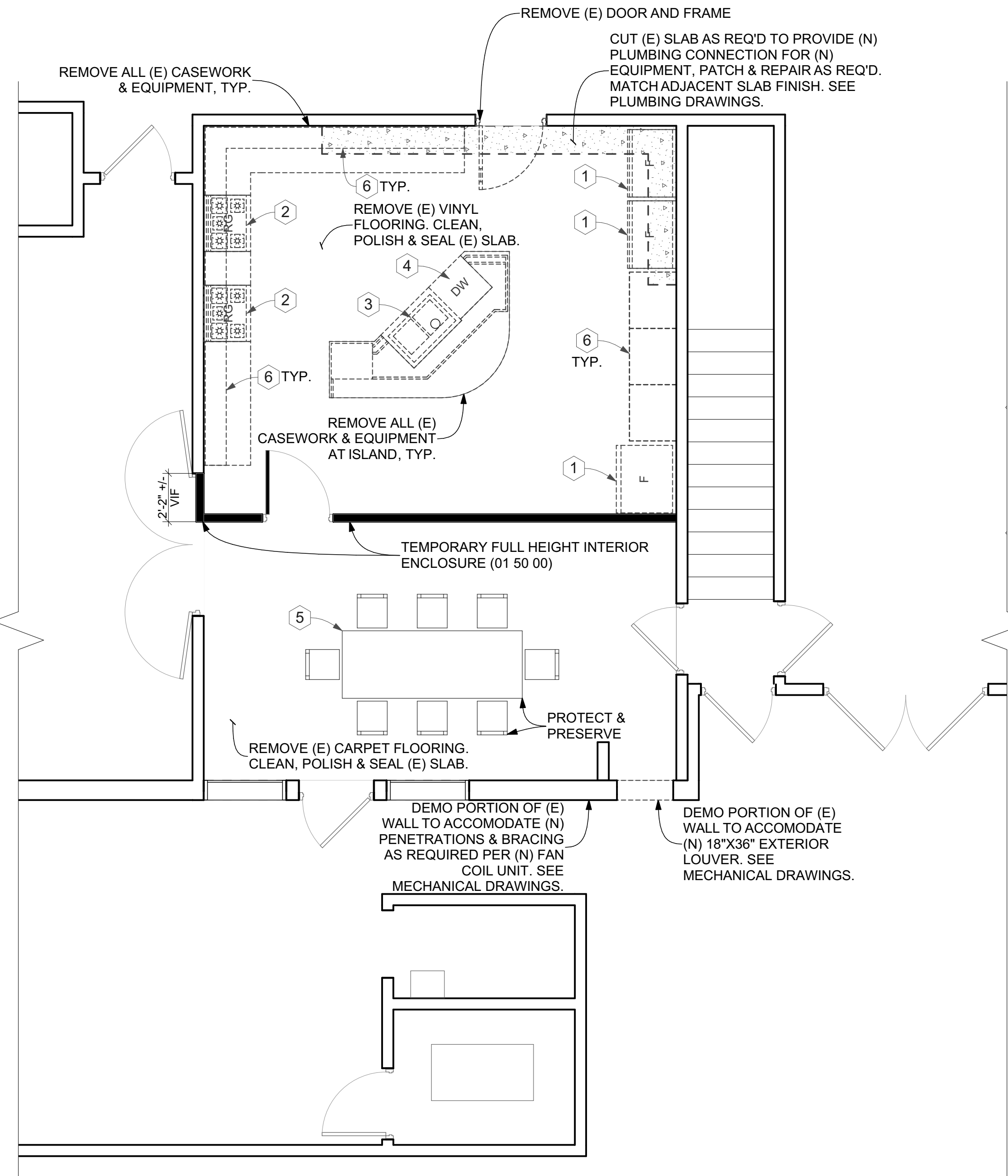
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1 FIRE STATION 31 - EXISTING FLOOR PLAN
SCALE: 1/4" = 1'-0"



3 FIRE STATION 31 - DEMOLITION REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"



2 FIRE STATION 31 - DEMOLITION FLOOR PLAN
SCALE: 1/4" = 1'-0"

NOTES

1. ALL MATERIAL AND EQUIPMENT TO BE REMOVED SHALL BE DISPOSED OF IN A LEGAL MANNER.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE DOCUMENTS AND FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK. IF ANY QUESTIONS ARISE AS TO THE REMOVAL OF ANY MATERIAL, CLARIFY THE POINT IN QUESTION WITH THE ARCHITECT BEFORE PROCEEDING. ALL ELEMENTS NOT SHOWN TO REMAIN ARE TO BE DEMOLISHED PER ARCHITECT'S APPROVAL.
3. CONTRACTOR SHALL PROTECT ALL EXISTING ITEMS THAT ARE NOT SCHEDULED FOR REMOVAL FROM DAMAGE. CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND/OR REPAIRING ANY DAMAGE CAUSED TO ITEMS TO REMAIN.
4. CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS/EQUIPMENT AS REQUIRED TO COMPLETE DEMOLITION AND REMOVAL OF ALL ITEMS AS INDICATED.
5. CONTRACTOR TO CLEAN AND PROPERLY DISPOSE OF ALL ABANDONED EQUIPMENT AND TRASH/DEBRIS. CONTRACTOR SHALL VERIFY ALL ITEMS FOR DISPOSAL WITH TENANT AND/OR OWNER PRIOR TO STARTING WORK.
6. CONTRACTOR SHALL IMPLEMENT CONSTRUCTION DUST / DEBRIS CONTROL MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION. SEE 2
AD-102
7. AT COMPLETION OF DEMOLITION WORK, THE CONSTRUCTION AREA(S) SHALL BE LEFT IN "BROOM CLEAN" CONDITION. ALL DEBRIS AND MISCELLANEOUS MATERIAL SHALL BE REMOVED.
8. DEMOLITION IS NOT NECESSARILY LIMITED TO WHAT IS SHOWN ON DRAWINGS. THE INTENT IS TO INDICATE THE GENERAL SCOPE OF DEMOLITION REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
9. GENERAL CONSTRUCTION CONTRACTOR SHALL PROVIDE APPROPRIATE WEATHER PROTECTION OF EXISTING STRUCTURE WHEN DEMOLITION WORK CAUSES EXPOSURE OF EXISTING CONSTRUCTION TO THE ELEMENTS.
10. CONTRACTOR TO ENSURE THAT EXISTING UTILITIES (GAS, ELECTRIC OR PHONE, ETC.), ACCESS FOR FIRE DEPARTMENT USE, MECHANICAL VENTILATION, HEATING AND/OR COOLING SYSTEMS, IS PROVIDED TO FIRE DEPARTMENT DURING CONSTRUCTION.
11. CARE SHALL BE TAKEN BY CONTRACTOR TO MINIMIZE DISRUPTION TO EXISTING TENANT THROUGHOUT DURATION OF CONSTRUCTION. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH OWNER AND TENANT PRIOR TO WORK.

LEGEND

- WALL TO BE REMOVED; SEE WORK SEQUENCE (01 10 00)
- WALLS TO REMAIN
- DOOR & FRAME TO BE REMOVED
- DOOR & FRAME TO REMAIN

KEYNOTES

1. OWNER TO REMOVE PRIOR TO START OF CONSTRUCTION.
2. CONTRACTOR TO REMOVE EXISTING RANGE & HOOD ASSEMBLY FOR DISPOSAL OR SALVAGE.
3. CONTRACTOR TO REMOVE EXISTING SINK FOR DISPOSAL OR SALVAGE.
4. CONTRACTOR TO REMOVE EXISTING DISHWASHER FOR DISPOSAL.
5. CONTRACTOR TO PROTECT EXISTING TABLE & CHAIRS TO REMAIN IN USE OUTSIDE OF TEMPORARY DUST PARTITION UNTIL CEILING OR OTHER WORK REQUIRES RELOCATION BY OWNER.
6. CONTRACTOR TO SALVAGE EXISTING CABINETS FROM KITCHEN FOR REUSE BY FIRE DEPARTMENT AT LATER DATE. DELIVER TO FIRE STATION 33.



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Agency Approvals

Issue: CONSTRUCTION DOCUMENTS

No.	Date	Description
1	12/18/2020	CITY REVIEW
2	3/1/2021	FINAL REVIEW

Project

FIRE STATION 31

530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616

Architect of Record	JH
Project Architect	PN
Drafted By	PN/OA
Checked By	PN

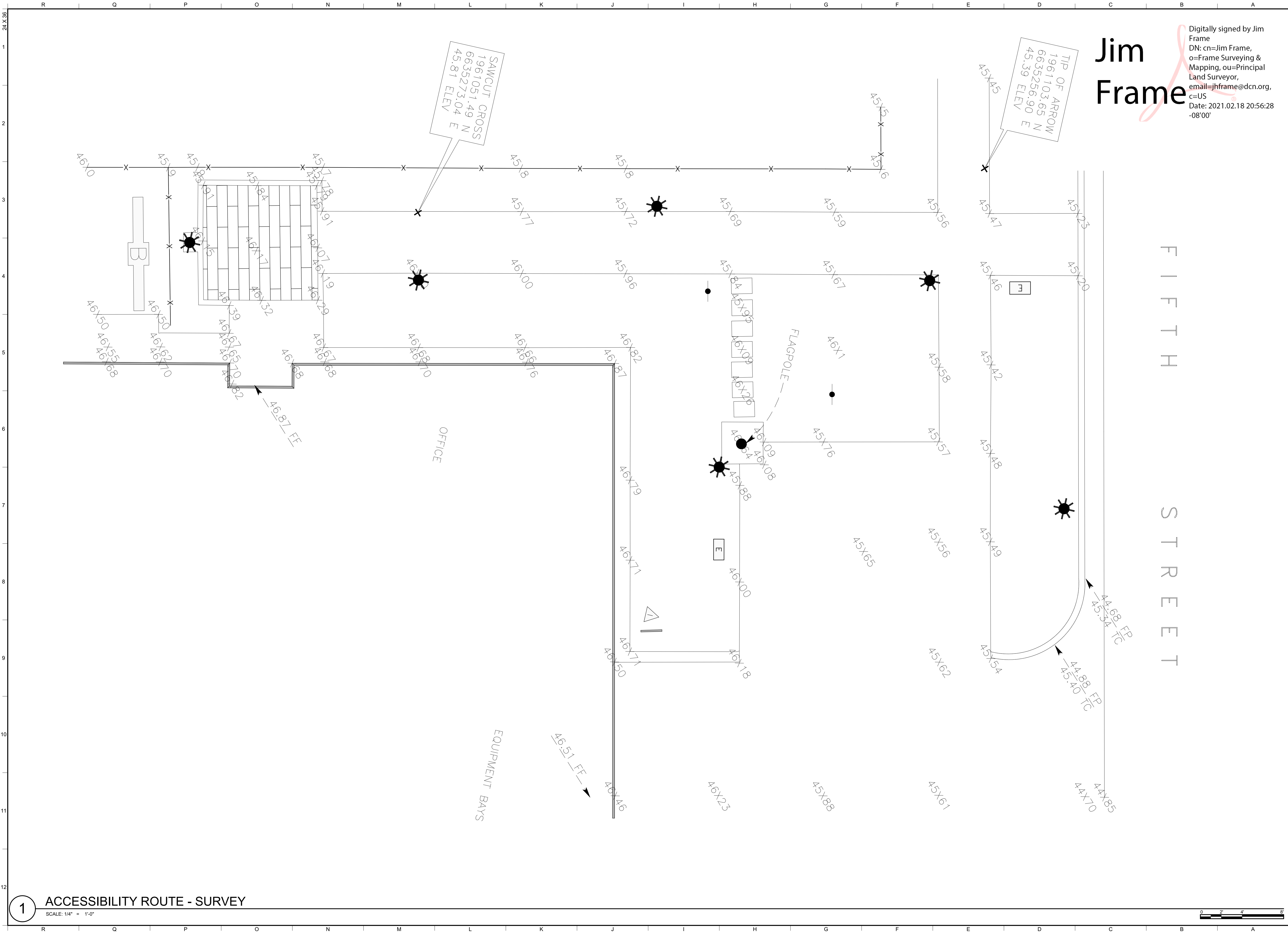
File Date
9/1/2020

Sheet Title

DEMOLITION PLANS - FIRE STATION 31

Project Number
20258-31

AD-102



Jim
Frame

Digitally signed by Jim
Frame
DN: cn=Jim Frame,
o=Frame Surveying &
Mapping, ou=Principal
Land Surveyor,
email=jhframe@dcn.org,
c=US
Date: 2021.02.18 20:56:28
-08'00'

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FRAME SURVEYING & MAPPING
609 A STREET DAVIS, CA 95616
530.756.8584 framesurveying.com

Agency Approvals

IssueCONSTRUCTION DOCUMENTS		
No.	Date	Description
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	3/1/2021	FINAL REVIEW

Project

FIRE STATION 31

**530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616**

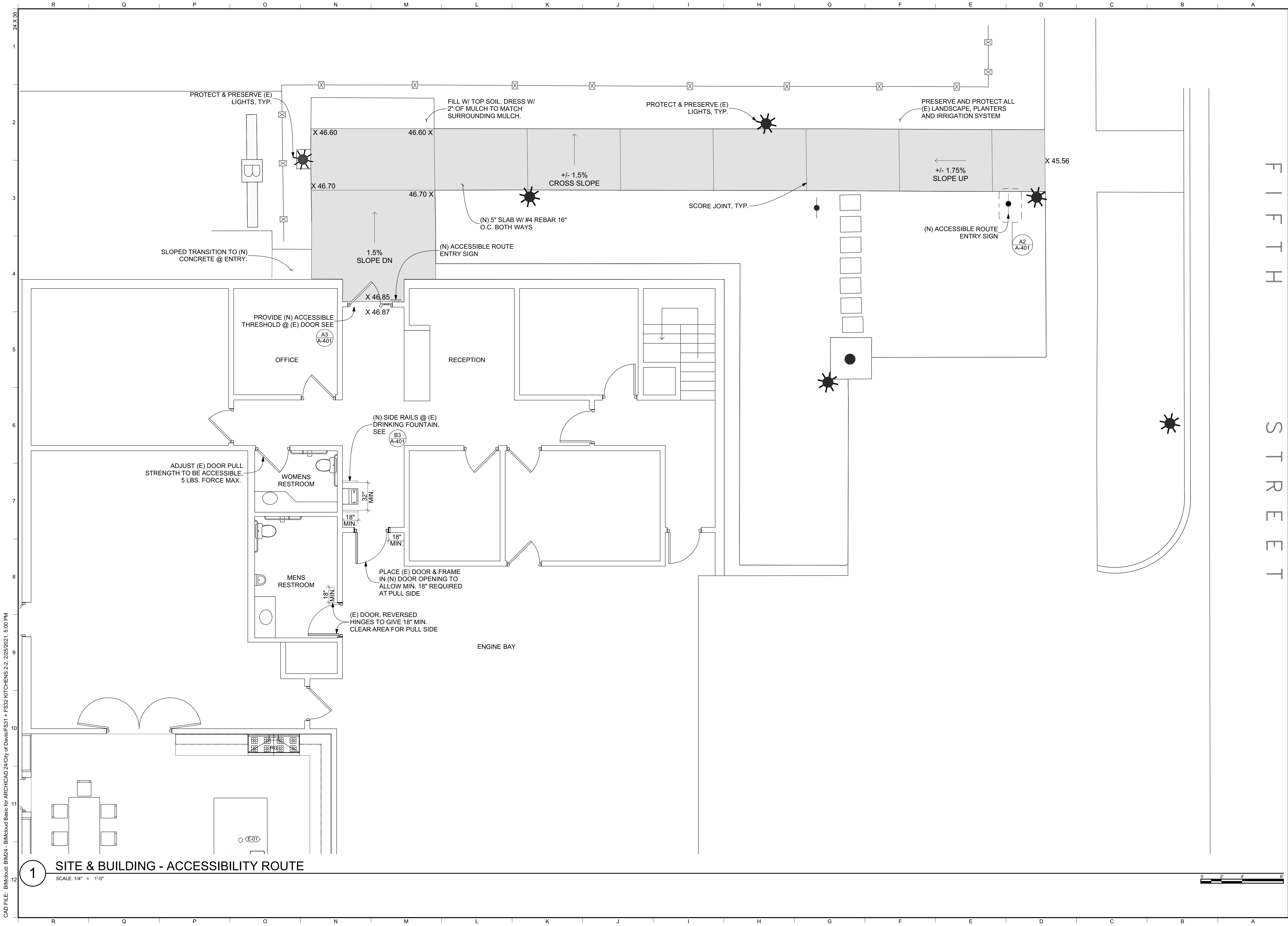
Architect of Record	JH
Project Architect	PN
Drafted By	PN/OA
Checked By	PN


File Date
9/1/2020

Sheet Title
**ACCESSIBILITY
ROUTE - SURVEY -
FIRE STATION 31**


Project Number
20258-31

AS-101





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No.	Date	Description
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	3/1/2021	FINAL REVIEW

Project

FIRE STATION 31

530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616

Architect of Record	JH
Project Architect	PN
Drafted By	PN/OA
Checked By	PN

File Date
9/1/2020

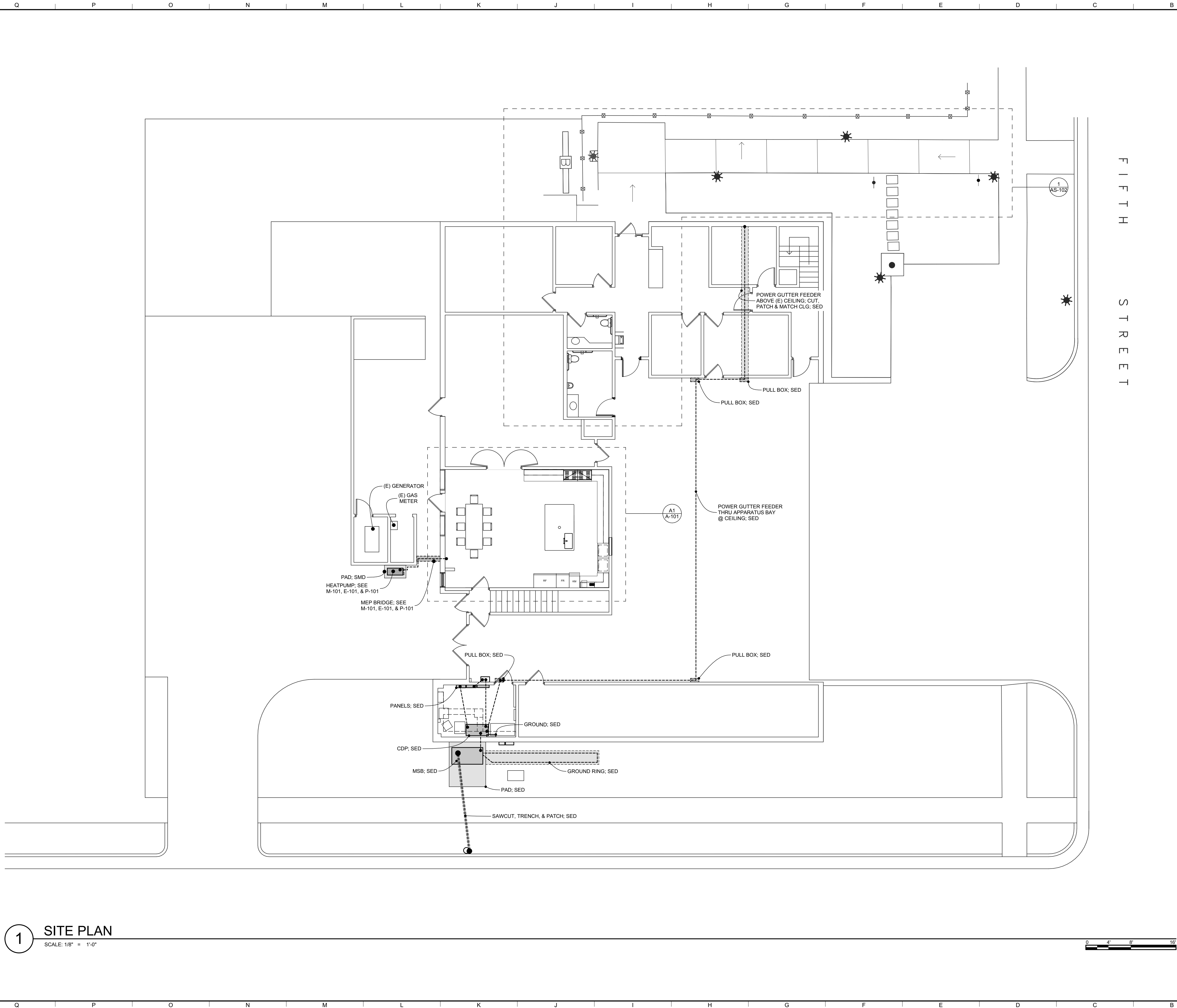
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ACCESSIBILITY
ROUTE - FIRE
STATION 31

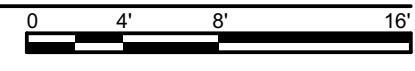
Project Number
20258-31

AS-102

CAD FILE: BIMcloud: BIM24 - BIMcloud Basic for ARCHICAD 24/City of Davis/FS31 + FS32 KITCHENS 2-2, 2/25/2021, 5:00 PM



1 SITE PLAN
SCALE: 1/8" = 1'-0"



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No.	Date	Description
	12/18/2020	CITY REVIEW
	3/1/2021	FINAL REVIEW

Project

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530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616

Architect of Record	JH
Project Architect	PN
Drafted By	PN/OA
Checked By	PN

File Date
9/1/2020

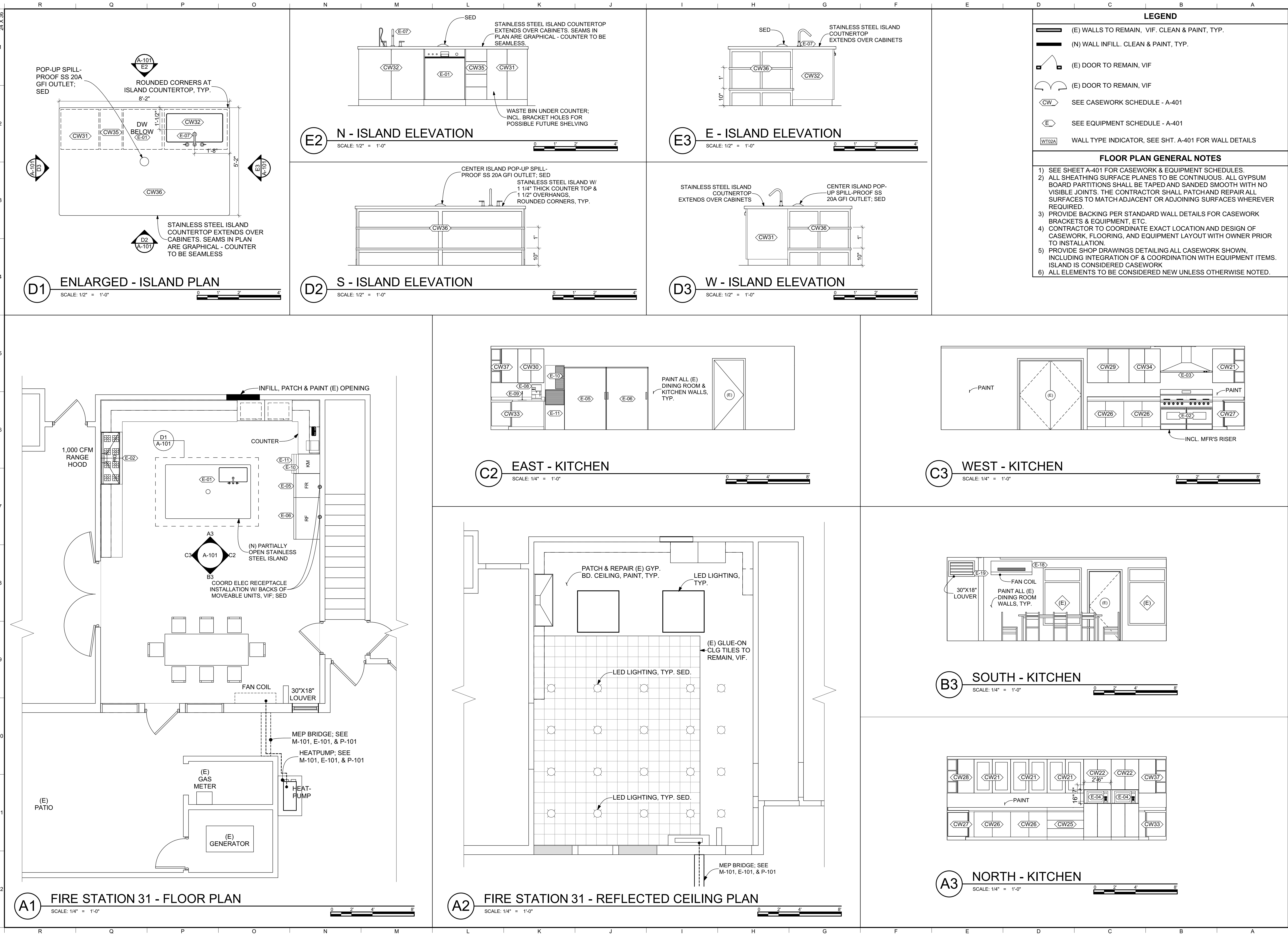
Sheet Title

SITE PLAN - FIRE
STATION 31

Project Number
20258-31

AS-103

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LICENSED ARCHITECT

JONATHAN HAMMOND

C27227

5/31/21

STATE OF CALIFORNIA

Consultant

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Issue: CONSTRUCTION DOCUMENTS

No.	Date	Description
12/18/2020	CITY REVIEW	
3/1/2021	FINAL REVIEW	

Project

FIRE STATION 31

530 5TH STREET

CITY OF DAVIS,

CALIFORNIA 95616

Architect of Record

Project Architect

Drafted By

Checked By

File Date

9/1/2020

Sheet Title

PLANS - FIRE

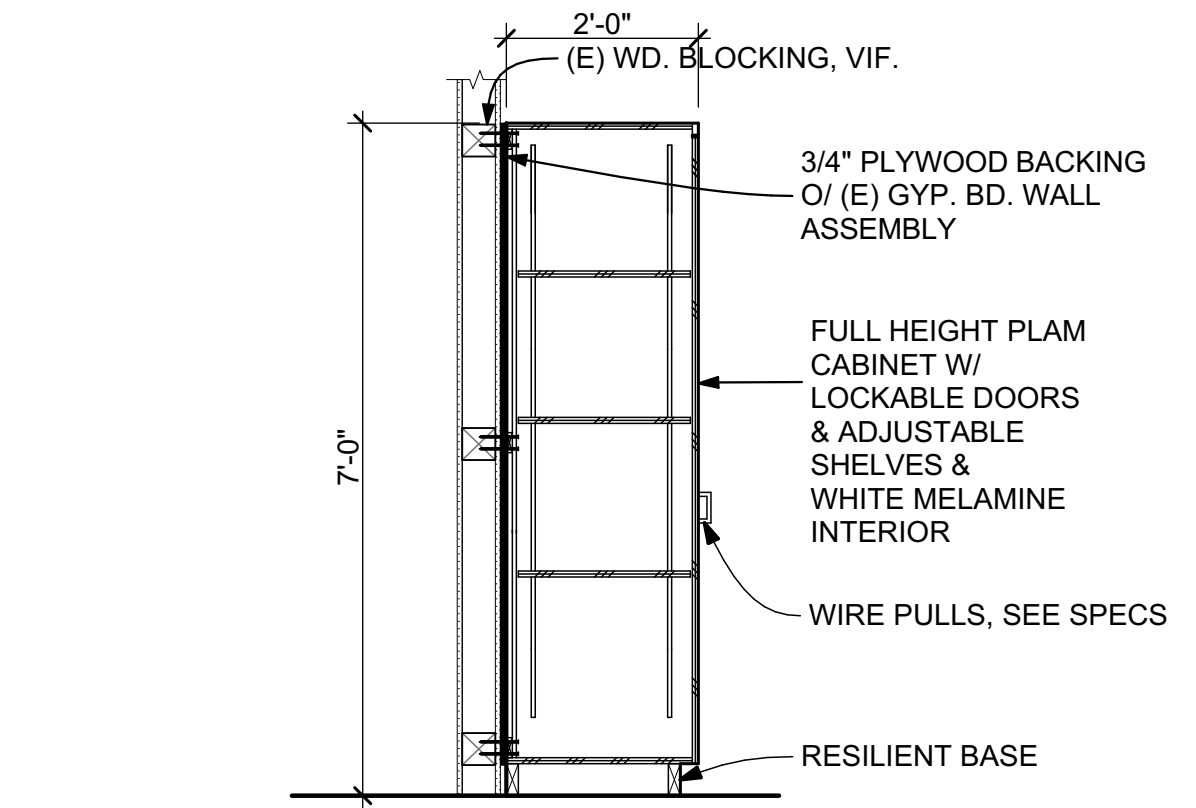
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Project Number

