FIRE STATION 31

530 5TH STREET, CITY OF DAVIS, CALIFORNIA 95616





Consultant

Agency Approvals

2			ABBF	REVIATIONS			SCOPE OF WORK
٦	AFF	ABOVE FINISH	GA	GAGE OR GAUGE	SG	SAFETY GLASS	
	ALI	FLOOR	GAL	GALLON	SCHED	SCHEDULE	THE WORK OF THIS CONTRACT INCLUDES PROVIDING ALL LABOR MATERIALS
	ACC	ACCESSIBLE	GALV	HOT DIPPED	SED	SEE ELECTRICAL	THE WORK OF THIS CONTRACT INCLUDES PROVIDING ALL LABOR, MATERIALS,
			GALV		SED		EQUIPMENT, INTERIOR & EXTERIOR DEMOLITION, REWORK & SERVICES
	ADJ	ADJACENT OR	01	GALVINIZED	ODOT	DRAWINGS	NECESSARY TO RENOVATE THE EXISTING CITY OF DAVIS FIRE STATION 31
		ADJUSTABLE	GI	GALVANIZED IRON	SDST	SELF DRILLING SELF	BUILDING. THE WORK INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING.
	ADMIN	ADMINISTRATION	GC	GENERAL		TAPPING	
	AGGR	AGGREGATE		CONTRACTOR	SHTG	SHEATHING	THIS PROJECT SHALL INCLUDE RENOVATION OF KITCHEN AT EXISTING FIRE
	ADA	AMERICANS WITH			SHT	SHEET	STATION 31. WORK INCLUDES BUT IS NOT LIMITED TO FLOORING, CASEWORK,
		DISABLITIES ACT	HT	HEIGHT	SMD	SEE MECHANICAL	PAINTING, ELECTRICAL, PLUMBING, EQUIPMENT UPGRADES, CEILING AND
4	ALUM	ALUMINUM	HCWD	HOLLOW CORE		DRAWINGS	OTHERS.
· I	APPROX	APPROXIMATE		WOOD DOOR	SMF	SHEET METAL	OTTILING.
	ARCH	ARCHITECTURAL	НМ	HOLLOW METAL	Olviii	FASTENER	THIS PROJECT INCLUDES EXTERIOR AND INTERIOR ACCESSIBILITY
	AD	AREA DRAIN	HMD	HOLLOW METAL	SMS	SHEET METAL SCREW	
		ASPHALT BASE	טואוו ו	DOOR	SIM	SIMILAR	IMPROVEMENTS.
	AB		110017				
_	ASPH	ASPHALT	HORIZ	HORIZONTAL	STC	SOUND	
	AV	AUDIO/VISUAL				TRANSMISSION	CENEDAL NOTES
			HORIZ	HORIZONTAL		CLASS	GENERAL NOTES
	BD	BOARD	HB	HOSE BIB	S	SOUTH	
	BLKG	BLOCKING	HD	HOT DIPPED	SPD	SEE PLUMBING	
	BOT	BOTTOM				DRAWINGS	
5		20	INC	INCLUDING	SPEC	SPECIFICATION	1. GENERAL CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF
	CA	CALIFORNIA	ID	INSIDE DIAMETER	SQ	SQUARE	AUTHORITIES HAVING JURISDICTION RELATED TO THE INSTALLATION AND
	CBC	CA BUILDING CODE	INSUL	INSULATION	SF	SQUARE FEET	ASSOCIATED REQUIRED TESTS & INSPECTIONS PRIOR TO COVERING OR
							CONCEALING THESE MATERIALS.
	CCR	CA CODE OF	INT	INTERIOR	SS	STAINLESS STEEL	
		REGULATION'S	ISA	INTERNATIONAL	STD	STANDARD	2. FOR APPLICABLE CODE DATA AND PROJECT DATAINFORMATION SEE THIS
	CTR	CENTER		SYMBOL OF	SFM	STATE FIRE MARSHAL	SHEET.
	CL	CENTER LINE		ACCESSIBILITY	STL	STEEL	
	CLR	CLEAR			STOR	STORAGE	3. FOR ADDITIONAL SUPPLEMENTARY INFORMATION SEE PROJECT MANUAL.
	COL	COLUMN	JAN	JANITOR	STRUCT	STRUCTURAL	
	CONC	CONCRETE			SUSP	SUSPENDED	4. SEE PLANS & PROJECT MANUAL FOR SPECIFIC GREEN BUILDING
6	CMU	CONCRETE	MFR	MANUFACTURER	SYS	SYSTEM	REQUIREMENTS & COMMISSIONING ACTIVITY REQUIREMENTS.
٥	CIVIO	MASONRY UNIT	MAX	MAXIMUM	313	STSTEM	REQUITEMENTO & OCIMINIOCICIAINO NOTIVITA I REQUIREMENTO.
	CONT			_	TD	TUDE	5. BY REVIEW OF THESE PLANS, THE GOVERNING AGENCY'S REVIEWER HAS
	CONT	CONTINUOUS	MECH	MECHANICAL	TB	TUBE	DONE A THOROUGH REVIEW AND ANALYSIS AND APPROVAL INDICATES-
	CJ	CONTROL JOINT	MTL	METAL	T&B	TOP AND BOTTOM	COMPLIANCE UNDER SB1608.
	CORR	CORRIDOR	MIN	MINIMUM	TBR	TO BE REMOVED	COMI LIANCE ONDER OBTOOK.
			MISC	MISCELLANEOUS	THK	THICKNESS	6. THIS PROJECT IS IN FULL COMPLIANCE WITH CBC CHAPTER 11B FOR
	DG	DECOMPOSED			THRES	THRESHOLD	ACCESSIBILITY.
		GRANITE	(N)	NEW	THRU	THROUGH	ACCESSIBILITY.
	DEG	DEGREES	NOM	NOMINAL	TO	TOP OF	7. OWNER SHALL PROVIDE REQUIRED NFPA 70E ARC FLASH STUDY.
	DEMO	DEMOLITION	N	NORTH	TOB	TOP OF BEAM	7. OWNER SHALL PROVIDE REQUIRED INFPA (UE ARC FLASH STUDY.
7	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	Ο/	OVER		POLYOLEFIN	
	DBL	DOUBLE	OFF	OFFICE	TRTD	TREATED	
	DS	DOWNSPOUT	OC	ON CENTER	TS	TOP OF SLAB OR	
_			ОН	OPPOSITE HAND		TUBE STEEL	LOCATION MAP
	EA	EACH	OD	OUTSIDE DIAMETER	TYP	TYPICAL	
	⊑/ \ ⊑	EAST	OB	COTOIDE DIMINETER		11110/1E	
		ELECTRICAL	PR	PAIR	LIDC	LINIEODM DLIII DING	· · · · · · · · · · · · · · · · · · ·
	ELEC				UBC	UNIFORM BUILDING	The second secon
	EQ	EQUAL	PT	PAINT OR POINT		CODE	是我们是这个人们的,但是不是一个人的,但是我们就是这种的。 第一个人们的,我们就是一个人们的,我们就是一个人们的,我们就是一个人们的,我们就是一个人们的,我们就是
8	EQUIP	EQUIPMENT	PL	PROPERTY LINE	UON	UNLESS OTHERWISE	
	EXIST OR (E)	EXISTING	PREFIN	PREFINISHED		NOTED	2011年1月1日 - 100 -
	EXT	EXTERIOR	PROP	PROPERTY			三个人的 自然是一个人的,但是一个人的,他们就是一个人的,他们就是一个人的,他们就是一个人的,他们就是一个人的,他们就是一个人的,他们就是一个人的,他们就是一个人的
					VTR	VENT THROUGH	
	FF	FINISH FLOOR	RWL	RAIN WATER		ROOF	在大学(A) (1) (A) (A) (A) (A) (A) (A) (A) (A) (A) (A
	FE	FIRE		LEADER	VIF	VERIFY IN FEILD	
\dashv		EXTINGUISHER	RWD	REDWOOD	VERT	VERTICAL	
	EEC						图 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	FEC	FIRE	REINF	REINFORCED	VWF	VINYL WALL FABRIC	
- 1		EXTINGUISHER	R	RADIUS	—		THE PROPERTY OF THE PROPERTY O
		CABINET	RD	ROOF DRAIN	WT	WEIGHT	的方式。 1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1
9	FSR	FIRE SPRINKLER	RO	ROUGH OPENING	W	WEST	了自然不能是自然的,但不是国际的人,但是是这个大学,但是这个人的人,也是是一个人的人的人,也是是一个人的人的人。
9		RISER	RM	ROOM	W/	WITH	
	FD	FLOOR DRAIN			W/O	WITHOUT	THE PARTY OF THE P
		. 2001. 510 111			WI	WOOD INSTITUTE	
- 1					V V I	WOOD INDITIOIL	TUSTREET

PROJECT DIRECTORY CLIENT CITY OF DAVIS 1717 Fifth Street - 23 Russell Blvd.

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MECHANICAL / ELECTRICAL / PLUMBING ENGINEER
PETERS ENGINEERING Sean Tichenor, Principal Engineer 2411 Alhambra Blvd., Suite 100 Sacramento, CA 95817 ph: 916-447-2841 ext.315

ARCHITECT INDIGO | HAMMOND + PLAYLE email: stichenor@peterseng.com Jonathan Hammond, Architect of Record SURVEYOR FRAME SURVEYING & MAPPING Prescott Nichols, Project Architect

APPLICABLE CODES

CONSTRUCTION WILL COMPLY WITH THE FOLLOWING CODES AND ORDINANCES AS AMENDED BY THE STATE OF CALIFORNIA AND LOCAL

2019 California Building Code, CCR, Title 24, Part 2 (2V) - CHAPTER 7A

2019 California Administrative Code, CCR, Title 24, Part I

2019 California Building Code, CCR, Title 24, Part 2 (2V)

2019 California Electrical Code (CEC), CCR, Title 24, Part 3

2019 California Plumbing Code (CPC), CCR, Title 24, Part 5

2019 California Referenced Standards, CCR, Title 24, Part 12

2019 Title 19 CCR, Public Safety, State Fire Marshal Regulations City of Davis Municipal Code

2019 California Mechanical Code (CMC), CCR, Title 24, Part 4

2019 California Building Code, CCR, Title 14

2019 California Energy Code, CCR, Title 24, Part 6

2019 California Fire Code, CCR, Title 24, Part 9 2019 California Green Building Standards Code

Jim Frame, Principal Land Surveyor 609 A Street Davis, CA 95616 ph: 530-756-8584 email: jhframe@dcn.org

GENERAL

COVER SHEET - FIRE STATION 31

ARCHITECTURAL DEMOLITION

DEMOLITION ACCESSIBILITY ROUTE - FIRE STATION 31 **DEMOLITION PLANS - FIRE STATION 31**

SHEET INDEX

ARCHITECTURAL

ACCESSIBILITY ROUTE - SURVEY - FIRE STATION 31 ACCESSIBILITY ROUTE - FIRE STATION 31 SITE PLAN - FIRE STATION 31 PLANS - FIRE STATION 31

DETAILS & SCHEDULES - FIRE STATION 31 EQUIPMENT - FIRE STATION 31

MECHANICAL

M-401

M-001 SYMBOLS, NOTES & SCHEDULES TITLE 24 - FIRE STATION 31 M-002 M-003 TITLE 24 - FIRE STATION 31 FIRE STATION 31 PLAN - MECHANICAL M-101

MECHANICAL DETAILS

ELECTRICAL

SYMBOLS, NOTES & SCHEDULES

E-002 TITLE 24

SITE PLAN - ELECTRICAL FIRE STATION 31 PLANS - ELECTRICAL

DEMOLITION - ONE LINE & PANEL SCHEDULES E-202 MODIFIED - ONE LINE & PANEL SCHEDULES

E-401 DETAILS

DETAILS E-402 E-403 **DETAILS**

PLUMBING

SYMBOLS, NOTES & SCHEDULES FIRE STATION 31 PLAN - PLUMBING

KEY PLAN

P-401

ssue: CONSTRUCTION DOCUMENT

12/18/2020 | CITY REVIEW

FIRE STATION 31

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

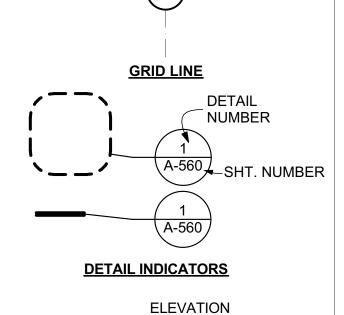
Project Architect	PN
Drafted By	PN/ OA
Checked By	PN
File Date	
9/1/2020	