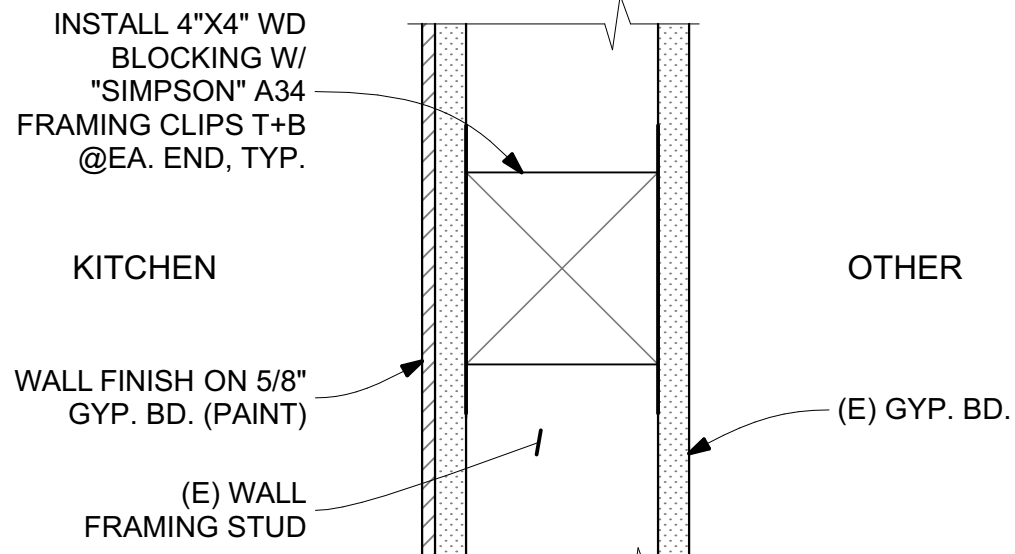
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A-101

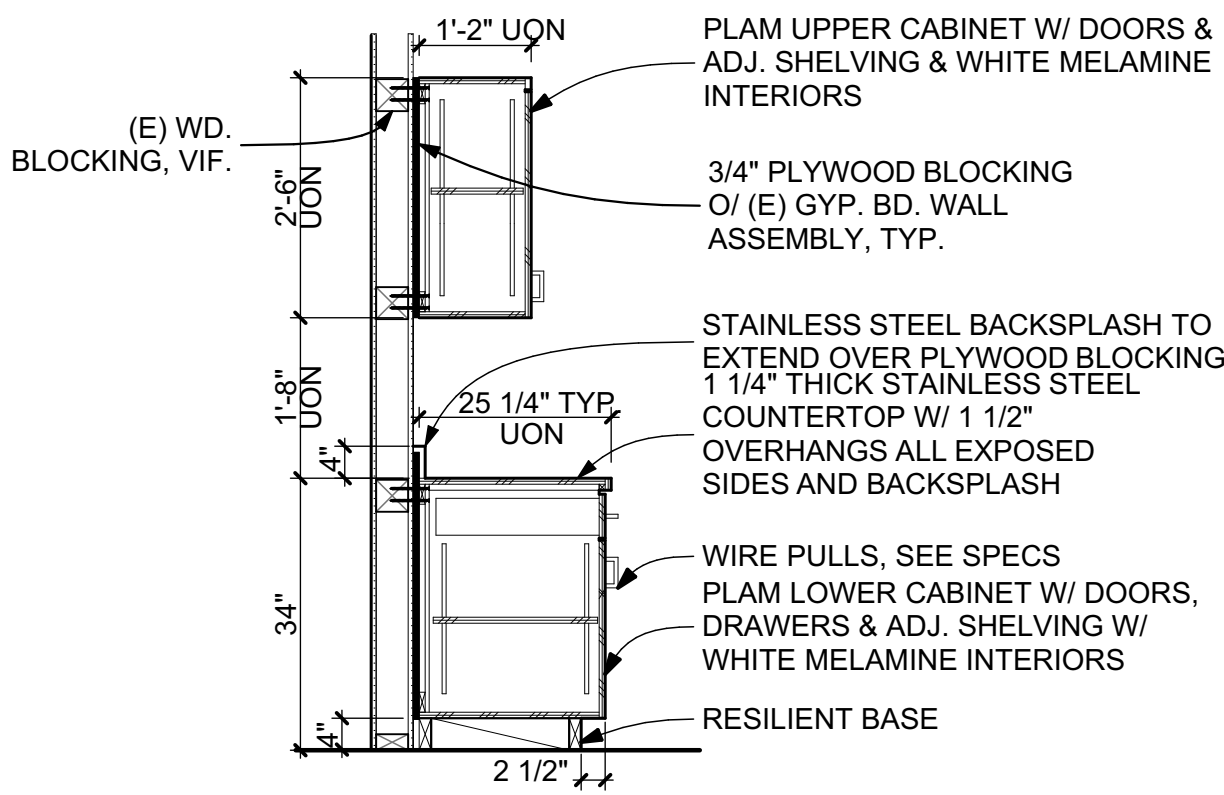
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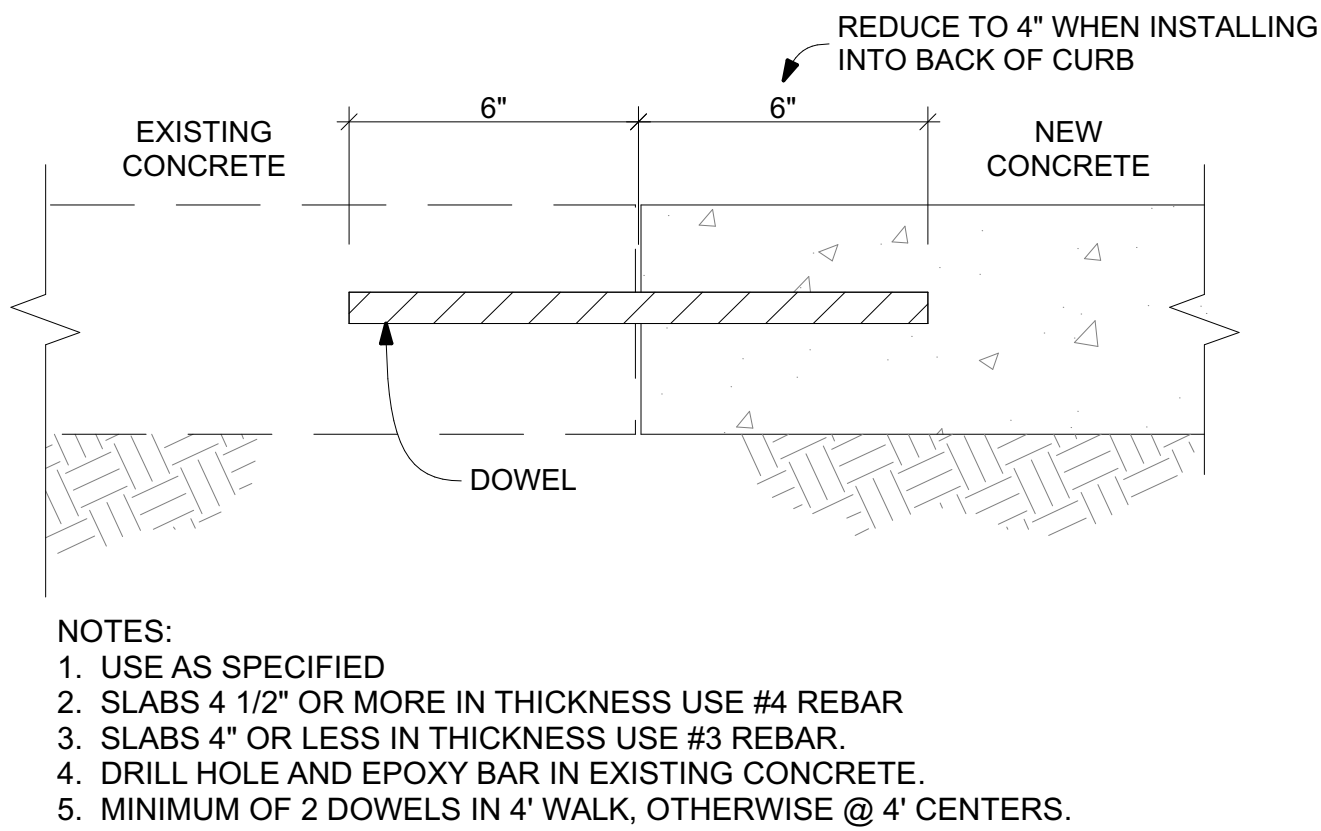
C1 FULL HEIGHT CABINET
SCALE: 1/2" = 1'-0"



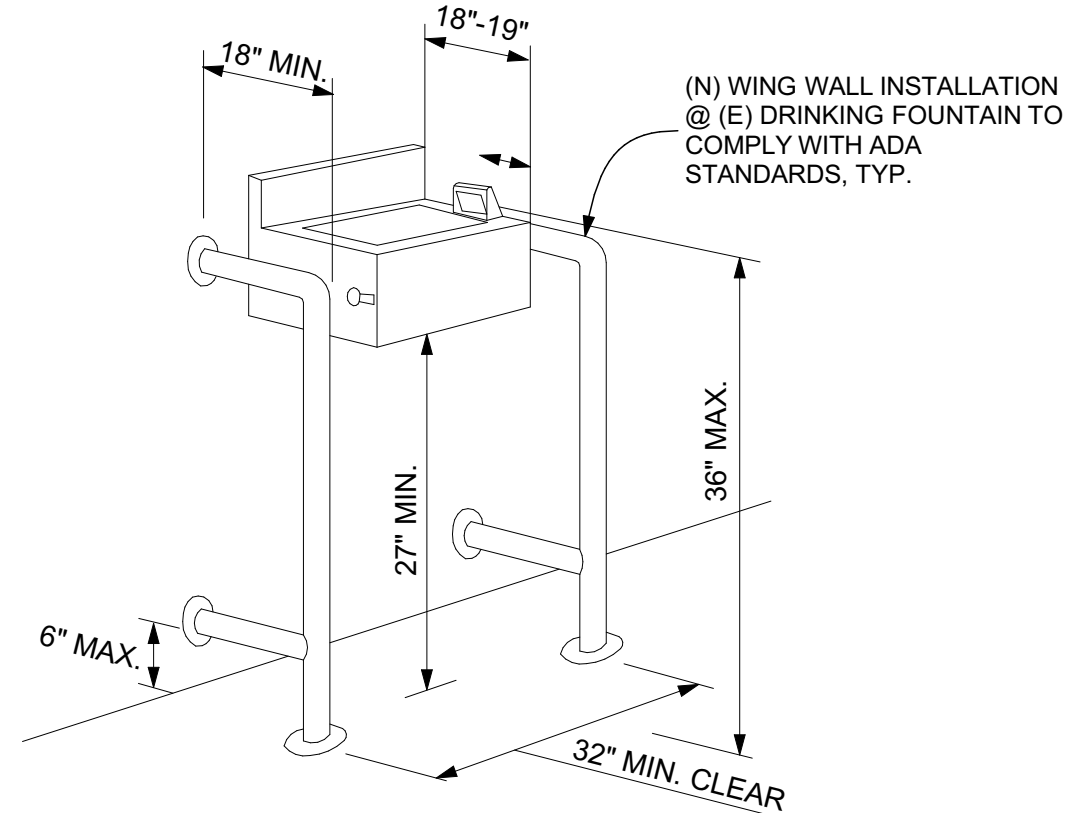
C2 (N) WOOD BACKING DETAIL
SCALE: 3" = 1'-0"



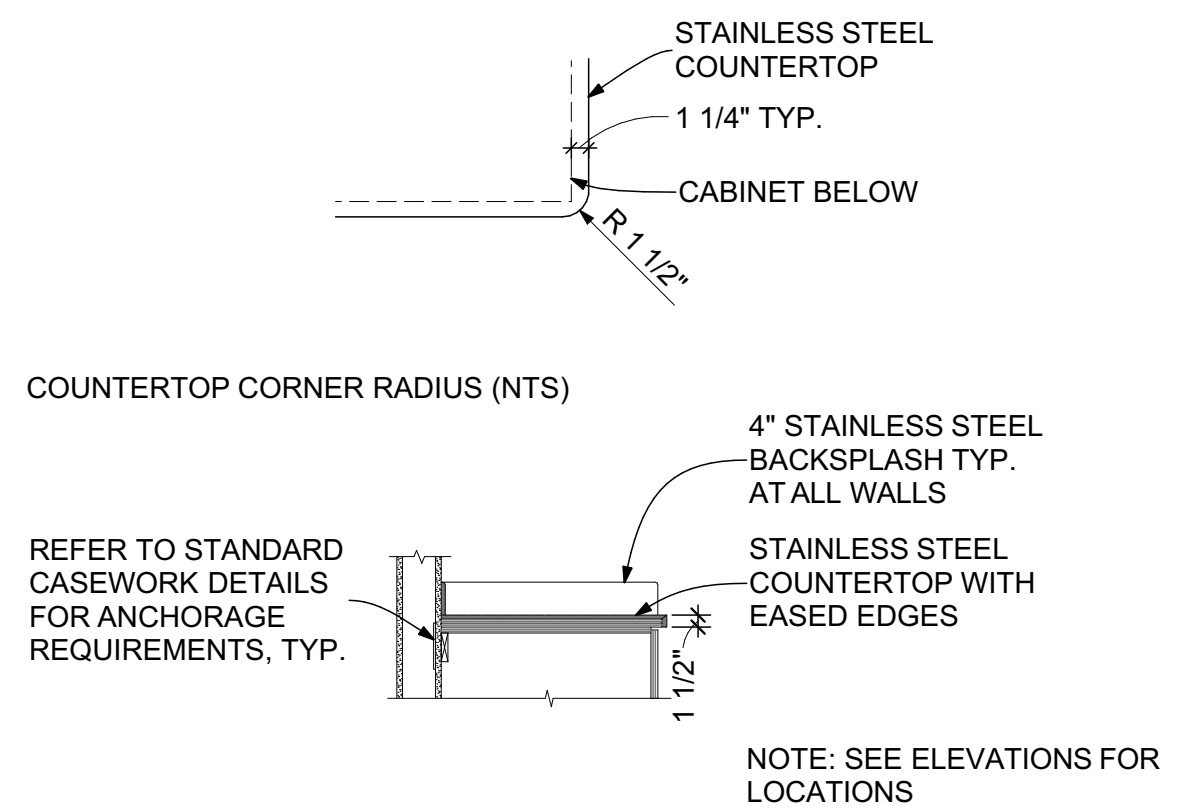
B1 CABINET SECTION
SCALE: 1/2" = 1'-0"



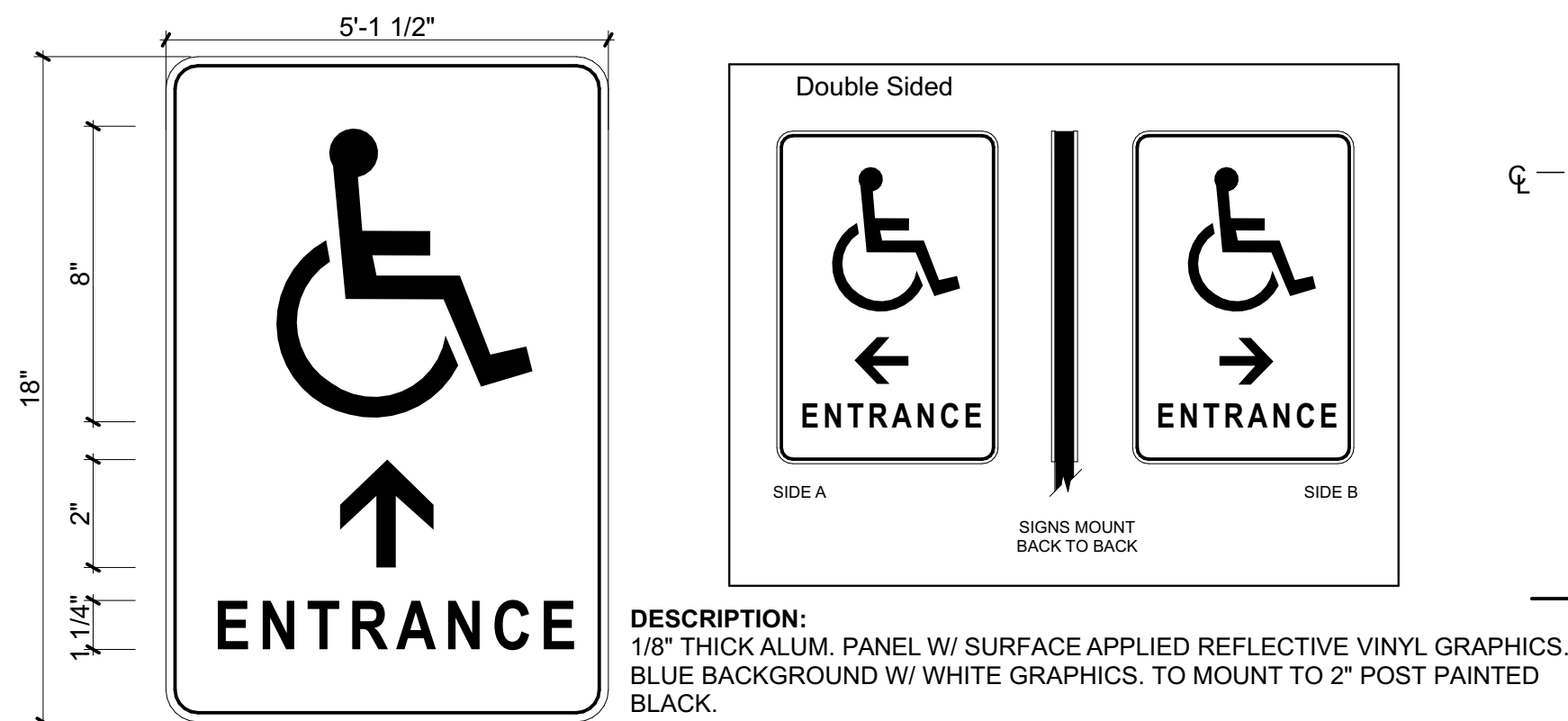
B2 CONCRETE SLAB DOWEL DETAIL
SCALE: 3" = 1'-0"



B3 ACCESSIBLE DRINKING FOUNTAIN DETAIL
SCALE: 1/2" = 1'-0"



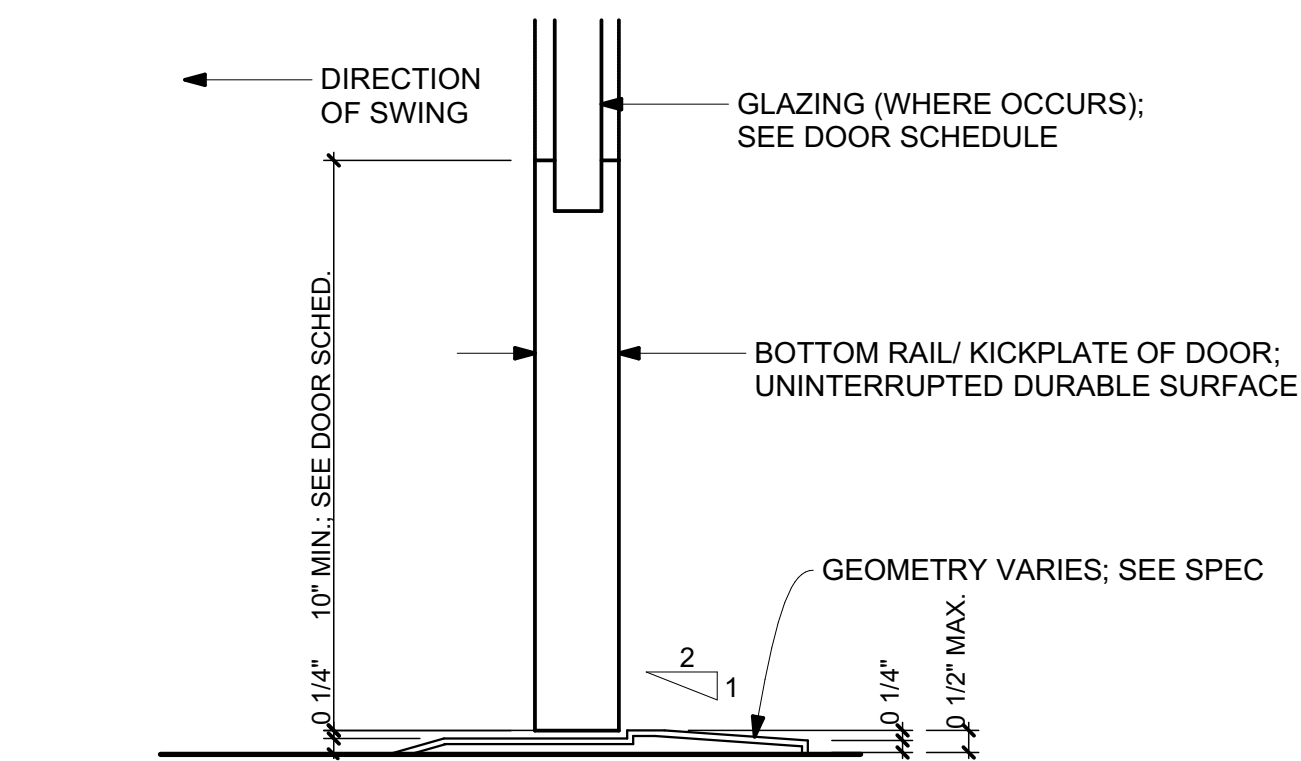
A1 COUNTERTOP - STAINLESS STEEL
SCALE: 1/2" = 1'-0"



A2 ACCESSIBLE ROUTE SIGNAGE
SCALE: 1/2" = 1'-0"

APPLIANCE SCHEDULE FS 31 R1					
MARK	DESCRIPTION	MANUFACTURER	MODEL #	REF	NOTES
E-01	DISHWASHER	KITCHENAID	KDPM354GPS		34"H X 24"W X 24"D INSTALL ONLY
E-02	GAS RANGE	WOLF	DF606DG		36.875"H X 29.5"W X 60.125"L INSTALL ONLY; DOUBLE OVEN
E-03	RANGE HOOD	WOLF	PW602718		60"W X 18"H X 27"D INSTALL ONLY
E-04	MICROWAVE	GE	JES22515SJ		13.75"H X 24"W X 19.5"D INSTALL ONLY
E-05	FREEZER	HOSHIZAKI	F1A-FS		27.5" W X 33.5"D X 79.5"H INSTALL ONLY
E-06	REFRIGERATOR	HOSHIZAKI	R2A-FS		55"W X 33.5"D X 79.5"H INSTALL ONLY
E-07	FAUCET & SINK	EMODERN DECOR	RT3622-1636		36"W X 22"D X 10"H ADDITIONAL PRESSURE SPRAYER FOR POTS. FURNISH & INSTALL
E-08	COFFEE MACHINE				PLUMBED, INSTALL ONLY
E-09	WATER STATION W/ DRIP PAN & PUSH BACK GLASS FILLER				INSTALL ONLY
E-10	ICE MAKER	HOSHIZAKI	KM-350MAJ		22"W X 27"D X 28"H INSTALL ONLY
E-11	ICE BIN	HOSHIZAKI	B-300PF		22"W X 32.2"D X 46"H INSTALL ONLY
E-18	FAN COIL UNIT	SMD	SMD		SMD
E-19	30"X18" LOUVER	GREENHECK	TBD		30"X18"X6" INCL. BACKDRAFT DAMPER

CASEWORK SCHEDULE FIRE STATION 31 - SEE INTERIOR ELEVATIONS, A-101					
MARK	H	L	D	DESCRIPTION	DETAIL REF
CW21	3'-3"	3'-6"	1'	UPPER CABINET W/ TEMPERED GLASS DOORS	B1-A101
CW22	7'-9"	2'-7 3/4"	2'	UPPER CABINET	B1/A101
CW25	2'-10"	3'-6"	2'	DRAWERS	B1/A101
CW26	2'-10"	3'-6"	2'	LOWER CABINET	B1/A101
CW27	2'-10"	2'-7"	3'-1"	LOWER CORNER	B1/A101
CW28	3'-3"	2'-7"	3'-1"	UPPER CORNER	B2/A101
CW29	3'-3"	4'	1'	UPPER CABINET	B4/A101
CW30	3'-3"	2'-6"	1'	UPPER CABINET	B2/A101
CW31	2'-8 1/2"	1'-11 1/4"	2'	BASE UNDERCOUNTER WASTE BIN W/ SCRAP SHAFT	D2/A101
CW32	2'-8 1/2"	3'-1 1/2"	2'	SINK BASE CABINET	D2/A101
CW33	2'-10"	5'-1"	2'-7 3/4"	BASE CORNER	B2/A101
CW34	3'-3"	3'	1'	UPPER CABINET	B4/A101
CW35	2'-8 1/2"	1'-1/4"	2'	DRAWERS	D2/A101
CW36	2'-8 1/2"	8'	3'	OPEN STAINLES STEEL SHELVING	C1/A101
CW37	3'-3"	2'-7"	2'-7 3/4"	BASE CORNER	B2/A101



A3 ACCESSIBLE THRESHOLD DETAIL
SCALE: 3" = 1'-0"



Consultant

Agency Approvals

Issue: CONSTRUCTION DOCUMENTS

No.	Date	Description
	12/18/2020	CITY REVIEW
	3/1/2021	FINAL REVIEW

Project

FIRE STATION 31

**530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616**

Architect of Record	JH
Project Architect	PN
Drafted By	PN/OA
Checked By	PN

File Date
9/1/2020

Sheet Title

**DETAILS &
SCHEDULES - FIRE
STATION 31**

Project Number
20258-31

A-401



INSTALL ONLY
DISHWASHER
Mfr: KitchenAid
Model: KDPM354GPS
44-Decibel Filtration Built-In Dishwasher (Fingerprint-Resistant Stainless Steel) (Common: 24-in; Actual: 23.875-in) ENERGY STAR
Clean Water Wash System continuously cleans wash water for great results. ProScrub® option helps eliminate soaking or pre-scrubbing with 40 targeted spray jets that help remove stubborn, baked-on foods
Fan-Enabled ProDry™ System delivers superior drying without rinse aid



INSTALL ONLY
MICROWAVE
Mfr: GE
Model: JES22515SJ
Profile 2.2 cu. ft. Countertop Microwave in Stainless Steel with Defrost and Sensor Controls, Auto and time defrost, Sensor cooking controls - Automatically adjusts time and power Extra-large 16" turntable.



INSTALL ONLY
WATER STATION
Mfr: T&S
Model: 5GF-8P-WS
9 3/8" Tall filler with 8" clearance to accomodate glasses and pitchers. Self closing lever and 9 7/8"x4 5/16" drip pan with 1 1/4" drain.



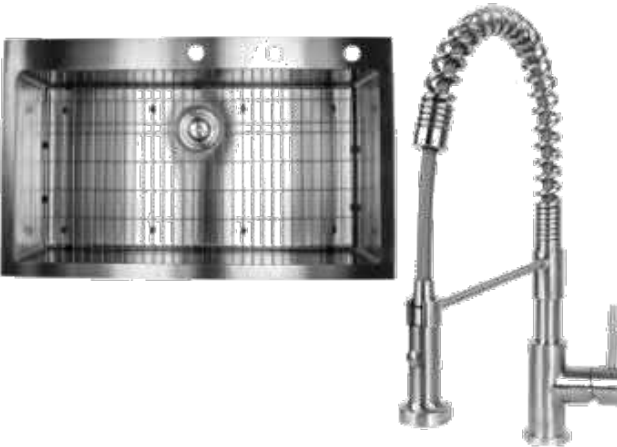
INSTALL ONLY
Range Hood - Mfr: Wolf
Model: PW602718
60 Inch Stainless Steel 27 Inch Depth Wall Hood. Includes 1,000 CFM fan.