COVER SHEET -FIRE STATION 31

Project Number 20258-31

G-001

SYMBOL LEGEND



INTERIOR ELEVATION

- ELEV. NUMBER

- SHT. NUMBER

SECTION

NUMBER

SHT. NUMBER

BUILDING ELEVATION INDICATOR

INDICATOR

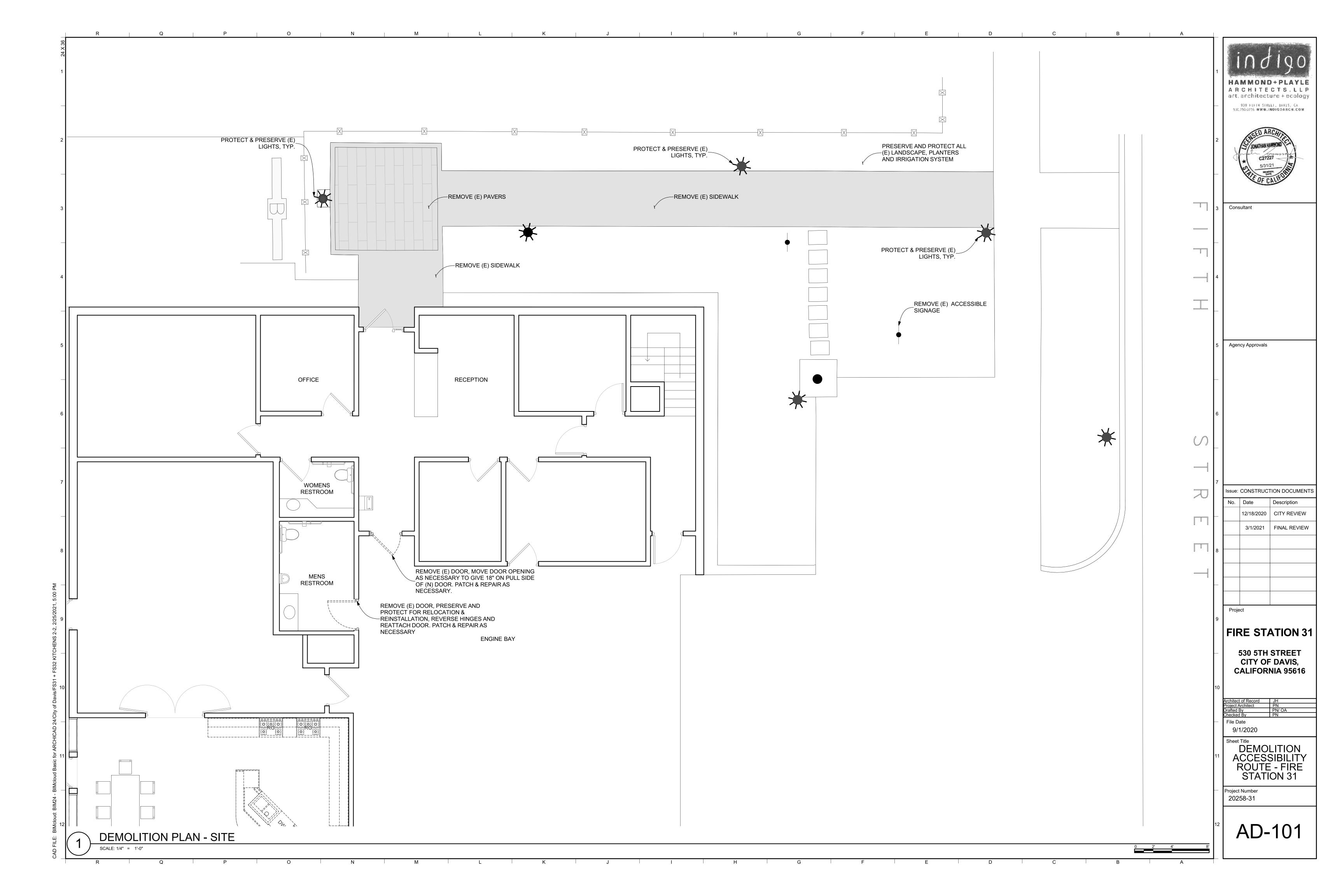
SIGNAGE INDICATOR

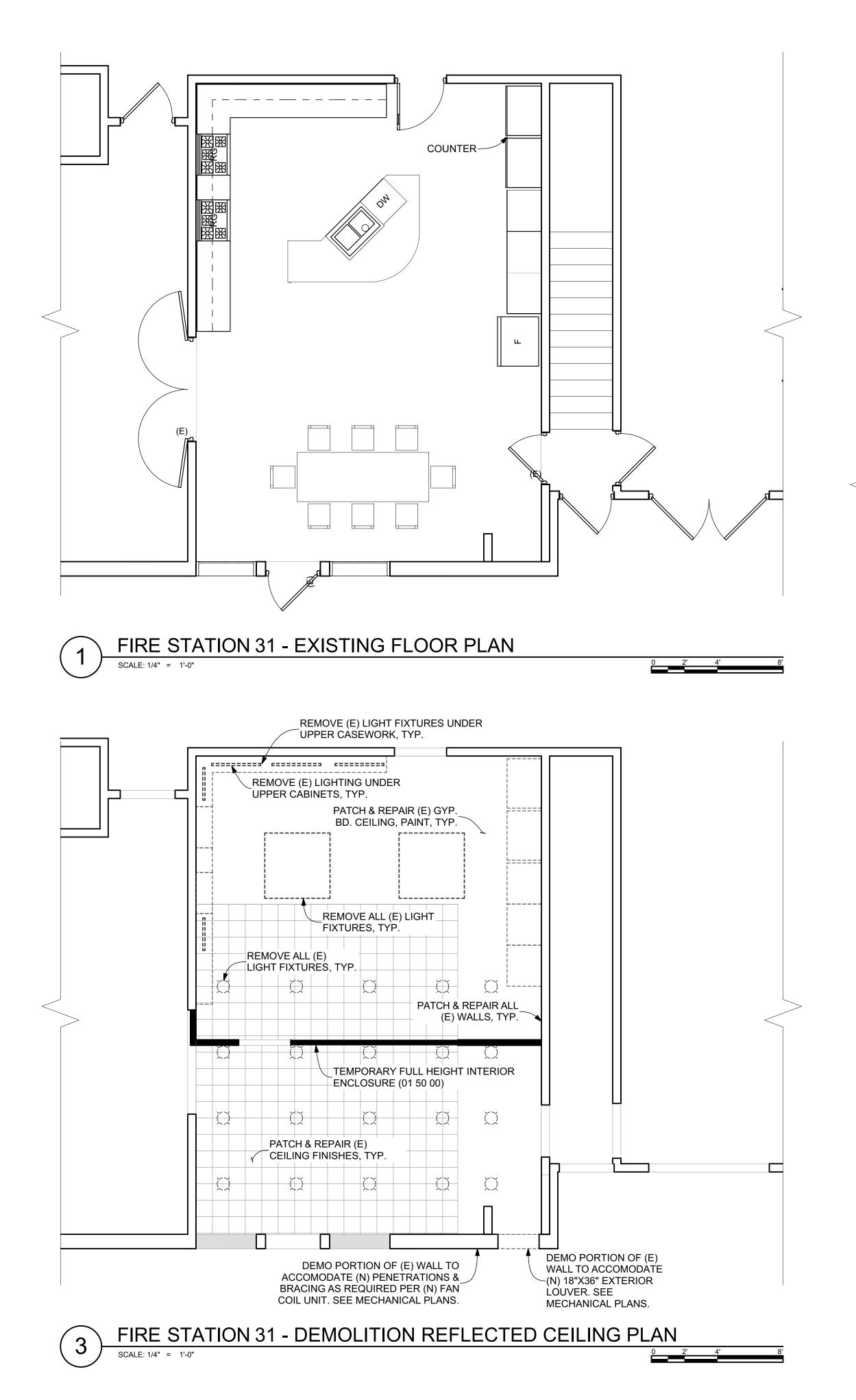


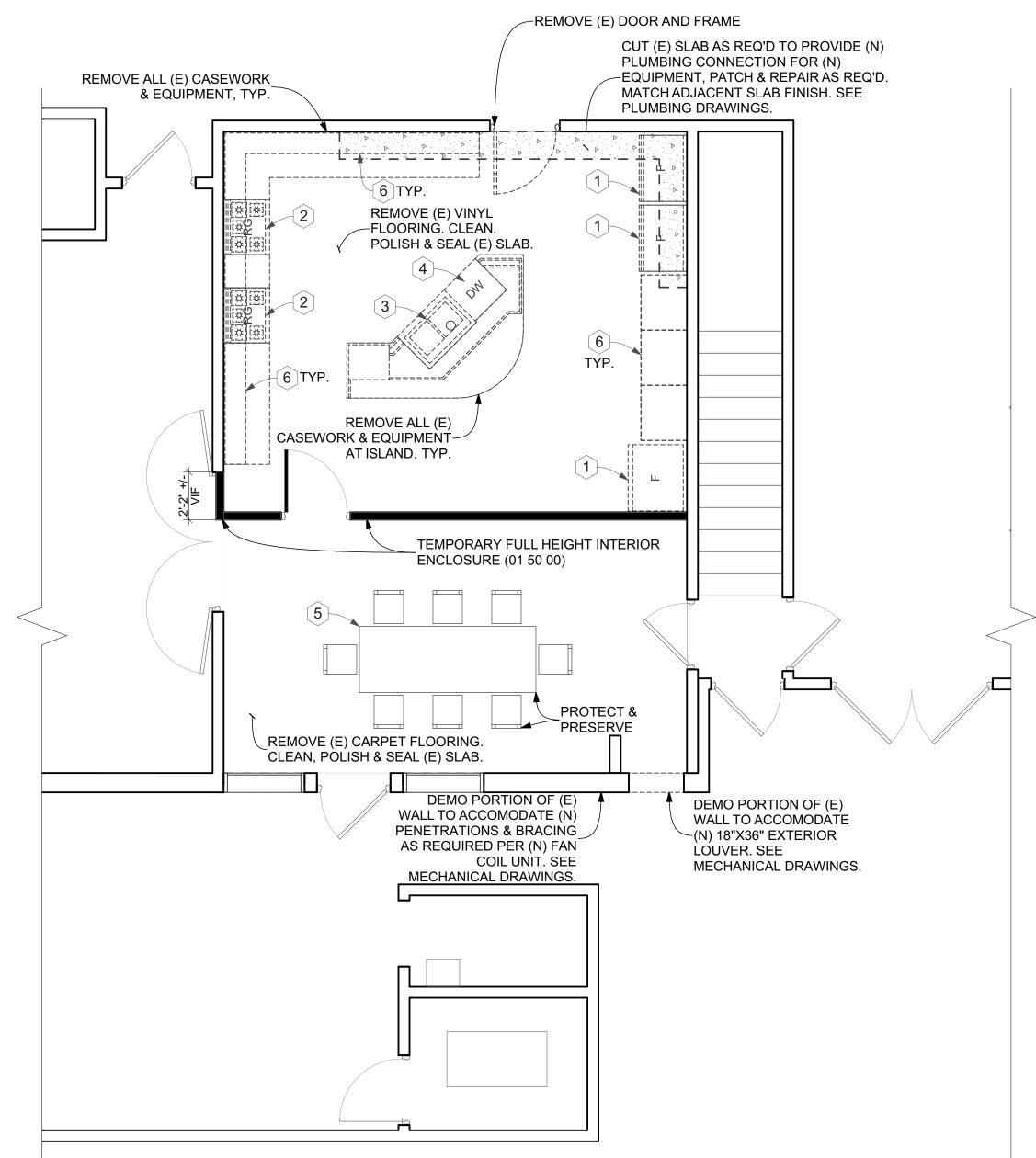
DATUM POINT

LOCATION MAP

DOOR OPENING INDICATOR





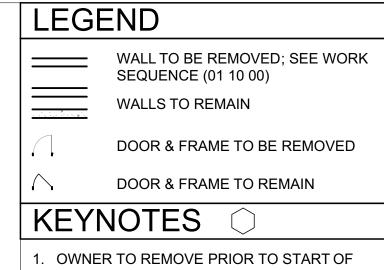


FIRE STATION 31 - DEMOLITION FLOOR PLAN

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

- 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.



- 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.

HAMMOND+PLAYLE ARCHITECTS, LLP art, architecture + ecology 909 FIFTH STREET, DAVIS, CA 930,750,0736 **www.indigoarch.com**



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**

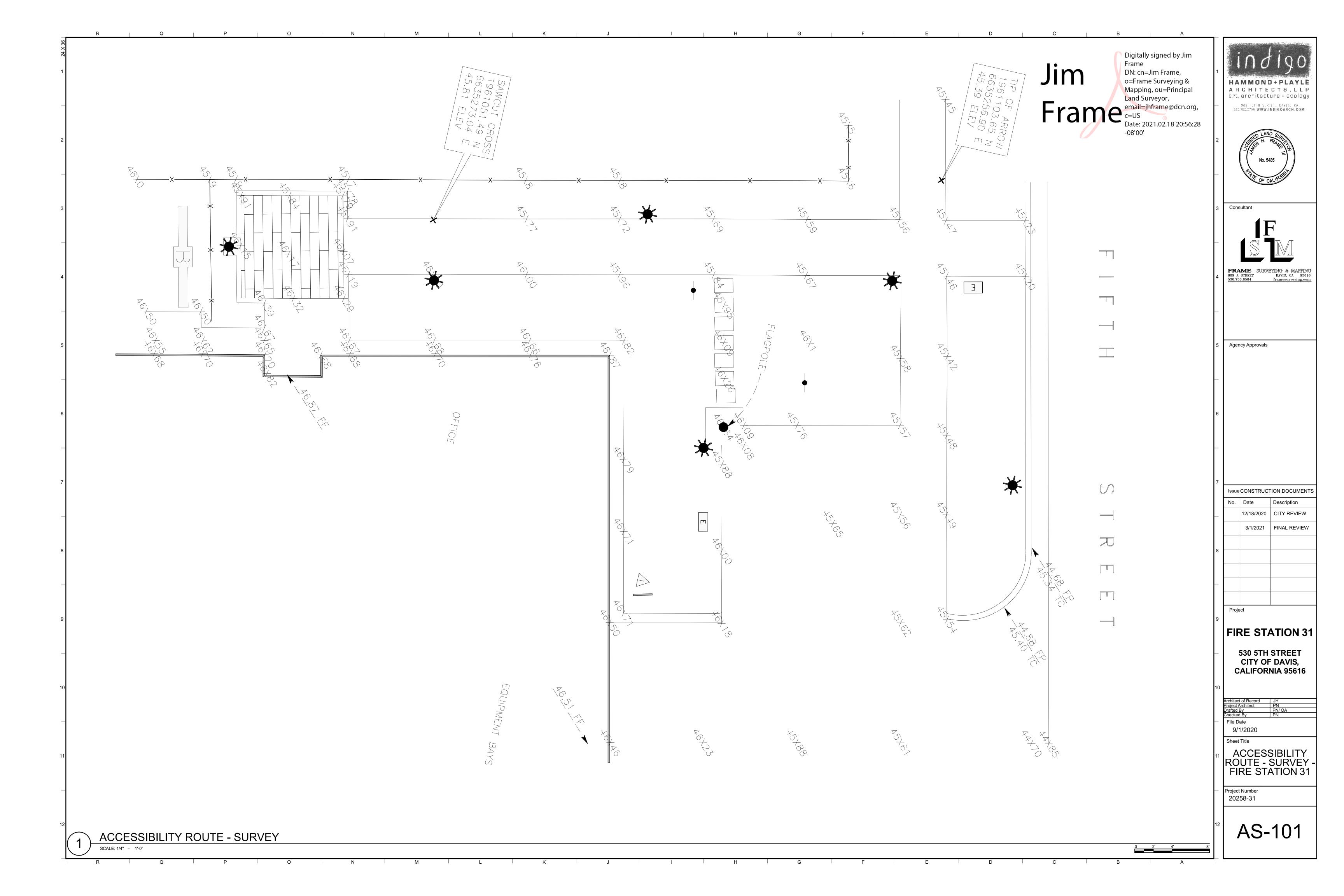
9/1/2020 Sheet Title

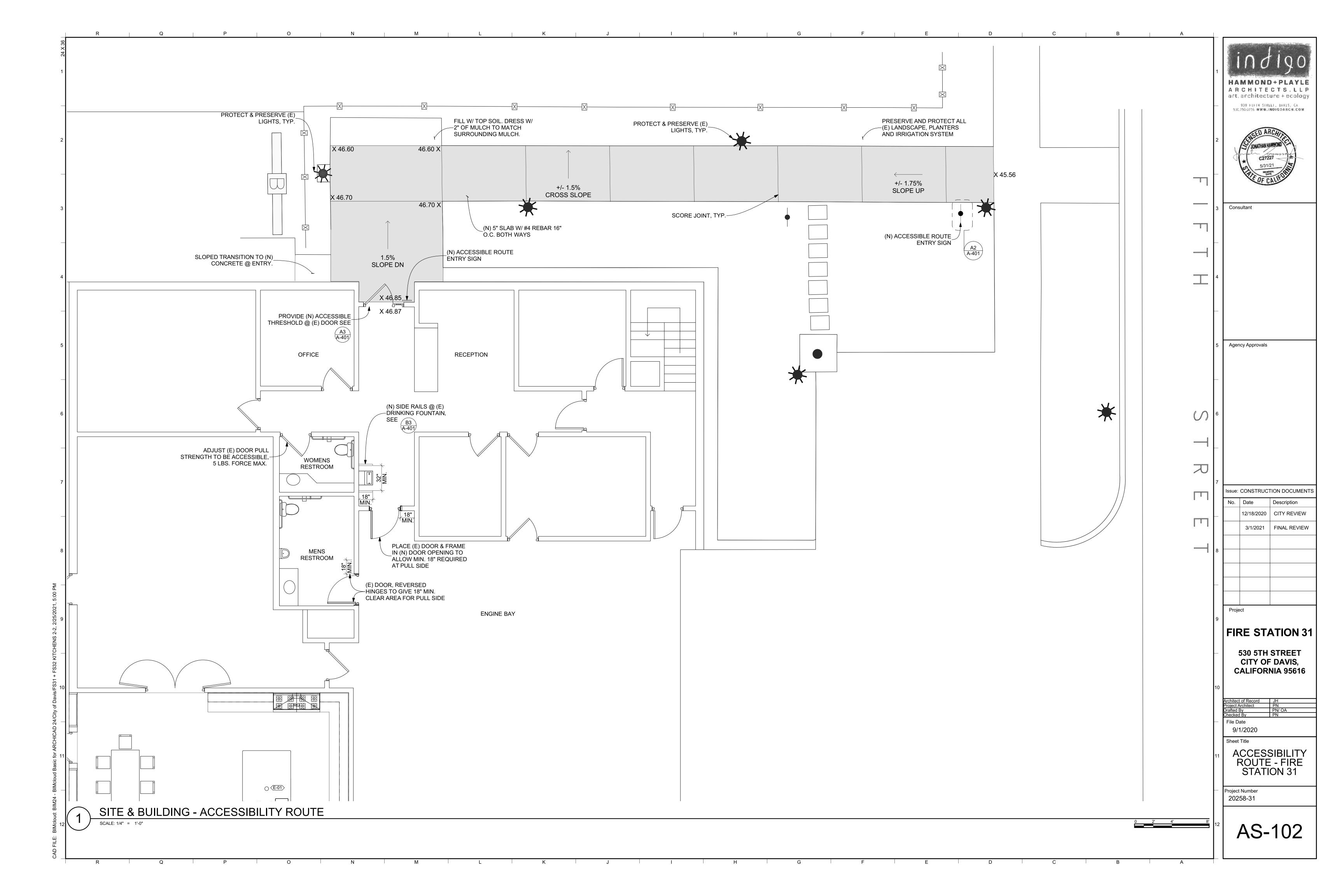
DEMOLITION

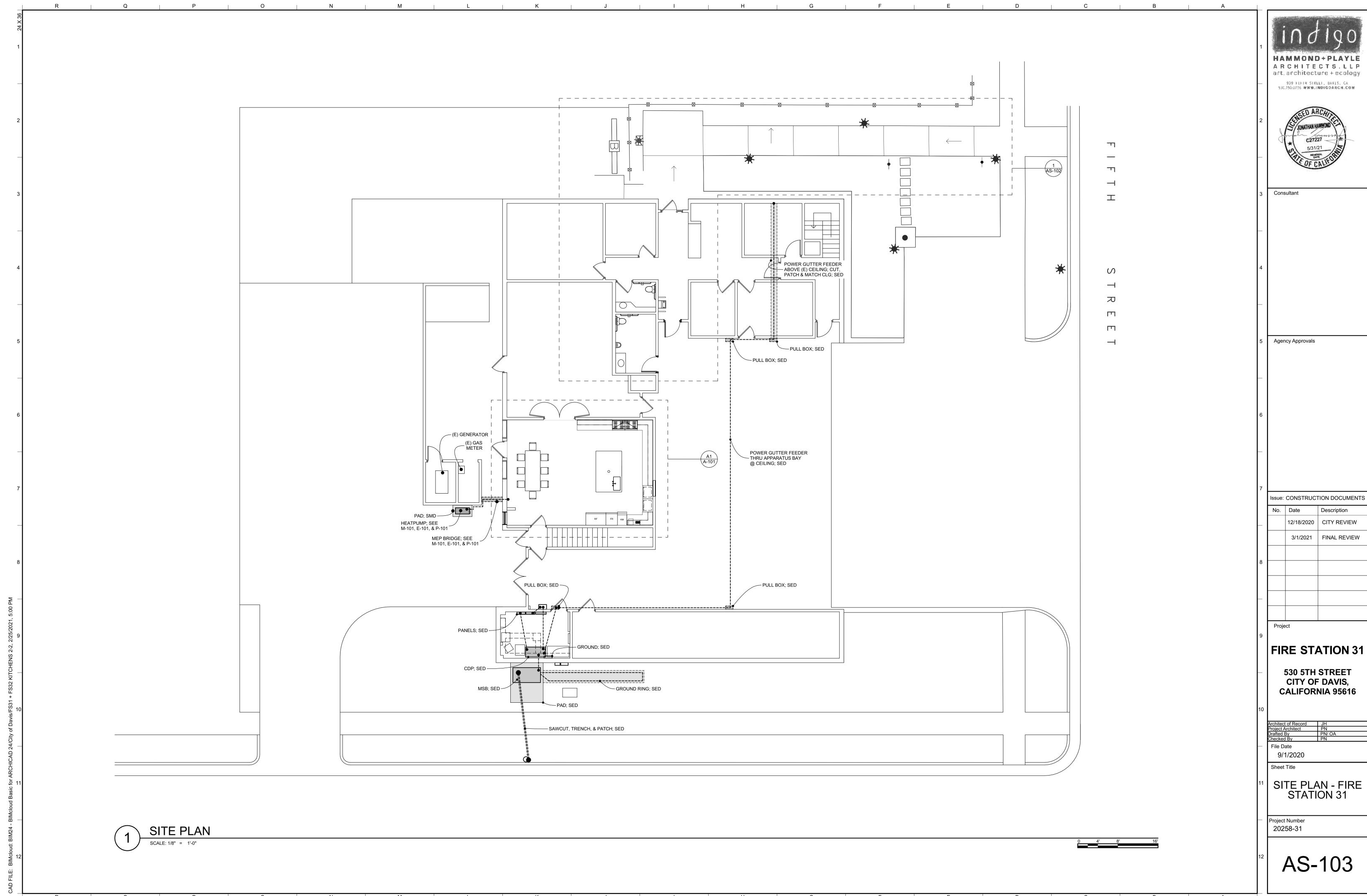
PLANS - FIRE STATION 31

Project Number 20258-31

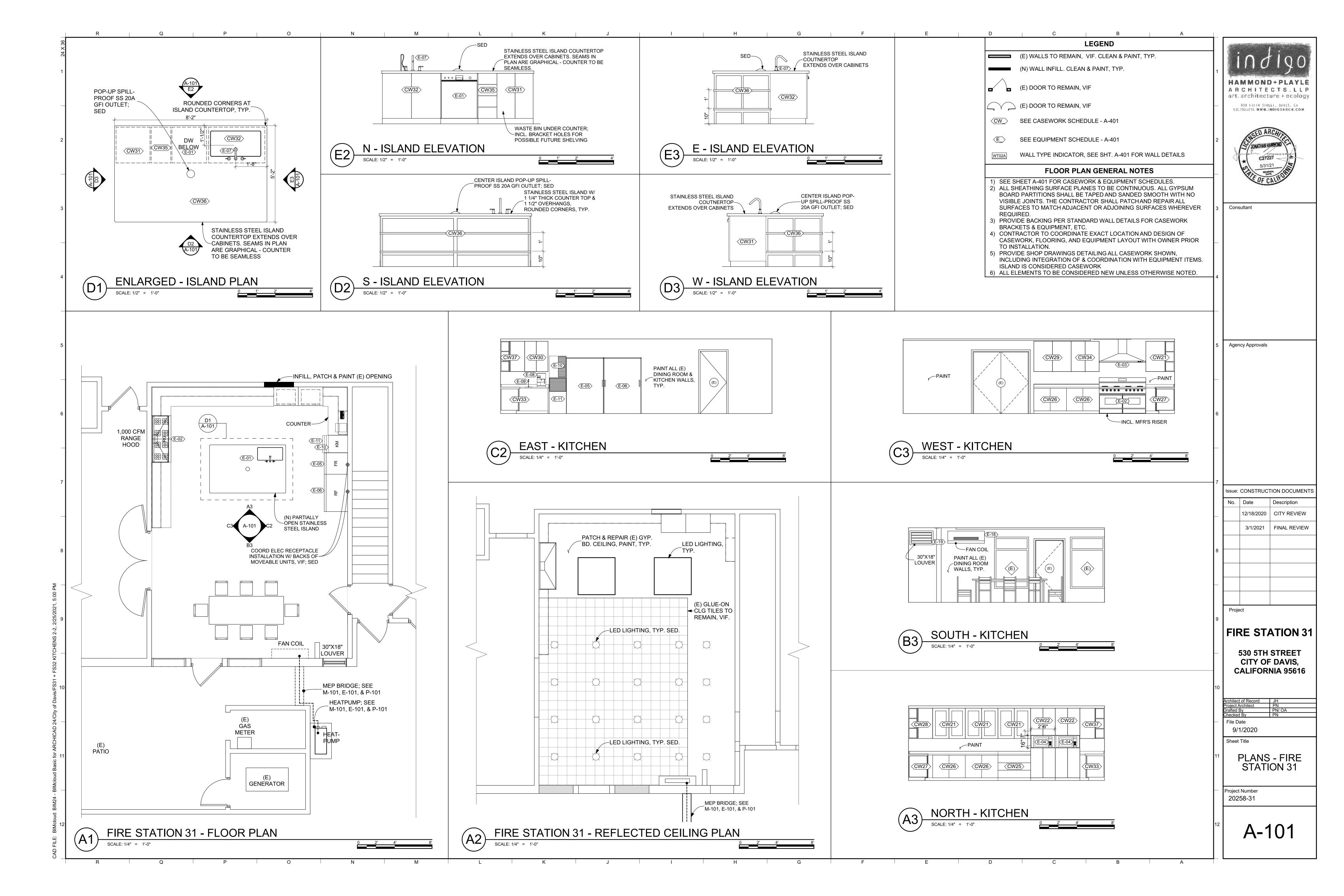
AD-102

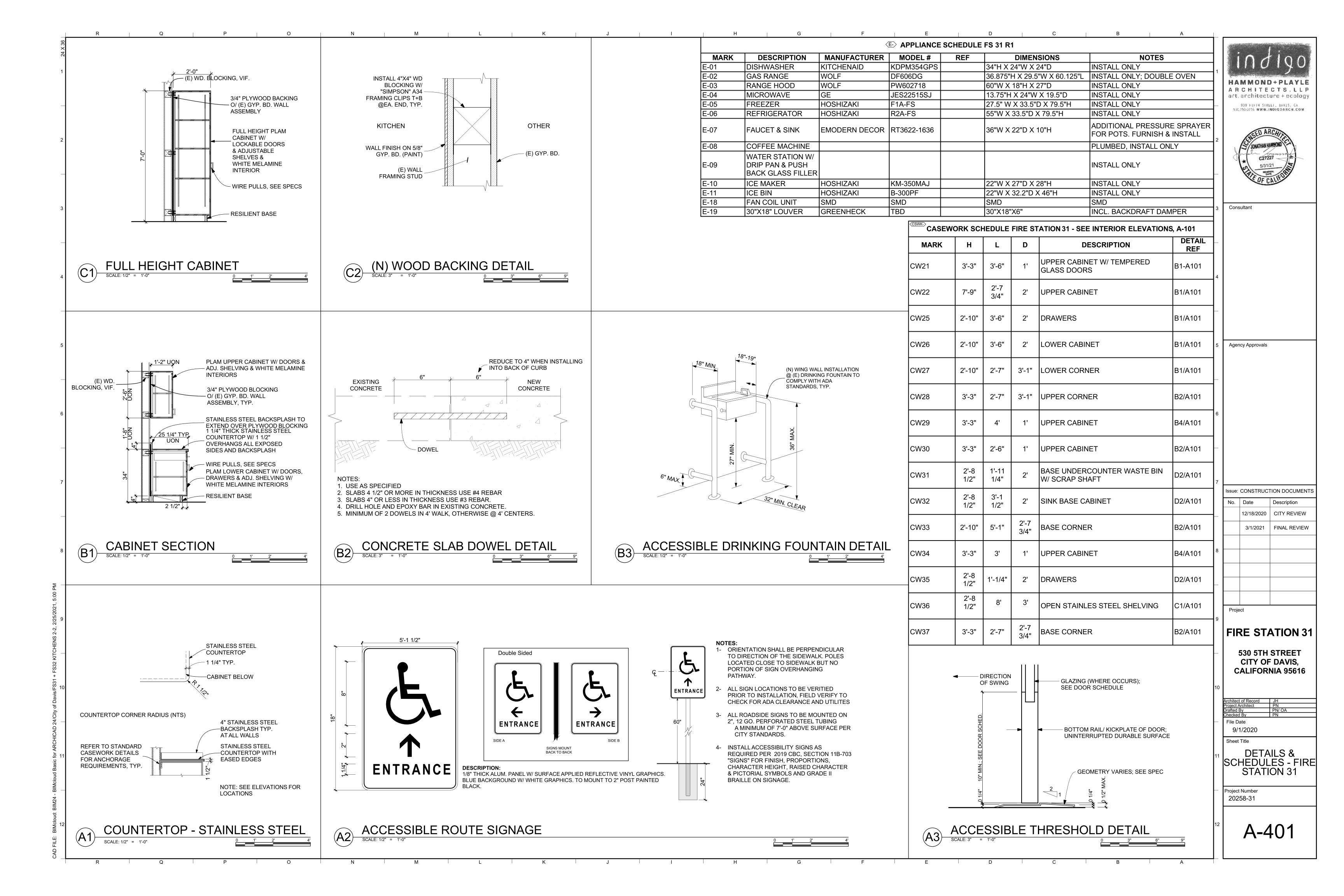






3/1/2021 FINAL REVIEW





INSTALL ONLY

Range Hood - Mfr: Wolf

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

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

Agency Approvals

Issue: CONSTRUCTION DOCUMENT

12/18/2020 | CITY REVIEW FINAL REVIEW

FIRE STATION 31

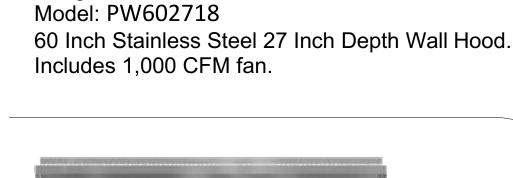
530 5TH STREET CITY OF DAVIS, **CALIFORNIA 95616**

9/1/2020

EQUIPMENT - FIRE STATION 31

Project Number 20258-31

A-501

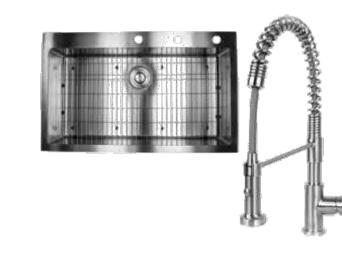




Dimensions	60 1/8"W x 36 7/8"H x 29 1/2"D
Weight	950 lbs
Electrical Supply	240/208 VAC, 60 Hz
Electrical Service	50 amp dedicated circuit
Gas Supply	3/4" ID line
Gas Inlet	1/2" NPT female

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"

MECHANICAL LEGEND

	MECHANICAL	<u>LEGEN</u>	<u>ND</u>
AC AD AEF AL BDD BHP BOO CFM F CEF DB DL N. A LEAT EF (EG SP F F F F F F F F F F F F F F F F F F	AIR CONDITIONING ACCESS DOOR AIR EXTRACTOR ABOVE FINISHED FLOOR ACOUSTICAL LINING BACKDRAFT DAMPER BRAKE HORSEPOWER BOTTOM OF DUCT CO2 SENSOR CONDENSATE DRAIN CUBIC FEET PER MINUTE CEILING EXHAUST FAN CENTERLINE DRY BULB DOOR LOUVER DOWN EXHAUST AIR EXHAUST AIR LOUVER ENTERING AIR TEMPERATURE EXHAUST FAN EXISTING EXHAUST GRILLE EXTERNAL STATIC PRESSURE DEGREES FAHRENHEIT FRESH AIR FRESH AIR LOUVER FLEXIBLE CONNECTION FIRE DAMPER FIRE/SMOKE DAMPER FEET PER MINUTE FULL LOAD AMPS FOOT OR FEET GAUGE GALVANIZED IRON GALVANIZED SHEET METAL HEATING & VENTILATION HERTZ HORSE POWER INDOOR FAN LEAVING AIR TEMPERATURE POUNDS LOCK ROTOR AMPS THOUSAND BTU PER HOUR MAXIMUM MINIMUM CIRCUIT AMPACITY MANUFACTURER	MIN. MOCP MYD (N) OBD OC OPNG. OSA OSH POC QTY RA RD REF RH RL RPM RR(G) RS SD SM SA SD(R)(G) SM SA SD(R)(G) TEMP. TO TG TSP TV TYP UCD UTR V VAV VFD W/ WB WT. AIR TERMINAL 12x12 SD-L 300,12"Ø	MINIMUM MAXIMUM OVER CURRENT PROTECTION MOTORIZED DAMPER MANUAL VOLUME DAMPER NEW OPPOSED BLADE DAMPER ON CENTER OPENING OUTSIDE AIR OUTSIDE AIR OUTSIDE AIR HOOD PHASE POINT OF CONNECTION QUANTITY RETURN AIR RETURN DIFFUSER ROOF EXHAUST FAN RADIANT HEATER REFRIGERANT LIQUID REVOLUTION PER MINUTE RETURN REGISTER (GRILLE) REFRIGERANT SUCTION SENSOR SMOKE DETECTOR SHEET METAL SUPPLY AIR SUPPLY AIR SUPPLY DIFFUSER (REGISTER) (GRILLE) STAINLESS STEEL THERMOSTAT TO BE DETERMINED TEMPERATURE CONTROL PANEL TEMPERATURE TRANSFER GRILLE TOTAL STATIC PRESSURE TURNING VANES TYPICAL UNDERCUT DOORS UP THRU ROOF VOLTS VARIABLE AIR VOLUME VARIABLE FREQUENCY DRIVE WITH WET BULB WEIGHT TAG DESCRIPTION (NECK SIZE) (TERMINAL TYPE) (TERMINAL CFM), (ENTERING DUCT)

GENERAL NOTES

- 1. 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.
- 2. 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.
- 3. ALL WORK SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, CITY AND LOCAL CODES AND ORDINANCES.
- 4. 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.
- 5. 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.
- 6. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNERS REPRESENTATIVE.
- 7. 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.
- 8. 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.
- 9. 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.
- 10. 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.
- 11. 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.
- 12. 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.
- 13. THERMOSTAT SETPOINTS SHALL BE PER CALIFORNIA T-24 REQUIREMENT. ANY DEVIATION FROM THESE SETPOINTS BECOMES THE RESPONSIBILITY OF THE USER OR CONTRACTOR.
- 14. 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 EQUPMENT OR MATERIAL FOR REVIEW BY THE
- 15. ALL DUCTS THAT HAVE INTERNAL LIINNG, THE SIZE REPRESENTS THE NET INSIDE DIMENSION.

					II.	NLINE	EXH	AUST	FAN S	CHED	JLE			
	MANUEL OTUBER		FAN				МОТО	R						
MAR	MANUFACTURER/ MODEL NO.	CFM	E.S.P. (T.S.P.)	RPM	ВНР	INPUT	DRIVE TYPE	SERVICE V/PH/HZ	MOTOR ENCLOSURE	LOCATION	SONES	SERVICE	WEIGHT	REMARKS
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
	_							·	·			-	·	_

- COORDINATE WITH ELECTRICAL FOR POWER AND DISCONNECT CONTROL VIA WALL SWITCH IN BACKSPLASH KITCHEN. SEE ELECTRICAL DRAWINGS.
- ELECTRICAL CONTRACTOR TO PROVIDE MOTOR STARTER 4. USE EXISTING BACKDRAFT DAMPER IN EXHAUST DUCT.
- . T.S.P. INCLUDES BACKDRAFT DAMPER STATIC PRESSURE DROP.
- 6. 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

DUCT SYMBOLS SYMBOL **DESCRIPTION DESCRIPTION** SYMBOL LINED DUCT ---EXHAUST 10/14¬ **→** 14x10 ✓ TRANSITIONAL DUCT RISER RADIUS ELBOW **-**--24x12 R ←24x12 24x12-\(\rightarrow\) 16x12 AIR FLOW -—16x12 EXHAUST DUCT DROP \leftarrow 24x12 -SECTION AT **−**14x10 10/14 SQUARE ELBOW RETURN **─**14x10 DUCT RISER W/ DUCT TURN /—MVD K=1.5 TRANSITIONAL TURN **─**12x12 R=36 12x12 -----24x12-\(\right) − 16x12 RETURN DUCT DROP TURNING F SECTION AT VANES --RADIUS ELBOW 4/36/8¬ **-**10x8 SUPPLY DUCT RISER ~ 24x12 -}-- 4/36/8 48x12---SUPPLY DUCT DROP `─38x12 48x12-\(\rightarrow\) TRANSITION -CONVERGING OR DIVERGING SQUARE ELBOW VANE ANGLE --24x12 4/36/8¬ **|→**10x12 ─ W/ DUCT TURN \$ 4/36/8 **─**12x12 48x12→ _38x12 TRANSITION 12x12 → 12x12-1 IN 6 MAX. 12x12¬ TT Z24x12 12x12—7 1 IN 2 CONCENTRIC Z24x12 IN 2 MAX. ECCENTRIC Z24x12 DIVERGING FLOW - 12"ø T.~MVD -24x12ROUND TRANSITION — 7/5 SPLIT 24x7 ABOVE — 1 IN 2 24x12—7 TRANSITION 24x12¬ _16x12 MAX. _ 12x12¬ -TRANSITIONAL ∠12x12 30x5 —► RADIUS ELBOW -24x12CONCENTRIC ECCENTRIC 24x5 BELOW -——30x5 CONTRACTING FLOW —24x12 DEFLECTROL & -24x7 ABOVE — -SQUARE ELBOW BRANCH DUCT .____12x6 24x12¬ /-7/5 W/ TURNING VANES SAME SIZE —10'MAX. LENGTH CEILING — 12x6 — OVER 10' DIFFUSER 30x5 − ∠16x12 USE NO. 24x5 BELOW -6,7,8 OR 9 DEFLECTROL-—24x12 TRANSITION AND BRANCH DAMPER ⊤16x12 SAME SIZE —10'MAX. 24x12 ----LENGTH -TRANSITIONAL SIDEWALL OVER 10' RADIUS ELBOW REGISTER —14x10 USE NO. -----14x10 OR GRILLE 6,7,8 OR 9 $9 \frac{14}{10} - \frac{16x12}{}$ ↑ -24x12 END OF RUN _14" ___TRANSITION DEFLECTROL AND BRANCH SAME SIZE 24x12 - 14x12-SQUARE ELBOW W/ TURNING AS NECK SIZE -INCHES UNLESS OTHERWISE NOTED PLAN FOR SIZE — ELONGATED - 6 DIFFUSER ----INDICATES ROUND DUCTS IN INCHES, TYPICAL SHOE FITTING — WITH MVD — SUPPLY DUCT DROP RETURN OR EXHAUST AIR RISE 25 CONICAL FITTING WITH MVD RETURN OR EXHAUST AIR DROP ACOUSTICALLY LINED SHEET METAL DUCT SIZE SHOWN IS NET INSIDE DIMENSION 24 x 36 AL ----- ∠24 x 36 AL CONICAL FITTING

						O	UTDO	OR H	EAT	PUMP	UNIT	SCI	HEDU	ILE										II	NDO	OR F	FAN CO	IL UNI	T SC	HEDL	JLE				
	TRANE-	NOMINAL	ELECTRICAL	-	OMPRES	SOR	CON	IDENSER	REFRIG	SERANT			AHRI						TRANE-	SU	UPPLY FAN		DX COOL	ING COIL		PR	MARY HEATING	ELE	CTRICAL			OUTSID	MOUNTING		
MARK	MITSUBISHI Model No.	CAPACITY (TONS)	SERVICE V/PH/HZ.	NO.	RLA	LRA	NO.	FLA (EA)	LIQUID	SUCTION	MCA M		EED/	AHRI U HSPF SEF	VIT WEIGHT	MOUNTING DETAIL	REMARKS	MARK	MITSUBISHI MODEL NO.	СҒМ	ESP FLA	MB SENS/	ВН <u>Б</u> /ТОТ W	B°F /B°F	LAT DB °F WB °F	МВН	EAT (°F) LA	SI	ERVICE φ/HZ	(LBS)	ROOM SERVE FLOOR	AIR (CFM)	DETAIL	REMARKS	
HP-1	NTXSST18A112A	1.5	208/1/60	1	10	12.5	1	0.93	1/4"	1/2"	14	5 13	3.4/(20.5)	11.2 F(:-1 125	1/M-401	SEE NOTES 1-6	FC-1	NTXWST18A112A	A 645	N/A 0.67	7 15.6 <i>/</i>	′18.0	80 67	55 -	21.6	70 8	5 20	8/1/60	30	FIRE STATION FIRST FLOOR	31 N/A	2/M-401	SEE NOTES 1-6	
2. REFI 3. SEE 4. INDO	'IDE WITH THERM IGERANT PIPE SI ELECTRICAL DRA' DR UNIT POWERE IGERANT TYPE R	IZE NOTED I WINGS FOR ED BY THE (N SCHEDULE AE ELECTRICAL DIS	BOVE. CONNECT.		N CONDUI	Т											2. PROVI 3. REFRIO 4. COOLII 5. FIELD	REMOTE CONTE DE WITH WASHA GERANT PIPE SI NG CAPACITIES SUPPLIED CONE AT SET TO 77°F	ABLE FIL ⁻ IZED PER SHOWN DENSATE	TER R ASSOCIATE ARE SHOWN E PUMP EQUA	AT AHRI AL TO GO	I CONDTION DBI 2 (POV	NS (95°F WERED F	DB/75'	F WB) OOR UNI		SIGHT GLAS	SS, FLEXIB	BLE CONNE	CTIONS, FILTEF	DRYER).			







Issue: 1CONSTRUCTION DOCUMENTS No. Date Description 12/18/20 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
H	File Date	
	9/1/2020	
	Chast Title	

SYMBOLS, NOTES & SCHEDULES

Project Number 20258-31

M-001

	IICAL :	SYSTEMS vised 01/16)		CALIFORNIA ENERGY COMMIS	SION	STATE OF CALIFORNIA MECHANICAL CEC-NRCC-MCH-01-E (SYS						
RTIFICA	E OF CO	MPLIANCE		NRCC	MCH-01-E	CERTIFICATE OF C	OMPLIA	NCE					
chanica	l Systems	;			age 1 of 4)	Mechanical Syster	ns						
ct Name: F	ire Statio	on 31		Date Prepared: 12/19/2019		Project Name: Fire Sta	tion 31						
1ECHAN	ICAL CO	MPLIANCE DOCUMENTS & WOR	KSHEETS (check box if worksheet is included)			B. MECHANICAL H	IVAC AC	CEPTANCE FO	ORMS (check l	oox for require	d compliance d	ocuments)	
		*	ergy Efficiency Standards compliance forms, refer to the 2016 Nonre	sidential Manual		Test Performed B	/ :						
	nforceme		to be incorporated onto the building plans.			Designer:							
YES	NO	Comp. Doc./Worksheet #	Title			This compliance do		,					•
Ø		NRCC-MCH-01-E (Part 1 of 3)	Certificate of Compliance, Declaration. Required on plans for all	ubmittals.		boxes for all accepta of systems.	ance test	s that apply and	d list all equipm	ent that require	s an acceptance t	est. All equipmen	t of the same typ
0		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.		Installing Contracto							
Ø		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.		The contractor who		the equipment	t is responsible	to either conduc	ct the acceptance	test themselves	or have a qualifie
Ø		NRCC-MCH-02-E (Part 1 of 2)	Mechanical Dry Equipment Summary is required for all submittal	s with Central Air Systems. It is optional on plan	S.	responsibility for the							
ď		NRCC-MCH-02-E (Part 2 of 2)	Mechanical Wet Equipment Summary is required for all submittal systems. It is optional on plans.	ls with chilled water, hot water or condenser wa	ater	Enforcement Agence Plancheck – The NR		01-E complianc	ce document is	not considered a	completed docu	ment and is not to	o be accepted by
	n	NRCC-MCH-03-E	Mechanical Ventilation and Reheat is required for all submittals optional on plans.	vith multiple zone heating and cooling systems.	It is	Inspector - Before o		permit is grant MCH-02-A	ted all newly in MCH-03-A	stalled process s MCH-04-A	ystems must be t MCH-05-A	ested to ensure p MCH-06-A	roper operation: MCH-07-A
Ø		NRCC-MCH-07-E (Part 1 of 2)	Power Consumption of Fans. Required on plans where applicable			Equipment				Air		Demand	
Ø		NRCC-MCH-07-E (Part 2 of 2)	Power Consumption of Fans, Declaration. Required on plans whe			Requiring Testing	# of Units	Outdoor	Single Zone Unitary	Distribution	Economizer Controls	Control Ventilation	Supply Fan VAV
						or Verification	011113	/ "	, omean,	Ducts	001101010	(DCV)	****
						HP-1	1	Ø	Ø				

January 2016

CALIFORNIA ENERGY COMMISSION NRCC-MCH-01-E (Page 2 of 4) w are all the acceptance tests for HVAC systems. The designer is required to check the applicable t. All equipment of the same type that requires a test, list the equipment description and the number st themselves or have a qualified entity run the test for them. If more than one person has cceptance applicable to the portion of the construction or installation for which they are responsible. ent and is not to be accepted by the building department unless the correct boxes are checked. MCH-08-A MCH-09-A MCH-10-A System Demand Shed Temp. Reset Variable Flow Control

STATE OF CALIFORNIA

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

STATE OF CALIFORNIA

CEC-NRCC-MCH-02-E (Revised 01/16)

CERTIFICATE OF COMPLIANCE

otherwise enter "N/A".