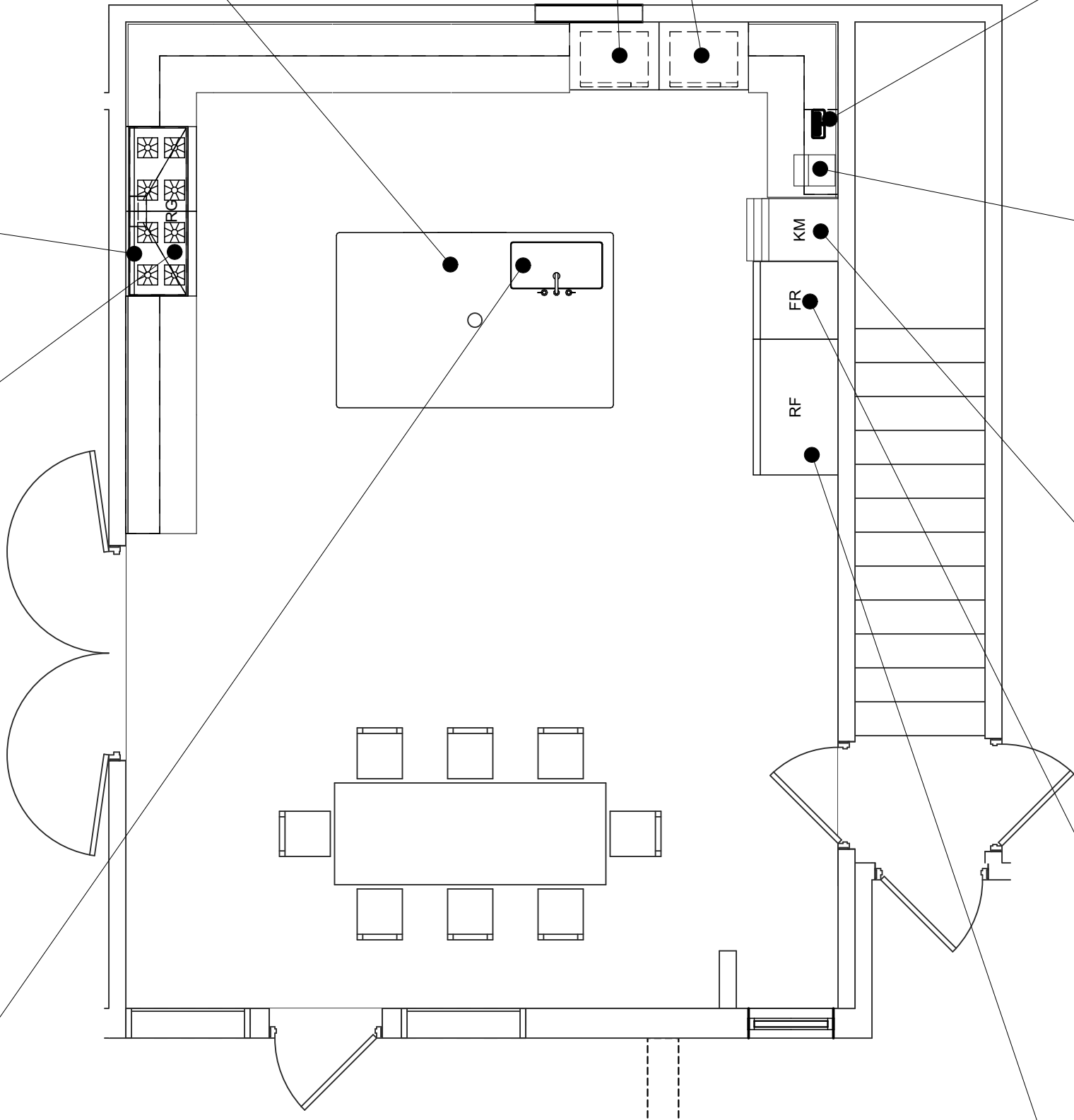
Dimensions	60 1/8"W x 36 7/8"H x 29 1/2"D
Weight	950 lbs
Electrical Supply	240/208 VAC, 60 Hz
Electrical Service	50 amp dedicated circuit
Gas Supply	3/4" ID line
Gas Inlet	1/2" NPT female

INSTALL ONLY
DUAL-FUEL RANGE
Mfr: Wolf
Model: DF606DG

DUAL RANGE RISER
Mfr: Wolf
Model: 804391



FURNISH & INSTALL
SINK & FAUCET
Mfr. e-Modern Decor
Model: RT3622-1636
Full sized single bowl drop-in sink in 15mm radius design. Perfect for the professional kitchen look. Handmade from premium grade 16 gauge stainless steel. Dimensions 36" x 22" x 10"



INSTALL ONLY
COFFEE MAKER
Mfr: Bunn
Model: CWTF 15-3, PF
Automatic coffee brewer with an upper hot-water faucet and can be used manually without a plumbed water line. As coffee dispenses, a funnel protects the operator's hands from burns. Warmers for three decanters are built into the lower section. This unit can make 3.9 gallons per hour, and its stainless steel construction facilitates cleaning.



INSTALL ONLY
ICE MAKER/ CUBE STYLE
Mfr: Hoshizaki
Model: KM-350MAJ
Ice Maker, Cube-Style, 22"W, air-cooled, self-contained condenser, production capacity up to 489 lb/24 hours at 70°/50° (393 lb AHRI certified at 90°/70°), crescent cube style, stainless steel finish, R-404A refrigerant, 115v/60/1-ph, 9.05 amps, NSF, UL, ENERGY STAR®

ICE BIN
Mfr: Hoshizaki
Model: B-300PF
Ice Bin, 22"W, top-hinged front-opening door, 300-lb ice storage capacity, for top-mounted ice maker, vinyl clad, 6" painted flange legs included, protected with H-GUARD Plus Antimicrobial Agent, ETL, ETL-Sanitation



INSTALL ONLY
FREEZER
Mfr: Hoshizaki
Model: F1A-FS
Steelheart Series Freezer, reach-in, one-section, 23.1 cu. ft., top mounted self-contained refrigeration system, (3) epoxy-coated wire shelves, (1) full-height solid right hinged door, digital temperature display/controls, audible & visual alarms, LED interior lighting, stainless steel exterior front & sides, stainless steel interior, (4) 4" casters (2 with brakes), R290 Hydrocarbon refrigerant, 3/4 HP, NEMA 5-15P, cETLus, ETL-Sanitation



INSTALL ONLY
REFRIGERATOR
Mfr: Hoshizaki
Model: R2A-FS
Steelheart Series Refrigerator, reach-in, two-section, 50.37 cu. ft., top mounted self-contained refrigeration, (6) epoxy coated wire shelves,(2) full height solid hinged doors, digital temperature display/controls, LED interior lighting, stainless steel exterior front & sides, stainless steel interior, (4) 4" heavy duty casters (2 with brakes), R290 Hydrocarbon refrigerant, 1/2 HP, NEMA5-15P, cETLus, ETL-Sanitation



Consultant

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Project

FIRE STATION 31

**530 5TH STREET
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**EQUIPMENT - FIRE
STATION 31**

Project Number
20258-31

A-501

MECHANICAL LEGEND

AC	AIR CONDITIONING	MIN.	MINIMUM
AD	ACCESS DOOR	MOC	MAXIMUM OVER CURRENT PROTECTION
AE	AIR EXTRACTOR	MD	MOTORIZED DAMPER
AFF	ABOVE FINISHED FLOOR	ND	MANUAL VOLUME DAMPER
AL	ACOUSTICAL LINING	NEW	NEW
BDD	BACKDRAFT DAMPER	OB	OPPOSED BLADE DAMPER
BHP	BRAKE HORSEPOWER	OC	ON CENTER
BOD	BOTTOM OF DUCT	OPNG	OPENING
CD	CO2 SENSOR	OSA	OUTSIDE AIR
CFM	CONDENSATE DRAIN	OSH	OUTSIDE AIR HOOD
CEF	CUBIC FEET PER MINUTE	Ø	PHASE
CF	CEILING EXHAUST FAN	POC	POINT OF CONNECTION
CL	CENTERLINE	QTY	QUANTITY
DB	DRY BULB	RA	RETURN AIR
DL	DOOR LOUVER	RD	RETURN DIFFUSER
DN	DOWN	REF	ROOF EXHAUST FAN
EA	EXHAUST AIR	RH	RADIANT HEATER
EAL	EXHAUST AIR LOUVER	RL	REFRIGERANT LIQUID
EAT	ENTERING AIR TEMPERATURE	RPM	REVOLUTION PER MINUTE
EF	EXHAUST FAN	RR(G)	RETURN REGISTER (GRILLE)
EG	EXISTING	RS	REFRIGERANT SUCTION
ESP	EXTERNAL GRILLE	RS	SENSOR
F	EXTERNAL STATIC PRESSURE	SD	SMOKE DETECTOR
FA	DEGREES FAHRENHEIT	SM	SHEET METAL
FAL	FRESH AIR	SA	SUPPLY AIR
FC	FRESH AIR LOUVER	SD(R)(G)	SUPPLY DIFFUSER (REGISTER) (GRILLE)
FD	FLEXIBLE CONNECTION	SS	STAINLESS STEEL
FSD	FIRE DAMPER	T	THERMOSTAT
FPM	FIRE/SMOKE DAMPER	TBD	TO BE DETERMINED
FLA	FEET PER MINUTE	TC	TEMPERATURE CONTROL PANEL
FL	FULL LOAD AMPS	TEMP.	TEMPERATURE
FT	FOOT OR FEET	TD	TRANSFER DUCT
GA	GAUGE	TG	TRANSFER GRILLE
GI	GALVANIZED IRON	TSP	TOTAL STATIC PRESSURE
GSM	GALVANIZED SHEET METAL	TV	TURNING VANES
H&V	HEATING & VENTILATION	TYP	TYPICAL
HZ	HERTZ	UCD	UNDERCUT DOORS
HP	HORSE POWER	UTR	UP THRU ROOF
IF	INDOOR FAN	V	VOLTS
LAT	LEAVING AIR TEMPERATURE	VAV	VARIABLE AIR VOLUME
LBS	POUNDS	VFD	VARIABLE FREQUENCY DRIVE
LRA	LOOK Rotor AMPS	W/	WITH
MBH	THOUSAND BTU PER HOUR	WB	WET BULB
MAX.	MAXIMUM	WT.	WEIGHT
MCA	MINIMUM CIRCUIT AMPACITY		
MFR	MANUFACTURER		

AIR TERMINAL TAG DESCRIPTION

12x12 SD-L (NECK SIZE) (TERMINAL TYPE)
300,12"Ø (TERMINAL CFM), (ENTERING DUCT)

GENERAL NOTES

- ALL PLANS TO BE DESIGNED TO CODES 2016 CBC, CRC, CAL GREEN CODE CMC, CEC, 2016 CPC, (BASED ON THE 2015 IBC, 2015 IRC, 2016 CAL GREEN BUILDING STANDARDS CODE, 2015 UMC, 2015 UPC, 2014 NEC), AND 2016 ENERGY STANDARDS, AS AMENDED BY THE STATE OF CALIFORNIA AND LOCAL JURISDICTIONS.
- PLANS ARE NOT FOR CONSTRUCTION UNTIL APPROVED BY THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL NOT ORDER ANY MATERIALS OR INSTALL ANY EQUIPMENT, PIPING, ETC. UNTIL PLANS ARE APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- ALL WORK SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, CITY AND LOCAL CODES AND ORDINANCES.
- THE CONTRACTOR SHALL READ ALL OF THE GENERAL NOTES, SPECIFICATIONS AND PLANS AND SHALL BE SATISFIED TO THEIR TRUE MEANING AND INTENT AND SHALL BE RESPONSIBLE FOR COMPLYING WITH EACH. WHEREVER TWO OR MORE SPECIFICATIONS MAY CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL TAKE PRECEDENCE.
- IT IS INTENDED THAT THESE PLANS AND SPECIFICATIONS REQUIRE ALL LABOR AND MATERIAL NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THIS WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY REGARDING ANY DISCREPANCIES OR AMBIGUITIES THAT MAY EXIST IN THE PLANS AND/OR SPECIFICATIONS PRIOR TO SUBMITTING BID. THE OWNER'S REPRESENTATIVE AND THE ENGINEER'S INTERPRETATION THEREOF SHALL BE CONCLUSIVE.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL INSTALL ALL PIPING AND DUCTWORK SYSTEMS TO BEST SUIT FIELD CONDITIONS, AND COORDINATE WITH THE INSTALLATION WORK OF OTHER TRADES. THE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED TO DETERMINE EXACT LOCATION OF PIPING. NOTIFY CONSTRUCTION MANAGER OF ANY DEVIATIONS FROM THESE DRAWINGS PRIOR TO FABRICATION AND/OR INSTALLATION.
- LOCATIONS AND DIMENSIONS OF EQUIPMENT, PIPING, AND THEIR SUPPORTS ARE SHOWN DIAGRAMMATICALLY AND SHALL NOT BE SCALED TO DETERMINE EXACT LOCATION OF PIPING OR DUCTWORK. ACTUAL DIMENSIONS AND LOCATIONS ARE DEPENDENT ON MATERIAL SUPPLIED BY CONTRACTORS. CONTRACTORS SHALL PROVIDE OR DETERMINE DIMENSIONS AND PROVIDE LAYOUT DRAWINGS FOR COORDINATION WITH OTHER TRADES IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONTRACTOR SHALL REMOVE RUBBISH WASTE MATERIALS ON DAILY BASIS AND PROTECT AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE WHICH MAY OCCUR.
- ALL WORK SHOWN ANYWHERE ON THE DRAWINGS IS INCLUDED; SHOULD AN ITEM (SUCH AS A VALVE) BE SHOWN ON A DETAIL OR SCHEMATIC BUT NOT ON A PLAN VIEW OR VICE VERSA, IT MUST BE PROVIDED AS THOUGH IT WERE SHOWN IN ALL PLACES ON THE DRAWINGS.
- CONTRACTOR SHALL FURNISH ALL NECESSARY STRUCTURES, INSERTS, SLEEVES, HANGING DEVICES, MISCELLANEOUS ANGLES, CHANNELS, UNISTRUT ETC. FOR INSTALLATION OF MECHANICAL AND PLUMBING EQUIPMENT, DUCTWORK AND PIPING, ETC. CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR AND ALL BUILDING TRADES TO AVOID CONFLICTS AND TO MAINTAIN EQUIPMENT ACCESS AND SERVICEABILITY.
- EACH MECHANICAL APPLIANCE SHALL BE APPROVED BY THE ADMINISTRATIVE AUTHORITY FOR SAFE USE OR COMPLY WITH APPLICABLE NATIONALLY RECOGNIZED STANDARDS AS EVIDENCED BY THE LISTING AND LABEL OF AN APPROVED AGENCY.
- THERMOSTAT SETPOINTS SHALL BE PER CALIFORNIA T-24 REQUIREMENT. ANY DEVIATION FROM THESE SETPOINTS BECOMES THE RESPONSIBILITY OF THE USER OR CONTRACTOR.
- IF THE CONTRACTOR CHOOSES TO SUBMIT AN ALTERNATE MANUFACTURER FOR ANY PIECE OF EQUIPMENT OR MATERIAL, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A SUBSTITUTION REQUEST AND COMPARISON OF SUBSTITUTION COMPARED TO THE BASIS OF DESIGN SCHEDULES EQUIPMENT OR MATERIAL FOR REVIEW BY THE ENGINEER.
- ALL DUCTS THAT HAVE INTERNAL LINING, THE SIZE REPRESENTS THE NET INSIDE DIMENSION.

DUCT SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
1	LINED DUCT SECTION AT EXHAUST DUCT RISER R=1 24x12 EXHAUST DUCT DROP	14	10/14 14x10 24x12 16x12
2	24x12 12x12 SECTION AT RETURN DUCT RISER R=1.5 W=36 TRANSITIONAL TURN RETURN DUCT DROP	15	10/14 14x10 24x12 16x12 MVD
3	24x12 TURNING VANES SECTION AT SUPPLY DUCT RISER 24x12 SUPPLY DUCT DROP	16	4/36/8 10x8 48x12 12x12 38x12 TRANSITION
4	24x12 12x12 VANE ANGLE TURNING VANES VANE ANGLE 20°-29° 30°-50° TURNING VANES 15° DEFLECTOR AIR TURN	17	4/36/8 10x12 48x12 38x12 TRANSITION
5	12x12 12"Ø MVD 12"Ø SQUARE TO ROUND TRANSITION	18	12x12 24x12 1 IN 6 MAX. 12x12 1 IN 2 MAX. CONCENTRIC 24x12 1 IN 2 MAX. ECCENTRIC 24x12 DIVERGING FLOW
6	24x12 16x12 30x5 7/5 24x12 24x5 BELOW 24x7 ABOVE TRANSITION 16x12 TRANSITIONAL RADIUS ELBOW 30x5	19	12x12 24x12 1 IN 2 24x12 MAX. 12x12 1 IN 2 24x12 MAX. CONCENTRIC ECCENTRIC
7	24x12 30x5 7/5 16x12 24x12 24x5 BELOW 24x7 ABOVE SQUARE ELBOW W/ TURNING VANES 16x12 30x5	20	24x12 12x6 DEFLECTOR & BRANCH DUCT SAME SIZE 10" MAX. LENGTH OVER 10" USE NO. 6,7,8 OR 9
8	14/10 16x12 24x12 14x10 14" TRANSITION 24x12 14/10 10" TRANSITIONAL RADIUS ELBOW 14x10	21	24x12 12x6 DEFLECTOR AND BRANCH SAME SIZE 24x12 10" MAX. LENGTH OVER 10" USE NO. 6,7,8 OR 9 FIRE DAMPER
9	14/10 16x12 24x12 14x12 14" TRANSITION 24x12 14/10 10" SQUARE ELBOW W/ TURNING VANES 14x12	22	24x12 DEFLECTOR AND BRANCH SAME SIZE AS NECK SIZE 24x12 CEILING DIFFUSER
10	12"Ø 10"Ø 45° TEE 12"Ø 10"Ø ELONGATED TEE	23	24x12 FLEX DUCT BRANCH-SEE PLAN FOR SIZE FLEX. DUCT DIFFUSER CEILING DIFFUSER
11	INDICATES ROUND DUCTS IN INCHES, TYPICAL	24	24x12 SHOE FITTING WITH MVD AIR FLOW
12	RETURN OR EXHAUST AIR RISE AIR FLOW AIR FLOW RETURN OR EXHAUST AIR DROP	25	CONICAL FITTING WITH MVD AIR FLOW
13	CONICAL FITTING	26	ACOUSTICALLY LINED SHEET METAL DUCT SIZE SHOWN IS NET INSIDE DIMENSION 24 x 36 AL

INLINE EXHAUST FAN SCHEDULE

MARK	MANUFACTURER/ MODEL NO.	FAN			MOTOR				LOCATION	SONES	SERVICE	WEIGHT	REMARKS
		CFM	E.S.P. (T.S.P.)	RPM	BHP	INPUT	DRIVE TYPE	SERVICE VPH/Hz					
IEF-1	GREENHECK SQ-120-VG	1000	0.875/ (0.924)	1491	0.28	1/2 HP	ECM MOTOR	115/1/60	ODP	INLINE	8.9	KITCHEN HOOD	55 LBS SEE NOTES 1-6

NOTES:

- COORDINATE WITH ELECTRICAL FOR POWER AND DISCONNECT.
- CONTROL VIA WALL SWITCH IN BACKSPLASH KITCHEN. SEE ELECTRICAL DRAWINGS.
- ELECTRICAL CONTRACTOR TO PROVIDE MOTOR STARTER.
- USE EXISTING BACKDRAFT DAMPER IN EXHAUST DUCT.
- T.S.P. INCLUDES BACKDRAFT DAMPER STATIC PRESSURE DROP.
- SEE ELECTRICAL DRAWINGS FOR MOTOR STARTER.

MECHANICAL SHEET LIST

Sheet Number

Sheet Title

M-001

SYMBOLS, NOTES & SCHEDULES

M-002

TITLE 24 - FIRE STATION 31

M-003

TITLE 24 - FIRE STATION 31

M-101

FIRE STATION 31 PLAN - MECHANICAL

M-401

MECHANICAL DETAILS

OUTDOOR HEAT PUMP UNIT SCHEDULE

MARK	TRANE-MITSUBISHI MODEL NO.	NOMINAL CAPACITY (TONS)	ELECTRICAL SERVICE VPH/Hz	COMPRESSOR		CONDENSER		REFRIGERANT		MCA	MOC	AHRI EER/ (SEER)	AHRI HSPF	UNIT SERVED	WEIGHT (LBS)	MOUNTING DETAIL	REMARKS
				NO.	RLA	LRA	NO.	FLA (EA)	LIQUID	SUCTION							
HP-1	NTXSST18A112A	1.5	208/1/60	1	10	12.5	1	0.93	1/4"	1/2"	14	15	13.4/(20.5)	11.2	FC-1	125	1/M-401 SEE NOTES 1-6

NOTES:

- PROVIDE WITH THERMOSTATIC EXPANSION VALVE.
- REFRIGERANT PIPE SIZE NOTED IN SCHEDULE ABOVE.
- SEE ELECTRICAL DRAWINGS FOR ELECTRICAL DISCONNECT.
- INDOOR UNIT POWERED BY THE OUTDOOR UNIT. PROVIDE WIRING IN CONDUIT
- REFRIGERANT TYPE R410A

INDOOR FAN COIL UNIT SCHEDULE

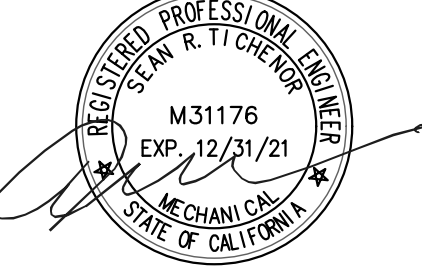
MARK	TRANE-MITSUBISHI MODEL NO.	SUPPLY FAN			DX COOLING COIL			PRIMARY HEATING		ELECTRICAL SERVICE V/Hz	WEIGHT (LBS)	ROOM SERVED FLOOR	OUTSIDE AIR (CFM)	MOUNTING DETAIL	REMARKS
		CFM	ESP	FLA	MBH SENS/TOT	EAT DB°F	LAT DB°F	MBH	EAT (°F)	LAT (°F)					
FC-1	NTXWST18A112A	645	N/A	0.67	15.6/18.0	80	55	21.6	70	85	208/1/60	30	FIRE STATION 31 FIRST FLOOR	N/A	2/M-401 SEE NOTES 1-6

NOTES:

- WIRED REMOTE CONTROLLER
- PROVIDE WITH WASHABLE FILTER
- REFRIGERANT PIPE SIZED PER ASSOCIATED HEAT PUMP OUTDOOR UNIT SCHEDULE - PROVIDE WITH SIGHT GLASS, FLEXIBLE CONNECTIONS, FILTER DRYER).
- COOLING CAPACITIES SHOWN ARE SHOWN AT AHRI CONDITIONS (95°F DB/75°F WB)
- FIELD SUPPLIED CONDENSATE PUMP EQUAL TO G0B1 2 (POWERED FROM INDOOR UNIT)
- T-STAT SET TO 77°F INDOOR TEMPERATURES IN SUMMER & 65°F IN WINTER.

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Consultant



PLOT DATE: 2/17/2021

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Agency Approvals

Issue: *CONSTRUCTION DOCUMENTS

No.	Date	Description
	12/18/20	MSB REPLACEMENT
	3/1/2021	FINAL REVIEW

Project

FIRE STATION 31

530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616

Architect of Record JH
Project Architect PN
Drafted By RM
Checked By ST

File Date

9/1/2020


Sheet Title

SYMBOLS, NOTES & SCHEDULES

Project Number

20258-31

M-001

STATE OF CALIFORNIA MECHANICAL SYSTEMS CEC-NRCC-MCH-01-E (Revised 01/16) CERTIFICATE OF COMPLIANCE Mechanical Systems Project Name: Fire Station 31	 CALIFORNIA ENERGY COMMISSION NRCC-MCH-01-E (Page 1 of 4)	Date Prepared: 12/19/2019
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A. MECHANICAL COMPLIANCE DOCUMENTS & WORKSHEETS (check box if worksheet is included)

For detailed instructions on the use of this and all Energy Efficiency Standards compliance forms, refer to the 2016 Nonresidential Manual Note: The Enforcement Agency may require all forms to be incorporated onto the building plans.

YES	NO	Comp. Doc./Worksheet #	Title
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-01-E (Part 1 of 3)	Certificate of Compliance, Declaration. Required on plans for all submittals.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-01-E (Part 2 of 3)	Certificate of Compliance, Required Acceptance Tests (MCH-02-A to 11-A). Required on plans for all submittals.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-01-E (Part 3 of 3)	Certificate of Compliance, Required Acceptance Tests (MCH-12-A to 18-A). Required on plans where applicable.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-02-E (Part 1 of 2)	Mechanical Dry Equipment Summary is required for all submittals with Central Air Systems. It is optional on plans.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-02-E (Part 2 of 2)	Mechanical Wet Equipment Summary is required for all submittals with chilled water, hot water or condenser water systems. It is optional on plans.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-MCH-03-E	Mechanical Ventilation and Reheat is required for all submittals with multiple zone heating and cooling systems. It is optional on plans.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-07-E (Part 1 of 2)	Power Consumption of Fans. Required on plans where applicable
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-07-E (Part 2 of 2)	Power Consumption of Fans, Declaration. Required on plans where applicable

K
J
I
H
G

STATE OF CALIFORNIA
MECHANICAL SYSTEMS
CEC-NRCC-MCH-01-E (Revised 01/18)

CERTIFICATE OF COMPLIANCE

Mechanical Systems

Project Name: **Fire Station 31**

CALIFORNIA ENERGY COMMISSION

NRCC-MCH-01-E
 (Page 2 of 4)

Date Prepared: **12/19/2019**

B. MECHANICAL HVAC ACCEPTANCE FORMS (check box for required compliance documents)

Test Performed By:

Designer:
 This compliance document is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for HVAC systems. The designer is required to check the applicable boxes for all acceptance tests that apply and list all equipment that requires an acceptance test. All equipment of the same type that requires a test, list the equipment description and the number of systems.

Installing Contractor:
 The contractor who installed the equipment is responsible to either conduct the acceptance test themselves or have a qualified entity run the test for them. If more than one person has responsibility for the acceptance testing, each person shall sign and submit the Certificate of Acceptance applicable to the portion of the construction or installation for which they are responsible.

Enforcement Agency:
 Plancheck – The NRCC-MCH-01-E compliance document is not considered a completed document and is not to be accepted by the building department unless the correct boxes are checked.
 Inspector - Before occupancy permit is granted all newly installed process systems must be tested to ensure proper operations.

Test Description	MCH-02-A	MCH-03-A	MCH-04-A	MCH-05-A	MCH-06-A	MCH-07-A	MCH-08-A	MCH-09-A	MCH-10-A	MCH-11-A
Equipment Requiring Testing or Verification	Outdoor Air	Single Zone Unitary	Air Distribution Ducts	Economizer Controls	Demand Control Ventilation (DCV)	Supply Fan VAV	Valve Leakage Test	Supply Water Temp. Reset	Hydronic System Variable Flow Control	Automatic Demand Shed Control
HP-1	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

January 2016

[illegible]

STATE OF CALIFORNIA

MECHANICAL SYSTEMS

CEC-NRCC-MCH-01-E (Revised 01/16)

CERTIFICATE OF COMPLIANCE

Mechanical Systems

Project Name: **Fire Station 31**

Date Prepared: **12/19/2019**

CALIFORNIA ENERGY COMMISSION

NRCC-MCH-01-E

(Page 4 of 4)

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:

Sean Tichenor

Documentation Author Signature:

Company:

Peters Engineering

Signature Date: **12/19/2019**

Address:

2411 Alhambra Blvd. Suite 100

CEA/HERS Certification Identification (if applicable):

City/State/Zip:

Sacramento, CA 95817

Phone: **916-447-2841**

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
- The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:

Sean R. Tichenor PE

Responsible Designer Signature:

Company:

PETERS ENGINEERING

Date Signed: **12/19/19**

Address:

2411 Alhambra Blvd. Ste. 100

License:

M31176

City/State/Zip:

Sacramento, CA 95817

Phone:

(916) 447-2841

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

January 2016

STATE OF CALIFORNIA
HVAC DRY & WET SYSTEM REQUIREMENTS
 CEC-NRCC-MCH-02-E (Revised 8/1/10)
 CERTIFICATE OF COMPLIANCE
 HVAC DRY & Wet System Requirements
 Project Name: **Fire Station 31**

CALIFORNIA ENERGY COMMISSION
 NRCC-MCH-02-E
 (Page 1 of 3)

A. Equipment Tags and System Description¹ – Dry Systems

MANDATORY MEASURES	T-24 Sections	Reference to the Requirements in the Contract Documents ²
Heating Equipment Efficiency ³	110.1 or 110.2(a)	M-001
Cooling Equipment Efficiency ³	110.1 or 110.2(a)	M-001
HVAC or Heat Pump Thermostats	110.2(b), 110.2(c)	M-001
Furnace Standby Loss Control	110.2(d)	M-001
Low Leakage AHUs	110.2(f)	M-001
Ventilation ⁴	120.1(b)	M-001
Demand Control Ventilation ⁵	120.1(c)(4)	M-001
Occupant Sensor Ventilation Control ⁶	120.1(c)(5), 120.2(e)(3)	M-001
Shutoff and Reset Controls ⁷	120.2(e)	M-001
Outdoor Air and Exhaust Damper Control	120.2(f)	M-001
Isolation Zones	120.2(g)	M-001
Automatic Demand Shed Controls	120.2(h)	M-001
Economizer FDD	120.2(i)	M-001
Duct Insulation	120.4	M-001

PRESCRIPTIVE MEASURES

Equipment is sized in conformance with 140.4(a & b)	140.4(a & b)	Y	Y/N	Y/N	Y/N
Supply Fan Pressure Control	140.4(c)	M-001			
Simultaneous Heat/Cool ⁸	140.4(d)	M-001			
Economizer	140.4(e)	M-001			
Heat and Cool Air Supply Reset	140.4(f)	M-001			
Electric Resistance Heating ⁹	140.4(g)	M-001			
Duct Leakage Sealing and Testing ¹⁰	140.4(l)	M-001			

Notes:

1. Provide equipment tags (e.g. AHU 1 to 10) and system description (e.g. Single Duct VAV reheat) as appropriate. Multiple units with common requirements can be grouped together.
2. Provide references to plans (i.e. Drawing Sheet Numbers) and/or specifications (including Section name/number and relevant paragraphs) where each requirement is specified. Enter "N/A" if the requirement is not applicable to this system.
3. The referenced plans and specifications must include all of the following information: equipment tag, equipment nominal capacity, Title 24 minimum efficiency requirements, and actual rated equipment efficiencies. Where multiple efficiency requirements are applicable (e.g. full- and part-load) include all. Where appliance standards apply (110.1), identify where equipment is required to be listed per Title 20 1601 et seq.
4. Identify where the ventilation requirements are documented for each central HVAC system. Include references to both central unit schedules and sequences of operation. If one or more spaces is naturally ventilated identify where this is documented in the plans and specifications. Multiple zone central air systems must also provide a MCH-03-E compliance document.
5. If one or more spaces has demand controlled ventilation identify where it is specified including the sensor specifications and the sequence of operation.
6. If one or more space has occupant sensor ventilation control identify where it is specified including the sensor specifications and the sequence of operation.
7. If the system is DDC identify the sequences for the system start/stop, optimal start, setback (if required) and setup (if required). For all systems identify the specification for the thermostats and time clocks (if applicable).
8. Identify where the heating, cooling and deadband airflows are scheduled for this system. Include a reference to the specification of the zone controls. Provide a MCH-03-E compliance document.
9. Enter N/A if there is no electric heating. If the system has electric heating indicate which exception to 140.4(g) applies.
10. If duct leakage sealing and testing is required, a MCH-04-A compliance document must be submitted.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

January 2016

STATE OF CALIFORNIA
HVAC DRY & WET SYSTEM REQUIREMENTS
 CEC-ENRCC-MCH-02-E (Revised 10/15)

CALIFORNIA ENERGY COMMISSION
NRC-MCH-02-E
 (Page 2 of 3)

CERTIFICATE OF COMPLIANCE
 HVAC Dry & Wet System Requirements

Date Prepared: **12/19/2019**

Project Name: **Fire Station 31**

B. Equipment Tags and System Description¹ – Wet Systems

MANDATORY MEASURES	T-24 Sections	Reference to the Requirements in the Contract Documents ²		
Heating Hot Water Equipment Efficiency ³	110.1			
Cooling Chilled and Condenser Water Equipment Efficiency ⁴	110.1, 140.4(i)			
Open and Closed Circuit Cooling Towers conductivity or flow-based controls	110.2(e) 1			
Open and Closed Circuit Cooling Towers Maximum Achievable Cycles of Concentration (LSI) ⁵	110.2(e) 2			
Open and Closed Circuit Cooling Towers Flow Meter with analog output	110.2(e) 3			
Open and Closed Circuit Cooling Towers Overflow Alarm	110.2(e) 4			
Open and Closed Circuit Cooling Towers Efficient Drift Eliminators	110.2(e) 5			
Pipe Insulation	120.3			

PRESCRIPTIVE MEASURES

Cooling Tower Fan Controls	140.4(h)2, 140.4(h)5	Y/N	Y/N	Y/N
Cooling Tower Flow Controls	140.4(h)3			
Centrifugal Fan Cooling Towers ⁶	140.4(h)4			
Air-Cooled Chiller Limitation ⁵	140.4(j)			
Variable Flow System Design	140.4(k)			
Chiller and Boiler Isolation	140.4(k)			
CHW and HHW Reset Controls	140.4(k)			
WLHP Isolation Valves	140.4(k)			
VSD on CHW, CW & WLHP Pumps >SHP	140.4(k)			
DP Sensor Location	140.4(k)			

Notes:


- Provide equipment tags (e.g. CH 1 to 3) or system description (e.g. CHW loop) as appropriate. Multiple units with common requirements can be grouped together.
- Provide references to plans (i.e. Drawing Sheet Numbers) and/or specifications (including Section name/number and relevant paragraphs) where each requirement is specified. Enter "N/A" if the requirement is not applicable to this system.
- The referenced plans and specifications must include all of the following information: equipment tag, equipment nominal capacity, Title 24 minimum efficiency requirements, and actual rated equipment efficiencies. Where multiple efficiency requirements are applicable (e.g. full- and part-load) include all. For chillers operating at non-standard efficiencies provide the Kadi values. For chillers also note whether the efficiencies are Path A or Path B.
- Identify if cooling towers have propeller fans. If towers use centrifugal fans document which exception is used.
- If air-cooled chillers are used, document which exceptions have been used to comply with 140.4(j) and the total installed design capacity of the air-cooled chillers in the chilled water plant.
- Identify the existence of a completed MCH-06-E when open or closed circuit cooling towers are specified to be installed, otherwise enter "N/A".

indigo


HAMMOND + PLAYLE
ARCHITECTS , LLP
art, architecture + ecology

909 FIFTH STREET, DAVIS, CA
530.750.0756 WWW.INDIGOGARCH.COM

Consultant


REGISTERED PROFESSIONAL ENGINEER
SEAN R. SCHNEIDER
M3117
EXP. 12/31/21
MECHANICAL
STATE OF CALIFORNIA

PLOT DATE: 2/17/2021

**PETERS**
engineering

consulting
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and
electrical
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2411 Alhambra Blvd., Ste. 100
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Job no. 19.090

Agency Approvals		
Issue: 1CONSTRUCTION DOCUMENTS		
No.	Date	Description
	12/18/20	MSB REPLACEMENT
	3/1/2021	FINAL REVIEW

Project	
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FIRE STATION 31

**530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616**

Architect of Record	JH
Project Architect	PN
Drafted By	RM
Checked By	ST

File Date
9/1/2020

TITLE 24 - FIRE
STATION 31

Project Number	20258-31
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M-002

Agency Approvals

Issue: 1CONSTRUCTION DOCUMENTS		
No.	Date	Description
	12/18/20	MSB REPLACEMENT
	3/1/2021	FINAL REVIEW

Project

FIRE STATION 31

530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616

Architect of Record	JH
Project Architect	PN
Drafted By	RM
Checked By	ST

File Date
9/1/2020

Sheet Title

FIRE STATION 31
PLAN -
MECHANICAL

Project Number
20258-31

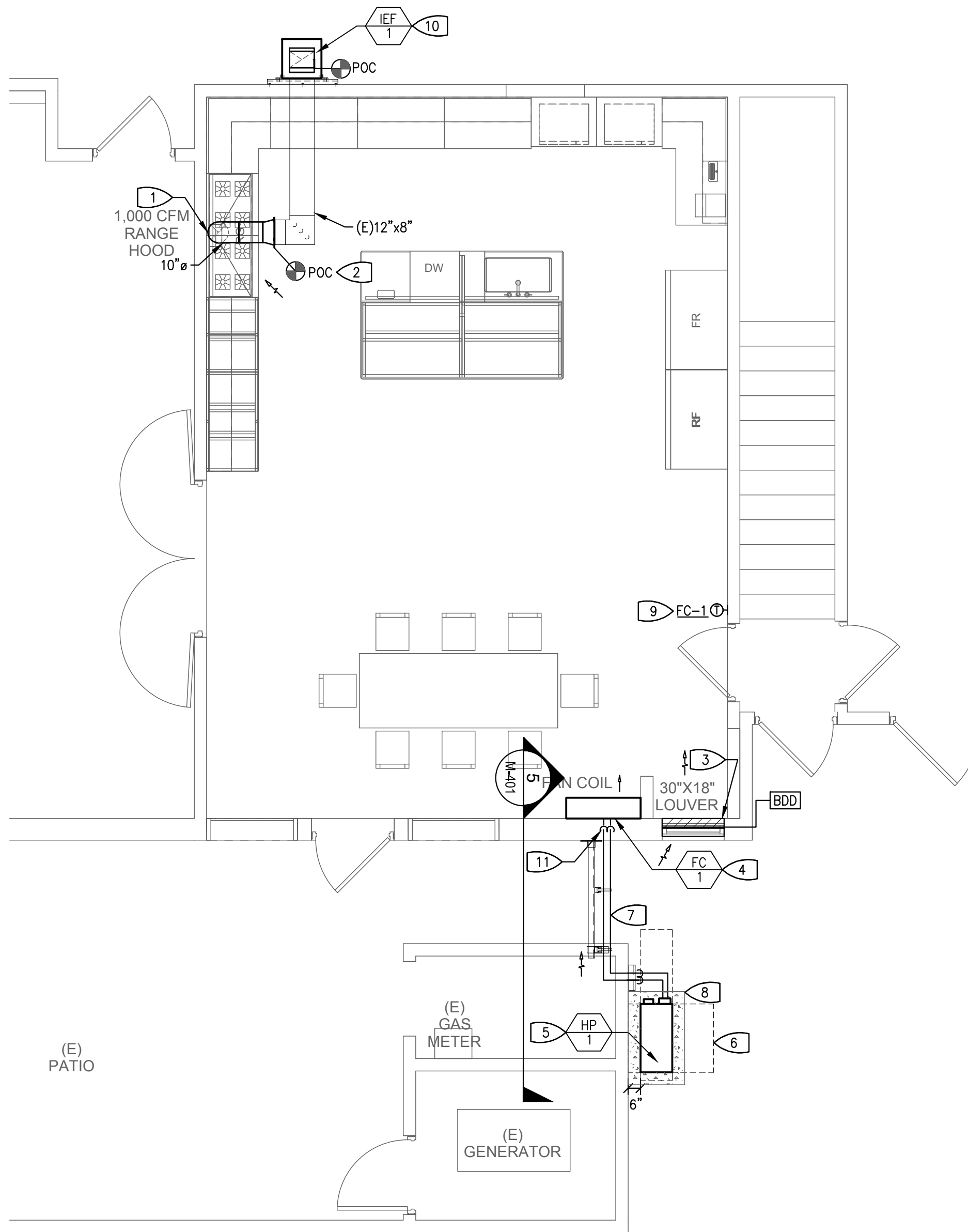
M-101

KEYED NOTES:

- 1) RANGE HOOD WITH REMOTE EXHAUST FAN. SEE ARCHITECTURAL DRAWINGS FOR HOOD SPECIFICATIONS. CONNECT THE 10" Ø ROUND HOOD EXHAUST DUCT CONNECTION TO 10" Ø EXHAUST DUCT.
- 2) CONTRACTOR TO REMOVE (2) EXISTING RANGE HOODS OVER EXISTING RANGES AND PROVIDE 10" Ø EXHAUST DUCTWORK FOR NEW RANGE HOOD. CONNECT 10" Ø DUCT TO EXISTING 12"x8" EXHAUST DUCT ABOVE EXISTING CEILING.
- 3) PROVIDE INTAKE LOUVER EQUAL TO GREENHECK ESD-435 IN TRANSOM ABOVE DOOR. 30"x18" IN SIZE, DRAINABLE BLADE, BIRDSCREEN. PROVIDE WITH BACKDRAFT DAMPER SET TO 0.04" S.P.
- 4) HIGH WALL INDOOR HEAT PUMP UNIT FOR SUPPLEMENTARY HEATING/COOLING. MOUNT TO WALL PER DETAIL 7/M-401. SEE P-101 FOR CONDENSATE ROUTING. TOP OF FAN COIL AT 10" BELOW BOTTOM OF CEILING.
- 5) OUTDOOR HEAT PUMP UNIT FOR SUPPLEMENTARY HEATING/COOLING. SECURE TO GRADE PER DETAIL 1/M-401.
- 6) MECHANICAL CLEARANCE LINES.
- 7) SEE DETAIL 5/M-401 FOR SECTION VIEW OF EXTERIOR AND PIPE SUPPORT ROUTING TO EXTERIOR HEAT PUMP HP-1.
- 8) 6" TALL CONCRETE PAD, MIN 6" AWAY FROM EDGE OF UNIT BOLT CONNECTIONS. SEE 1/M-401.
- 9) WALL MOUNTED THERMOSTAT AT 48"+ TO TOP OF DEVICE. CONFIRM LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.
- 10) MOUNT INLINE EXHAUST FAN IN EXISTING DUCTWORK ON WALL. CONNECT TO EXISTING DUCTWORK, SAME SIZE AS EXISTING. FIELD VERIFY PRESENCE OF EXISTING BACKDRAFT DAMPER IN EXISTING. FIELD VERIFY DUCT LOCATION IN APPARATUS BAY CONNECTS TO EXHAUST HOOD SYSTEM. SEE DETAIL 7/M-401 FOR SECURING FAN TO EXISTING WALL.
- 11) SUPPORT PIPE IN EXISTING WALL PER DETAIL 6/M-401.

SHEET NOTES:

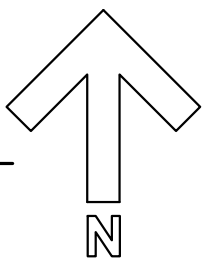
1. ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED SITE SURVEYS, AND SHOWN FOR CLARITY ONLY.
2. SECURE DUCTWORK ABOVE PER DETAIL 4/M-401, TYPICAL.

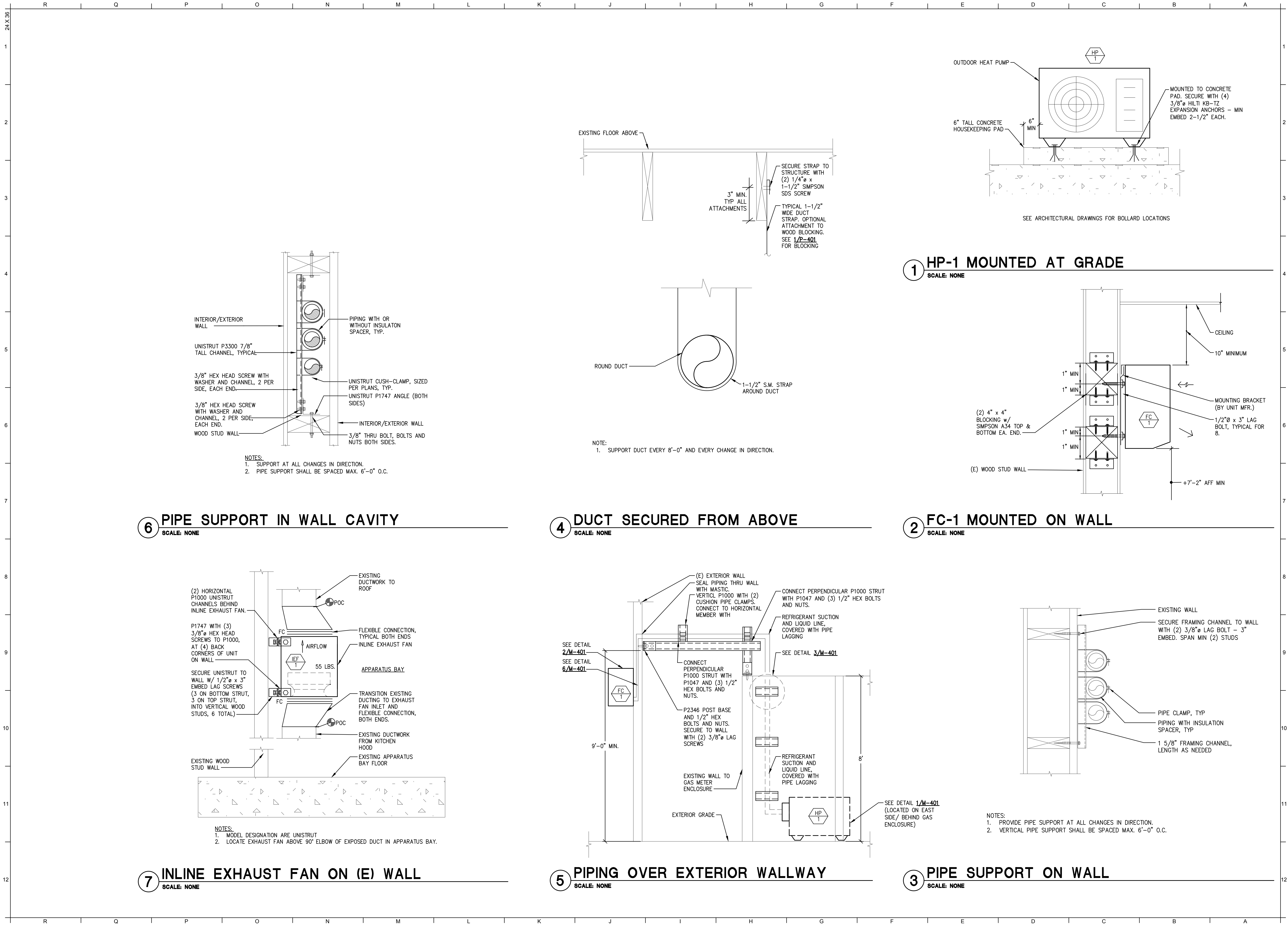


1 FIRE STATION 31 - MECHANICAL

SCALE: 1/4" = 1'-0"

SCALE: 1/4" = 1'-0"





No.	Date	Description
	12/18/20	MSB REPLACEMENT
	3/1/2021	FINAL REVIEW

ABBREVIATION LIST

Ⓐ	AT
AC	AMPERE
A/C	ALTERNATING CURRENT
AFF	AIR CONDITIONING
AIC	AMP FRAME
AT	ABOVE FINISHED FLOOR
AWG	AMPERES INTERRUPTING CAPACITY
BC	AMP TRIP SETTING
BD	AMERICAN WIRE GAUGE
BFC	BARRE COPPER
BRKR	BOARD
BLDG	BELOW FINISHED CEILING
BPS	BREAKER
C	BUILDING
C/B	BOOSTER POWER SUPPLY
CLG	CONDUIT
CO	CIRCUIT BREAKER
CONT	CIRCUIT
CU	CEILING
CWP	CONDUIT ONLY, WITH PULL LINE
DC	CONTINUOUS
DISC	COPPER
DP	METALLIC COLD WATER PIPE
(E)	DEMOLISH
E/W	DIRECT CURRENT
EA	DISCONNECT
EL	DISTRIBUTION PANEL
EA	EXISTING
ELEC	EACH WITH
EM	EACH
EMT	EVENING LIGHT
EOL	ELECTRIC
EQUIP	EMERGENCY
(ER)	ELECTRICAL METALLIC TUBING
EW	END OF LINE DEVICE
EW	EQUIPMENT
(F)	EXISTING RELOCATED
FACP	ELECTRICAL WATER COOLER
FAEP	ELECTRIC WATER HEATER
FATC	FUTURE
FBO	FIRE ALARM CONTROL PANEL
FLUOR	FIRE ALARM EXTENDER PANEL
FT	FIRE ALARM TERMINAL CABINET
GA	FURNISHED BY OTHERS
GCI	FLUORESCENT
GND	FOOT
GP	GAUGE
GYP	GROUND FAULT CIRCUIT INTERRUPT
HID	GROUND
HP	METALLIC GAS PIPE
HT	GYPSUM
HZ	HIGH INTENSITY DISCHARGE
IMC	HORSE POWER
IN	HEIGHT
ISC	HERTZ
ISO	INTERMEDIATE METALLIC CONDUIT
J-BOX	INCH
KMIL	SHORT CIRCUIT CURRENT
KVA	(RMS SYMMETRICAL)
KW	ISOLATED
LC	JUNCTION BOX
LV	THOUSAND CIRCULAR MILLS
MCM	KILO VOLT AMP
MECH	KILOWATT
MDP	LOW VOLTAGE
MH	THOUSAND CIRCULAR MILLS
MISC	MECHANICAL
MSB	MAIN DISTRIBUTION PANEL
(N)	METAL HALIDE
NIC	MISCELLANEOUS
NIES	MAIN LUGS ONLY
NL	MAIN SWITCHBOARD
NO, #	NEW
NTS	NOT IN CONTRACT
OC	NOT IN ELECTRICAL SECTION OF THESE PLANS & SPECS.
P	NIGHT LIGHT
PB	NUMBER
PF	NOT TO SCALE
PFCT	ON CENTER
PH, Ø	POLE
PLYWD	PULL BOX
PNL	PROVISION FOR FUTURE BREAKER
PR	W/ MOUNTING HARDWARE
PVC	PROVISION FOR FUTURE CURRENT TRANSFORMER
(R)	PHASE
REQ'D	PLYWOOD
RM	PANEL
RMC	PAIR
(RR)	POLYVINYL CHLORIDE CONDUIT
SPEC	RELOCATE/RELOCATED
STC	REQUIRED
SQ	ROOM
SW	SWITCH
TEL	TELEPHONE
TB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VOLTS
WP	WEATHERPROOF
WT	WEIGHT
W	WATT
W/	WITH
XFMR	TRANSFORMER
&	AND

GENERAL NOTES

- PLANS ARE NOT FOR CONSTRUCTION UNTIL APPROVED BY THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL NOT ORDER ANY MATERIALS OR INSTALL ANY EQUIPMENT, PIPING, ETC. UNTIL PLANS ARE APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- PROTECT EXISTING EQUIPMENT AND FURNISHINGS FROM ANY DAMAGE DUE TO DUST, MOISTURE OR CONTACT WITH WORK CREW OR MATERIALS.
- ADEQUATELY STRAP AND SUPPORT ALL CONDUIT WORK PER CEC. IN GENERAL, SUPPORT ALL CONDUIT WITHIN THREE FEET (3') OF OUTLET BOX, CABINET OR PANEL AND MAXIMUM TEN FEET (10') ON CENTER THEREAFTER.
- CORE BORE SHALL BE 1" DIAMETER LARGER THAN EACH CONDUIT. SPACE CONDUIT HOLES 3" APART. SEAL AROUND CONDUIT WITH NON-SHRINK, NON-METALLIC GROUT.
- ALL CONDUCTORS INSTALLED IN PANELBOARDS SHALL BE TRAINED, LACED, AND INSTALLED WITH PHASE TAPE ON ALL CONDUCTORS.
- LABEL DEVICES (I.E. RECEPTACLES, ETC.) ON EACH COVER PLATE IDENTIFYING CIRCUIT AND PANEL DEVICE IS CONNECTED TO.
- CLEAN ALL EXTERIOR AND INTERIOR SURFACES OF PANELS AND ALL MATERIAL AND METAL SHAVINGS FROM PANEL AND CABINET INTERIORS. ALL OPENINGS SHALL BE SEALED AND APPLY TOUCH-UP SPRAY PAINT WHERE NEEDED.
- FIELD COORDINATE DEVICE LOCATIONS PRIOR TO ROUGH-IN.
- INSTALLATION SHALL COMPLY WITH CEC 210.4 - EACH MULTIWIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES. THEREFORE ANY CIRCUIT SHARING A COMMON NEUTRAL SHALL BE CAPABLE OF SIMULTANEOUS DISCONNECT OR DEDICATED NEUTRALS SHALL BE INSTALLED.
- SUPPORT ENCLOSURES, BOXES AND CONDUIT INSTALLATIONS PER CEC 314.23 (A) THROUGH (H).
- SEAL CONDUIT OPENINGS THROUGH WALLS AND CEILINGS. INSTALL ESCUTCHEON PLATES AT BUILDING INTERIOR. WHERE EQUIPMENT IS INSTALLED ON THE EXTERIOR WALL, STUB CONDUITS THROUGH WALL AND SEAL CONDUIT OPENINGS, THEN INSTALL EXTERIOR EQUIPMENT. ALSO, SEAL AROUND THE PERIMETER EDGE OF THE EQUIPMENT ENCLOSURE BETWEEN THE ENCLOSURE AND BUILDING.
- CONDUITS INSTALLED ON ROOF AND BUILDING EXTERIOR SHALL BE RIGID GALV. STEEL (HEAVY WALL) WITH THREADED FITTINGS. CONDUIT AND WALL TO BE PAINTED OUT TO MATCH EXTERIOR FINISH.
- SPLICES AND TERMINALS SHALL BE COMPRESSION TYPE OF SEAMLESS PURE COPPER, TIN PLATED, LONG BARREL (TERMINALS WITH TWO-HOLE PAD AND INSPECTION WINDOW WITH NEMA DRILLING), AS MANUFACTURED BY BURNDY TYPE YS, YAZ-2N OR EQUAL. CLEAN ALL SURFACES AND INSTALL WITH OXIDE INHIBITING COMPOUND, BURNDY PENETROX-E OR EQUAL. APPLY COMPOUND BETWEEN BUS AND LUG PAD AND BETWEEN CONDUCTOR AND LUG BARREL. INSTALL COMPRESSION CONNECTORS WITH 360° CIRCUMFERENTIAL COMPRESSION DYE, BURNDY HYPRESS OR EQUAL. THE INDENTER OR OTHER TYPE TOOLS WILL NOT BE ACCEPTABLE.
- INSTALL MECHANICALLY FASTENED PHENOLIC NAMEPLATE WITH WHITE LETTERING ON BLACK BACKGROUND ON ALL EQUIPMENT, INCLUDING PULL BOXES, WITH DESCRIPTION INDICATED ON DRAWINGS. NAMEPLATES SHALL READ EXACTLY AS DESCRIBED ON THE DRAWINGS. IN GENERAL, NAMEPLATE LETTERING SIZE SHALL BE 3/16" HIGH FOR ALL NAMEPLATES SERVING FEEDER AND BRANCH CIRCUIT BREAKERS. ON MAIN SERVICE PANEL, DISTRIBUTION PANELS AND ALL OTHER NAMEPLATES LETTERING SHALL BE 1/4" HIGH.
 - ALL SWITCHBOARDS, SWITCHGEAR, PANELBOARDS, VFD'S, MOTORS, JUNCTION BOXES, PULL BOXES, DISCONNECT SWITCHES, ETC., SHALL BE MARKED TO INDICATE EACH DEVICE OR EQUIPMENT WHERE THE POWER ORIGINATES PER CEC 408.4, FIELD IDENTIFICATION REQUIRED, (B) SOURCE OF SUPPLY.
- COORDINATE EQUIPMENT LOCATIONS, CONTROL AND POWER WIRING REQUIREMENTS AND CONNECT POINTS WITH ALL APPLICABLE DISCIPLINES.
- PROVIDE AND INSTALL FUSES PER UNIT NAMEPLATE DATA ON THE EQUIPMENT PROVIDED.
- VERIFY CEILING TYPES PRIOR TO ORDERING LUMINAIRES. CONFIRM THAT FEATURES DESCRIBED IN THE SPECIFICATION OF THE LUMINAIRE ARE INCLUDED AS WELL AS PART NUMBERS LISTED ON SCHEDULE IN THE SUBMITTAL PACKAGE. CLARIFY NOTED DISCREPANCIES WITH ENGINEER PRIOR TO BID.
- PROVIDE WIRING DEVICES AND COVER PLATES IN COLOR(S) SELECTED BY ARCHITECT. THE COLOR OF THE WIRING DEVICE AND COVER PLATE SHALL BE THE SAME UNLESS SPECIFICALLY NOTED OTHERWISE.
- REINSTALL EXISTING ELECTRICAL INSTALLATIONS DISTURBED. CERTAIN EXISTING ELECTRICAL INSTALLATIONS MAY BE LOCATED IN WALLS, CEILINGS OR FLOORS THAT ARE TO BE REMOVED AND ARE ESSENTIAL FOR THE OPERATION OF OTHER REMAINING INSTALLATIONS. WHERE THIS CONDITION OCCURS, PROVIDE A NEW EXTENSION OF ORIGINAL CIRCUITS, RACEWAYS, EQUIPMENT AND OUTLETS TO RETAIN SERVICE CONTINUITY. INSTALLATIONS SHALL BE CONCEALED IN FINISHED AREAS.
- FOR ROOF PENETRATIONS, REFER TO ARCHITECTURAL PLANS FOR INSTALLATION REQUIREMENTS.
- FOR WALL PENETRATION INSTALLATIONS, REFER TO ARCHITECTURAL PLANS FOR REQUIREMENTS.
- PROVIDE "LOCK-ON" DEVICE FOR ALL CIRCUIT BREAKERS ON EMERGENCY DEDICATED CIRCUITS.
- DRAWINGS ARE TO BE CONSIDERED DIAGRAMMATIC. CONTRACTOR SHALL ACCEPT RESPONSIBILITY IN FAMILIARIZING THEMSELVES WITH ARCHITECTURAL AND STRUCTURAL CONDITIONS ALONG WITH INHERENT SPACE LIMITATIONS. WITH THAT UNDERSTANDING SHALL PROVIDE ALL ITEMS OF LABOR, MATERIALS AND TOOLS REQUIRED TO PROVIDE A COMPLETE INSTALLATION.
- PROVIDE SWITCHED/CONTROLLED RECEPTACLES WITH PERMANENT MARKINGS PER THE CALIFORNIA ENERGY CODE. MARKING SHALL BE AS PROVIDED BY THE MANUFACTURER OF THE RECEPTACLE, STAMPED INTO THE FACE (IE, LEVITON #5362-1PW OR EQUAL.) SYMBOL SHALL BE OF CONTRASTING COLOR TO THE DEVICE COLOR.
- PROVIDE DATA SHEETS FOR ALL ELECTRICAL AND LOW VOLTAGE EQUIPMENT (INCLUDING BUT NOT LIMITED TO LIGHTING CONTROLS, FIRE ALARM, INTRUSION ALARM, CCTV, ACCESS CONTROL, INTERCOM, DATA/TELECOMMUNICATIONS AND SOUND REINFORCEMENT SYSTEMS) INCLUDED IN THIS PROJECT FOR REVIEW AND APPROVAL PRIOR TO ORDERING ANY EQUIPMENT OR DEVICES. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL SUBMITTAL REQUIREMENTS.
- SUBMIT SHOP DRAWINGS FOR ALL ELECTRICAL AND LOW VOLTAGE SYSTEMS (INCLUDING BUT NOT LIMITED TO LIGHTING CONTROLS, FIRE ALARM, INTRUSION ALARM, CCTV, ACCESS CONTROL, INTERCOM, DATA/TELECOMMUNICATIONS AND SOUND REINFORCEMENT SYSTEMS) FOR REVIEW AND APPROVAL PRIOR TO THE INSTALLATION OF ANY EQUIPMENT, DEVICES, RACEWAY OR WIRING. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL SUBMITTAL REQUIREMENTS.

LUMINAIRE SCHEDULE

Note: The luminaire manufacturer listed for each luminaire type is the criteria for which quality of standard, appearance and performance will be reviewed.

TYPE	MANUFACTURER	CATALOG NUMBER	LAMP TYPE	NO. OF LAMPS	FIXTURE WATTS	MOUNTING	DESCRIPTION	NOTES
A	PRUDENTIAL	P3644-LED4-LO-WA-TMW-SW-SC-UNV-X3-DM10	LED		76	SURFACE	4'x4' LED SURFACE LUMINAIRE - DIMMABLE	
B	LITHONIA	LDN6RV-40/2000-LR-6AR-LSS-MVOLT-GZ10	LED		23	RECESSED	6" DIA. LED RETROFIT DOWNLIGHT - DIMMABLE	1

General Luminaire Schedule Notes:
A. Color temperature for LED lamps shall be 4000k unless otherwise noted.