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

Project Name: Fire Station 31

HVAC Dry & Wet System Requirements

HVAC DRY & WET SYSTEM REQUIREMENTS

MECHANICAL SYSTEMS CALIFORNIA ENERGY COMMISSION CEC-NRCC-MCH-01-E (Revised 01/ CERTIFICATE OF COMPLIANCE NRCC-MCH-01-E Mechanical Systems (Page 3 of 4) Date Prepared: 12/19/2019 Project Name: Fire Station 31 C. MECHANICAL HVAC ACCEPTANCE FORMS (check box for required compliance documents) Test Performed By: 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 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 MCH-12-A MCH-13-A MCH-14-A MCH-15-A MCH-16-A MCH-18-A Automatic Fault Fault Detection & Distributed Energy Thermal Energy Detection & **ECMS** Requiring Testing Diagnostics for DX Storage DX AC Storage (TES) Temperature Reset Diagnostics for Air & Reset Controls or Verification Units Systems Controls

Consultant PLOT DATE: <u>2/17/2021</u>

HAMMOND+PLAYLE ARCHITECTS, LLP

art, architecture + ecology

909 FIFTH STREET, DAVIS, CA

530.750.0756 WWW.INDIGOARCH.COM

mechanical electrical 2411 Alhambra Blvd, Ste. 100 Sacramento, CA 95817 Tel (916) 447-2841 www.peterseng.com Job no. 19.090

Agency Approvals

January 2016

NRCC-MCH-02-E

Date Prepared: 12/19/2019

(Page 2 of 3)

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

Project

FIRE STATION 31

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

File Date

9/1/2020 Sheet Title

January 2016

TITLE 24 - FIRE STATION 31

Project Number

20258-31

B. Equipment Tags and System Description - Wet Systems T-24 Sections MANDATORY MEASURES Reference to the Requirements in the Contract Documents Heating Hot Water Equipment Efficiency Cooling Chilled and Condenser Water 110.1, 140.4(i) Equipment Efficiency³ Open and Closed Circuit Cooling Towers 110.2(e) 1 conductivity or flow-based controls Open and Closed Circuit Cooling Towers Maximum Achievable Cycles of 110.2(e) 2 Concentration (LSI)⁶ Open and Closed Circuit Cooling Towers 110.2(e) 3 Flow Meter with analog output Open and Closed Circuit Cooling Towers 110.2(e) 4 Open and Closed Circuit Cooling Towers 110.2(e) 5 Efficient Drift Eliminators Pipe Insulation PRESCRIPTIVE MEASURES Cooling Tower Fan Controls 140.4(h)2, 140.4(h)5 **Cooling Tower Flow Controls** Centrifugal Fan Cooling Towers 140.4(h)4 Air-Cooled Chiller Limitation⁵ 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 >5HP 140.4(k) DP Sensor Location 140.4(k) 1. 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. 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. For chillers operating at non-standard efficiencies provide the Kadj values. For chillers also note whether the efficiencies are Path A or Path B. 4. Identify if cooling towers have propeller fans. If towers use centrifugal fans document which exception is used. 5. 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.

6. Identify the existence of a completed MCH-06-E when open or closed circuit cooling towers are specified to be installed,

STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION MECHANICAL SYSTEMS CEC-NRCC-MCH-01-E (Revised 01/1 CERTIFICATE OF COMPLIANCE (Page 4 of 4) Mechanical Systems Date Prepared: 12/19/2019 Project Name: Fire Station 31 DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and complete. Signature Date: 12/19/2019 Peters Engineering CEA/ HERS Certification Identification (if applicable) 2411 Alhambra Blvd. Suite 100 City/State/Zip: hone: 916-447-2841 Sacramento, CA 95817 RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of California: 1. The information provided on this Certificate of Compliance is true and correct. 2. 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 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: Date Signed: 12/19/19 PETERS ENGINEERING Address: 2411 Alhambra Blvd. Ste. 100 M31176 City/State/Zip: (916) 447-2841 Sacramento, CA 95817

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

A. Equipment Tags and System Description ¹	Dry Systems	HP-1		
MANDATORY MEASURES	T-24 Sections	Reference to t	he Requirements in the Co	ntract 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)	CONTROL CONTRACTOR		
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		M-001		
Equipment is sized in conformance with	Section of the sectio	V	2747 4 -44	3.30 × 30× 10
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(I)	M-001		
Notes:				
 Provide equipment tags (e.g. AHU 1 to with common requirements can be gro 		n (e.g. Single Duc	ct vav reneat) as appropria	te. Multiple units
Provide references to plans (i.e. Drawin	마루() 전경 () (2015년 - 1915년 - 1	specifications (in	ncluding Section name/num	ber and relevant
paragraphs) where each requirement is	네프리아 아이 시작의 사람들은 하기 어느었다. 하는 그리 얼마나 얼마나 하는 그런 그렇지만 사용하는 것이 없었다.	Manage and the profession of the control of	는 문가에 가지 이렇게 하게 프랑아이아 얼마 없다 하유 수리 전에 다른 것 때 때문을 하셨다면 때가게 되었다.	
The referenced plans and specifications	~ 아마스 레마이스 레이어 아이를 다 있는데 맛이 하는데 아이는데 하면 있다. 그리고 있다면 나를 보고 말했다.	사람이 10km 전기 20km 제공하는 10km 등 10km 10km 10km	[14] 4 . 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1	
capacity, Title 24 minimum efficiency re				
requirements are applicable (e.g. full-	The state of the s			
equipment is required to be listed per	(T)			· · · · · · · · · · · · · · · · · · ·
4. Identify where the ventilation requirem		each central HV	AC system. Include reference	es to both central
unit schedules and sequences of opera			[2] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4	
the plans and specifications. Multiple z	(C. Therefore the common of the profession () 사람들이 모든 사람들이 하는 것이 없는 것이 없는 것이다.	AND THE RESIDENCE OF THE PROPERTY OF THE PARTY OF THE PAR	입자회에는 회원하다면 경험하면 되었다. 너 맛의 한 것 수 하는 것이 어디에 가장 그렇게 되었다.	
5. If one or more spaces has demand cont	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1			
the sequence of operation		promisson a secona , per 11. 		enenceset ನಗರ ಬಿಡಬಹುದಿಕೆ

Project Name: Fire Station 31			Date Prepared: 12/19/2019	
A. Equipment Tags and System Description ¹	– Dry Systems	HP-1		
MANDATORY MEASURES	T-24 Sections	Reference to t	he Requirements in the Co	ontract Documents
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)			
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	at-	M-001		- T y
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(I)	M-001		

Date Prepared: 12/19/2019

Valve Leakage | Supply Water

January 2016

CALIFORNIA ENERGY COMMISSION

HVAC DRY & WET SYSTEM REQUIREMENTS

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

January 2016

STATE OF CALIFORNIA

CEC-NRCC-MCH-02-E (Revised 01/16)

- 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
- 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

ements (Pa	MCH-02-E ge 3 of 3) CEC-NRCC-MCH-04-E (Revised 01/16) CERTIFICATE OF COMPLIANCE	CALIFORNIA ENERGY COMMISSION NRCC-MCH-04-E	CEC-NRCC-MCH-04-E (Revised 01/16) CERTIFICATE OF COMPLIANCE		CALIFORNIA ENERGY COMMISSION NRCC-MCH-04-E
Date Prepared: 12/19/2019	Required Acceptance Tests Project Name: Fire Station 31	Date Prepared: 12/19/2019 (Page 1 of 3)	Required Acceptance Tests Project Name: Fire Station 31		(Page 2 of 3) Date Prepared: 12/19/2019
S DECLARATION STATEMENT	Fire Station 31	12/19/2019			12/19/2019
rate of Compliance documentation is accurate and complete	A. MECHANICAL COMPLIANCE FORMS & WORKSHEETS (indicate if worksheet is included)		Designer: This compliance document is to	be used by the designer and attached to the plans. Listed below are all the acceptance t	tests for mechanical systems. The designer is required to
an Tichenor Documentation Author Signature:	For detailed instructions on the use of this and all Energy Standards complian		check the applicable boxes by al	Il acceptance tests that apply and list all equipment that require an acceptance test. If all number of systems. The NA number designates the Section in the Appendix of the Nonre	Il equipment of a certain type requires a test, list the
ers Engineering 12/19/2019 1 Alhambra Blvd. Suite 100 CEA/ HERS Certification (if applicable):	Note: The Enforcement Agency may require all compliance documents to be a compliance documents to NRCC-MCH-01-E, NRCC-MCH-02-E and NRCC-MCH-04-E.	incorporated onto the building plans. The NRCC-MCH-04-E and NRCC-MECH-05-E are alternative H-03-E for projects using only single zone packaged HVAC systems.	the test. Since this compliance d	document will be part of the plans, completion of this section will allow the responsible p	
ramento, CA 95817 Phone: 916-447-2841	YES NO Form Title		Enforcement Agency: Systems Acceptance. Before occ	cupancy permit is granted for a newly constructed building or space, or a new space-cond	ditioning system serving a building or space is operated
CLARATION STATEMENT		eptance Tests. Required on plans when used.		tes serving the building or space shall be certified as meeting the Acceptance Requiremen	·
penalty of perjury, under the laws of the State of California: ed on this Certificate of Compliance is true and correct.		ve Requirements. It is required on plans when used.	The NRCC-MCH-04-E compliance	ccupancy permit is granted. All newly installed HVAC equipment must be tested using the se document is not considered a completed document and is not to be accepted by the bu	uilding department unless the correct boxes are checked.
sion 3 of the Business and Professions Code to accept responsibility for the building design or system design cate of Compliance (responsible designer).	NRCC-MCH-05-E (2 of 2) required on plan	H Equipment Summary is required for all submittals with service water heating, pools or spas. It is ns where applicable.		g, person performing the test (Example: HVAC installer, TAB contractor, controls contract ring checked-off forms are required for ALL newly installed and replaced equipment. In ac	
d performance specifications, materials, components, and manufactured devices for the building design or sy s Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code o				rtment that certifies plans, specifications, installation certificates, and operating and main he building inspector must receive the properly filled out and signed compliance documen	·
tures or system design features identified on this Certificate of Compliance are consistent with the information	on l		i i	2-A MCH-03-A MCH-04-A MCH-05-A MCH-06-A MCH-07-A MCH-11-A MCH-1	
cable compliance documents, worksheets, calculations, plans and specifications submitted to the enforceme h this building permit application.			Equipment Requiring	Single Air Control Demand FDD f	
pleted signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued ilable to the enforcement agency for all applicable inspections. I understand that a completed signed copy of	this		Testing or # of Outdoo Verification Units Air		ged Storage DX Control nits AC Systems System
te is required to be included with the documentation the builder provides to the building owner at occupance in R. Tichenor PE	y.		HP-1 1		
TERS ENGINEERING Date Signed: 12/19/19					
1 Alhambra Blvd. Ste. 100 License: M31176					
ramento, CA 95817 Phone: (916) 447-2841					
	CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance	January 2016	CA Building Energy Efficiency Standard	ds - 2016 Nonresidential Compliance	January 2016
		STATE OF CALIFORNIA		STATE OF CALIFORNIA FAN POWER CONSUMPTION	
		FAN POWER CONSUMPTION CEC-NRCC-MCH-07-E (Revised 01/16)	CALIFORNIA ENERGY COMMISSION	CEC-NRCC-MCH-07-E (Revised MM/YY) CERTIFICATE OF COMPLIANCE	CALIFORNIA ENERGY COMMISSION NRCC-MCH-07-E
		Power Consumption of Fans Requirements	NRCC-MCH-07-E (Page 1 of 2)	Power Consumption of Fans Requirements	(Page 2 of 2)
			Prepared: 12/19/2019	Project Name: Fire Station 31	Date Prepared: 12/19/2019
		A. Constant Volume Fan Systems		DOCUMENTATION AUTHOR'S DECLARATION STATEMENT 1. I certify that this Certificate of Compliance documentation is accurate and complete.	lata
		NOTE: Provide one copy of this worksheet for each fan system with a total fan system horsepower greater Systems when using the Prescriptive Approach. See Power Consumption of fans §140.4(c).	r than 25 hp of Constant Volume Fan	Documentation Author Name: Sean Tichenor Documentation	on Author Signature:
ncy Standards - 2016 Nonresidential Compliance Janu	pary 2016	01 02 03	04 05	Company: Peters Engineering Signature Date	e: 12/19/201 9
	1	EFFICIENT	DEAUMATTC		
		FAN DESCRIPTION DESIGN BRAKE HP MOTOR DRIVE	NUMBER OF FANS PEAK WATTS A02 x A04 x 746 /	2411 Allianibia bivu. Suite 100	rtification Identification (if applicable):
STATE OF CALIFORNIA		FAN DESCRIPTION DESIGN BRAKE	FANS A02 x A04 x 746 / (A03a x A03b)	City/State/Zip: Sacramento, CA 95817 Phone: 916-	rtification Identification (if applicable): -447-2841
STATE OF CALIFORNIA REQUIRED ACCEPTANCE TESTS CEC.NRCC.MCH.04-E (Revised 01/16)	CALIFORNIA ENERGY COMMISSION	FAN DESCRIPTION DESIGN BRAKE HP MOTOR DRIVE	FANS A02 x A04 x 746 / (A03a x A03b)	City/State/Zip: Sacramento, CA 95817 RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of Californ	447-2841
REQUIRED ACCEPTANCE TESTS CEC-NRCC-MCH-04-E (Revised 01/16) CERTIFICATE OF COMPLIANCE	CALIFORNIA ENERGY COMMISSION NRCC-MCH-04-E	FAN DESCRIPTION DESIGN BRAKE HP MOTOR DRIVE	FANS A02 x A04 x 746 / (A03a x A03b)	City/State/Zip: Sacramento, CA 95817 Phone: 916- RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of Californ 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept responses.	-447-2841 nia:
REQUIRED ACCEPTANCE TESTS CEC-NRCC-MCH-04-E (Revised 01/16) CERTIFICATE OF COMPLIANCE Required Acceptance Tests		FAN DESCRIPTION DESIGN BRAKE HP MOTOR DRIVE HP-1 - Supply Fan 0.250 85.5 % 100.0 %	FANS A02 x A04 x 746 / (A03a x A03b)	City/State/Zip: Sacramento, CA 95817 Phone: 916- RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of Californ 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept respicted on this Certificate of Compliance (responsible designer). 3. The energy features and performance specifications, materials, components, and	-447-2841 nia: ponsibility for the building design or system design d manufactured devices for the building design or system
REQUIRED ACCEPTANCE TESTS CEC-NRCC-MCH-04-E (Revised 01/16) CERTIFICATE OF COMPLIANCE Required Acceptance Tests Project Name: Fire Station 31	NRCC-MCH-04-E (Page 3 of 3)	FAN DESCRIPTION DESIGN BRAKE HP MOTOR DRIVE HP-1 - Supply Fan 0.250 85.5 % 100.0 % B. Variable Air Volume Fan Systems NOTE: Provide one copy of this worksheet for each fan system with a total fan system horsepower greater	NUMBER OF FANS A02 x A04 x 746 / (A03a x A03b) 1.0 218	City/State/Zip: Sacramento, CA 95817 Phone: 916- RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of Californ 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept respictentified on this Certificate of Compliance (responsible designer). 3. The energy features and performance specifications, materials, components, and design identified on this Certificate of Compliance conform to the requirements of Regulations.	-447-2841 nia: ponsibility for the building design or system design d manufactured devices for the building design or system of Title 24, Part 1 and Part 6 of the California Code of
REQUIRED ACCEPTANCE TESTS CEC-NRCC-MCH-04-E (Revised 01/16) CERTIFICATE OF COMPLIANCE Required Acceptance Tests Project Name: Fire Station 31 DOCUMENTATION AUTHOR'S DECLARATION STATEMENT 1. I certify that this Certificate of Compliance documentation is accurate and complete	NRCC-MCH-04-E (Page 3 of 3) Date Prepared: 12/19/2019	B. Variable Air Volume Fan Systems NOTE: Provide one copy of this worksheet for each fan system with a total fan system horsepower greater Systems when using the Prescriptive Approach. See Power Consumption of fans §140.4(c). 01 02 03	NUMBER OF FANS	City/State/Zip: Sacramento, CA 95817 Phone: 916- RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of Californ 1. 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 respictentified on this Certificate of Compliance (responsible designer). The energy features and performance specifications, materials, components, and design identified on this Certificate of Compliance conform to the requirements of Regulations. The building design features or system design features identified on this Certificate provided on other applicable compliance documents, worksheets, calculations, p	ponsibility for the building design or system design d manufactured devices for the building design or system of Title 24, Part 1 and Part 6 of the California Code of ate of Compliance are consistent with the information
REQUIRED ACCEPTANCE TESTS CEC-NRCC-MCH-04-E (Revised 01/16) CERTIFICATE OF COMPLIANCE Required Acceptance Tests Project Name: Fire Station 31 DOCUMENTATION AUTHOR'S DECLARATION STATEMENT 1. I certify that this Certificate of Compliance documentation is accurate and complete Documentation Author Name: Sean Tichenor	NRCC-MCH-04-E (Page 3 of 3) Date Prepared: 12/19/2019 Documentation Author Signature:	B. Variable Air Volume Fan Systems NOTE: Provide one copy of this worksheet for each fan system with a total fan system horsepower greater Systems when using the Prescriptive Approach. See Power Consumption of fans §140.4(c). O1 DESIGN BRAKE HP MOTOR DRIVE HD NOTOR DRIVE HD DESIGN BRAKE HP DESIGN BRAKE HP DESIGN BRAKE HD DESIGN BRAKE HD DESIGN BRAKE HD EFFICIENCY	NUMBER OF FANS A02 x A04 x 746 / (A03a x A03b)	City/State/Zip: Sacramento, CA 95817 Phone: 916- RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of Californ 1. 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 respidentified on this Certificate of Compliance (responsible designer). The energy features and performance specifications, materials, components, and design identified on this Certificate of Compliance conform to the requirements of Regulations. The building design features or system design features identified on this Certificate provided on other applicable compliance documents, worksheets, calculations, pagency for approval with this building permit application. I will ensure that a completed signed copy of this Certificate of Compliance shall	ponsibility for the building design or system design d manufactured devices for the building design or system of Title 24, Part 1 and Part 6 of the California Code of ate of Compliance are consistent with the information plans and specifications submitted to the enforcement be made available with the building permit(s) issued for the
REQUIRED ACCEPTANCE TESTS CEC-NRCC-MCH-04-E (Revised 01/16) CERTIFICATE OF COMPLIANCE Required Acceptance Tests Project Name: Fire Station 31 DOCUMENTATION AUTHOR'S DECLARATION STATEMENT 1. I certify that this Certificate of Compliance documentation is accurate and complete Documentation Author Name: Sean Tichenor Company: Peters Engineering	NRCC-MCH-04-E (Page 3 of 3) Date Prepared: 12/19/2019 Documentation Author Signature: Signature Date: 12/19/2019	B. Variable Air Volume Fan Systems NOTE: Provide one copy of this worksheet for each fan system with a total fan system horsepower greater Systems when using the Prescriptive Approach. See Power Consumption of fans §140.4(c). O1 O2 O3 EFFICIENCY	NUMBER OF FANS A02 x A04 x 746 / (A03a x A03b) 1.0 218	City/State/Zip: Sacramento, CA 95817 Phone: 916- RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of Californ 1. 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 respidentified on this Certificate of Compliance (responsible designer). The energy features and performance specifications, materials, components, and design identified on this Certificate of Compliance conform to the requirements of Regulations. The building design features or system design features identified on this Certificate provided on other applicable compliance documents, worksheets, calculations, pagency for approval with this building permit application. I will ensure that a completed signed copy of this Certificate of Compliance shall building, and made available to the enforcement agency for all applicable inspective Certificate of Compliance is required to be included with the documentation the	ponsibility for the building design or system design d manufactured devices for the building design or system of Title 24, Part 1 and Part 6 of the California Code of ate of Compliance are consistent with the information plans and specifications submitted to the enforcement be made available with the building permit(s) issued for the ctions. I understand that a completed signed copy of this
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REQUIRED ACCEPTANCE TESTS CEC-NRCC-MCH-04-E (Revised 01/16) CERTIFICATE OF COMPLIANCE Required Acceptance Tests Project Name: Fire Station 31 DOCUMENTATION AUTHOR'S DECLARATION STATEMENT 1. I certify that this Certificate of Compliance documentation is accurate and complete Documentation Author Name: Sean Tichenor Company: Peters Engineering Address: 2411 Alhambra Blvd. Suite 100 City/State/Zip: Sacramento, CA 95817 RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of California: 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept response.	NRCC-MCH-04-E (Page 3 of 3) Date Prepared: 12/19/2019 Documentation Author Signature: Signature Date: 12/19/2019 CEA/ HERS Certification Identification (if applicable): Phone: 916-447-2841	B. Variable Air Volume Fan Systems NOTE: Provide one copy of this worksheet for each fan system with a total fan system horsepower greater Systems when using the Prescriptive Approach. See Power Consumption of fans §140.4(c). O1 DESIGN BRAKE HP MOTOR DRIVE HD NOTOR DRIVE HD DESIGN BRAKE HP DESIGN BRAKE HP DESIGN BRAKE HD DESIGN BRAKE HD DESIGN BRAKE HD EFFICIENCY	NUMBER OF FANS 1.0 218 1.0 218 1.0 218 1.0 218 1.0 1.0 218 1.0 1.0 218 1.0 1.0 218 1.0 1.0 218 218 218 218 218 218 218 21	City/State/Zip: Sacramento, CA 95817 RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of Californ 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept responding identified on this Certificate of Compliance (responsible designer). 3. The energy features and performance specifications, materials, components, and design identified on this Certificate of Compliance conform to the requirements of Regulations. 4. The building design features or system design features identified on this Certificate provided on other applicable compliance documents, worksheets, calculations, pagency for approval with this building permit application. 5. I will ensure that a completed signed copy of this Certificate of Compliance shall building, and made available to the enforcement agency for all applicable inspect Certificate of Compliance is required to be included with the documentation the Responsible Designer Name: Sean R. Tichenor PE Company: PETERS ENGINEERING Phone: 916- Phone: 916- P	ponsibility for the building design or system design d manufactured devices for the building design or system of Title 24, Part 1 and Part 6 of the California Code of ate of Compliance are consistent with the information plans and specifications submitted to the enforcement be made available with the building permit(s) issued for the ctions. I understand that a completed signed copy of this builder provides to the building owner at occupancy. Designer Signature:
REQUIRED ACCEPTANCE TESTS CEC-NRCC-MCH-04-E (Revised 01/16) CERTIFICATE OF COMPLIANCE Required Acceptance Tests Project Name: Fire Station 31 DOCUMENTATION AUTHOR'S DECLARATION STATEMENT 1. I certify that this Certificate of Compliance documentation is accurate and complete Documentation Author Name: Sean Tichenor Company: Peters Engineering Address: 2411 Alhambra Blvd. Suite 100 City/State/Zip: Sacramento, CA 95817 RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of California: 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept respondesigner). 3. The energy features and performance specifications, materials, components, and materials.	NRCC-MCH-04-E (Page 3 of 3) Date Prepared: 12/19/2019 Documentation Author Signature: Signature Date: 12/19/2019 CEA/ HERS Certification Identification (if applicable): Phone: 916-447-2841 Insibility for the building design or system design identified on this Certificate of Compliance (responsible manufactured devices for the building design or system design identified on this Certificate of Compliance	B. Variable Air Volume Fan Systems NOTE: Provide one copy of this worksheet for each fan system with a total fan system horsepower greater Systems when using the Prescriptive Approach. See Power Consumption of fans §140.4(c). O1 O2 O3 EFFICIENCY FAN DESCRIPTION DESIGN BRAKE HP MOTOR DRIVE C. Totals and Adjustments	NUMBER OF FANS 1.0 218 1.0 218 1.0 218 1.0 218 1.0 04 05 PEAK WATTS B02 x B04 x 746 / (B03a x B03b) 218 218 218 W	City/State/Zip: Sacramento, CA 95817 Phone: 916- RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of Californ 1. 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 respidentified on this Certificate of Compliance (responsible designer). The energy features and performance specifications, materials, components, and design identified on this Certificate of Compliance conform to the requirements of Regulations. The building design features or system design features identified on this Certificate provided on other applicable compliance documents, worksheets, calculations, pagency for approval with this building permit application. I will ensure that a completed signed copy of this Certificate of Compliance shall building, and made available to the enforcement agency for all applicable inspect Certificate of Compliance is required to be included with the documentation the Responsible Designer Name: Sean R. Tichenor PE Company: PETERS ENGINEERING Date Signed: Company: PETERS ENGINEERING Date Signed: Date Signed:	ponsibility for the building design or system design d manufactured devices for the building design or system of Title 24, Part 1 and Part 6 of the California Code of ate of Compliance are consistent with the information plans and specifications submitted to the enforcement be made available with the building permit(s) issued for the ctions. I understand that a completed signed copy of this builder provides to the building owner at occupancy. Designer Signature: 12/19/19 M31176
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REQUIRED ACCEPTANCE TESTS GEC-NRCG-MCH-04-E (Revised 01/16) CERTIFICATE OF COMPLIANCE Required Acceptance Tests Project Name: Fire Station 31 DOCUMENTATION AUTHOR'S DECLARATION STATEMENT 1. I certify that this Certificate of Compliance documentation is accurate and complete Documentation Author Name: Sean Tichenor Company: Peters Engineering Address: 2411 Alhambra Blvd. Suite 100 City/State/Zip: Sacramento, CA 95817 RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of California: 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept resport designer). 3. The energy features and performance specifications, materials, components, and n conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of 4. The building design features or system design features identified on this Certificate worksheets, calculations, plans and specifications submitted to the enforcement as 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be agency for all applicable inspections. I understand that a completed signed copy of building owner at occupancy. Responsible Designer Name: Sean R. Tichenor PE Company: PETERS ENGINEERING Address: 2411 Alhambra Blvd. Ste. 100 City/State/Zip: Sacramento, CA 95817	Documentation Author Signature: Signature Date: 12/19/2019	B. Variable Air Volume Fan Systems NOTE: Provide one copy of this worksheet for each fan system with a total fan system horsepower greate: Systems when using the Prescriptive Approach. See Power Consumption of fans \$140.4(c).	NUMBER OF FANS	City/State/Zip: Sacramento, CA 95817 RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of Californ 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept respidentified on this Certificate of Compliance (responsible designer). 3. The energy features and performance specifications, materials, components, and design identified on this Certificate of Compliance conform to the requirements of Regulations. 4. The building design features or system design features identified on this Certificate provided on other applicable compliance documents, worksheets, calculations, pagency for approval with this building permit application. 5. I will ensure that a completed signed copy of this Certificate of Compliance shall building, and made available to the enforcement agency for all applicable inspect Certificate of Compliance is required to be included with the documentation the Responsible Designer Name: Sean R. Tichenor PE Company: PETERS ENGINEERING Address: 2411 Alhambra Blvd. Ste. 100 City/State/Zip: Sacramento, CA 95817 Phone:	ponsibility for the building design or system design d manufactured devices for the building design or system of Title 24, Part 1 and Part 6 of the California Code of ate of Compliance are consistent with the information plans and specifications submitted to the enforcement be made available with the building permit(s) issued for the titions. I understand that a completed signed copy of this builder provides to the building owner at occupancy. Pesigner Signature: 12/19/19 M31176 (916) 447-2841