Luminaire Schedule Notes:
1. Light fixture to be installed in existing openings in the ceiling

(1)-1/2" ← INDICATES SIZE OF CONDUIT = ONE AND ONE HALF INCH CONDUIT
↑ ————— NUMBER WITHIN PARENTHESIS INDICATES QUANTITY OF CONDUITS

NOTES:

- MOUNT SWITCH BOXES AT +48" TO TOP OF BOX UNLESS OTHERWISE NOTED.
- MOUNT OUTLET BOXES AT +15" TO BOTTOM OF BOX UNLESS OTHERWISE NOTED.
- "A" ADJACENT TO OUTLET INDICATES OUTLET BOX TO BE MOUNTED ABOVE COUNTER. COORDINATE WITH COUNTER HEIGHT AND DEPTH PRIOR TO ROUGH IN. MOUNT OUTLET ABOVE COUNTERS AT:
 - +46" MAX TO TOP OF BOX WHERE BOX IS INSTALLED OVER BASE CABINET.
 - +44" MAX TO TOP OF BOX WITH OPEN COUNTERS WITH FORWARD APPROACH.
- NO CROSSBARS ON CONDUIT RUN INDICATES MINIMUM 3/4" CONDUIT, TWO #12 CU CONDUCTORS PLUS #12 CU GND. CROSSBARS INDICATE NUMBER OF #12 CU CONDUCTORS IN CONDUIT. CONDUCTOR SIZES OTHER THAN #12 NOTED ON DRAWINGS. INCREASE CONDUIT SIZE AS REQUIRED TO ACCOMMODATE C.E.C. WIRE FILL REQUIREMENTS. INCLUDE ADDITIONAL BOND WIRE IN ALL PVC AND FLEXIBLE CONDUIT. LONG CROSSBAR INDICATES NEUTRAL CONDUCTOR, SHORT CROSSBARS INDICATE PHASE CONDUCTORS.
- INCREASE BRANCH CIRCUIT CU CONDUCTOR SIZES AS REQUIRED BY THE 120V BRANCH CIRCUIT VOLT DROP CONDUCTOR LENGTH CHART BELOW. USE CONDUCTOR LENGTHS AS FIELD MEASURED, BASED UPON MEASURED FIELD ROUTING LENGTHS. INCREASE MINIMUM CONDUIT SIZE AS REQUIRED TO ACCOMMODATE A MAXIMUM 40% CONDUCTOR FILL OF THE BRANCH CIRCUIT CONDUCTORS. WHERE NECESSARY, PROVIDE A JUNCTION BOX AT ACCESSIBLE CEILING SPACE TO CONVERT THE LAST 15 FEET OF CONDUCTORS TO #10 AWG TO ACCOMMODATE TERMINATION OF CONDUCTORS AT WIRING DEVICES, LIGHTING FIXTURES, CIRCUIT BREAKER, ETC.
- INSTALL CU GROUND CONDUCTOR IN ALL BRANCH CIRCUITS FOR LIGHT FIXTURES AND POWER DEVICES.

120V BRANCH CIRCUIT VOLT DROP CONDUCTOR LENGTH CHART

LOAD IN VOLT AMPERES	LENGTH OF CONDUCTOR WIRE SIZE IN (GAUGE)				
	#12	#10	#8	#6	#4
1200VA	74	121	183	284	434
1560VA	57	93	141	218	334
1800VA	49	81	122	189	289
1920VA	46	76	115	178	271
2340VA	X	62	94	146	223
2880VA	X	51	76	118	181
3000VA	X	48	73	114	174
3900VA	X	X	56	87	134
4800VA	X	X	46	71	108

NOTES:

- THIS CHART IS FOR COPPER CONDUCTORS ONLY.
- THIS CHART ASSUMES AN 80% POWER FACTOR AND STEEL RACEWAYS.
- 2016 CALIFORNIA ENERGY CODE, 130.5(c) ALLOWS A MAXIMUM COMBINED VOLTAGE DROP OF 5%. THIS CHART ASSUMES A MAXIMUM DROP OF 3% FOR FEEDERS. THIS CHART PROVIDES THE MAXIMUM LENGTH OF CONDUCTORS FOR LESS THAN 2% VOLTAGE DROP ON A BRANCH CIRCUIT AT GIVEN VA LOAD.
- USE WIRE SIZE FROM THIS CHART UNLESS LARGER CONDUCTOR SIZES ARE NOTED ON THE DRAWINGS.
- FOR VA VALUES NOT SHOWN USE NEXT HIGHEST VALUE FROM THE CHART

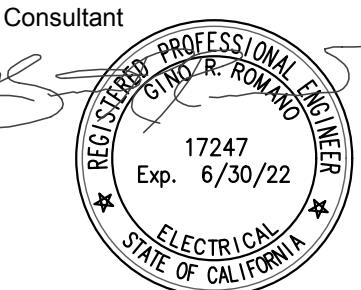
SEQUENCE OF INSTALLATION

FOLLOWING IS A BRIEF DESCRIPTION OF THE SEQUENCE OF INSTALLATION CONSIDERED DURING THE COURSE OF DESIGN. IT DOES NOT DICTATE THE MEANS AND METHODS, NOR DOES IT DICTATE THE ACTUAL SEQUENCE TO THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO DEVELOP THEIR OWN METHOD OF PROCEDURE (MOP) FOR THE PROJECT FOR A COMPLETE AND FULLY FUNCTIONAL INSTALLATION.

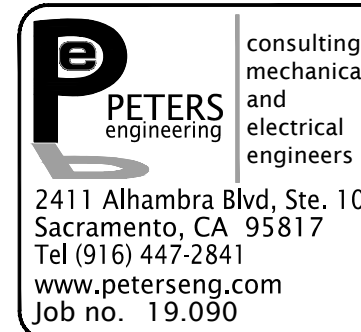
- COORDINATE WITH PG&E TO CONFIRM THE MOST CURRENT REQUIREMENTS FOR THE UTILITY SERVICE INSTALLATION.
- COORDINATE WITH CITY TO CONFIRM MAXIMUM DOWNTIME AND ANY SYSTEMS THAT MAY NEED TO BE SUPPORTED BY THE GENERATOR DURING CUTOVERS.
- CONFIRM AND NOTE POWER ROTATION FOR EXISTING SERVICE AT THE EXISTING MAIN PANELBOARD, ATS, PANEL 'E', PANEL 'N' AND MECHANICAL ROOM POWER GUTTER.
 - CONFIRM OPERATION OF ALL MECHANICAL SYSTEMS CONNECTED TO THE GUTTER. DOCUMENT AND REPORT ANY EQUIPMENT THAT IS OFF-LINE OR NOT FUNCTIONING.
- ESTABLISH THE SECONDARY SERVICE CONDUIT, GROUNDING, HOUSEKEEPING PAD AND SUBSTRUCTURES FOR THE MAIN SWITCHBOARD INSTALLATION.
- COORDINATE WITH THE CITY TO RELOCATE (E) STORAGE CABINET IN ELECTRICAL ROOM.
- ESTABLISH MAIN SWITCHBOARD AND COMMERCIAL POWER DISTRIBUTION PANEL 'CDP'.
- ESTABLISH GROUND BAR IN MAIN ELECTRICAL ROOM.
- PROVIDE TEMPORARY POWER FEEDER TO PANEL N.
- ESTABLISH THE COMMERCIAL POWER FEEDER TO THE (E) ATS SERVING PANEL 'E'.
- ESTABLISH THE POWER FEEDER TO THE POWER GUTTER LOCATED IN THE SECOND FLOOR MECHANICAL ROOM.
- PROVIDE TESTING OF EQUIPMENT, GROUNDING SYSTEM AND FEEDERS INSTALLED TO DATE.
- AFTER APPROVALS CUTOVER ELECTRICAL SERVICE TO THE NEW MSB AND ENERGIZE.
 - CONFIRM POWER ROTATION MATCHING EXISTING AT EACH LOAD.
 - CONNECT THE COMMERCIAL POWER FEEDER TO ATS SERVING PANEL 'E' AND ENERGIZE.
 - ENERGIZE TEMPORARY FEEDER TO PANEL 'N'.
 - CONFIRM ROTATION AND CONNECT NEW FEEDER TO THE EXISTING POWER GUTTER IN THE SECOND FLOOR MECHANICAL ROOM.
 - CONFIRM OPERATION OF ALL EQUIPMENT CONNECTED TO THE POWER GUTTER.
- REMOVE THE EXISTING METER CT CABINET, UTILITY METER CABINET, AND MAIN DISTRIBUTION PANEL. CAP SERVICE CONDUITS AT FLOOR.
- RELOCATE AN EXISTING SIGNAL CABINET.
- ESTABLISH PANEL 'E' AND TEMPORARY CONNECTION TO THE EXISTING PANEL 'E'.
 - TEST PANEL INSTALLATION.
- ESTABLISH THE FEEDER FROM THE ATS TO THE NEW PANEL 'E'.
- ENERGIZE THE (E) PANEL 'E' FROM THE NEW PANEL 'E' AND CUT OVER LOADS TO THE NEW PANEL.
 - AFTER CUTOVER COMPLETE REMOVE THE INTERIOR OF THE EXISTING PANEL 'E' AND PROVIDE NEW COVER.
- ESTABLISH PANEL 'N' AND ASSOCIATED FEEDER FROM COMMERCIAL POWER DISTRIBUTION PANEL 'CDP'.
 - TEST PANEL INSTALLATION.
- ENERGIZE THE NEW PANEL 'N' AND CUTOVER LOADS FROM THE (E) PANEL 'N' TO THE NEW PANEL 'N'.
- DE-ENERGIZE THE EXISTING PANEL 'N' TEMPORARY FEEDER AND REMOVE IT.
- REMOVE THE INTERIOR OF THE (E) PANEL 'N' INTERIOR AND PROVIDE NEW COVER.

SYMBOLS LIST

- LED, FLUORESCENT OR HID FIXTURE — CONTROLLED BY SWITCH "a" — APPLIES TO OR HID FIXTURE CONNECTED TO CIRCUIT 2 } ALL FIXTURES
FIXTURE TYPE A2
- LED, FLUORESCENT OR HID FIXTURE — WALL MOUNTED
- LED, FLUORESCENT OR HID FIXTURE — CEILING RECESSED
- LED, FLUORESCENT FIXTURE — SEE FIXTURE SCHEDULE FOR MOUNTING
- LED, FLUORESCENT FIXTURE — WALL MOUNTED
- EXIT LIGHT FIXTURE
- SHADING INDICATES FIXTURE WITH LAMP(S) ON EMERGENCY CIRCUIT
- SINGLE POLE SWITCH
- THREE WAY SWITCH
- KEYED SWITCH
- LOW VOLTAGE SWITCH
- MANUAL MOTOR CONTROL SWITCH
- WALL MOUNTED OCCUPANCY AUTO-OFF LIGHT SWITCH
- DIMMER SWITCH WITH OCCUPANCY SENSOR, LINE VOLTAGE
- DIMMER SWITCH, LOW VOLTAGE
- CEILING MOUNTED OCCUPANCY AUTO-OFF LIGHT SWITCH. INSTALL PER MANUFACTURER REQUIREMENTS.
- CEILING MOUNTED DAY LIGHT SENSOR. INSTALL PER MANUFACTURER REQUIREMENTS.
- ROOM CONTROLLER. INSTALL PER MANUFACTURER REQUIREMENTS.
- FUSED DISCONNECT SWITCH
- DUPLEX CONVENIENCE OUTLET
- DOUBLE DUPLEX CONVENIENCE OUTLET
- GROUND FAULT CIRCUIT INTERRUPTER DUPLEX OUTLET
- GROUND FAULT CIRCUIT INTERRUPTER DOUBLE DUPLEX OUTLET
- SPLIT DUPLEX OUTLET WITH:
ONE CONVENIENCE OUTLET
ONE CONTROLLED OUTLET
- DOUBLE DUPLEX OUTLET WITH:
ONE DUPLEX CONVENIENCE OUTLET
ONE CONTROLLED DUPLEX OUTLET
- EMERGENCY DUPLEX OUTLET
- EMERGENCY DOUBLE DUPLEX OUTLET
- SPECIAL OUTLET TO MATCH CAP PROVIDED WITH MACHINE
- JUNCTION BOX, SIZE AS REQUIRED BY CODE
- FLEX CONNECTION TO FIXTURE
- TELEPHONE OUTLET
- DATA OUTLET
- TELEPHONE/DATA OUTLET
- PANELBOARD, RECESSED MOUNTED
- PANELBOARD, SURFACE MOUNTED
- MAIN SWITCHBOARD
- TERMINAL CABINET, RECESSED MOUNTED
- TERMINAL CABINET, SURFACE MOUNTED
- HOMERUN TO PANELBOARD OR RESPECTIVE TERMINAL
- CONDUIT RUN CONCEALED IN CEILING OR WALL, SEE NOTE BELOW
- CONDUIT RUN UNDERGROUND OR UNDER FLOOR
- INSULATED GREEN GROUND CONDUCTOR
- CONDUIT RISER
- EXISTING EQUIPMENT, LIGHTING, DEVICES, CONDUIT, WIRING, ETC., ARE SHOWN LIGHT. NEW OR RELOCATED EQUIPMENT, LIGHTING, DEVICES, CONDUIT, WIRING, ETC., ARE SHOWN DARK.
- EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED
- SYMBOLS REFERRING TO KEYED NOTES ON SAME SHEET
- MECHANICAL EQUIPMENT BY OTHERS, CONNECTED BY ELECTRICAL CONTRACTOR
- DETAIL DESIGNATION, "A" SIGNIFIES DETAIL, "E-1" SIGNIFIES SHEET NUMBER



PLOT DATE: 2/19/2021



Agency Approvals

Issue: "CONSTRUCTION DOCUMENTS"

No.	Date	Description
	12/18/20	MSB REPLACEMENT
	3/1/2021	FINAL REVIEW

Project

FIRE STATION 31

530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616

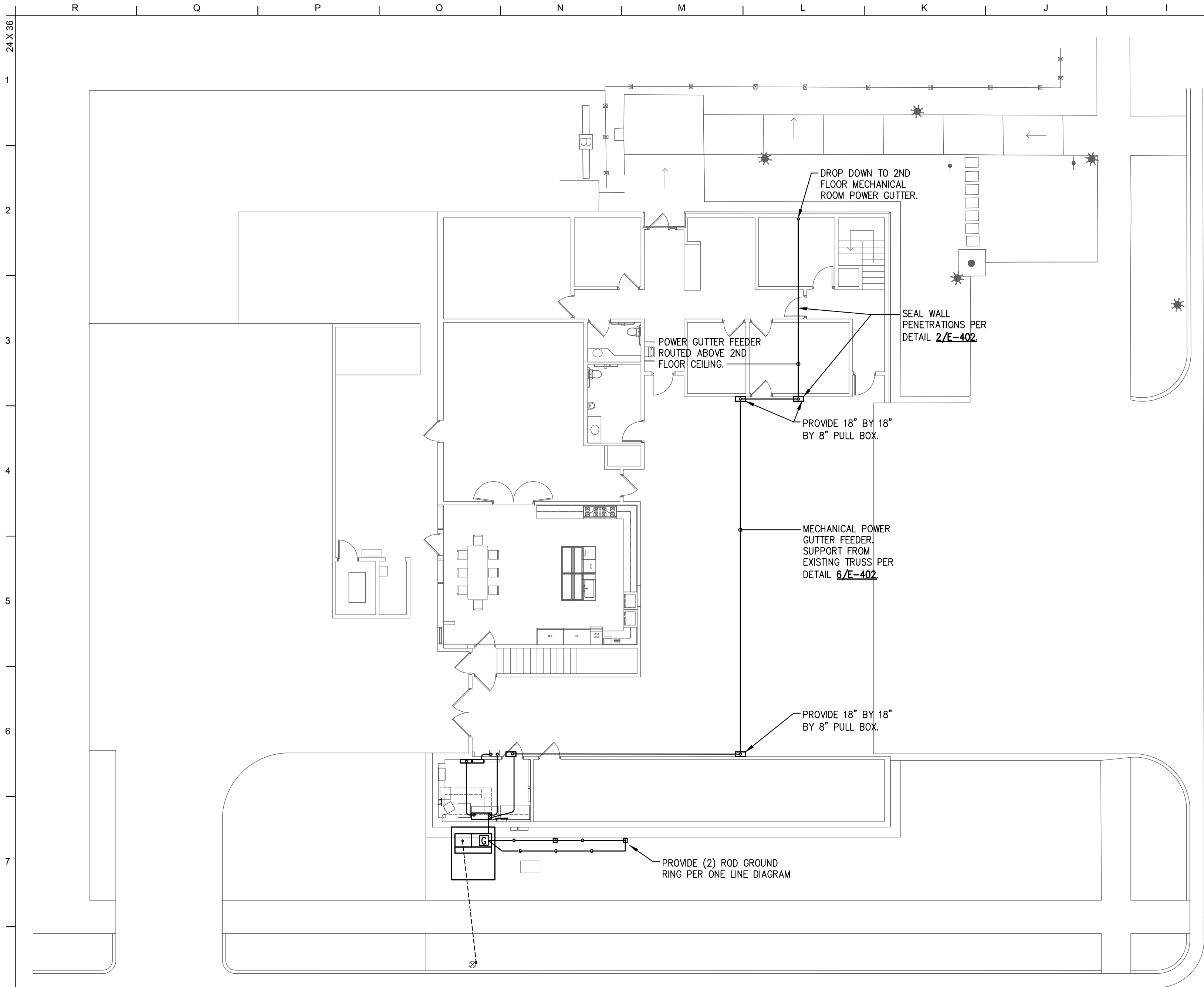
Architect of Record	JH
Project Architect	PN
Drafted By	JM
Checked By	GR

File Date
9/1/2020

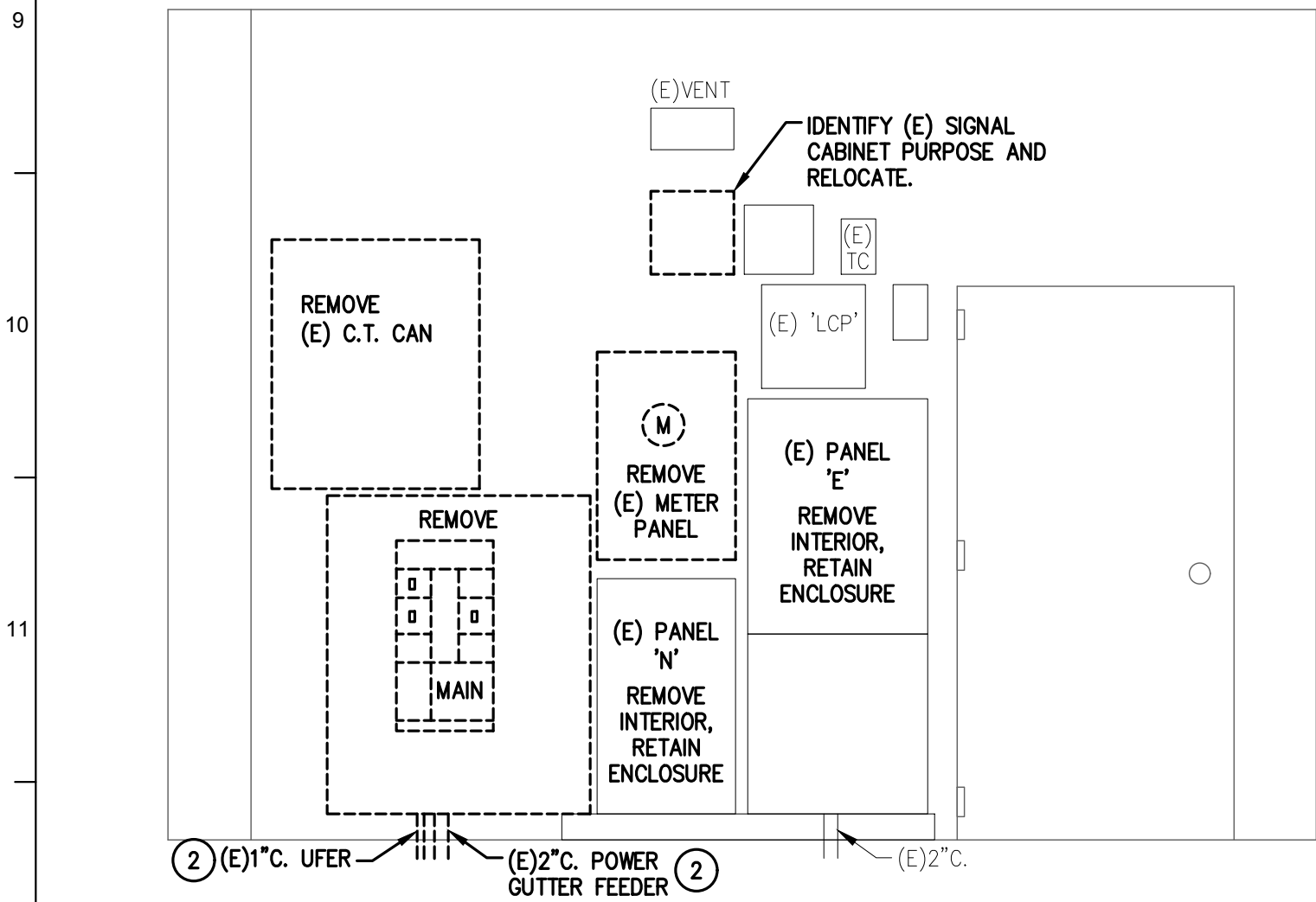
Sheet Title
SYMBOLS, NOTES
& SCHEDULES

Project Number
20258-31

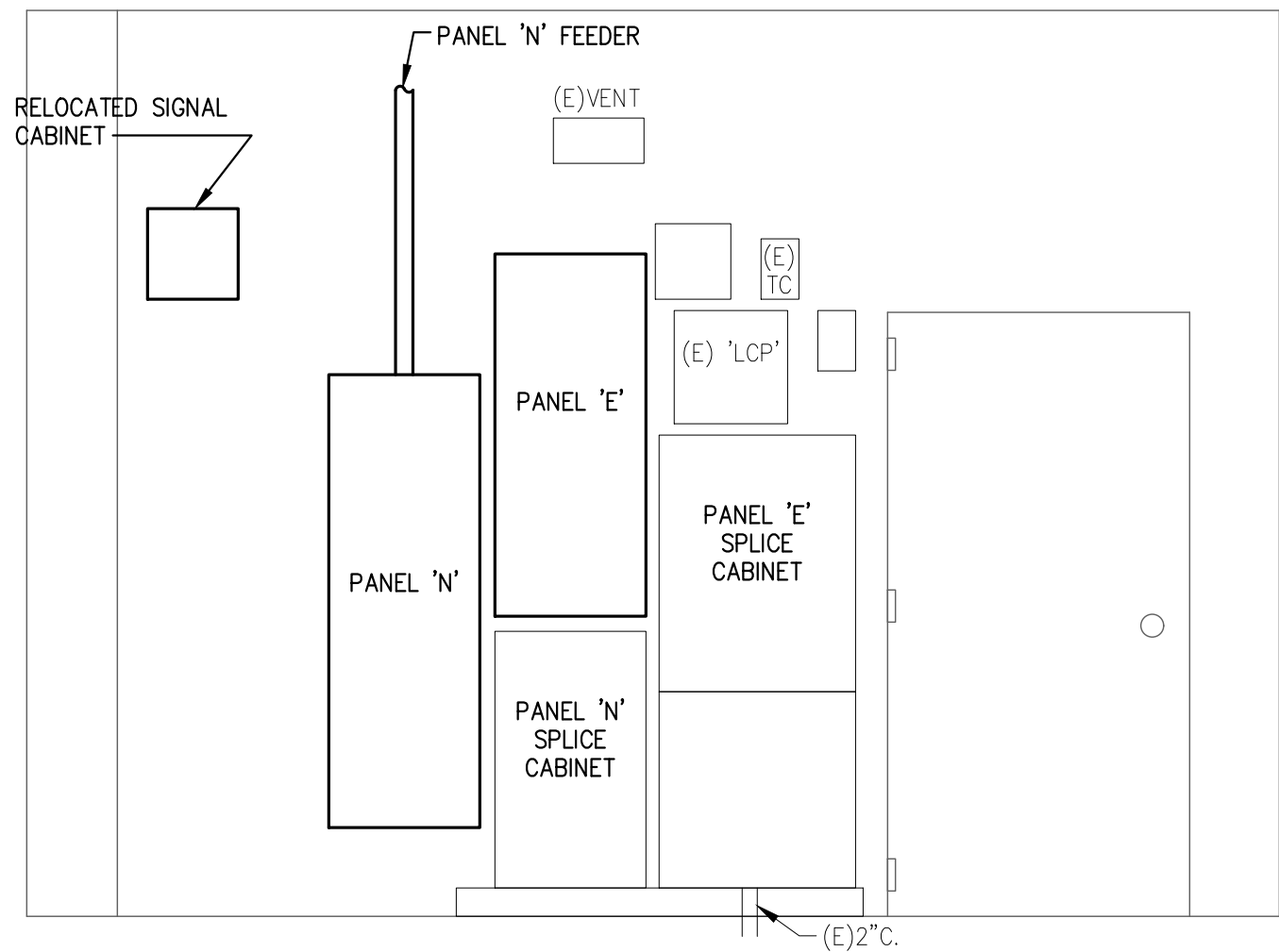
E-001



1 SITE PLAN - ELECTRICAL
SCALE: 3/32" = 1'-0"



3 ELECTRICAL RM. ELEVATION, DEMOLITION
SCALE: 1/2" = 1'-0"

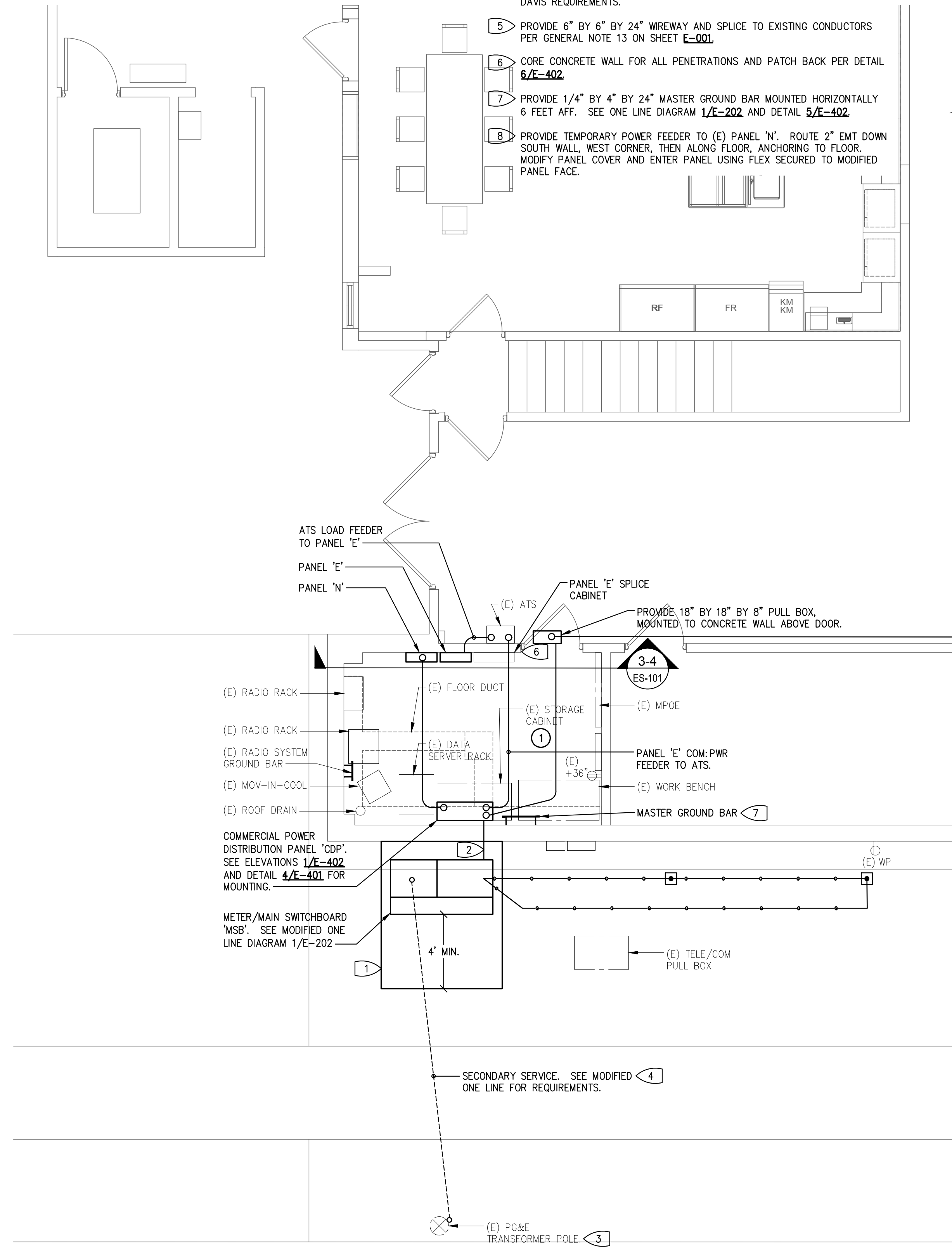


4 ELECTRICAL RM. ELEVATION, MODIFIED
SCALE: 1/2" = 1'-0"

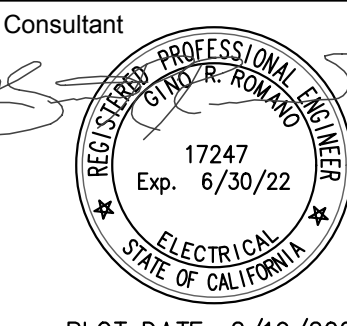
- DEMOLITION KEYED NOTES:**
- COORDINATE WITH CITY REPRESENTATIVE TO RELOCATE (E) STORAGE CABINET.
 - REMOVE THE (E) CORRODED UFER GROUND AND CONDUIT. CUT FLUSH TO FLOOR AND SEAL.
 - REMOVE (E) POWER GUTTER FEEDER CONDUCTORS. CUT CONDUIT FLUS TO FLOOR AND SEAL.