M-003

KEYED NOTES: SHEET NOTES: 1 RANGE HOOD WITH REMOTE EXHAUST FAN, SEE ARCHITECTURAL DRAWINGS ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., SHOWN FOR HOOD SPECIFICATIONS. CONNECT THE 10" ROUND HOOD EXHAUST DUCT ON PLANS ARE BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED CONNECTION TO 10"ø EXHAUST DUCT. SITE SURVEYS, AND SHOWN FOR CLARITY ONLY. 2. SECURE DUCTWORK ABOVE PER DETAIL 4/M-401, TYPICAL. 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. 909 FIFTH STREET, DAVIS, CA 530.750.0756 WWW.INDIGOARCH.COM 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 **2/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 <u>5/M-401</u> 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 Consultant 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 DUCTWORK. FIELD VERIFY DUCT LOCATION IN APPARATUS BAY CONNECTS TO EXHAUST HOOD SYSTEM. SEE DETAIL 7/M-401 FOR SECURING FAN TO EXISTING WALL. PLOT DATE: 2/17/2021 11> SUPPORT PIPE IN EXISTING WALL PER DETAIL 6/M-401. www.peterseng.com Job no. 19.090 Agency Approvals 12/18/20 9>FC-1® (E) GAS METER (E) PATIO (E) GENERATOR 9/1/2020 FIRE STATION 31 PLAN -MECHANICAL Project Number 20258-31 FIRE STATION 31 - MECHANICAL

SCALE: 1/4" - 1'-0" M-101

HAMMOND+PLAYLE ARCHITECTS, LLP art, architecture + ecology

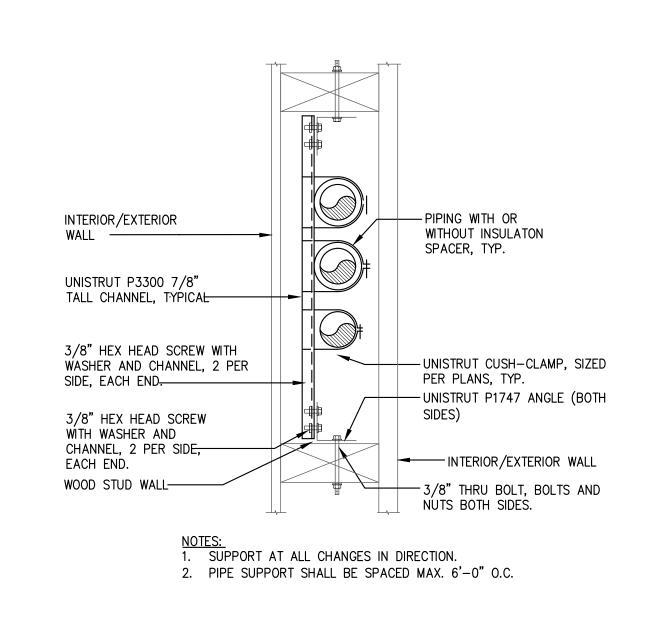


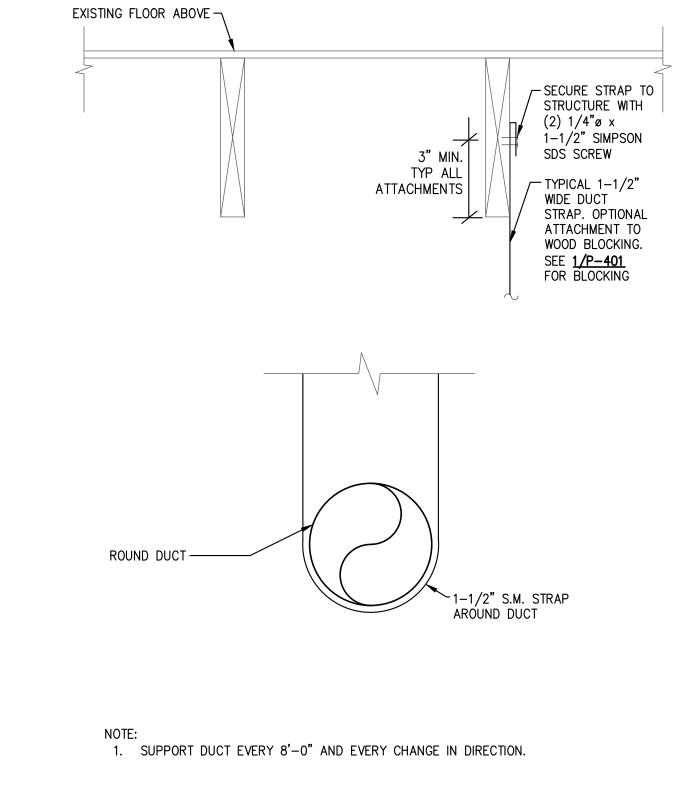
Issue: 1CONSTRUCTION DOCUMENTS

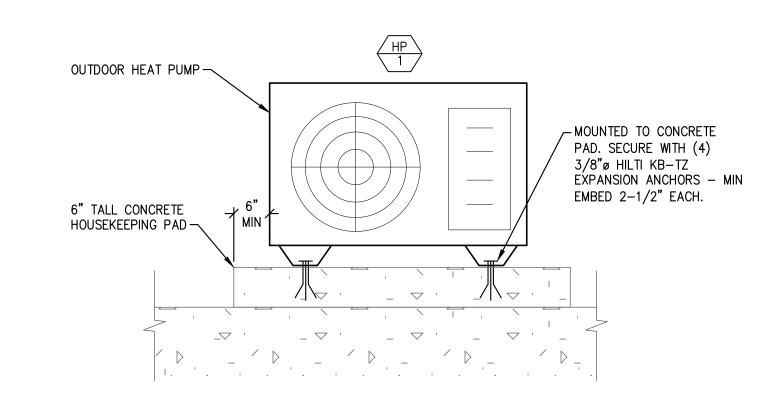
MSB REPLACEMENT 3/1/2021 FINAL REVIEW

FIRE STATION 31

530 5TH STREET CITY OF DAVIS, CALIFORNIA 95616

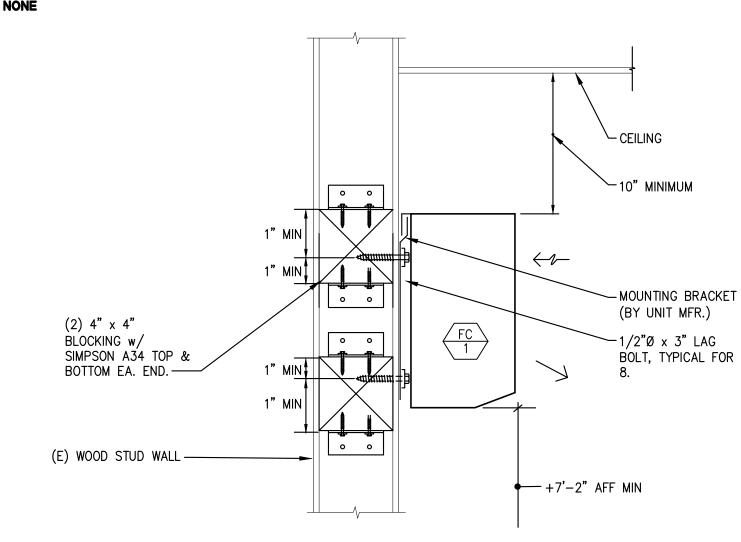


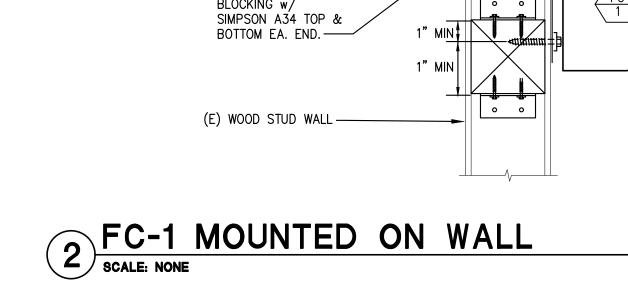


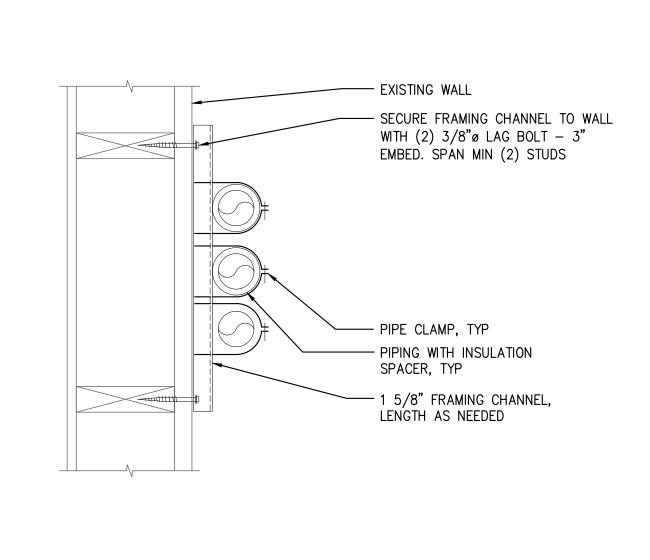


SEE ARCHITECTURAL DRAWINGS FOR BOLLARD LOCATIONS



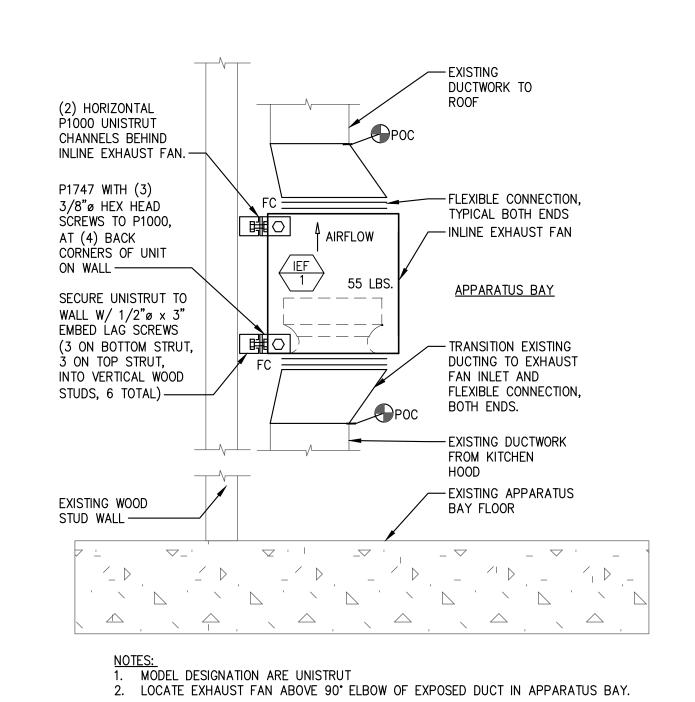




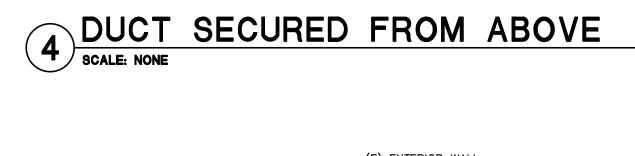


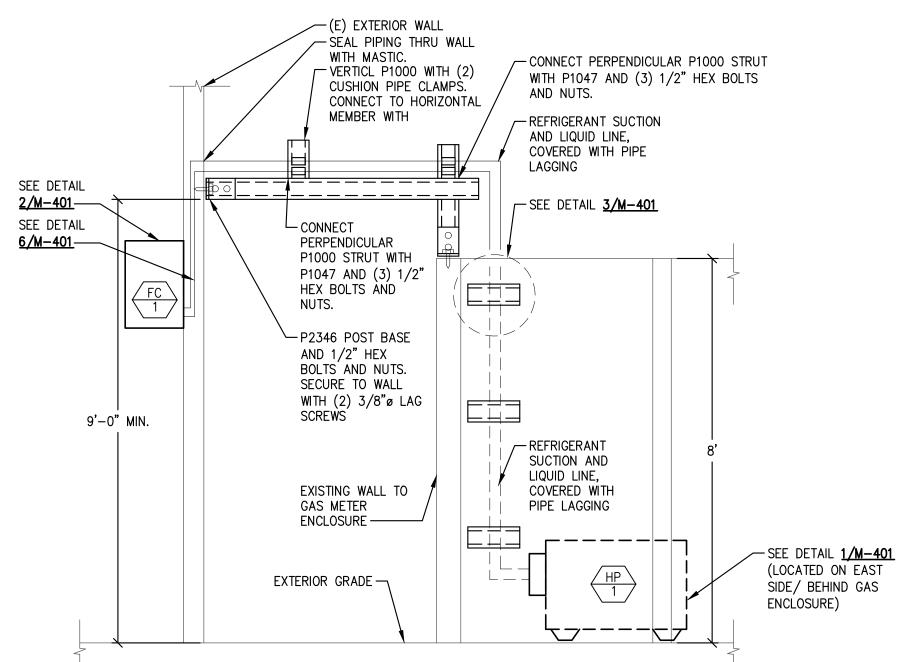
3 PIPE SUPPORT ON WALL
SCALE: NONE

6 PIPE SUPPORT IN WALL CAVITY SCALE: NONE



INLINE EXHAUST FAN ON (E) WALL SCALE: NONE





5 PIPING OVER EXTERIOR WALLWAY
SCALE: NONE

1. PROVIDE PIPE SUPPORT AT ALL CHANGES IN DIRECTION. 2. VERTICAL PIPE SUPPORT SHALL BE SPACED MAX. 6'-0" O.C.

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

Consultant

PLOT DATE: <u>2/17/2021</u> mechanical ing electrical 2411 Alhambra Blvd, Ste. 100 Sacramento, CA 95817 Tel (916) 447-2841 www.peterseng.com Job no. 19.090

Agency Approvals

Issue: 1CONSTRUCTION DOCUMENTS Description MSB REPLACEMENT 12/18/20 3/1/2021 FINAL REVIEW Project