- SHEET NOTES:**
- ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED SITE SURVEYS, AND SHOWN FOR CLARITY ONLY.
 - SEE ONE LINE DIAGRAM 1/E-202 FOR FEEDER SIZES.

- KEYED NOTES:**
- PROVIDE HOUSEKEEPING PAD EXTENDING 48 INCHES IN FRONT OF SWITCHBOARD PER PG&E REQUIREMENTS. SEE DETAILS 1,2,3/E-401.
 - FEEDER 'CDP': CORE EXISTING CONCRETE WALL AND PATCH BACK TO MATCH EXISTING CONSTRUCTION. SEE GENERAL NOTE 4 ON SHEET E-001, PAINT CONDUIT AND WALL PATCH TO MATCH BUILDING FINISH.
 - PROVIDE CONDUIT RISER ON POLE PER PG&E REQUIREMENTS.
 - SAWCUT (E) SIDEWALK AT (E) COLD JOINTS AND PATCH BACK PER CITY OF DAVIS REQUIREMENTS.
 - PROVIDE 6" BY 6" BY 24" WIREWAY AND SPLICE TO EXISTING CONDUCTORS PER GENERAL NOTE 13 ON SHEET E-001.
 - CORE CONCRETE WALL FOR ALL PENETRATIONS AND PATCH BACK PER DETAIL 6/E-402.
 - PROVIDE 1/4" BY 4" BY 24" MASTER GROUND BAR MOUNTED HORIZONTALLY 6 FEET AFF. SEE ONE LINE DIAGRAM 1/E-202 AND DETAIL 5/E-402.
 - PROVIDE TEMPORARY POWER FEEDER TO (E) PANEL 'N'. ROUTE 2" EMT DOWN SOUTH WALL, WEST CORNER, THEN ALONG FLOOR, ANCHORING TO FLOOR. MODIFY PANEL COVER AND ENTER PANEL USING FLEX SECURED TO MODIFIED PANEL FACE.



2 PARTIAL SITE PLAN - ELECTRICAL
SCALE: 1/4" = 1'-0"



PLOT DATE: 2/19/2021

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Issue: *CONSTRUCTION DOCUMENTS

No.	Date	Description
	12/18/20	MSB REPLACEMENT
	3/1/2021	FINAL REVIEW

Project

FIRE STATION 31

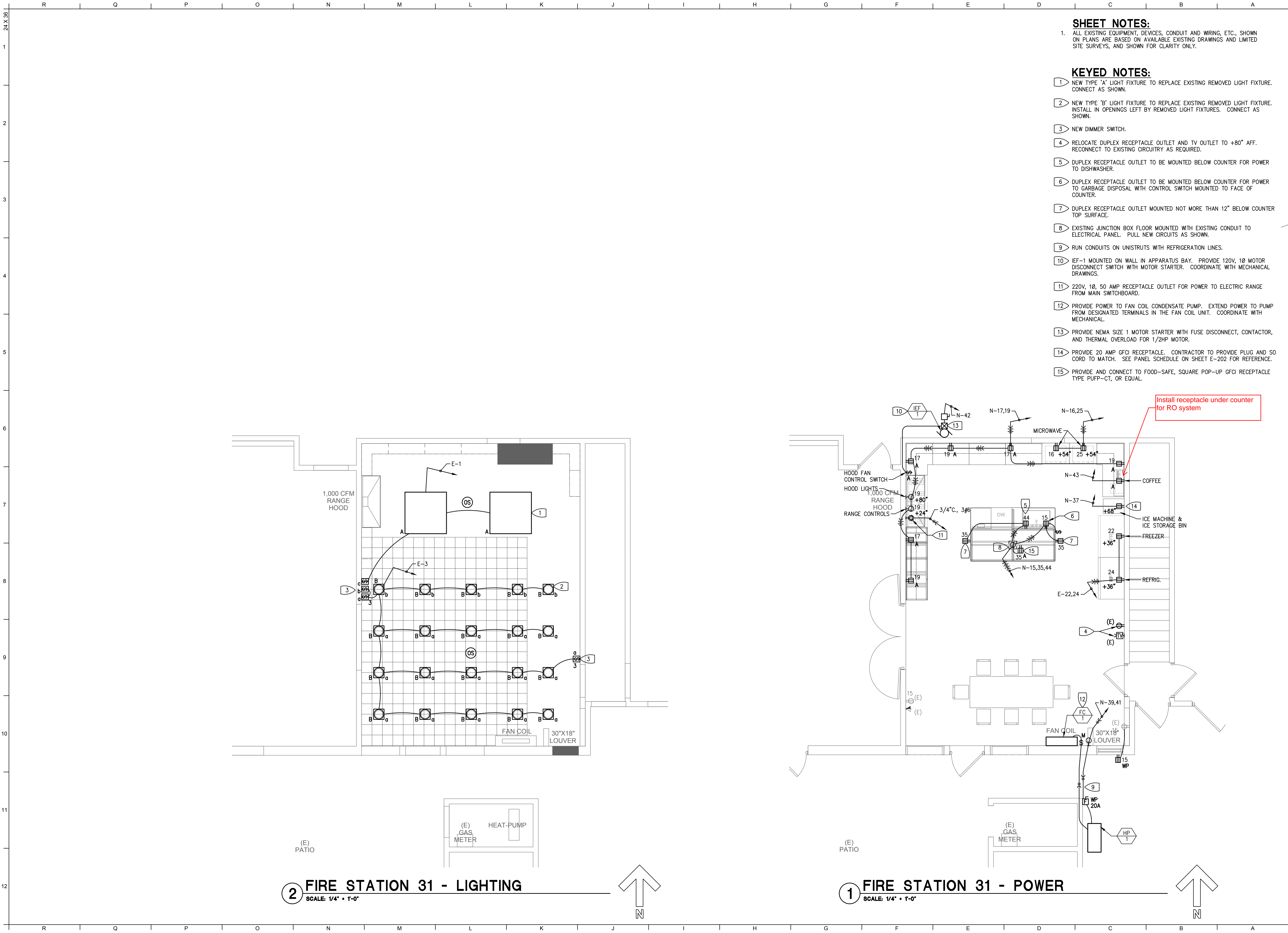
**530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616**

Architect of Record JH
Project Architect PN
Drafted By
Checked By
File Date 9/1/2020

Sheet Title
**SITE PLAN -
ELECTRICAL**

Project Number
20258-31

ES-101



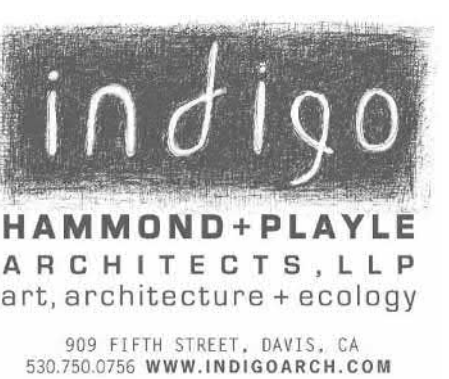
SHEET NOTES:

1. ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED SITE SURVEYS, AND SHOWN FOR CLARITY ONLY.

KEYED NOTES:

- 1 NEW TYPE 'A' LIGHT FIXTURE TO REPLACE EXISTING REMOVED LIGHT FIXTURE. CONNECT AS SHOWN.
- 2 NEW TYPE 'B' LIGHT FIXTURE TO REPLACE EXISTING REMOVED LIGHT FIXTURE. INSTALL IN OPENINGS LEFT BY REMOVED LIGHT FIXTURES. CONNECT AS SHOWN.
- 3 NEW DIMMER SWITCH.
- 4 RELOCATE DUPLEX RECEPTACLE OUTLET AND TV OUTLET TO +80" AFF. RECONNECT TO EXISTING CIRCUITRY AS REQUIRED.
- 5 DUPLEX RECEPTACLE OUTLET TO BE MOUNTED BELOW COUNTER FOR POWER TO DISHWASHER.
- 6 DUPLEX RECEPTACLE OUTLET TO BE MOUNTED BELOW COUNTER FOR POWER TO GARBAGE DISPOSAL WITH CONTROL SWITCH MOUNTED TO FACE OF COUNTER.
- 7 DUPLEX RECEPTACLE OUTLET MOUNTED NOT MORE THAN 12" BELOW COUNTER TOP SURFACE.
- 8 EXISTING JUNCTION BOX FLOOR MOUNTED WITH EXISTING CONDUIT TO ELECTRICAL PANEL. PULL NEW CIRCUITS AS SHOWN.
- 9 RUN CONDUITS ON UNISTRUTS WITH REFRIGERATION LINES.
- 10 IEF-1 MOUNTED ON WALL IN APPARATUS BAY. PROVIDE 120V, 10 MOTOR DISCONNECT SWITCH WITH MOTOR STARTER. COORDINATE WITH MECHANICAL DRAWINGS.
- 11 220V, 10, 50 AMP RECEPTACLE OUTLET FOR POWER TO ELECTRIC RANGE FROM MAIN SWITCHBOARD.
- 12 PROVIDE POWER TO FAN COIL CONDENSATE PUMP. EXTEND POWER TO PUMP FROM DESIGNATED TERMINALS IN THE FAN COIL UNIT. COORDINATE WITH MECHANICAL.
- 13 PROVIDE NEMA SIZE 1 MOTOR STARTER WITH FUSE DISCONNECT, CONTACTOR, AND THERMAL OVERLOAD FOR 1/2HP MOTOR.
- 14 PROVIDE 20 AMP GFCI RECEPTACLE. CONTRACTOR TO PROVIDE PLUG AND SO CORD TO MATCH. SEE PANEL SCHEDULE ON SHEET E-202 FOR REFERENCE.
- 15 PROVIDE AND CONNECT TO FOOD-SAFE, SQUARE POP-UP GFCI RECEPTACLE TYPE PUPP-CT, OR EQUAL.

Install receptacle under counter for RO system



PLOT DATE: 2/19/2021



Agency Approvals

Issue: *CONSTRUCTION DOCUMENTS

No.	Date	Description
12/18/20		MSB REPLACEMENT
3/1/2021		FINAL REVIEW

Project

FIRE STATION 31

**530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616**

Architect of Record	JH
Project Architect	PN
Drafted By	GM
Checked By	GR

File Date
9/1/2020

Sheet Title
**FIRE STATION 31
PLANS -
ELECTRICAL**

Project Number
20258-31

E-101

EXISTING

PANEL:			MANF: CH	CLAB	MAIN: BUSS:	LUGS	SERVICE:	120 /208 VOLT	MOUNTING:	ENCLOSURE:	10K AIC	100% NEUT.					
E			TYPE:			FEEDER RATING:	100 AMP	3 Ø, 4W		WIDTH: 24"							
							100 AMP		SURFACE	DEPTH: 5.75"							
AØ	BØ	CØ	DIRECTORY				BRKR	CKT	CKT	BRKR	DIRECTORY						
L	152	460	500		500	LIGHTS- KITCHEN [1]				20/1	1	●	2	20/1	LIGHTS-		
						LIGHTS- KITCHEN [1]									LIGHTS-		
						LIGHTS- STAIRS									LIGHTS-		
L	500					LIGHTS- STAIRS				20/1	7	●	8	20/1	LIGHTS-		
R						RECEPTS-				20/1	9	●	10	20/1	RECEPTS-		
R						RECEPTS-				20/1	11	●	12	20/1	RECEPTS-		
R						JUNCTION BOX - SPARE				20/1	13	●	14	20/1	LIGHTING CONTROL		
R						911 PAGING				20/1	15	●	16	20/1	TIME CLOCK		
R						RECEPTS-				20/1	17	●	18	20/1	RECEPTS- PG&E		
M	1000					CEILING FANS				20/3	19	●	20	20/1	BATTERY CHARGER		
M											21	●	22	20/1	RECEPTS-KITCHEN FREEZER [1]		
M											23	●	24	20/1	RECEPTS-KITCHEN REFRIG [1]		
O	720					RECEPTS-				20/1	25	●	26	20/1	HOLE ROOM		
R						FACP				20/1	27	●	28	20/1	HOLE ROOM		
R						RADIO				20/1	29	●	30	20/1	SPARE		
M	2904					COMPRESSOR				50/3	31	●	32	30/3	DOORS EAST & WEST		
M											33	●	34		1 HP EA.		
M											35	●	36				
PANEL NOTES:											TOTAL CONNECTED LOAD			8580	10435	10195	
1. REVISED LOAD 2. CONFIRM EXISTING LOADS AND REVISED SCHEDULE ACCORDINGLY 3. PROVIDE UPDATED TYPE WRITTEN PANEL SCHEDULE											DEMAND LOADS						
											RECEPTACLES, 1ST 10KW			720	1980	3060	
											REMAINDER @ 50%			0	0	0	0
											MOTOR LOADS			5008	5008	5008	
											25% LRGST MOTOR			726	726	726	
											LIGHTING LOADS			1652	960	1000	
											75% LIGHTING			413	240	250	
											65% KITCHEN			0	1032	733	
											OTHER LOADS			1200	900	0	
											TOTAL DEMAND LOADS			9719	10846	10777	
TOTAL DEMAND AMPS			81	90	90												

R=RECEPTACLE LOADS

L=LIGHTING LOADS

M=MECHANICAL LOADS

O=OTHER LOADS

K=KITCHEN LOADS

EXISTING			MANF: CH		MAIN: LUGS		SERVICE: MOUNTING:		ENCLOSURE:		10K AIC						
PANEL:			TYPE: NLAB		BUSS: 225 AMP		120/208 VOLT		WIDTH: 24"		100% NEUT.						
N			FEEDER RATING:		175 AMP		3 Ø, 4W		SURFACE		DEPTH: 5.75"						
	AØ	BØ	CØ	DIRECTORY			BRKR	CKT	CKT	BRKR	DIRECTORY			AØ	BØ	CØ	
R	1700			RECEPTS- WASHER			20/3	1	•	2	20/1	TIME CLOCK			200		
R		1700						3	•	4	20/1	RECEPTS- DORM/STAIRS				720	
R			1700					5	•	6	20/1	LIGHTS-					500
L	1000			LIGHTS- ENGINE FLOOR			20/1	7	•	8	20/1	LIGHTS-			500		
L		750		LIGHTS-			20/1	9	•	10	20/1	RECEPTS-				720	
L			750	LIGHTS-			20/1	11	•	12	50/2	WATER HEATER					4000
L	750			LIGHTS-			20/1	13	•	14					4000		
R		1840		RECEPTS- KITCHEN [1]			20/1	15	•	16	20/1	RECEPTS- KITCHEN				720	
R			1500	RECEPTS- KITCHEN [1]			20/1	17	•	18	20/1	RECEPTS-					720
R	1500			RECEPTS- KITCHEN [1]			20/1	19	•	20	20/1	RECEPTS-			720		
R		720		RECEPTS-			20/1	21	•	22	20/1	RECEPTS-				720	
L			450	LIGHTS- CANOPY			20/1	23	•	24	20/1	RECEPTS					720
R	720			RECEPTS- KITCHEN [1]			20/1	25	•	26	20/1	RECEPTS-			720		
R		720		RECEPTS-			20/1	27	•	28	30/2	AIR COMPRESSOR				1945	
R			720	RECEPTS-			20/1	29	•	30							1945
M	500			UNIT HEATER			20/1	31	•	32	30/3	PLYMOVENT AIR HANDLER			2004		
M		500		GEN ENGINE HEATER			20/1	33	•	34						2004	
M			1500	RECEPTS- KITCHEN DW [1]			20/1	35	•	36							2004
R	1000			RECEPTS- ICE MACHINE			20/1	37	•	38	30/2	RECEPTS- DRYER			2500		
M		811		HP-1 & FC-1 [1][2]			20/2	39	•	40						2500	
M			811					41	•	42	20/1	IEF-1 [1][2]					1127
PANEL NOTES:												TOTAL CONNECTED LOAD			17814	16370	18447
1. REVISED OR NEW LOADS												DEMAND LOADS					
2. PROVIDE NEW BREAKER												RECEPTS/CL. 1ST 10KW			8860	10360	6860
3. CONFIRM EXISTING LOADS AND REVISED SCHEDULE ACCORDINGLY												REMAINDER @ 50%			0	0	0
4. PROVIDE UPDATED TYPE WRITTEN PANEL SCHEDULE												MOTOR LOADS			8504	5260	9887
												25% LRGST MOTOR			1000	501	1000
												LIGHTING LOADS			2250	750	1700
												25% LIGHTING			563	188	425
												65% KITCHEN			0	0	0
												OTHER LOADS			200	0	0
												TOTAL DEMAND LOADS			19377	17059	19872
												TOTAL DEMAND AMPS			161	142	166

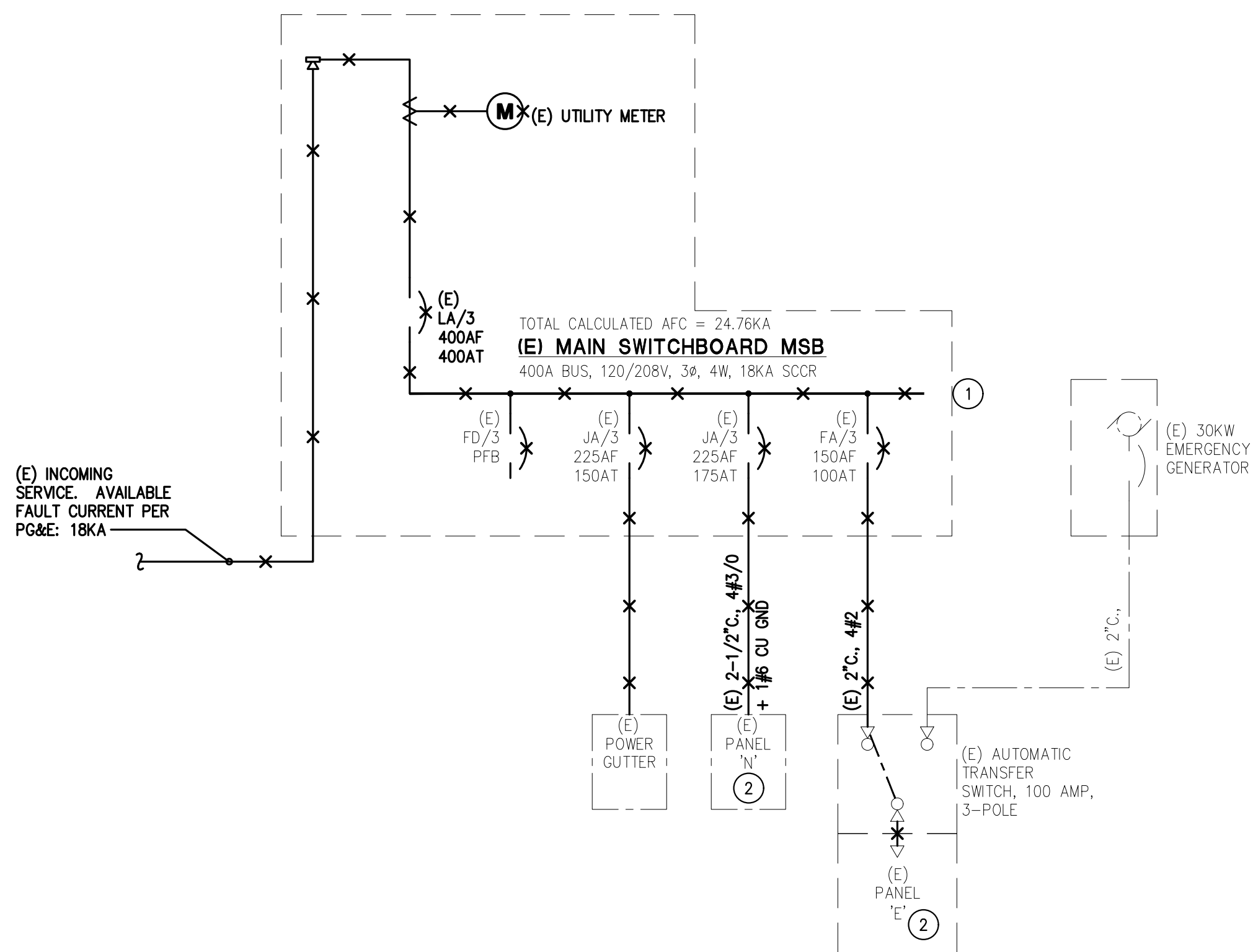
R=RECEPTACLE LOADS

L=LIGHTING LOADS

M=MECHANICAL LOADS

O=OTHER LOADS

K=KITCHEN LOADS



1 ONE LINE DIAGRAM - DEMOLITION



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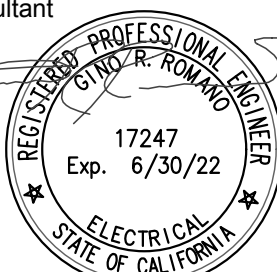
SHEET NOTES:

1. ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED SITE SURVEYS, AND SHOWN FOR CLARITY ONLY.

KEYED NOTES:

- ① EXISTING SWITCHBOARD IS CUTLER-HAMMER CDP WITH WESTINGHOUSE BREAKERS. REMOVE IN IT'S ENTIRETY.
- ② REMOVE INTERIOR BREAKER CHASSIS AND RETAIN AS SPLICE CABINET.

Consultant



PLOT DATE: 2/19/2021



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Agency Approvals

Issue: CONSTRUCTION DOCUMENTS		
No.	Date	Description
	12/18/20	MSB REPLACEMENT
	3/1/2021	FINAL REVIEW

Project

FIRE STATION 31

**530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616**

Architect of Record	JH
Project Architect	PN
Drafted By	GM
Checked By	GR

File Date
9/1/202

Sheet Title

DEMOLITION - ONE LINE & PANEL SCHEDULES

Project Number

20258-31

E-201

PANEL:		MANF: EATON		MAIN: LUGS		SERVICE:		MOUNTING:		ENCLOSURE:		22K A/C	
E		TYPE: PRL-1		BUSS: 225 AMP		120 /208 VOLT				WIDTH: 20"		100% NEUT.	
		FEEDER RATING:		150 AMP		3 Ø, 4W		SURFACE		DEPTH: 5.75"			
AØ		BØ		CØ		DIRECTORY		BRKR		CKT		CKT	
L		152				LIGHTS- KITCHEN		20/1		1		2	
L				460		LIGHTS- KITCHEN		20/1		3		4	
L				500		LIGHTS- STAIRS		20/1		5		6	
L		500						20/1		7		8	
R				720		RECEPTS-		20/1		9		10	
R						RECEPTS-		20/1		11		12	
R				720		JUNCTION BOX - SPARE		20/1		13		14	
R				540		911 PAGING		20/1		15		16	
R				720		RECEPTS-		20/1		17		18	
M		1000				CEILING FANS		20/3		19		20	
M				1000						21		22	
M										23		24	
R		720				RECEPTS-		20/1		25		26	
O				200		FACP		20/1		27		28	
R						RADIO		20/1		29		30	
M		2904				COMPRESSOR		50/3		31		32	
M				2904		7.5HP				33		34	
M				2904						35		36	
						SPARE		20/1		37		38	
						SPARE		20/1		39		40	
						SPARE		20/1		41		42	
PANEL NOTES:										TOTAL CONNECTED LOAD			
1. COPPER BUSSING INCLUDING GROUND BUSS										DEMAND LOADS			
2. DOOR-IN-DOOR CONSTRUCTION										RECEPTACLES, 1ST 10KW			
3. PROVIDE INTEGRAL SURGE PROTECTION DEVICE (SPD), LIEBERT OR EQUAL. LOCATE SPD BREAKER ON BUSSING RELATIVE TO INCOMING FEED. LOCATE AT TOP OF BUSSING FOR TOP FED PANELS AND AT BOTTOM OF BUSSING FOR BOTTOM FED PANELS.										REMAINDER @ 50%			
4. REPLACE BREAKER WITH (3) 20AMP / 1-POLE BREAKERS AND LABEL AS SPARE AFTER CUTOVERS ARE COMPLETE. LEAVE 100 AMP BREAKER IN										MOTOR LOADS			
5.										25% LRGST MOTOR			
6.										LIGHTING LOADS			
										25% LIGHTING			
										65% KITCHEN			
										OTHER LOADS			
										TOTAL DEMAND LOADS			
										TOTAL DEMAND AMPS			
R=RECEPTACLE LOADS										L=LIGHTING LOADS			
L=LIGHTING LOADS										M=MECHANICAL LOADS			
M=MECHANICAL LOADS										O=OTHER LOADS			
O=OTHER LOADS										K=KITCHEN LOADS			

PANEL:		MANF:		EATON		MAIN:		LUGS		SERVICE:		MOUNTING:		ENCLOSURE:		22K		A/C		
N		TYPE:		PRL-1		BUSS:		225 AMP		120 /208 VOLT		SURFACE		WIDTH: 20"		100% NEUT.				
		FEEDER RATING:		200 AMP		3 Ø, 4W								DEPTH: 5.75"						
	AØ	BØ	CØ	DIRECTORY			BRKR	CKT		CKT	BRKR	DIRECTORY			AØ	BØ	CØ			
R	1700			RECEPTS- WASHER			20/3	1	•	2	20/1	TIME CLOCK			200			O	R	
R		1700						3	•	4	20/1	RECEPTS- DORM/STAIRS				720		L	L	
R			1700					5	•	6	20/1	LIGHTS-					500	R	L	
L	1000			LIGHTS- ENGINE FLOOR			20/1	7	•	8	20/1	LIGHTS-			500			L	R	
L		750		LIGHTS-			20/1	9	•	10	20/1	RECEPTS-				720		R	M	
L			750	LIGHTS-			20/1	11	•	12	50/2	WATER HEATER					4000			
L	750			LIGHTS-			20/1	13	•	14					4000					
R		1840		RECEPTS- KITCHEN			20/1	15	•	16	20/1	RECEPTS- KITCHEN				720		M	R	
R			1500	RECEPTS- KITCHEN			20/1	17	•	18	20/1	RECEPTS-					720	R	R	
R	1500			RECEPTS- KITCHEN			20/1	19	•	20	20/1	RECEPTS-			720			R	R	
R		720		RECEPTS-			20/1	21	•	22	20/1	RECEPTS-				720		R	R	
L			450	LIGHTS- CANOPY			20/1	23	•	24	20/1	RECEPTS-					720	R	R	
R	720			RECEPTS- KITCHEN			20/1	25	•	26	20/1	RECEPTS-			720			R	R	
R		720		RECEPTS-			20/1	27	•	28	30/2	AIR COMPRESSOR				1945		R	M	
R			720	RECEPTS-			20/1	29	•	30							1945	R	M	
M	500			UNIT HEATER			20/1	31	•	32	30/3	PLYMOVENT AIR HANDLER			2004			M	R	
M		500		GEN ENGINE HEATER			20/1	33	•	34						2004		M	M	
R			540	RECEPTS- KITCHEN			20/1	35	•	36							2004	M	M	
R	1041			RECEPTS-ICE MACHINE			20/1	37	•	38	30/2	RECEPTS- DRYER			2500			R	R	
M		811		HP-1 & FC-1			20/2	39	•	40						2500		R	R	
M			811					41	•	42	20/1	IEF-1					1127	R	M	
K	1670			COFFEE MACHINE			20/1	43	•	44	20/1	KITCHEN DW			1500				K	
K		4160		RANGE			50/2	45	•	46	20/1	SPARE								
K			4160					47	•	48	20/1	SPARE								
				SPARE			20/1	49	•	50	20/1	SPARE								
				SPARE			20/1	51	•	52	20/1	SPARE								
				SPARE			20/1	53	•	54	20/1	SPARE								
PANEL NOTES:														TOTAL CONNECTED LOAD		21025	20530	21647		
1. COPPER BUSSING INCLUDING GROUND BUSS														DEMAND LOADS						
2. DOOR-IN-DOOR CONSTRUCTION														RECEPTACLES, 1ST 10KW		8901	10360	5900		
3. PROVIDE SURGE PROTECTION DEVICE (SPD), LIEBERT OR EQUAL. LOCATE SPD BREAKER ON BUSSING RELATIVE TO INCOMING FEED. LOCATE AT TOP OF BUSSING FOR TOP FED PANELS AND AT BOTTOM OF BUSSING FOR BOTTOM FED PANELS.														REMAINDER @ 50%		0	0	0		
4.														MOTOR LOADS		6504	5260	9887		
5.														25% LRGSST MOTOR		1000	0	0		
6.														LIGHTING LOADS		2250	750	1700		
7.														25% LIGHTING		563	188	425		
														65% KITCHEN		2061	2704	2704		
														OTHER LOADS		200	0	0		
														TOTAL DEMAND LOADS		21478	19262	20616		
														TOTAL DEMAND AMPS		179	161	172		
R=RECEPTACLE LOADS				L=LIGHTING LOADS				M=MECHANICAL LOADS				O=OTHER LOADS				K=KITCHEN LOADS				

PEAK POWER DEMAND LOAD CALCULATIONS

Peak power demand for the last year was 24_KW during the month of August.