FIRE STATION 31

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

File Date 9/1/2020 Sheet Title

MECHANICAL DETAILS

Project Number 20258-31

M-401

AT AMPERE ALTERNATING CURRENT AIR CONDITIONING AMP FRAME ABOVE FINISHED FLOOR AMPERES INTERRUPTING CAPACITY AMP TRIP SETTING AMERICAN WIRE GAUGE BARE COPPER BOARD BELOW FINISHED CEILING BREAKER BUILDING BOOSTER POWER SUPPLY CONDUIT CIRCUIT BREAKER CIRCUIT CEILING CONDUIT ONLY, WITH PULL LINE CONTINUOUS COPPER METALLIC COLD WATER PIPE DEMOLISH DIRECT CURRENT DISCONNECT DISTRIBUTION PANEL EXISTING
AMPERE ALTERNATING CURRENT AIR CONDITIONING AMP FRAME ABOVE FINISHED FLOOR AMPERES INTERRUPTING CAPACITY AMP TRIP SETTING AMERICAN WIRE GAUGE BARE COPPER BOARD BELOW FINISHED CEILING BREAKER BUILDING BOOSTER POWER SUPPLY CONDUIT CIRCUIT BREAKER CIRCUIT CEILING CONDUIT ONLY, WITH PULL LINE CONTINUOUS COPPER METALLIC COLD WATER PIPE DEMOLISH DIRECT CURRENT DISCONNECT DISTRIBUTION PANEL
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COPPER METALLIC COLD WATER PIPE DEMOLISH DIRECT CURRENT DISCONNECT DISTRIBUTION PANEL
DEMOLISH DIRECT CURRENT DISCONNECT DISTRIBUTION PANEL
DIRECT CURRENT DISCONNECT DISTRIBUTION PANEL
DISTRIBUTION PANEL
EACH WITH EACH
EVENING LIGHT
ELECTRIC EMERGENCY
ELECTRICAL METALLIC TUBING
END OF LINE DEVICE EQUIPMENT
EXISTING RELOCATED
ELECTRICAL WATER COOLER
ELECTRIC WATER HEATER FUTURE
FIRE ALARM CONTROL PANEL
FIRE ALARM EXTENDER PANEL FIRE ALARM TERMINAL CABINET
FURNISHED BY OTHERS
FLUORESCENT FOOT
GAUGE
GROUND FAULT CIRCUIT INTERRUPT GROUND
METALLIC GAS PIPE
GYPSUM HIGH INTENSITY DISCHARGE
HORSE POWER
HEIGHT HERTZ
INTERMEDIATE METALLIC CONDUIT INCH
INCH SHORT CIRCUIT CURRENT
(RMS SYMMETRICAL)
ISOLATED JUNCTION BOX
THOUSAND CIRCULAR MILLS
KILO VOLT AMP KILOWATT
LIGHTING CONTROL PANEL
LOW VOLTAGE THOUSAND CIRCULAR MILLS
MECHANICAL MAIN DISTRIBUTION PANEL
METAL HALIDE
MISCELLANEOUS MAIN LUGS ONLY
MAIN LUGS ONLY MAIN SWITCHBOARD
NEW NOT IN CONTRACT
NOT IN ELECTRICAL SECTION OF
THESE PLANS & SPECS. NIGHT LIGHT
NUMBER
NOT TO SCALE ON CENTER
POLE
PULL BOX PROVISION FOR FUTURE BREAKER
W/ MOUNTING HARDWARE
PROVISION FOR FUTURE CURRENT TRANSFORMER
PHASE
PLYWOOD PANEL
PAIR
POLYVINYL CHLORIDE CONDUIT RELOCATE/RELOCATED
REQUIRED
ROOM RIGID METAL CONDUIT
REMOVE AND REPLACE
SPECIFICATION SIGNAL TERMINAL CABINET
SQUARE
SWITCH TELEPHONE
TELEPHONE TERMINAL BOARD
TYPICAL UNDERGROUND
UNLESS OTHERWISE NOTED
VOLTS WEATHERPROOF
WEIGHT
WATT
WITH TRANSFORMER
AND

GENERAL NOTES

- 1. 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.
- 2. PROTECT EXISTING EQUIPMENT AND FURNISHINGS FROM ANY DAMAGE DUE TO DUST, MOISTURE OR CONTACT WITH WORK CREW OR MATERIALS.
- 3. 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.
- 4. CORE BORE SHALL BE 1" DIAMETER LARGER THAN EACH CONDUIT. SPACE CONDUIT HOLES 3" APART. SEAL AROUND CONDUIT WITH NON-SHRINK, NON-METALLIC GROUT.
- 5. ALL CONDUCTORS INSTALLED IN PANELBOARDS SHALL BE TRAINED, LACED, AND INSTALLED WITH PHASE TAPE ON ALL CONDUCTORS.
- 6. LABEL DEVICES (I.E. RECEPTACLES, ETC.) ON EACH COVER PLATE IDENTIFYING CIRCUIT AND PANEL DEVICE IS CONNECTED TO.
- 7. 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.
- 8. FIELD COORDINATE DEVICE LOCATIONS PRIOR TO ROUGH-IN.
- 9. 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
- 10. SUPPORT ENCLOSURES, BOXES AND CONDUIT INSTALLATIONS PER CEC 314.23 (A) THROUGH (H).
- 11. 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.
- 12. 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.
- 13. 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.
- 14. 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.
- 14.1. 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.
- 15. COORDINATE EQUIPMENT LOCATIONS, CONTROL AND POWER WIRING REQUIREMENTS AND CONNECT POINTS WITH ALL APPLICABLE DISCIPLINES.
- 16. PROVIDE AND INSTALL FUSES PER UNIT NAMEPLATE DATA ON THE EQUIPMENT PROVIDED.
- 17. 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
- 18. 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.
- 19. 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 CONDITIONS OCCURS, PROVIDE A NEW EXTENSION OF ORIGINAL CIRCUITS, RACEWAYS, EQUIPMENT AND OUTLETS TO RETAIN SERVICE CONTINUITY. INSTALLATIONS SHALL BE CONCEALED IN FINISHED AREAS.
- 20. FOR ROOF PENETRATIONS, REFER TO ARCHITECTURAL PLANS FOR INSTALLATION REQUIREMENTS.
- 21. FOR WALL PENETRATION INSTALLATIONS, REFER TO ARCHITECTURAL PLANS FOR REQUIREMENTS.
- 22. PROVIDE "LOCK-ON" DEVICE FOR ALL CIRCUIT BREAKERS ON EMERGENCY DEDICATED CIRCUITS
- 23. 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.
- 24. 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.
- 25. 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.
- 26. 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.

TYPE	MANUFACTURER	CATALOG NUMBER	LAMP TYPE	NO. OF LAMPS	FIXTURE WATTS	MOUNTING	DESCRIPTION	NOTES
Α	PRUDENTIAL	P3644-LED4-LO-WA-TMW-SW-SC- UNV-X3-DM10	LED		76	SURFACE	4'X4' LED SURFACE LUMINAIRE - DIMMABLE	
В	LITHONIA	LDN6RV-40/2000-LR-6AR-LSS-MVOLT- GZ10	LED		23	RECESSED	6" DIA. LED RETROFIT DOWNLIGHT - DIMMABLE	1
9	General Luminaire		0.					9,-
Α.	Color temperature to	or LED lamps shall be 4000k unless other	wise note	ed.				

(1)1-1/2"C \leftarrow INDICATES SIZE OF CONDUIT = ONE AND ONE HALF INCH CONDUIT NUMBER WITHIN PARENTHESIS INDICATES QUANTITY OF CONDUITS

- 1. MOUNT SWITCH BOXES AT +48" TO TOP OF BOX UNLESS OTHERWISE NOTED.
- 2. MOUNT OUTLET BOXES AT +15" TO BOTTOM OF BOX UNLESS OTHERWISE NOTED.
- 3. "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:
- 3.1. +46" MAX TO TOP OF BOX WHERE BOX IS INSTALLED OVER BASE CABINET. 3.2. +44" MAX TO TOP OF BOX WITH OPEN COUNTERS WITH FORWARD APPROACH.
- 4. NO CROSSBARS ON CONDUIT RUN INDICATES MINIMUM 3/4" CONDUIT, TWO #12 CU CONDUCTORS PLUS 1#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
- 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		LENGTI	H OF CONI	DUCTOR	
VOLT		WIRE	SIZE IN (AUGE)	
AMPERES	#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	Х	62	94	146	223
2880VA	Х	51	76	118	181
3000VA	Х	48	73	114	174
3900VA	Х	Χ	56	87	134
4800VA	Х	Χ	46	71	108

THIS CHART IS FOR COPPER CONDUCTORS ONLY.

- THIS CHART ASSUMES AN 80% POWER FACTOR AND STEEL RACEWAYS. 3. 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.
- 4. USE WIRE SIZE FROM THIS CHART UNLESS LARGER CONDUCTOR SIZES ARE NOTED ON THE
- 5. 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.

- 1. COORDINATE WITH PG&E TO CONFIRM THE MOST CURRENT REQUIREMENTS FOR THE UTILITY SERVICE
- 2. COORDINATE WITH CITY TO CONFIRM MAXIMUM DOWNTIME AND ANY SYSTEMS THAT MAY NEED TO BE SUPPORTED BY THE GENERATOR DURING CUTOVERS.
- 3. CONFIRM AND NOTE POWER ROTATION FOR EXISTING SERVICE AT THE EXISTING MAIN PANELBOARD. ATS.
- PANEL 'E', PANEL 'N' AND MECHANICAL ROOM POWER GUTTER. a. CONFIRM OPERATION OF ALL MECHANICAL SYSTEMS CONNECTED TO THE GUTTER. DOCUMENT AND
- REPORT ANY EQUIPMENT THAT IS OFF-LINE OR NOT FUNCTIONING. 4. ESTABLISH THE SECONDARY SERVICE CONDUIT, GROUNDING, HOUSEKEEPING PAD AND SUBSTRUCTURES FOR THE MAIN SWITCHBOARD INSTALLATION.
- 5. COORDINATE WITH THE CITY TO RELOCATE (E) STORAGE CABINET IN ELECTRICAL ROOM.
- 6. ESTABLISH MAIN SWITCHBOARD AND COMMERCIAL POWER DISTRIBUTION PANEL 'CDP'.
- 7. ESTABLISH GROUND BAR IN MAIN ELECTRICAL ROOM.
- 8. PROVIDE TEMPORARY POWER FEEDER TO PANEL N.
- 9. ESTABLISH THE COMMERCIAL POWER FEEDER TO THE (E) ATS SERVING PANEL 'E'.
- 10. ESTABLISH THE POWER FEEDER TO THE POWER GUTTER LOCATED IN THE SECOND FLOOR MECHANICAL
- 11. PROVIDE TESTING OF EQUIPMENT, GROUNDING SYSTEM AND FEEDERS INSTALLED TO DATE. 12. AFTER APPROVALS CUTOVER ELECTRICAL SERVICE TO THE NEW MSB AND ENERGIZE.
- a. CONFIRM POWER ROTATION MATCHING EXISTING AT EACH LOAD.
- b. CONNECT THE COMMERCIAL POWER FEEDER TO ATS SERVING PANEL 'E' AND ENERGIZE.
- c. ENERGIZE TEMPORARY FEEDER TO PANEL 'N'.
- d. CONFIRM ROTATION AND CONNECT NEW FEEDER TO THE EXISTING POWER GUTTER IN THE SECOND
- FLOOR MECHANICAL ROOM. i. CONFIRM OPERATION OF ALL EQUIPMENT CONNECTED TO THE POWER GUTTER.
- 13. REMOVE THE EXISTING METER CT CABINET, UTILITY METER CABINET, AND MAIN DISTRIBUTION PANEL.
- CAP SERVICE CONDUITS AT FLOOR.
- 14. RELOCATE AN EXISTING SIGNAL CABINET.
- 15. ESTABLISH PANEL 'E' AND TEMPORARY CONNECTION TO THE EXISTING PANEL 'E'.
- a. TEST PANEL INSTALLATION.
- 16. ESTABLISH THE FEEDER FROM THE ATS TO THE NEW PANEL 'E'.
- 17. ENERGIZE THE (E) PANEL 'E' FROM THE NEW PANEL 'E' AND CUT OVER LOADS TO THE NEW PANEL. a. AFTER CUTOVER COMPLETE REMOVE THE INTERIOR OF THE EXISTING PANEL 'E' AND PROVIDE NEW
- 18. ESTABLISH PANEL 'N' AND ASSOCIATED FEEDER FROM COMMERCIAL POWER DISTRIBUTION PANEL 'CDP' a. TEST PANEL INSTALLATION.
- 19. ENERGIZE THE NEW PANEL 'N' AND CUTOVER LOADS FROM THE (E) PANEL 'N' TO THE NEW PANEL 'N'.
- 20. DE-ENERGIZE THE EXISTING PANEL 'N' TEMPORARY FEEDER AND REMOVE IT.
- 21. REMOVE THE INTERIOR OF THE (E) PANEL 'N' INTERIOR AND PROVIDE NEW COVER.

SYMBOLS LIST

LED, FLUORESCENT (CONTROLLED BY SWITCH "a") APPLIES TO OR HID FIXTURE SCONNECTED TO CIRCUIT 2 & ALL FIXTURES

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

\$3 THREE WAY SWITCH KEYED SWITCH

\$LV LOW VOLTAGE SWITCH

MANUAL MOTOR CONTROL SWITCH

WALL MOUNTED OCCUPANCY AUTO-OFF LIGHT SWITCH S 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.

INSTALL PER MANUFACTURER REQUIREMENTS.

E

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

— III — CONDUIT RUN CONCEALED IN CEILING OR WALL. SEE NOTE BELOW

— CONDUIT RUN UNDERGROUND OR UNDER FLOOR

INSULATED GREEN GROUND CONDUCTOR ————O CONDUIT RISER

— - — EXISTING EQUIPMENT, LIGHTING, DEVICES, CONDUIT, WIRING, ETC., ARE SHOWN LIGHT. NEW OR RELOCATED EQUIPMENT, LIGHTING, DEVICES, CONDUIT, WIRING, ETC., ARE SHOWN DARK.

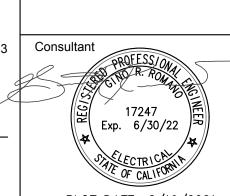
-X · X EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED

1) 1> 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

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





Agency Approvals

Issue: 1CONSTRUCTION DOCUMENTS No. Date Description 12/18/20

REPLACEMENT

FINAL REVIEW 3/1/2021

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		

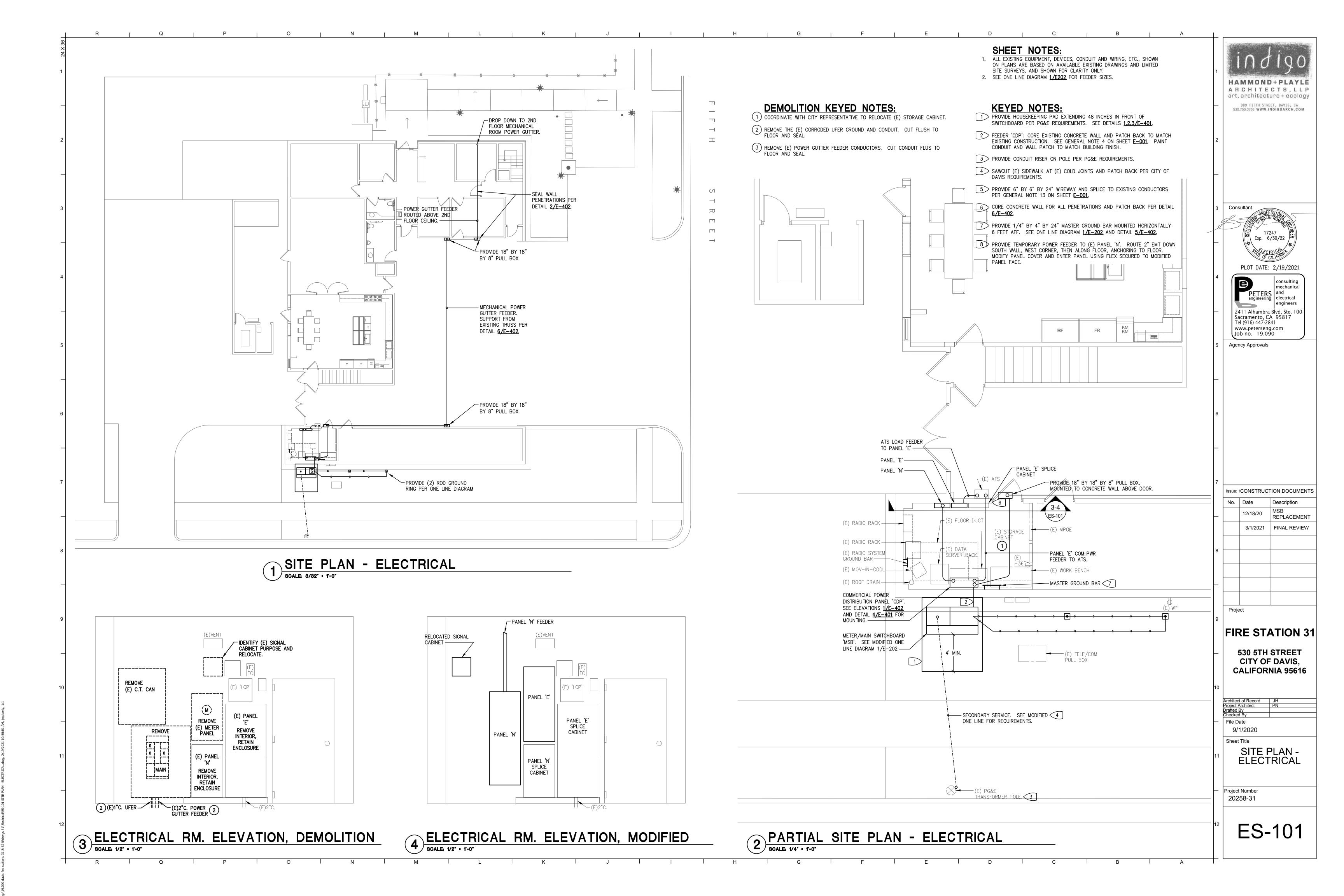
9/1/2020 Sheet Title

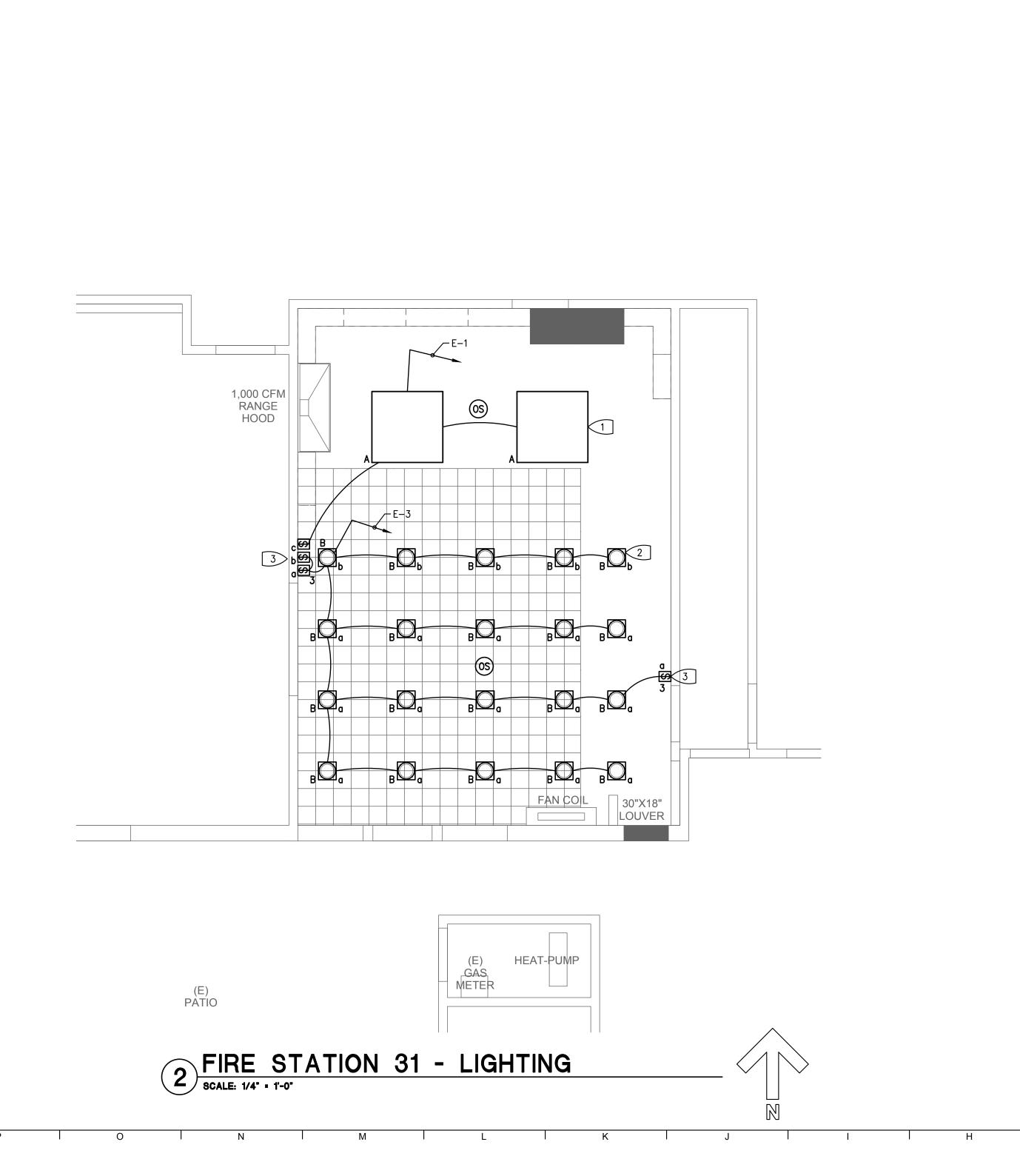
SYMBOLS, NOTES & SCHEDULES

Project Number 20258-31

TATE OF CALIFORNIA ndoor Lighting	Indoor Lighting	Indoor Lighting
IRCC-LTI-E (Created 7/18) CERTIFICATE OF COMPLIANCE CALIFORNIA ENERGY COMMISSION NRCC-LTI-E	NRCC-LTI-E (Created 7/18) CERTIFICATE OF COMPLIANCE CALIFORNIA ENERGY COMMISSION NRCC-LTI-E	NRCC-LTI-E (Created 7/18) CERTIFICATE OF COMPLIANCE CALIFORNIA ENERGY COMMISSION NRCC-LTI-E
oject Name: Fire Station 31 Report Page: Page 3 of 6 oject Address: 530 5th Street Date Prepared: 1/13/2020	Project Name:Fire Station 31Report Page:Page 2 of 6Project Address:530 5th StreetDate Prepared:1/13/2020	This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path. Project Name: Fire Station 31 Report Page: Page 1 of 6
04 05 06 07 08 09 10 11 12	D. EXCEPTIONAL CONDITIONS	Project Address: 530 5th Street Date Prepared: 1/13/2020
Area Description Complete Building or Area Category Area Controls Area Controls Controls Controls Controls Controls Controls Controls Controls Daylighting Daylighting Field Inspector Systems	This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.	A. GENERAL INFORMATION O1 Project Location (city) Davis O4 Total Conditioned Floor Area (ft²) 613
Primary Function Area §130.1(a) §130.1(b) §130.1(c) §130.1(d) §140.6(d) §140.6(a)1 Pass Fail Kitchen Kitchen, Food Preparation Manual ON/OFF Dimmer Occ Sensor N/A N/A \(\) \(\)	No exceptional conditions apply to this project.	02 Climate Zone 12 05 Total Unconditioned Floor Area (ft²) 0 03 Occupancy Types Within Project (select all that apply): 06 # of Stories (Habitable Above Grade) 1
*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved. 13	E. ADDITIONAL REMARKS	Office Retail Warehouse Hotel/Motel School Support Areas
EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting; Plan Sheet Showing Daylit Zones: EXCEPTION 1 to §130.1(d)2	This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.	Parking Garage High-Rise Residential Relocatable V Other (write in):
I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS		B. PROJECT SCOPE Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in \$140.6 or \$141.0(k)? For alterations, WARNING Changing the Calculation Method in this table will result in the deletion of data proviously input. If you need to shape the
Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per $\S140.6(b)$. Indicate if additional lighting power allowances per $\S140.6(c)$ or adjustments per $\S140.6(a)$ are being used.	F. INDOOR LIGHTING FIXTURE SCHEDULE Table Instructions: Include all permanent designed lighting and all portable lighting in offices.	\$140.6 or \$141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".
Conditioned Spaces	01 02 03 04 05 06 07 08 09	Scope of Work Conditioned Spaces Unconditioned Spaces 01 02 03 04 05
01 02 03 04 05 06 Area Description Complete Building or Area Category Allowed Density Area Allowed Wattage Additional Allowances / Adjustments	Item Tag	My Project Consists of (check all that apply): Calculation Method Area (ft²) Calculation Method Area (ft²) New Lighting System
Primary Function Area (W/ft²) (ft²) (Watts) Footnotes PAF Portable Ltg	A 76W LED 4X4	
Kitchen Kitchen, Food Preparation 1.2 613 735.6	Total Designed Watts CONDITIONED SPACES: 612	Altered Lighting System Entire Luminaire Alteration Area Category 613 Area Category 0
POWER ADJUSTMENT: PORTABLE LIGHTING IN OFFICES	NOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the	Total Area of Work (ft ²) 613 0
his Section Does Not Apply	luminaire, not the lamp.	C. COMPLIANCE RESULTS Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.
K. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD FOOTNOTES	G. TRACK LIGHTING This Section Does Not Apply	Lighting in O1 O2 O3 O4 O5 O6 O7 O8 O9 10
This Section Does Not Apply	H. INDOOR LIGHTING CONTROLS (Not Including PAFs)	conditioned and unconditioned Area Adjustments
L. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE This Section Does Not Apply	Table Instructions: Building Level Controls Building Level Controls	spaces must not be combined for 5140 6(c) 1 5140 6(c) 2 5140 6(c) 2 5140 6(c) 2 5140 6(c) 2 5140 6(c) 3 5140 6(c)
M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED SPECIAL FUNCTION AREAS	spaces in this table. When an option having a * is selected, the notes Mandatory Demand Response Shut-off Controls Field Inspector	compliance per
This Section Does Not Apply	of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank. Section of this table must be completed. The lighting controls section §130.1(e) §130.1(c) Pass Fail	(See Table I) (See Table I) (See Table L) (See Table F) (See Table J) (See Table R) Conditioned: 735.6 = 735.6 ≥ 612 = 612 COMPLIES
	Area Level Controls Table Continued	Unconditioned: = ≥ Controls Compliance (See Table H for Details) COMPLIES
	. asic continued	Rated Power Reduction Compliance (See Table S for Details) Not Applicable
CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards July 2018	CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards July 2018	CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards July 2018
	July 2010	5 5, ,
STATE OF CALIFORNIA Indoor Lighting	STATE OF CALIFORNIA Indoor Lighting	STATE OF CALIFORNIA Indoor Lighting
IRCC-LTI-E (Created 7/18) CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-LTI-E	NRCC-LTI-E (Created 7/18) CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-LTI-E	NRCC-LTI-E (Created 7/18) CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-LTI-E
Project Name: Fire Station 31 Report Page: Page 6 of 6 Project Address: 530 5th Street Date Prepared: 1/13/2020	Project Name: Fire Station 31 Report Page: Page 5 of 6 Project Address: 530 5th Street Date Prepared: 1/13/2020	Project Name: Fire Station 31 Report Page: Page 4 of 6 Project Address: 530 5th Street Date Prepared: 1/13/2020
OCCUMENTATION AUTHOR'S DECLARATION STATEMENT	T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION	N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY
Documentation Author Name: Gino Romano Documentation Author Signature:	Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in	This Section Does Not Apply
Company: Peters Engineering Signature Date: 1/13/2020	Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCI	O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING
Address: 2411 Alhambra Blvd. Suite 100 CEA/ HERS Certification (if applicable): E17247 City/State/Zip: Sacramento, CA 95817 Phone: 916-447-2841	YES NO Form/Title Field Inspector	This Section Does Not Apply
RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of California:	Pass Fail NRCI-LTI-01-E - Must be submitted for all buildings	P. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS This Section Does Not Apply
1. The information provided on this Certificate of Compliance is true and correct.	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be	Q. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE
2. 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) 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this	NRCI-LTI-03-E - Must be submitted for a line-voltage track lighting integral current limiter, or for a supplementary overcurrent	This Section Does Not Apply
3. 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.	NRCLITI-04-F - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference	R. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (PAF)
4. 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.	room, a multipurpose room, or a theater to be recognized for compliance.	This Section Does Not Apply
5. 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	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	S. RATED POWER REDUCTION COMPLIANCE BY SPACE This Section Does Not Apply
documentation the builder provides to the building owner at occupancy. Responsible Designer Name: Gino Romano Responsible Designer Signature:	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	This Section Does Not Apply
Company: Peters Engineering Inc. Date Signed: 1/13/2020	U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE	
Address: 2411 Alhambra Blvd. Suite 100 License: E17247 City/State/Zip: Sacramento, CA 95817 Phone: 916-447-2841	Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician	
	Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html	
	YES NO Form/Title Field Inspector Pass Fail	
	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	
	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	
	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	
	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	
CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards July 2018	CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards July 2018	CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards July 2018
July 2010	July 2010	July 2016







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:

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.

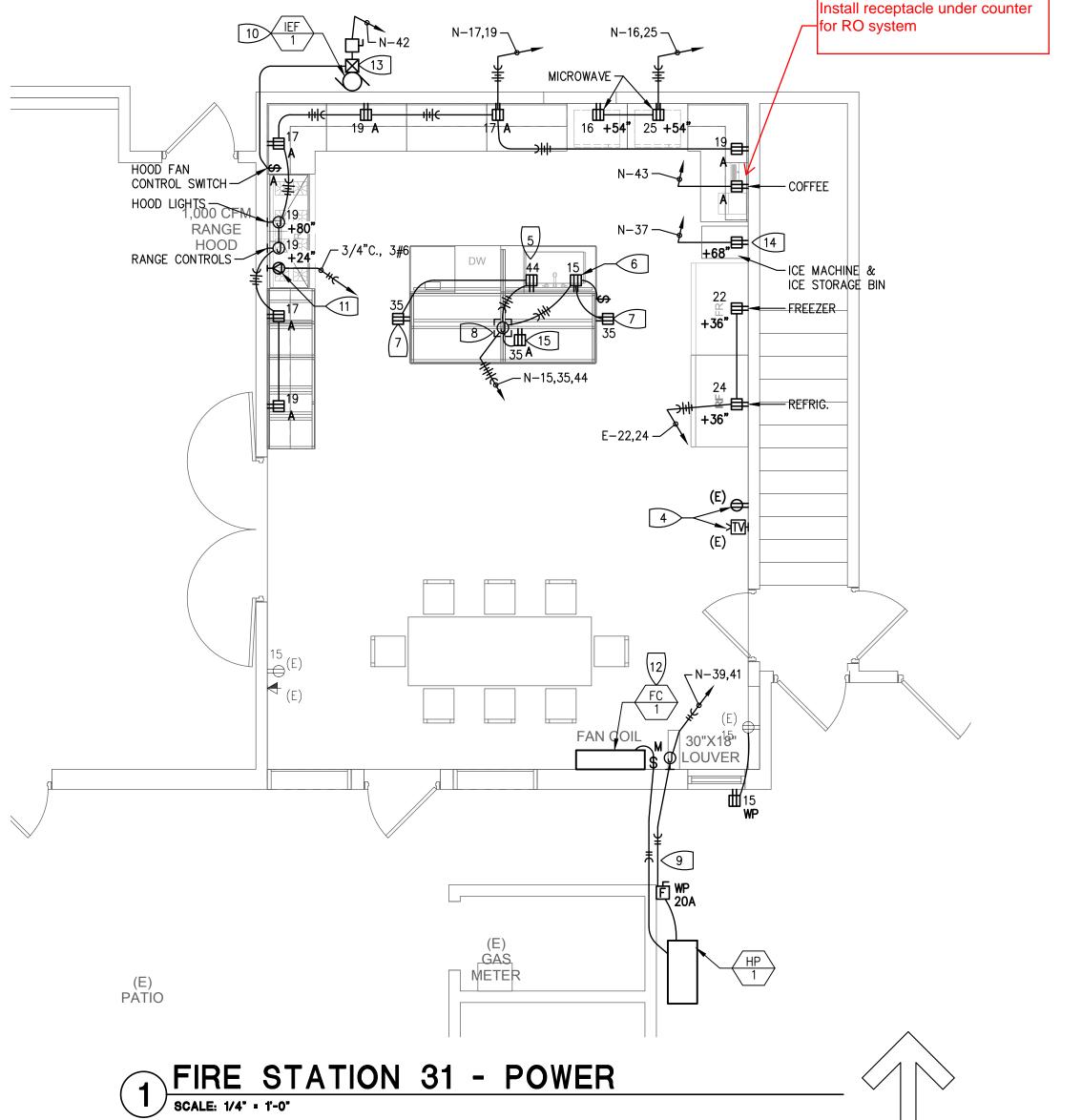
11> 220V, 1Ø, 50 AMP RECEPTACLE OUTLET FOR POWER TO ELECTRIC RANGE FROM MAIN SWITCHBOARD.

PROVIDE POWER TO FAN COIL CONDENSATE PUMP. EXTEND POWER TO PUMP FROM DESIGNATED TERMINALS IN THE FAN COIL UNIT. COORDINATE WITH MECHANICAL.

PROVIDE NEMA SIZE 1 MOTOR STARTER WITH FUSE DISCONNECT, CONTACTOR, AND THERMAL OVERLOAD FOR 1/2HP MOTOR.

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 PUFP—CT, OR EQUAL.





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



PLOT DATE: 2/19/2021

consulting mechanical and and

PETERS engineering lelectrical engineers

2411 Alhambra Blvd, Ste. 100
Sacramento, CA 95817
Tel (916) 447-2841
www.peterseng.com
Job no. 19.090

Agency Approvals

Issue: 1CONSTRUCTION DOCUMENTS

No. Date Description

12/18/20 MSB
REPLACEMENT

3/1/2021 FINAL REVIEW

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

EXISTING

R=RECEPTACLE LOADS

			MANF:				VICE:			UNTING: ENCLOSURE:		10K		
	Ε		TYPE:	NLAB BUSS: FEEDER RATING:	100 AMP 100 AMP		/208 Ø, 4\	VOLT		WIDTH: 24" SURFACE DEPTH: 5.75"		100%	NEUT.	
\neg	AØ	BØ	CØ	DIRECTORY	BRKR		2, 4,		BRKR		AØ	BØ	CØ	
L	152	AL-	**	LIGHTS- KITCHEN [1]	20/1	1	•	2	20/1	LIGHTS-	500			L
L		460		LIGHTS- KITCHEN [1]	20/1	3	•	4	20/1	LIGHTS-		500		L
L			500	LIGHTS- STAIRS	20/1	5	•	6	20/1	LIGHTS-			500	L
L	500			LIGHTS- STAIRS	20/1	7	•	8	20/1	LIGHTS-	500			L
R		720		RECEPTS-	20/1	9	•	10	20/1	RECEPTS-		720		R
R			720	RECEPTS-	20/1	11	•	12	20/1	RECEPTS-			720	R
R	1			JUNCTION BOX - SPARE	20/1	13	•	14	20/1	LIGHTING CONTROL	200			0
R		540		911 PAGING	20/1	15	•	16	20/1	TIME CLOCK		200		0
R			720	RECEPTS-	20/1	17	•	18	20/1	RECEPTS- PG&E			360	R
м	1000		***************************************	CEILING FANS	20/3	19	•	20	20/1	BATTERY CHARGER	500		The Development of the	0
м		1000				21	•	22	20/1	RECEPTS-KITCHEN FREEZER [1]		1587		K
м			1000			23	•	24	20/1	RECEPTS-KITCHEN REFRIG [1]			1127	K
R	720		47.2-002	RECEPTS-	20/1	25	•	26	20/1	HOLE ROOM	500		E	0
0		200		FACP	20/1	27	•	28	20/1	HOLE ROOM		500		0
R			540	RADIO	20/1	29	•	30	20/1	SPARE				
м	2904			COMPRESSOR	50/3	31	•	32	30/3	DOORS EAST & WEST	1104			М
М		2904		7.5HP		33	•	34		1 HP EA.		1104		М
м			2904			35	•	36					1104	М
	PANEL	NOTES:								TOTAL CONNECTED LOAD	8580	10435	10195	
	1.	REVISE	D LOAD							DEMAND LOADS				
	2.			ING LOADS AND REVISED S		CCOR	DING	LY		RECEPTACLES, 1ST 10KW	720	1980	3060	1
	3	PROVID	E UPDA	TED TYPE WRITTEN PANEL	SCHEDULE					REMAINDER @ 50% MOTOR LOADS	0	0	0	J
										25% LRGST MOTOR	5008 726	5008 726	5008 726	10
										LIGHTING LOADS	1652	960	1000	
										25% LIGHTING	413	240	250	1
										65% KITCHEN	0	1032	733	
										OTHER LOADS	1200	900	0	
										TOTAL DEMAND LOADS	9719	10846	10777	1
										TOTAL DEMAND AMPS	81	90	90	
	D DE01		E LOADS	L=LIGHTING LOADS	M=MEC	NI IA NII	041.1	040		O=OTHER LOADS K=KITCH	IENLO			

٩N	IEL:		MANF:	CH MAIN: LUG	S	SER\	VICE:		MO	UNTING: ENCLOSURE:		10K	AIC
	Ν		TYPE:		25 AMP			VOLT	Ē	WIDTH: 24"		100%	NEUT.
_					75 AMP		Ø, 4V			SURFACE DEPTH: 5.75"		12725	
_	AØ	ВØ	CØ	DIRECTORY	BRKR	1 0 00	1		BRKR	10 PA 10 TO THE LOCAL PROPERTY OF THE LOCAL	AØ	BØ	CØ
Curas	1700			RECEPTS- WASHER	20/3		•	2	110.0000000	TIME CLOCK	200		
1		1700				3	•	4	20/1	RECEPTS- DORM/STAIRS		720	
8			1700			5	•	6	20/1	LIGHTS-			500
	1000			LIGHTS- ENGINE FLOOR	20/1	7	•	8	20/1	LIGHTS-	500		
G.		750		LIGHTS-	20/1	9	•	10	20/1	RECEPTS-		720	
6		750 LIGHTS-		20/1	11	•	12	50/2	WATER HEATER			4000	
	750			LIGHTS-	20/1	13	•	14			4000		
5		1840		RECEPTS- KITCHEN [1]	20/1	15	•	16	20/1	RECEPTS- KITCHEN		720	
		7/7/7/2019/4/4/3	1500	RECEPTS- KITCHEN [1]	20/1	17	•	18	S. South Broken	RECEPTS-			720
-	1500		11.5450.00000	RECEPTS- KITCHEN [1]	20/1	1000	•	20	AND STREET,	RECEPTS-	720		\$78.50 per 500
2		720		RECEPTS-	20/1	21	•	22	0625742.07	RECEPTS-	in territor	720	
£		A.A.T	450	LIGHTS- CANOPY	20/1	23	•	24	1 62554222	RECEPTS		De talife	720
	720		400	RECEPTS- KITCHEN [1]	20/1			26	22/2///	RECEPTS-	720		120
	720	720		RECEPTS-	20/1	27	•	28	-	AIR COMPRESSOR	120	1945	
- 1		120	720	RECEPTS-	20/1	29		30	30/2	AIR COMPRESSOR		1340	1945
7	500		120						20/2	DI VMOVENT AIR HANDLER	2004		1540
1	500	500		UNIT HEATER	20/1		•	32	30/3	PLYMOVENT AIR HANDLER	2004	2004	
1		500		GEN ENGINE HEATER	20/1	33	•	34				2004	
3			1500	RECEPTS- KITCHEN DW [1]	20/1	35	•	36					2004
3	1000			RECEPTS- ICE MACHINE	20/1	٠.	•	38	30/2	RECEPTS- DRYER	2500	PASACHOE) ALM	
1		811		HP-1 & FC-1 [1][2]	20/2	39	•	40				2500	
1			811			41	•	42	20/1	IEF-1 [1][2]			1127
Į.	PANEL		E .							TOTAL CONNECTED LOAD	17814	16370	1844
				EW LOADS						DEMAND LOADS			
				BREAKER						RECEPTACLES, 1ST 10KW	8860	10360	686
				TING LOADS AND REVISED SCH		CCOR	DING	LY		REMAINDER @ 50% MOTOR LOADS	0	0	
	4	PROVIL	JE UPDA	ATED TYPE WRITTEN PANEL SC	HEDULE					25% LRGST MOTOR	6504 1000	5260 501	988 100
										LIGHTING LOADS	2250	750	
										25% LIGHTING	563	188	
										65% KITCHEN	0	0	The state of
										OTHER LOADS	200	0	Y Y
										TOTAL DEMAND LOADS	19377	17059	1987
										TOTAL DEMAND AMPS	161	142	16

L=LIGHTING LOADS M=MECHANICAL LOADS O=OTHER LOADS K=KITCHEN LOADS

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.