Commercial Service Calculation at 208 Volts 3 Ø
Recorded Peak Power Demand = 24 KW

	Demand Power	KVA @ 0.9 p.f.	Derived Amperage
Peak Demand	24.0 KW	26.7 KVA	74.0 AMPS
Peak Demand @ 125% (NEC 220-87)	30.0 KW	33.3 KVA	92.5 AMPS

Existing Building Loads to be removed			
(E) Lighting	0.7	0.8	2.2
	-0.7	-0.8	-2.2

New Building Loads to be added			
(N) Lighting	0.6	0.7	1.9
(N) Garbage Disposal	1.7	1.8	5.1
(N) Hood	1.0	1.1	3.1
(N) Range	8.3	9.2	25.6
(N) Receptacle - Dishwasher	1.4	1.5	4.2
(N) Receptacle - Freezer	1.0	1.1	3.1
(N) Receptacle - Refrigerator	1.0	1.1	3.1
(N) Receptacles - Kitchen	3.5	3.9	10.8
(N) Coffee Machine	1.7	1.7	13.9
(N) Ice Maker	1.0	1.2	10.1
(N) HP-1 & FC-1	1.6	1.8	4.9
(N) IEF-1	1.6	1.8	4.9
	24.331	26.8	90.7

	Demand Power	KVA @ 0.9 p.f.	Derived AMPS
Present Bldg Load @ 125%	30.0 KW	33.3 KVA	92.5
Additional Load	23.6 KW	26.1 KVA	88.5 AMPS

Total 53.6 KW 59.4 KVA 181.0

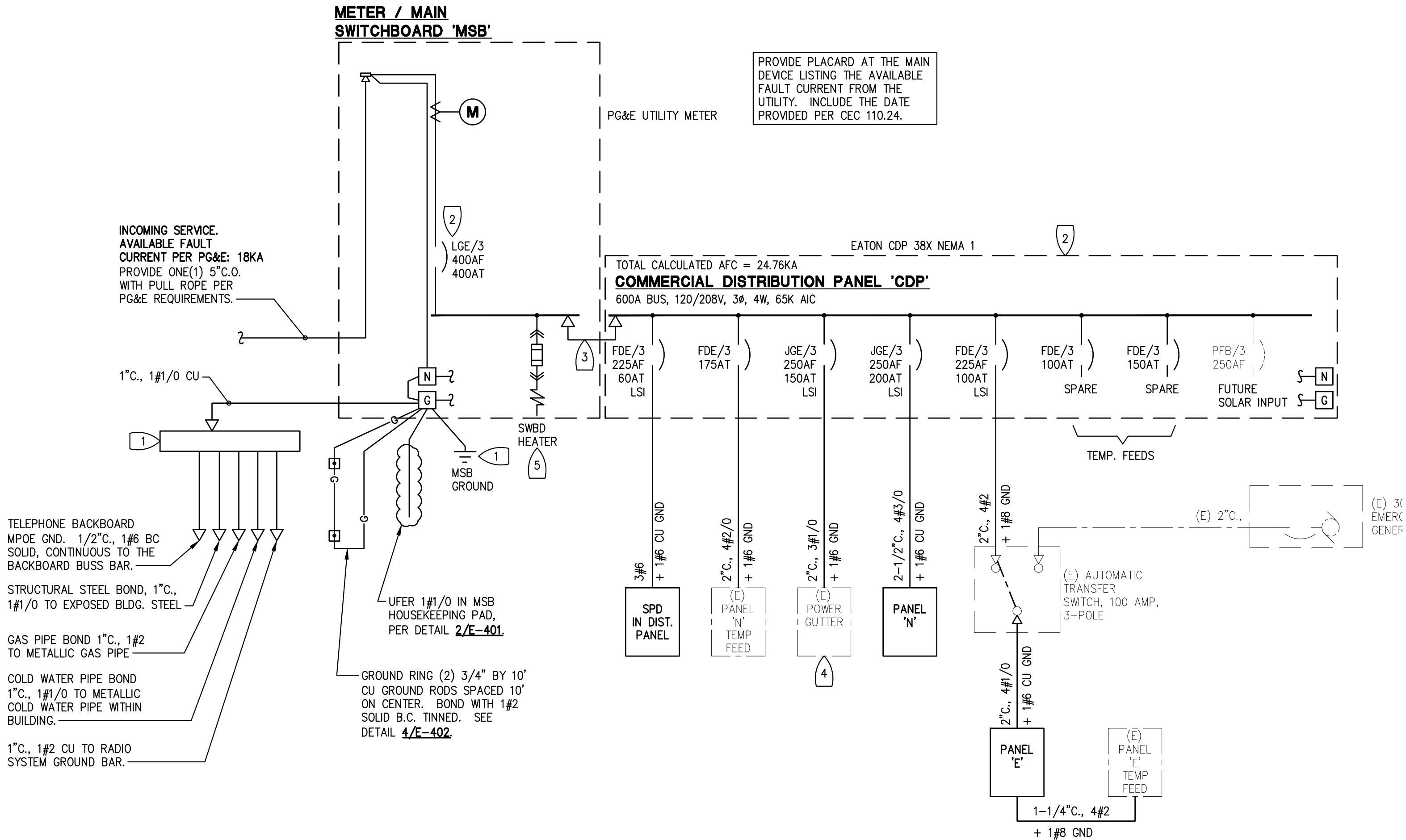
The existing 400 AMP commercial service is Adequate.

SHEET NOTES:

- ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED SITE SURVEYS, AND SHOWN FOR CLARITY ONLY.

KEYED NOTES:

- PROVIDE 1/4" BY 4" BY 24" GROUND BAR PER DETAIL 5/E-402
- PROVIDE EATON G-SERIES BREAKERS WITH ADJUSTABLE DIGITRIP 310+ ELECTRONIC TRIP UNIT.
- PROVIDE TWO(2) 2"C., E/W 4#3/0 + 1#2 GND, OR ONE(1) 4"C., 4#500MCM + 1#2 GND.
- PROVIDE GROUND LUG AT POWER GUTTER IN 2ND FLOOR MECHANICAL ROOM.
- PROVIDE THERMOSTATICALLY CONTROLLED HEATER WITH FUSE OR BREAKER DISCONNECT. HEAT ELEMENT AND OVERCURRENT PROTECTION SIZE PER MANUFACTURER.

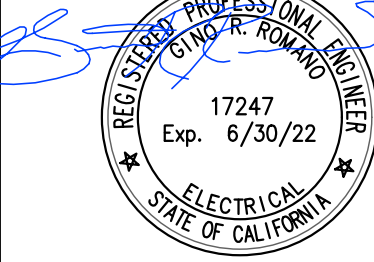


1 ONE LINE DIAGRAM - MODIFIED

SCALE: NONE



Consultant



PLOT DATE: 3/24/2021



Agency Approvals

Issue: 100% CONSTRUCTION DOCUMENTS

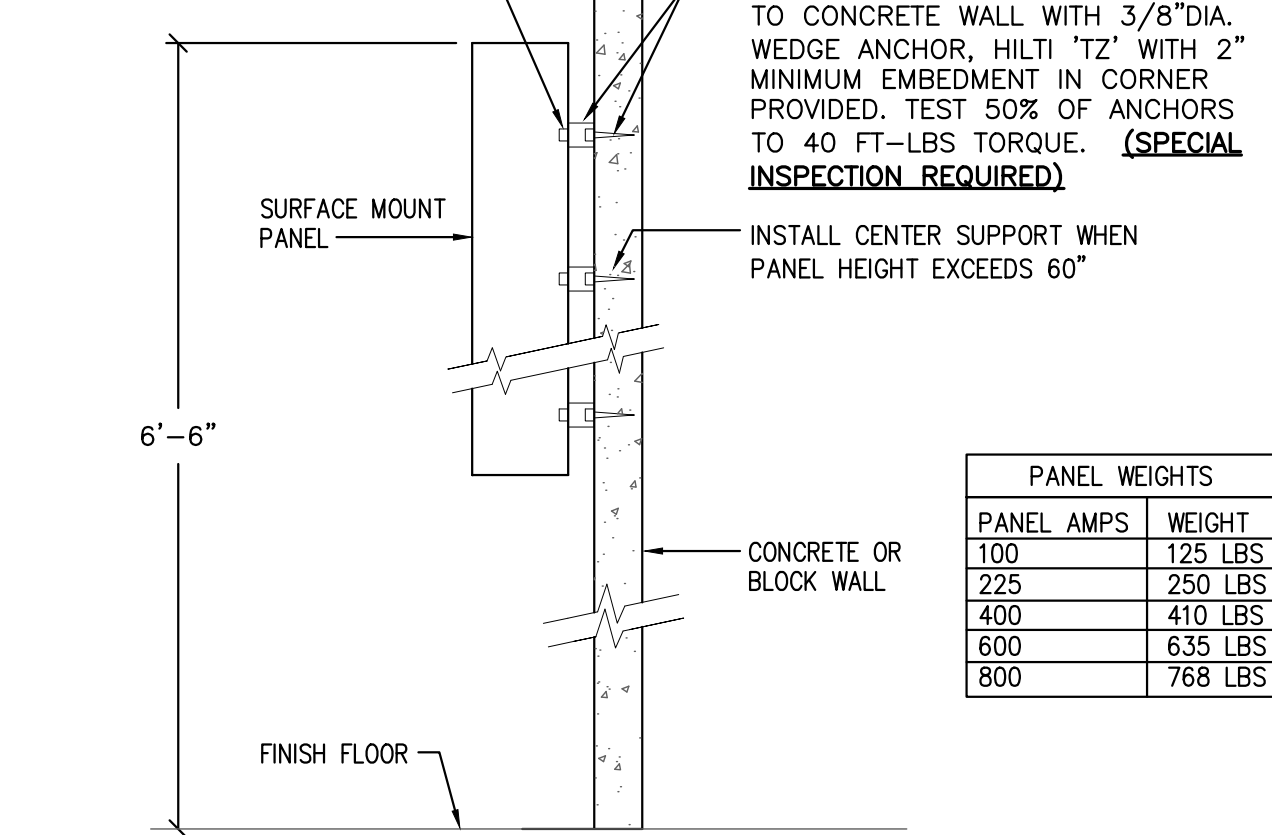
No.	Date	Description
12/18/20		MSB REPLACEMENT
03/24/21		PLAN CHECK

Project

FIRE STATION 31
530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616

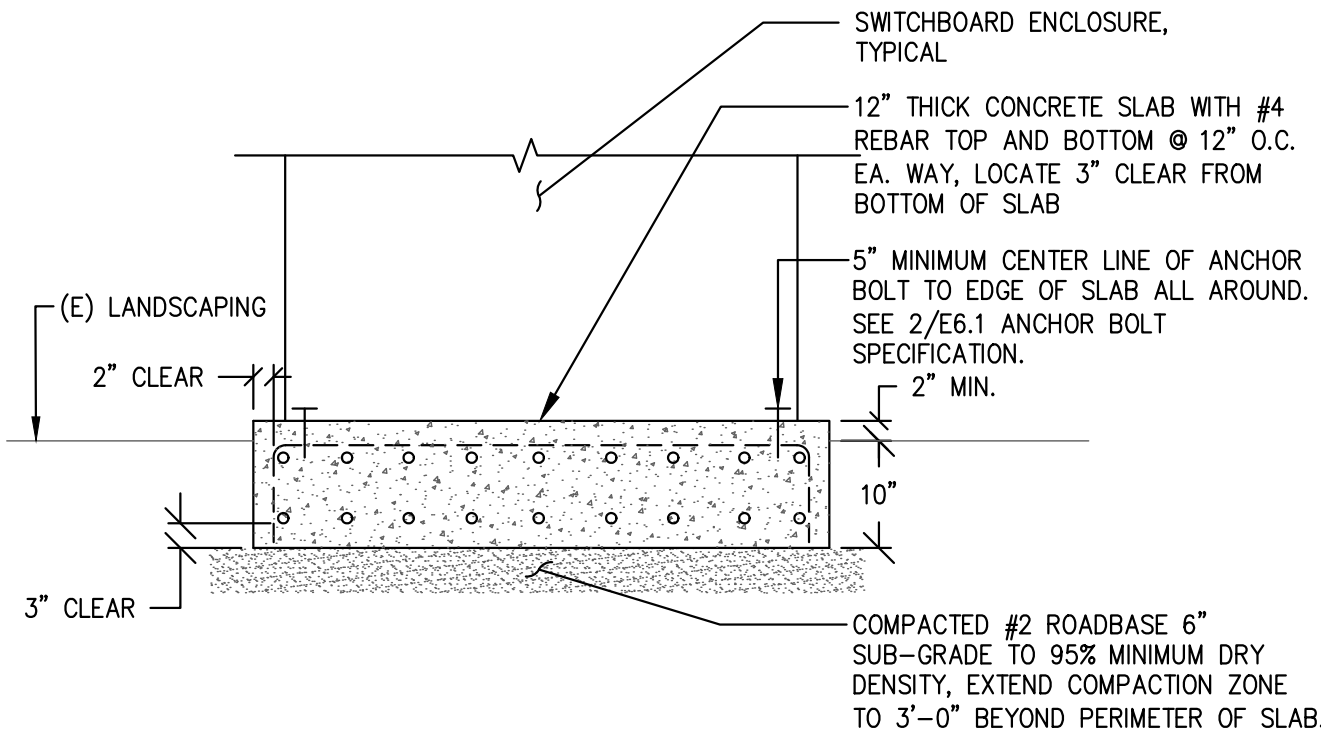
Architect of Record JH
Project Architect PN
Drafted By
Checked By

SECURE PANEL TO UNISTRUT WITH (2) 3/8" DIA. MACH. BOLTS, FLAT WASHER, NUT & JAMB NUT PER SUPPORT.



4 PANEL MOUNTING TO CONCRETE WALL

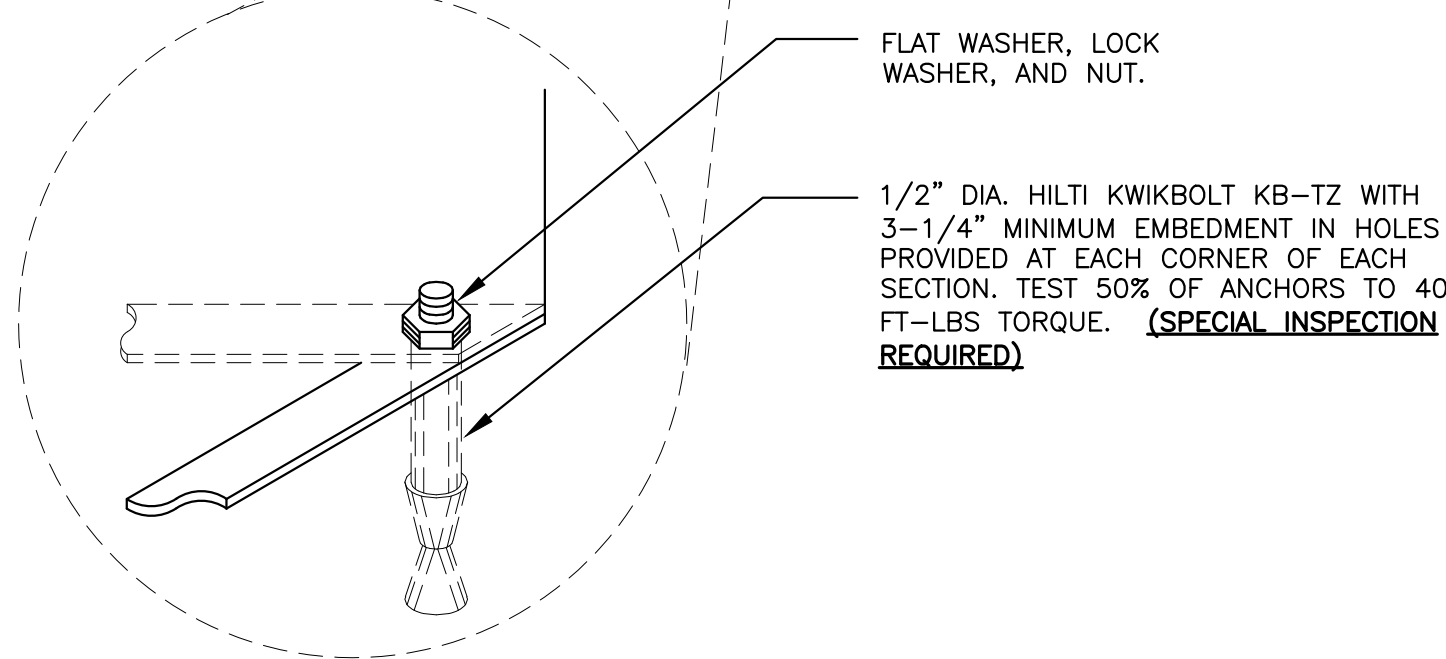
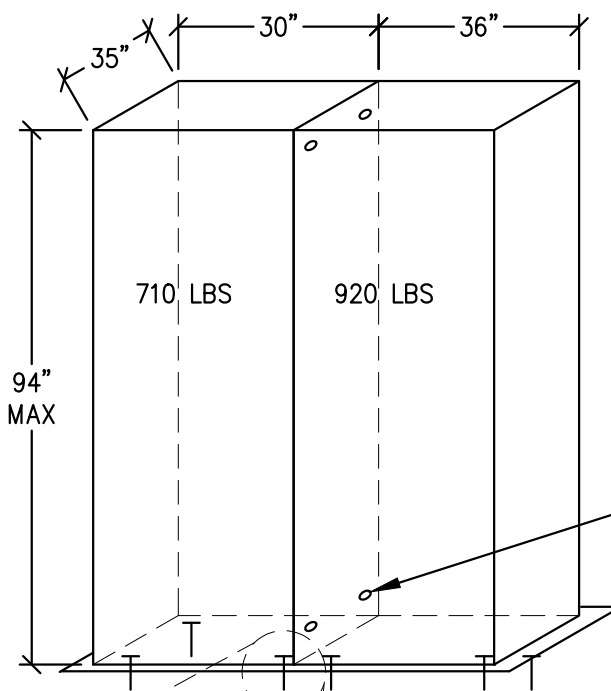
SCALE: NONE



- NOTES:
1. CONCRETE SHALL ATTAIN A 28 DAY STRENGTH OF 3,000 PSI MINIMUM. **SPECIAL INSPECTION REQUIRED.**
 2. REBAR SHALL BE ASTM A615 GRADE 60.
 3. CONCRETE MIX SHALL CONTAIN MIN. OF 5 SACKS OF CEMENT PER CUBIC YARD WITH A WATER:CEMENT RATIO OF .5 MAXIMUM.
 4. CONCRETE SHALL HAVE 4" MAX. SLUMP & 1" MAX. AGGREGATE PER ASTM C33.
 5. INSTALL UFER GROUND CONDUCTOR AROUND PERIMETER OF SLAB, NEAR BOTTOM WITH MINIMUM 3" ENCASEMENT WHERE SPECIFIED. BOND TO REBAR WITH EXOTHERMIC WELD AT TWO(2) LOCATIONS. PROVIDE VINYL TAPE AND TIE-WRAPPS TO ISOLATE THE COPPER CONDUCTOR FROM THE REBAR AT CONTACT POINTS NOT WELDED.
 6. PAD SHALL EXTEND OUT 36" MIN. FROM FRONT OF SWITCHBOARD.

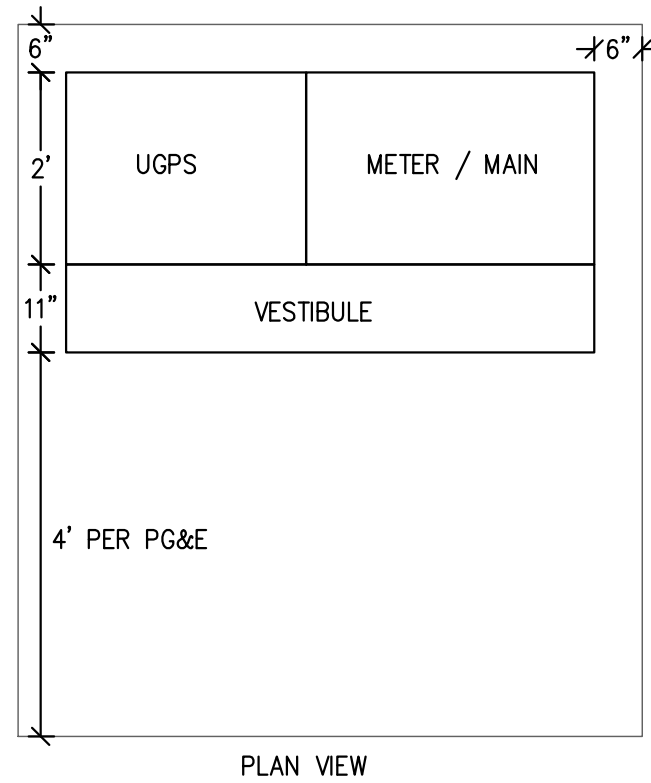
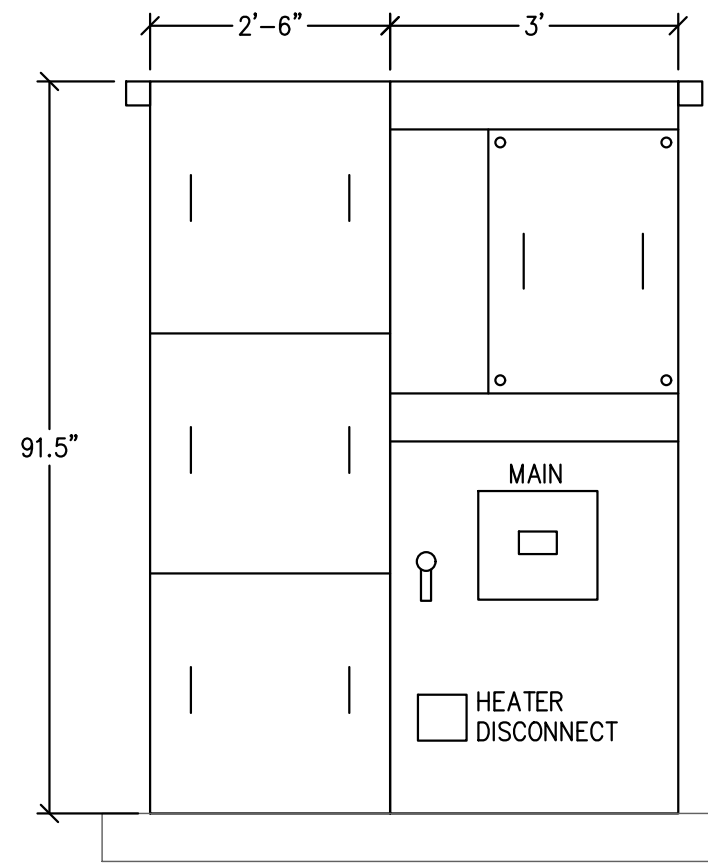
2 12" CONCRETE HOUSEKEEPING PAD DETAIL

SCALE: NONE



3 TYPICAL SWITCHBOARD ANCHORAGE

SCALE: NONE



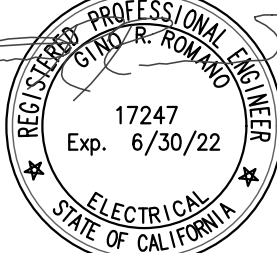
1 METER/MAIN ELEVATION

SCALE: NONE

SWITCHBOARD NOTES

1. SWITCHBOARD CONSTRUCTION SHALL BE OF TYPE AND ARRANGEMENT AS INDICATED ON DRAWINGS. SWITCHBOARD CLASS, SIZE, BREAKER RATINGS, ETC., SHALL BE AS SHOWN ON DRAWINGS. DESIGN BASED ON EATON CONSTRUCTION WITH EATON DEVICES.
2. DEAD FRONT TYPE COMPLETELY METAL ENCLOSED, SELF-SUPPORTING STRUCTURE OF THE UNIVERSAL FRAME TYPE USING DIE-FORMED, WELDED AND BOLTED MEMBERS. FORMED FRONT AND END COVERS SECTIONALIZED AND REMOVABLE WITH SCREW-ON PLATES. FORMED HINGED DOORS WITH KNURED KNOBS OR THREE POINT LATCH WHERE SHOWN. COMPONENTS SHALL BE MOUNTED ON BACK PANS OR STRUCTURAL FRAMING AND NOT ON SIDE OR BACK COVERS OF THE ENCLOSURE.
3. ALL BUSSING SHALL BE COPPER WITH SILVER PLATED CONNECTIONS AND JOINTS SIZED TO LIMIT TEMPERATURE RISE OF 55° CENTIGRADE PER U.L. STANDARDS, AND IN ALL CASES SHALL NOT BE SIZED SMALLER THAN 1000 AMPS/SQUARE INCH OF CROSS SECTIONAL AREA, BRACED TO WITHSTAND A MINIMUM SHORT CIRCUIT CURRENT OF 65,000 A.I.C. RMS SYMMETRICAL AMPERES OR AS OTHERWISE NOTED. ALL BUSSES SHALL BE RATED 100% AND SHALL EXTEND FULL LENGTH OF USABLE SPACE. TAPERING OF BUS OR FLEX BUS IS NOT PERMITTED.
4. ALL BREAKERS SHALL BE BOLT-ON TO THE BUS OF TYPE AND FULLY RATED FOR THE MINIMUM SYMMETRICAL SHORT CIRCUIT RATING AS INDICATED ON DRAWINGS. G-SERIES FRAMES WITH ADJUSTABLE TRIP SETTINGS TYPE. ALL BREAKERS SHALL BE LISTED FOR TERMINATION OF COPPER WITH COPPER LUGS, INSULATED AT 75°C TEMPERATURE RATING OR HIGHER.
5. WHERE SPACES ARE INDICATED ON THE DRAWINGS, ALL REQUIRED HARDWARE AND TRIM SHALL BE PROVIDED TO ALLOW FUTURE INSTALLATION OF BREAKERS.
6. LUGS SHALL BE TWO-HOLE PAD, NEMA DRILLED, UN-INSULATED COPPER COMPRESSION TERMINAL, LONG BARREL, TIN PLATED BURNDY TYPE "YAZ-2N" OR EQUAL.
7. CONSTRUCTION NEMA 3R OUTDOOR.
8. PAINT COAT SHALL BE DRY POWDER POLYESTER PLASTIC ELECTROSTATICALLY APPLIED. COLOR SHALL MATCH EXISTING.
9. PROVIDE EQUIPMENT COMPLETELY FACTORY ASSEMBLED, WIRED AND TESTED BEFORE DELIVERY AND SHALL BEAR U.L. LABELS. DESIGN SHALL MEET C.E.C., NEMA, OSHA AND NFPA-70E REQUIREMENTS.
10. MANUFACTURER SHALL PROVIDE EQUIPMENT TO MEET THE SPACE PROVIDED, AND SHALL NOT REDUCE THE NUMBER OF SECTIONS SHOWN ON THE DRAWINGS.
11. BOTTOM OF SWITCHBOARD SECTIONS SHALL BE OPEN.
12. PROVIDE TWENTY (20) FEET OF GROMMET MATERIAL PER SECTION.
13. ALIGN FRONT OF SWITCHBOARD WITH LINE-UP.
14. SEE DETAIL 3/E-401 FOR MOUNTING ANCHORAGE.
15. GROUND BUS BAR SHALL BE 1/2" X 2 1/2" MINIMUM, NEMA DRILLED AND EXTEND THE ENTIRE WIDTH OF THE ENCLOSURE.
16. NEUTRAL BAR SHALL BE ACCESSIBLE FROM THE FRONT, INSTALL BELOW THE CHASIS AND TO THE FRONT.
17. ELECTRICAL EQUIPMENT SHALL BE FIELD MARKED WITH A WARNING TO QUALIFIED PERSONNEL OF THE POTENTIAL ARC FLASH HAZARDS PER NFPA-70E AND NEC 110-16.

Consultant



PLOT DATE: 2/19/2021

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Agency Approvals

Issue: *CONSTRUCTION DOCUMENTS

No.	Date	Description
	12/18/20	MSB REPLACEMENT
	3/1/2021	FINAL REVIEW

Project

FIRE STATION 31

530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616

Architect of Record JH
Project Architect PN
Drafted By
Checked By

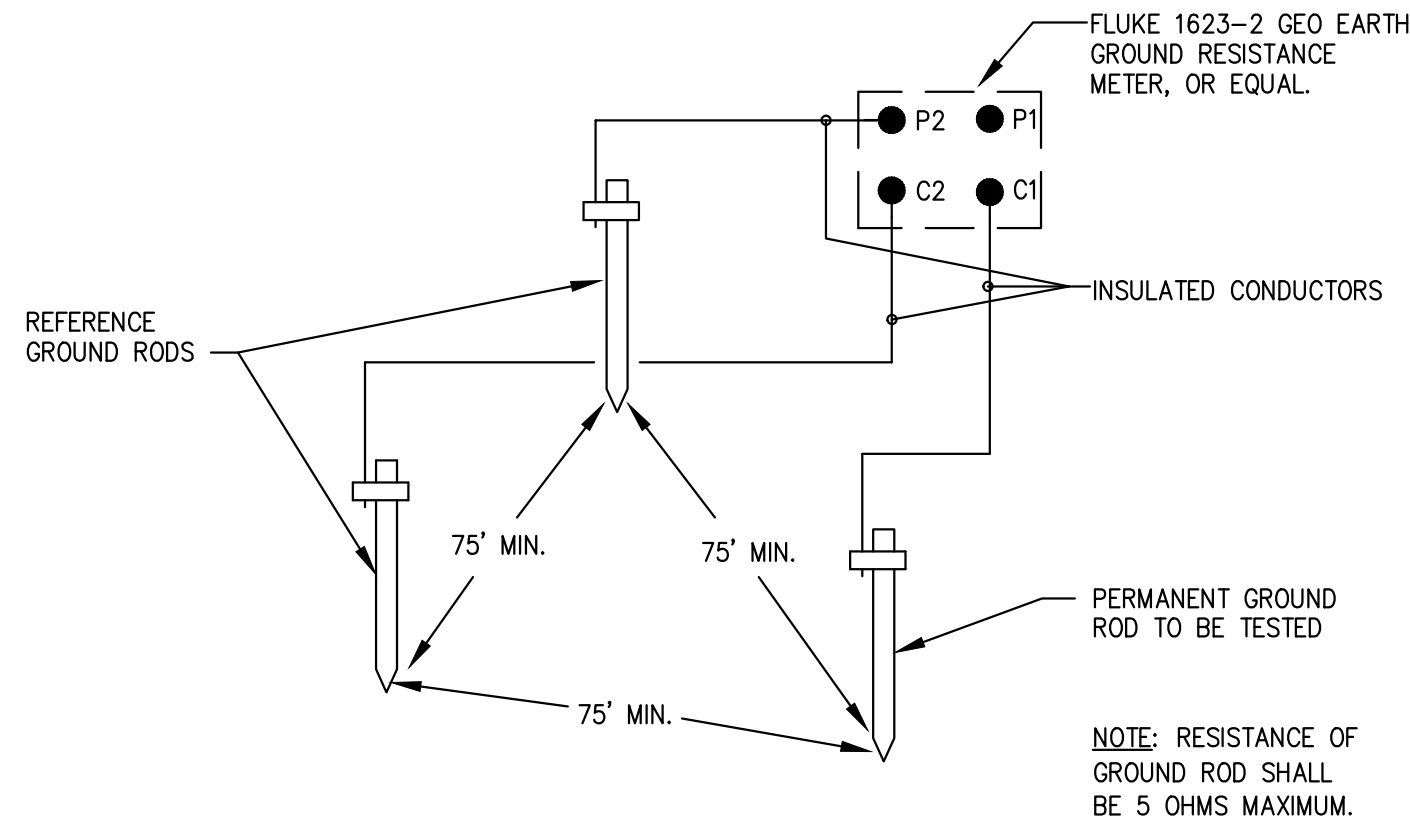
File Date
9/1/2020

Sheet Title

DETAILS

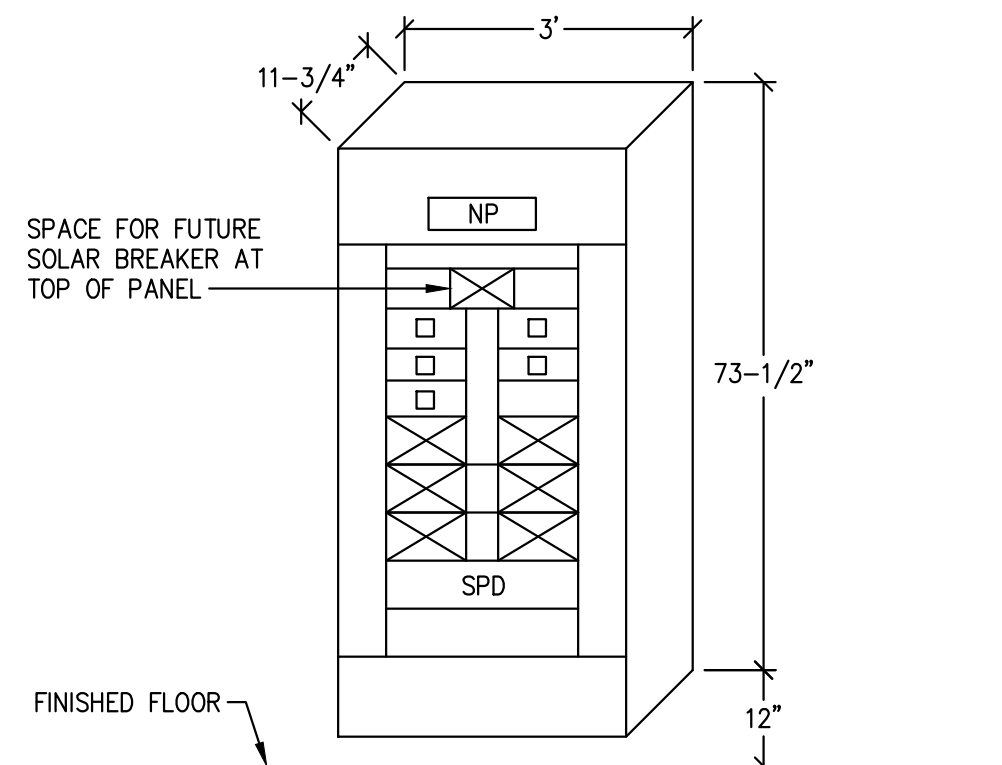
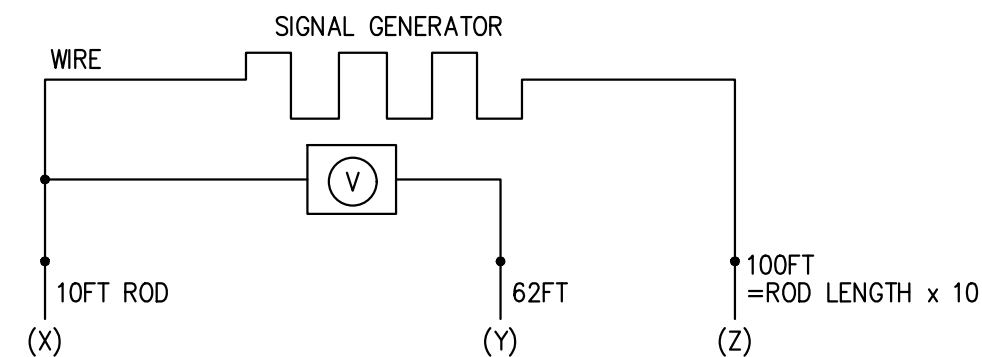
Project Number
20258-31

E-401



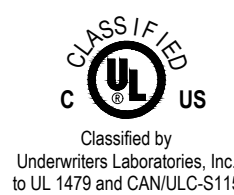
- FALL OF POTENTIAL TEST METHOD
NOTES:
1. POWER EQUIPMENT OR SYSTEMS WITH CAPACITY OF 500KVA OR LESS: 10 OHMS.
 2. POWER EQUIPMENT OR SYSTEMS WITH CAPACITY OF 500 TO 1000KVA: 5 OHMS.
 3. POWER EQUIPMENT OR SYSTEMS WITH CAPACITY GREATER THAN 1000KVA: 3 OHMS.
 4. POWER DISTRIBUTION UNITS OR PANELBOARDS SERVING ELECTRONIC I.T. EQUIPMENT: 3 OHMS.
 5. MAN-HOLE GROUNDS: 10 OHMS.

FALL OF POTENTIAL 3-POINT TEST:
GROUND RING, I.E. 10 BY 10 RING, 14' DIAGONAL LENGTH ISOLATION FROM UTILITY NEUTRAL
PROBE Z IS DRIVEN A DISTANCE OF 10 TIMES DIAGONAL LENGTH OF THE GROUNDING ROD SYSTEM
(ROD X). A SECOND PROBE (Y) IS PLACED IN LINE AT A DISTANCE FROM ROD X EQUAL TO THE
DIAGONAL LENGTH OF THE GROUNDING SYSTEM.



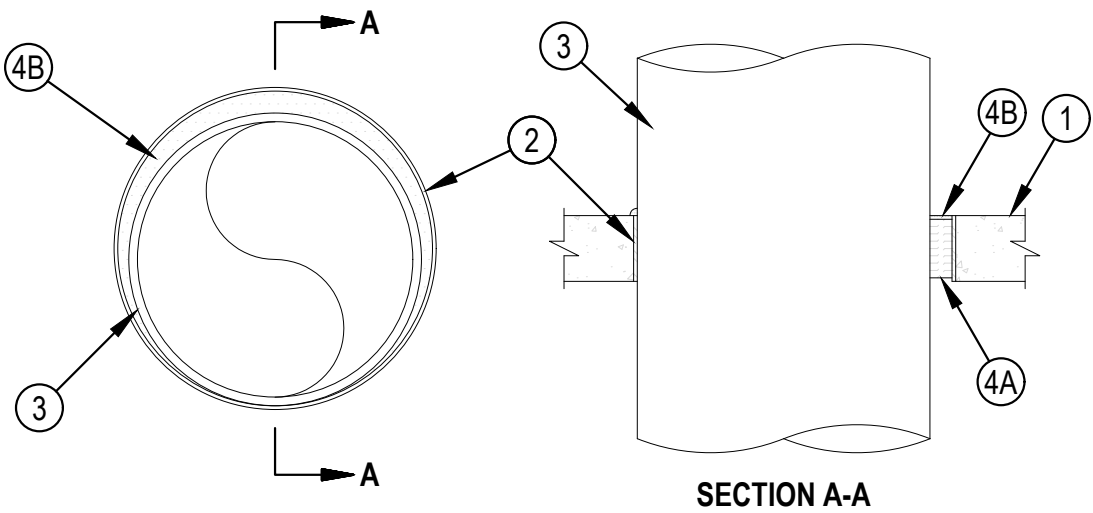
3 METHOD OF TESTING GROUND RODS DETAIL

SCALE: NONE



System No. C-AJ-1226

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 Hr	F Rating — 3 Hr
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Rating — 3 Hr
L Rating At 400 F — 4 CFM/sq ft	FTH Rating — 0 Hr
	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — 4 CFM/sq ft



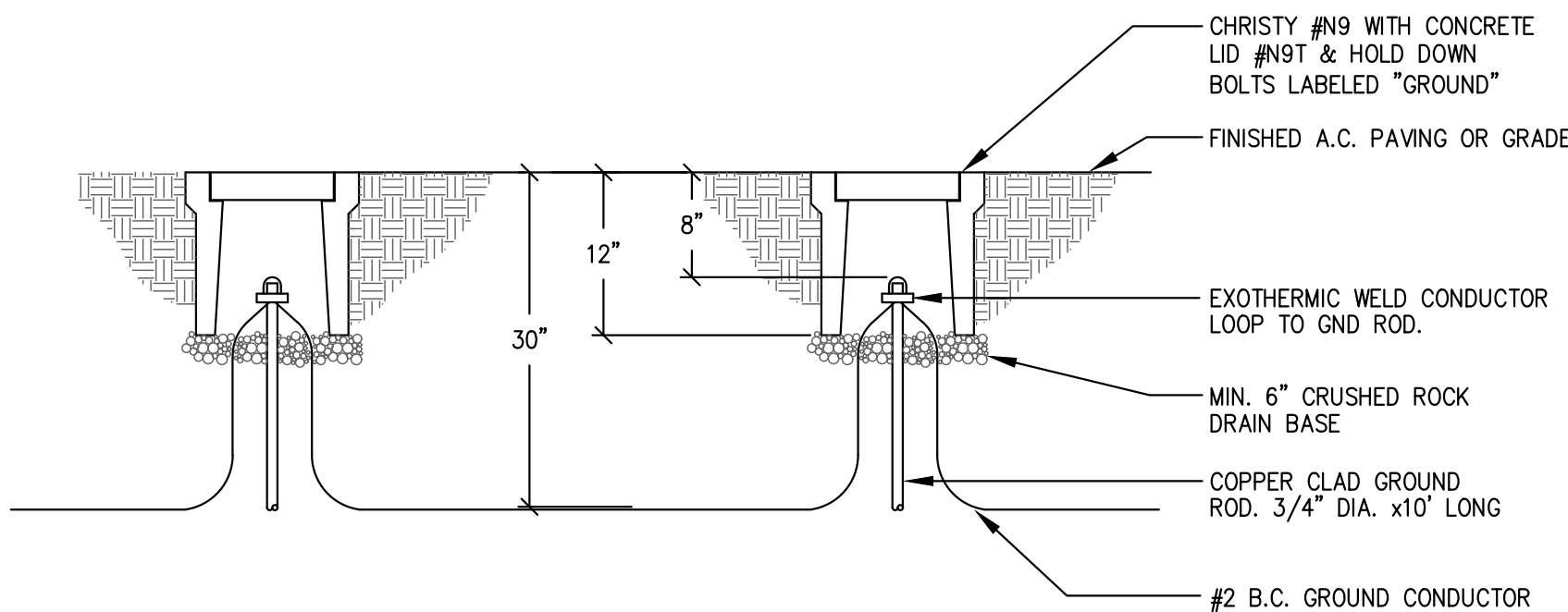
1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 32 in. (813 mm).
 2. Metallic Sleeve — (Optional) Nom 32 in. (813 mm) diam (or smaller) Schedule 40 (or heavier) steel sleeve cast or grouted into floor or wall assembly, flush with floor or wall surfaces or extending a max of 3 in. (76 mm) above floor or beyond both surfaces of wall.
 - 2A. Sheet Metal Sleeve — (Optional) Max 6 in. (152 mm) diam, min 26 ga. galv steel provided with a 26 ga galv steel square flange spot welded to the sleeve at approx mid-height, or flush with bottom of sleeve in floors, and sized to be a min of 2 in. (51 mm) larger than the sleeve diam. The sleeve is to be cast in place and may extend a max of 4 in. (102 mm) below the bottom of the deck and a max of 1 in. (25 mm) above the top surface of the concrete floor.
 - 2B. Sheet Metal Sleeve — (Optional) - Max 12 in. (305 mm) diam, min 24 ga galv steel provided with a 24 ga galv steel square flange spot welded to the sleeve at approx mid-height, or flush with bottom of sleeve in floors, and sized to be a min of 2 in. (51 mm) larger than the sleeve diam. The sleeve is to be cast in place and may extend a max of 4 in. (102 mm) below the bottom of the deck and a max of 1 in. (25 mm) above the top surface of the concrete floor.
 3. Through-Penetrant — One metallic pipe, tube or conduit to be installed either concentrically or eccentrically within the firestop system. The annular space between penetrant and periphery of opening shall be min 0 in. (point contact) to max 1-7/8 in. (48 mm). Penetrant may be installed with continuous point contact. Penetrant to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic penetrants may be used:
 - A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
 - C. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
 - D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - E. Conduit — Nom 6 in. (152 mm) diam (or smaller) steel conduit.
 - F. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT).
 4. Firestop System — The firestop system shall consist of the following:
 - A. Packing Material — Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or sleeve or from both surfaces of wall or sleeve as required to accommodate the required thickness of fill material.
 - B. Fill, Void or Cavity Material* — Sealant — Min 1/4 in. (6 mm) thickness of fill material applied within the annulus, flush with top surface of floor or sleeve or with both surfaces of wall or sleeve. At the point or continuous contact locations between penetrant and concrete or sleeve, a min 1/4 in. (6 mm) diam bead of fill material shall be applied at the concrete or sleeve/ pipe penetrant interface on the top surface of floor and on both surfaces of wall.HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant
- * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



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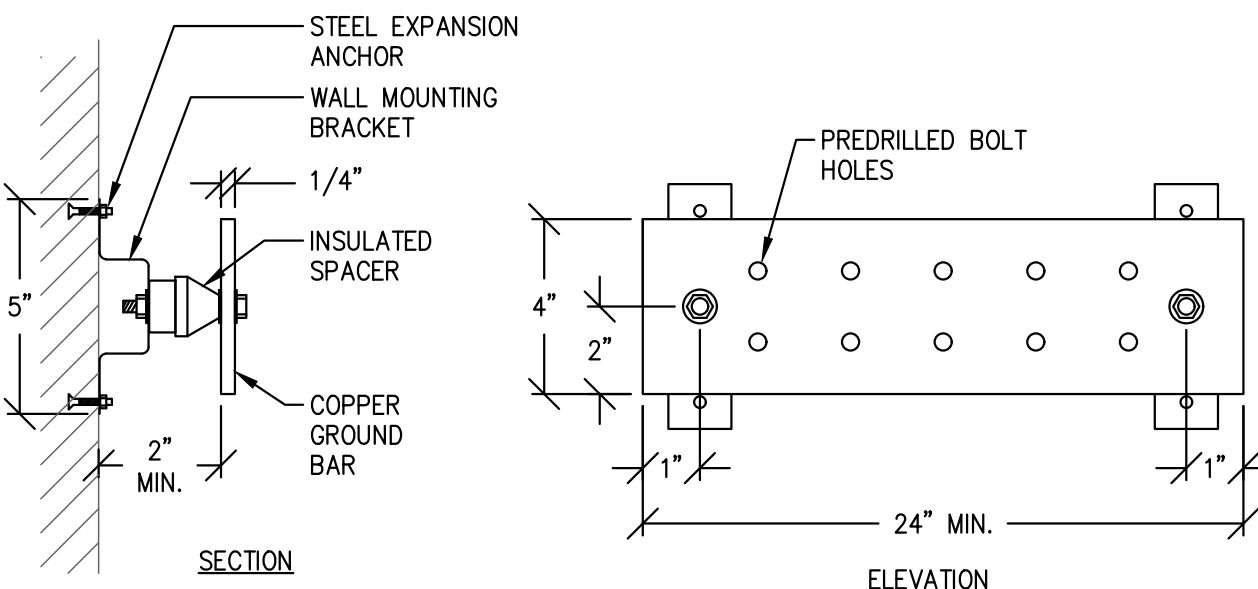
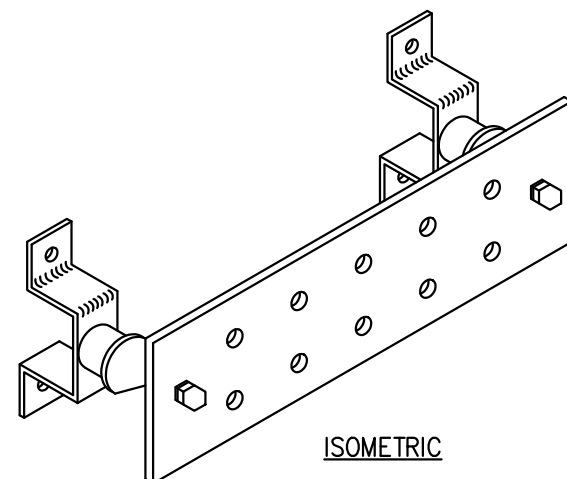
6 CONCRETE CONDUIT PENETRATION FIRESTOP

SCALE: NONE



4 GROUND ROD & INSPECTION CELL DETAIL

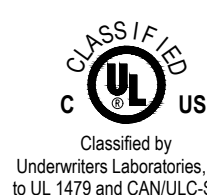
SCALE: NONE



- NOTES:
1. PROVIDE A MINIMUM OF 1 MOUNTING POINT PER 12" OF BAR LENGTH.
 2. PROVIDE QUANTITY OF PREDRILLED STANDARD NEMA BOLT HOLES SIZED AND SPACED AS REQUIRED FOR CONNECTIONS USED.
 3. FOR ALL ADDITIONAL INSTALLATION REQUIREMENTS REFER TO SPEC SECTIONS 26 05 26.

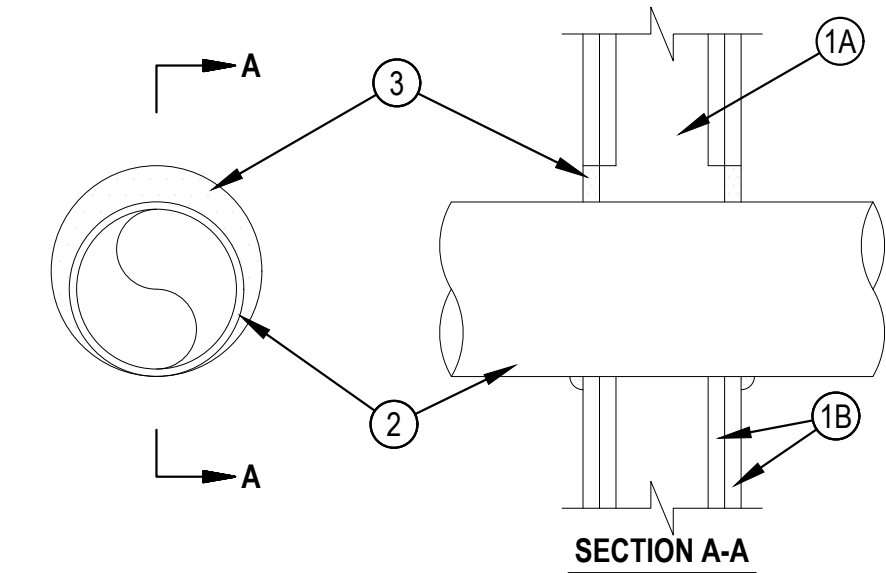
5 MAIN ELECTRICAL GROUND BUS BAR

SCALE: NONE



System No. W-L-1054

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Items 1 and 3)	F Ratings — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating at Ambient — Less Than 1 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Items 1 and 3)
L Rating at 400 F — Less Than 1 CFM/sq ft	FTH Rating — 0 Hr
	FTH Rating — 0 Hr
	L Rating at Ambient — Less Than 1 CFM/sq ft L Rating at 400 F — Less Than 1 CFM/sq ft



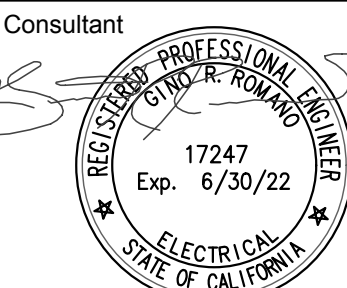
1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
 - A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
 - B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls. The F and FH Ratings of the firestop system are equal to the fire rating of the wall assembly.
 2. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
 - A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
 - C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) diam steel conduit.
 - D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) regular (or heavier) copper pipe.
 3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.
- HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant
- * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



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January 23, 2015

2 STUD WALL CONDUIT PENETRATION FIRESTOP

SCALE: NONE



PLOT DATE: 2/19/2021



Agency Approvals

Issue: *CONSTRUCTION DOCUMENTS

No.	Date	Description
	12/18/20	MSB REPLACEMENT
	3/1/2021	FINAL REVIEW

Project

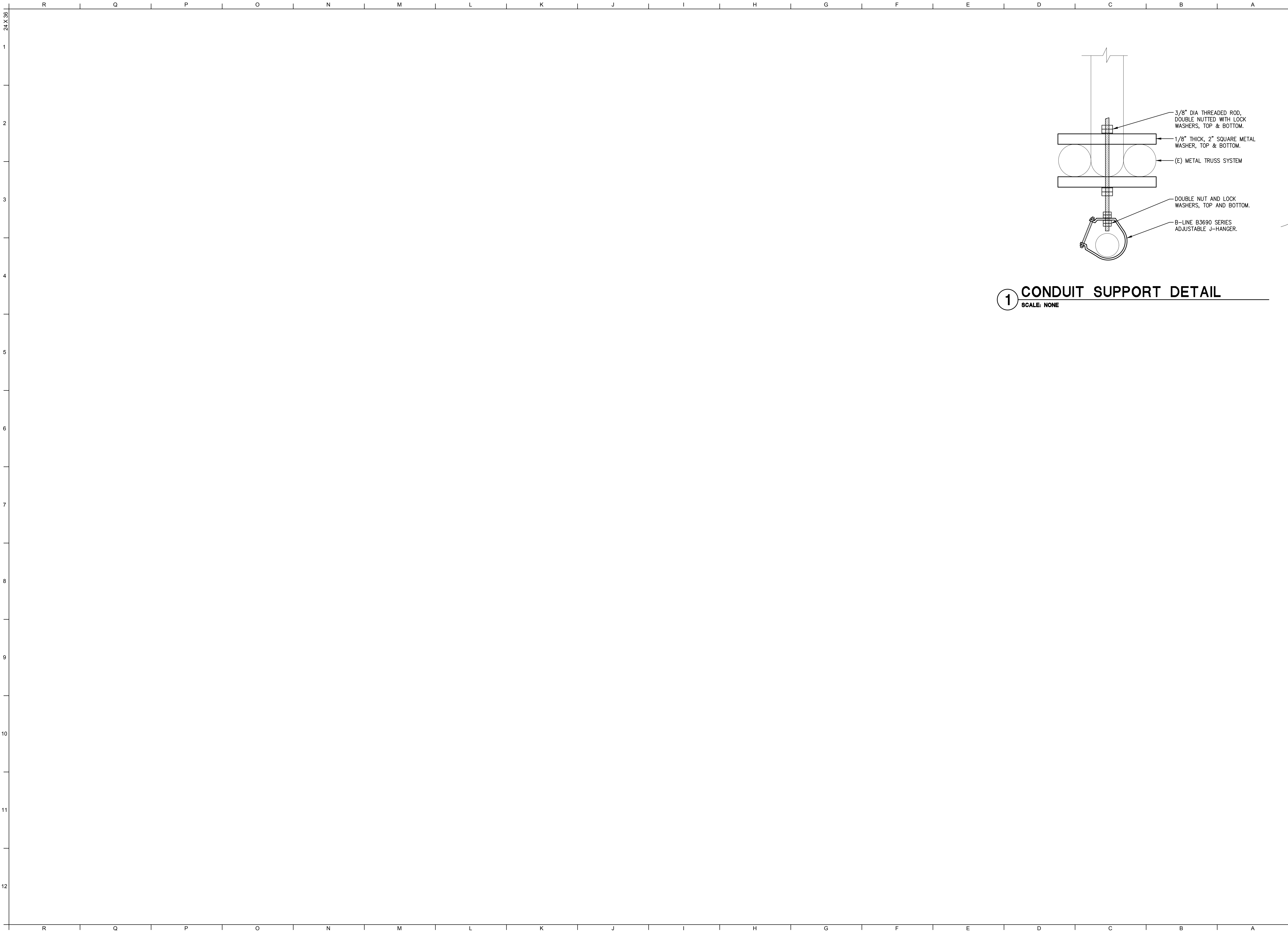
FIRE STATION 31
530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616

Architect of Record	JH
Project Architect	PN
Drafted By	
Checked By	
File Date	9/1/2020

Sheet Title
DETAILS

Project Number
20258-31

E-402



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HAMMOND+PLAYLE
ARCHITECTS, LLP
art, architecture + ecology
909 FIFTH STREET, DAVIS, CA
530.750.0756 WWW.INDIGOARCH.COM



PLOT DATE: 2/19/2021

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Agency Approvals

Issue: *CONSTRUCTION DOCUMENTS

No.	Date	Description
	12/18/20	MSB REPLACEMENT
	3/1/2021	FINAL REVIEW

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Project Architect	PN
Drafted By	
Checked By	

File Date
9/1/2020

Sheet Title
DETAILS

Project Number
20258-31

E-403

Project		
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**530 5TH STREET
CITY OF DAVIS,
CALIFORNIA 95616**

File Date
9/1/2020

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P-101

- 1) PROVIDE 1/2" RO PVC WATER LINE TO ICE MAKER BOX IN EXISTING WALL, ABOVE COUNTER.
- 2) 1/2" RO PVC WATER LINE TO WATER STATION WITH DRIP PAN. WATER STATION TO HAVE OUTLET 12" ABOVE DRIP TRAY FOR LARGE WATER BOTTLE FILLING PURPOSES.
- 3) 1/2" DOMESTIC COLD AND HOT WATER LINES TO DISHWASHER. CONNECT DISHWASHER DRAIN TO TAILPIPE OF GO-1, PER 4/P-401. UPSTREAM OF P-TRAP. CONNECT VENT LINE TO 6C ON SINK.
- 4) 3/4" NATURAL GAS LINE BEHIND WALL TO NEW GAS RANGE. CONNECT TO EXISTING 1-1/2" GAS LINE BEHIND WALL. PROVIDE WITH SHUTOFF.
- 5) 1/2" DOMESTIC COLD WATER, 1/2" DOMESTIC HOT WATER, 1-1/2" VENT, 2" SANITARY SEWER TO NEW SINK. CONNECT TO EXISTING UTILITIES WHERE PREVIOUS SINK WAS LOCATED, AND PROVIDE CLEANOUT.
- 6) 3/4" CONDENSATE LINE FROM MECHANICAL FAN COIL. DISCHARGE DOWN INTO DRYWELL. SEE DETAIL 2/P-401.
- 7) FOLLOW ROUTING OF REFRIGERANT PIPING FOR CONDENSATE ROUTING. SUPPORT PIPING ON UNISTRUT SIMILAR TO MECHANICAL DETAIL 5/M-401.
- 8) GARBAGE DISPOSAL UNDER SINK. SEE DETAIL 4/P-401. ELECTRICAL SERVICE AND SWITCH LOCATION PER ELECTRICAL DRAWINGS.
- 9) REVERSE OSMOSIS FILTRATION SYSTEM UNDER CABINET. SEE DETAIL 3/P-401. INSTALL PER MFR INSTALLATION INSTRUCTIONS. PROVIDE 1/2" CW TO RO SYSTEM FROM EXISTING COLD WATER IN WALL. REMOVE EXISTING HOSE BIBB.
- 10) 1-1/2" VENT RISER TO ROOF. SEE DETAIL 5/P-401.
- 11) PROVIDE FLOOR SINK BELOW CABINET, ADJACENT TO RO SYSTEM. TAKE DRAIN LINE FROM RO SYSTEM TO INDIRECT CONNECTION ABOVE FLOOR SINK.
- 12) CONNECT 2" SANITARY SEWER TO EXISTING 2" SANITARY SEWER LINE. SAW CUT SLAB PER ARCHITECTURAL DRAWINGS FOR NEW SANITARY LINE.

1. ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED SITE SURVEYS, AND SHOWN FOR CLARITY ONLY.