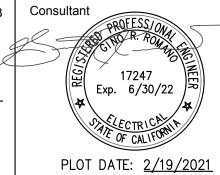
KEYED NOTES:

- 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.

(E) 30KW EMERGENCY GENERATOR

(E) AUTOMATIC TRANSFER SWITCH, 100 AMP, 3-POLE







Agency Approvals

_			
7			
	Issue: 1	CONSTRUC	TION DOCUMENTS
	No.	Date	Description
_		12/18/20	MSB REPLACEMENT
		3/1/2021	FINAL REVIEW
8			
_			
	Proje	ct	
9			
	FIF	RE STA	ATION 31
		CITY OF	STREET DAVIS, NIA 95616
10			
	Architect	of Record	IH

File Date

Sheet Title

Project Number 20258-31

9/1/2020

DEMOLITION - ONE LINE & PANEL SCHEDULES

E-201

ONE LINE DIAGRAM - DEMOLITION

SCALE: NONE

X (E) UTILITY METER

TOTAL CALCULATED AFC = 24.76KA

(E) MAIN SWITCHBOARD MSB

400A BUS, 120/208V, 3Ø, 4W, 18KA SCCR

JA/3 225AF 175AT

(E) 2-1/2"C., 4 (E) 2-1/2"C., 4 (E) 2-1/2"C., 4 (E) 1/4 (E) 2-1/2"C., 4

JA / 3 225AF 150AT

(E) POWER GUTTER

FA/3 1. 150AF 100AT

* LA/3 400AF 400AT

(E) INCOMING SERVICE. AVAILABLE FAULT CURRENT PER PG&E: 18KA

PAN	EL:			EATON	MAIN:	LUGS		SER	VICE:		МО	UNTING:	ENCLOS	SURE:		22K		
	Е		TYPE:		BUSS:		AMP		/208		-		WIDTH:	20"		100%	NEUT.	
			_		R RATING:	150	AMP		Ø, 4V			SURFACE	DEPTH:	5.75"	_			
	AØ	ВØ	CØ		ECTORY		BRKR	+			BRKR		ECTORY		AØ	ВØ	СØ	辶
L	152			LIGHTS- KITC	HEN		20/1	1	•	2	20/1	LIGHTS-			500			L
L		460		LIGHTS- KITC	HEN		20/1	3	•	4	20/1	LIGHTS-				500		L
L			500	LIGHTS- STAI	RS		20/1	5	•	6	20/1	LIGHTS-					500	L
L	500			LIGHTS- STAI	RS		20/1	7	•	8	20/1	LIGHTS-			500			L
R		720		RECEPTS-			20/1	9	•	10	20/1	RECEPTS-				720		R
R		720 RECEPTS- 20/1							•	12	20/1	RECEPTS-					720	R
R					20/1	13	•	14	20/1	LIGHTING COI	NTROL		200			0		
R		JUNCTION BOX - SPARE 20/1 13 540 911 PAGING 20/1 15								16	20/1	TIME CLOCK				200		0
R		720 RECEPTS- 20/1								18	20/1	RECEPTS- PO	G&E				360	R
М	1000									20	20/1	BATTERY CHA	ARGER		500			0
М		1000					19	•	22	20/1	RECEPTS-KIT	CHEN FRE	EZER [1	-	1587		K	
М			1000			23	•	24	20/1	RECEPTS-KIT		•	1		1127	K		
R	720				20/1	25	•	26	20/1	HOLE ROOM			500			0		
0		RECEPTS- 200 FACP						27	•	28	20/1	HOLE ROOM				500		0
R			540	RADIO			20/1 20/1	29	•	30	20/1	SPARE						
М	2904			COMPRESSO)R		50/3	<u> </u>	•	32	30/3	DOORS EAST	& WEST		1104			М
М		2904		7.5HP				33	•	34		1 HP EA.				1104		М
М			2904					35	•	36							1104	М
				SPARE			20/1	37	•	38	100/3	(E) PANEL 'E'	TEMP FEE	D [4]				+
				SPARE			20/1	39	•	40		(_,		- [.]				
				SPARE			20/1	41	•	42								
	PANEL	NOTES:		19								TOTAL CONN	ECTED LOA	\D	8580	10435	10195	;
	1.		R BUSS	NG INCLUDING	GROUND I	BUSS							ND LOADS			1		+
	2.	DOOR-I	IN-DOOR	CONSTRUCTION	NC							RECEPTACLE	S, 1ST 10K	W	720	1980	3060	آر ا
	3.			RAL SURGE F									AINDER @	50%	о	0	0)
												MOTOR LOAD			5008		5008	<u> </u>
		AT TOP OF BUSSING FOR TOP FED PANELS AND AT BOTTOM OF BUSSING 25% LRGST MOTOR												726				
		FOR BOTTOM FED PANELS.												1652				
	4.	\										25% LIGHTING			413			
	-	SPARE	AFTER	CUTOVERS AF	RE COMPLE	TE. LE	AVE 100	O AMF	BRE	AKEF	! IN	65% KITCHEN			0			-
	5.											OTHER LOAD			1200			⊣
	6.											TOTAL DEMA			9719			_
												TOTAL DEMA	ND AIVIPS		81	84	84	
	R=RFCF	PTACL	E LOADS	L=LIG	HTING LOA	DS	M=ME	CHAN	ICAL I	OAD:	<u> </u>	O=OTHER LO	ADS	K=KITCI	HEN LO	ADS		

PAN	EL:		MANF:	EATON MAIN	МО	UNTING:	ENCLOS	SURE:		22K	AIC						
	NI.		TYPE:	PRL-1 BUSS	225	AMP	120	/208	VOLT	-		WIDTH:	20"		100%	NEUT.	
	N_		_	FEEDER RATING	200	AMP		Ø, 4			SURFACE	DEPTH:	5.75"				
	AØ	BØ	CØ	DIRECTORY		BRKR	CKT		CKT	BRKR		ECTORY		AØ	ВØ	CØ	
R	1700			RECEPTS- WASHER		20/3	1	•	2	20/1	TIME CLOCK			200			0
R		1700					3	•	4	20/1	RECEPTS- DO	ORM/STAIRS	3		720		R
R			1700				5	•	6	20/1	LIGHTS-					500	L
L	1000			LIGHTS- ENGINE FLOO	₹	20/1	7	•	8	20/1	LIGHTS-			500			L
L		750		LIGHTS-		20/1	9	•	10	20/1	RECEPTS-				720		R
L			750	LIGHTS-		20/1	11	•	12	50/2	WATER HEAT	ER				4000	М
L	750			LIGHTS-		20/1	13	•	14					4000			М
R		1840		RECEPTS- KITCHEN		20/1	15	•	16	20/1	RECEPTS- KIT	TCHEN			720		R
R			1500	RECEPTS- KITCHEN		20/1	17	•	18	20/1	RECEPTS-					720	R
R	1500			RECEPTS- KITCHEN		20/1	19	•	20	20/1	RECEPTS-			720			R
R		720		RECEPTS-		20/1	21	•	22	20/1	RECEPTS-				720		R
L			450	LIGHTS- CANOPY		20/1	23	•	24		RECEPTS					720	R
R	720			RECEPTS- KITCHEN		20/1	25	•	26		RECEPTS-			720			R
R		720		RECEPTS-		20/1	27	•	28		AIR COMPRES	SSOR			1945		M
R			720	RECEPTS-		20/1	29	•	30							1945	М
М	500			UNIT HEATER		20/1	31	•	32	30/3	PLYMOVENT	AIR HANDL	ER	2004			М
М		500		GEN ENGINE HEATER		20/1	33		34						2004		М
R			540	RECEPTS- KITCHEN		20/1	35	•	36							2004	M
R	1041			RECEPTS- ICE MACHIN	 F	20/1	37	•	38	30/2	RECEPTS- DF	RYFR		2500			R
M		811		HP-1 & FC-1	_	20/2	39	•	40	00,2				2000	2500		R
м		011	811			20,2	41	•	42	20/1	IEF-1				2000	1127	M
K	1670			COFFEE MACHINE		20/1	43	•	44		KITCHEN DW			1500		1121	K
ĸ	1070	4160		RANGE		50/2	45	•	46		SPARE			1000			
ĸ		4100	4160	IVANOL		30/2	47	•	48		SPARE						
			4100	SPARE		20/1	49	•	50		SPARE						
				SPARE		20/1	51	ļ -	52		SPARE						
							53	•	54								
	DANEL	NOTE C.		SPARE		20/1	53	•	54	20/1	SPARE	FOTED LOA		24025	20520	24647	,
	PANEL 1.	NOTES:		NG INCLUDING GROUNE	RUSS						TOTAL CONNE	ND LOADS		21025	20530	21647	+
	2.			CONSTRUCTION	розо						RECEPTACLE			8901	10360	5900	1
	3.			E PROTECTION DEVICE	(SPD). L	IEBERT	OR E	QUAI	L LOC	CATE		AINDER @ :		0001	0	0	
				ON BUSSING RELATIVE							MOTOR LOAD			6504	5260	9887	-
		OF BUS	SSING FO	OR TOP FED PANELS AN	D AT BO	ттом о	F BU	SSIN	G FOR		25% LRGST M	10TOR		1000	0	0	<u> </u>
		вотто	M FED P	ANELS.							LIGHTING LOA			2250	750	1700	_
	4.										25% LIGHTING			563	188	425	
	5.										65% KITCHEN			2061	2704	2704 0	-
	6. 7.										OTHER LOAD			200 21478	0 19262		4
	1.	•									TOTAL DEMAI			179	19262	172	_
											10 I/IL DEIVIA	7.1711 0		113	101	112	נ
	R=REC	EPTACL	E LOADS	L=LIGHTING LC	ADS	M=ME0	CHAN	ICAL	LOADS	3	O=OTHER LO	ADS	K=KITCH	HEN LOA	DS		

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	Ø	
Recorded Peak Power Demand =	<u>24</u> KW		
	Demand	KVA @	Derived
	<u>Power</u>	0.9 p.f.	<u>Amperage</u>
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	KVA @	Derived AMPS
	Power	0.9 p.f.	Amperage AMPS
Present Bldg Load @ 125%	30.0 KW	33.3 KVA	92.5
1 1000111 Diag Load @ 12070	33.5 100	00.0 1007	02.0

23.6 KW 26.1 KVA 88.5 **AMPS**

53.6 KW 59.4 KVA 181.0

The existing _400_ AMP commercial service is Adequate.

Additional Load

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.

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

KEYED NOTES:

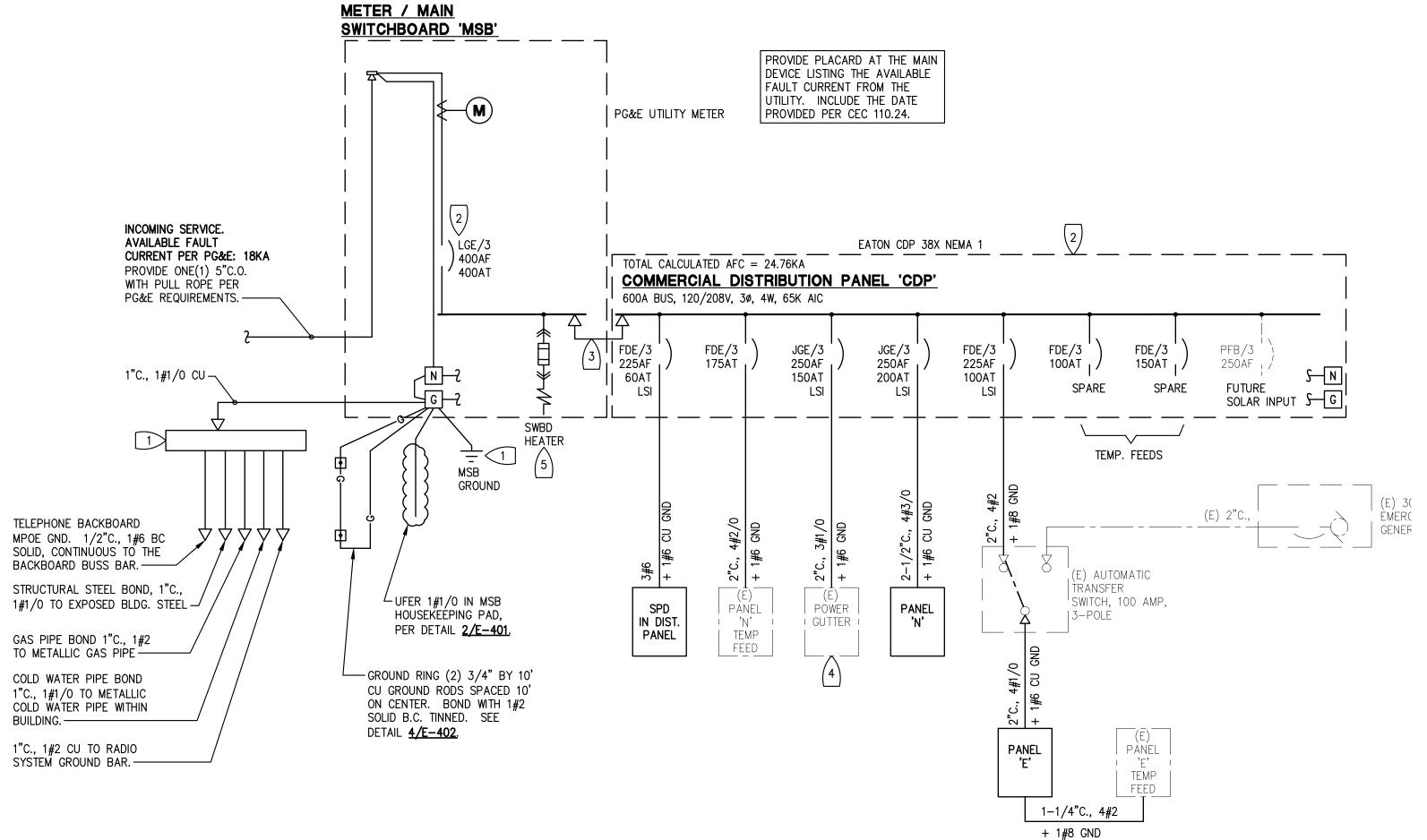
- 1> PROVIDE 1/4" BY 4" BY 24" GROUND BAR PER DETAIL <u>5/E-402</u>.
- 2 PROVIDE EATON G-SERIES BREAKERS WITH ADJUSTABLE DIGITRIP 310+ ELECTRONIC TRIP UNIT.
- 3 PROVIDE TWO(2) 2"C., E/W 4#3/0 + 1#2 GND, OR ONE(1) 4"C., 4#500MCM + 1#2 GND.
- 4> PROVIDE GROUND LUG AT POWER GUTTER IN 2ND FLOOR MECHANICAL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



PLOT DATE: 3/24/2021

mechanical ing electrical 2411 Alhambra Blvd, Ste. 100 Sacramento, CA 95817 Tel (916) 447-2841 www.peterseng.com Job no. 19.090

Agency Approvals



ONE LINE DIAGRAM - MODIFIED

SCALE: NONE

Issue: 100% CONSTRUCTION DOCUMENTS MSB 12/18/20 REPLACEMENT 03/24/21 PLAN CHECK Project

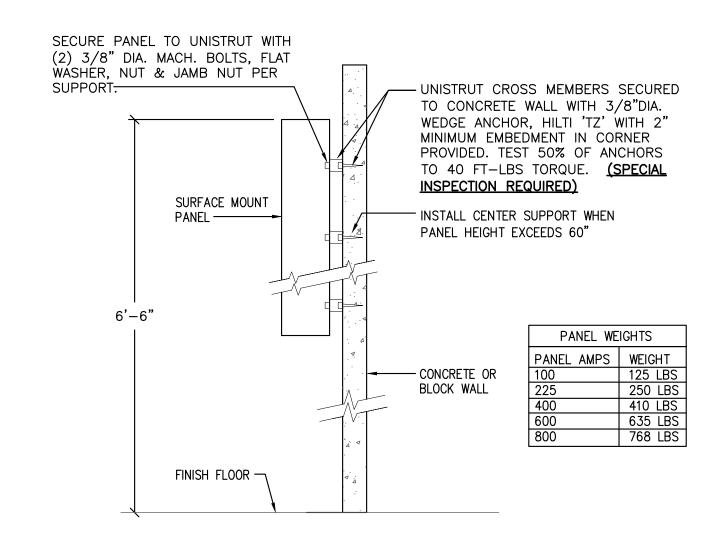
FIRE STATION 31

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

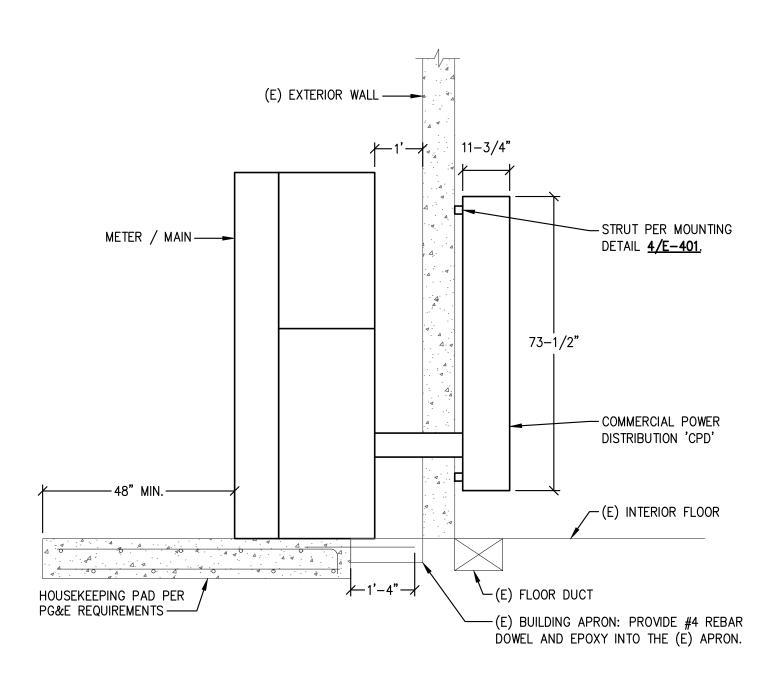
	Architect of Record	JH
	Project Architect	PN
	Drafted By	
	Checked By	
_	File Date	
	9/1/2020	
	Sheet Title	

MODIFIED - ONE LINE & PANEL SCHEDULES

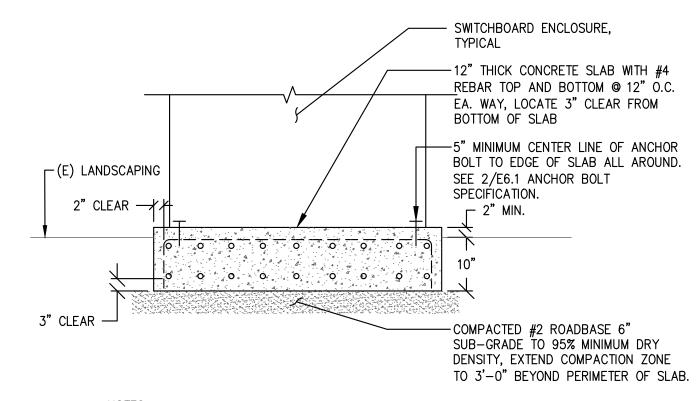
Project Number 20258-31



PANEL MOUNTING TO CONCRETE WALL RCALE: NONE

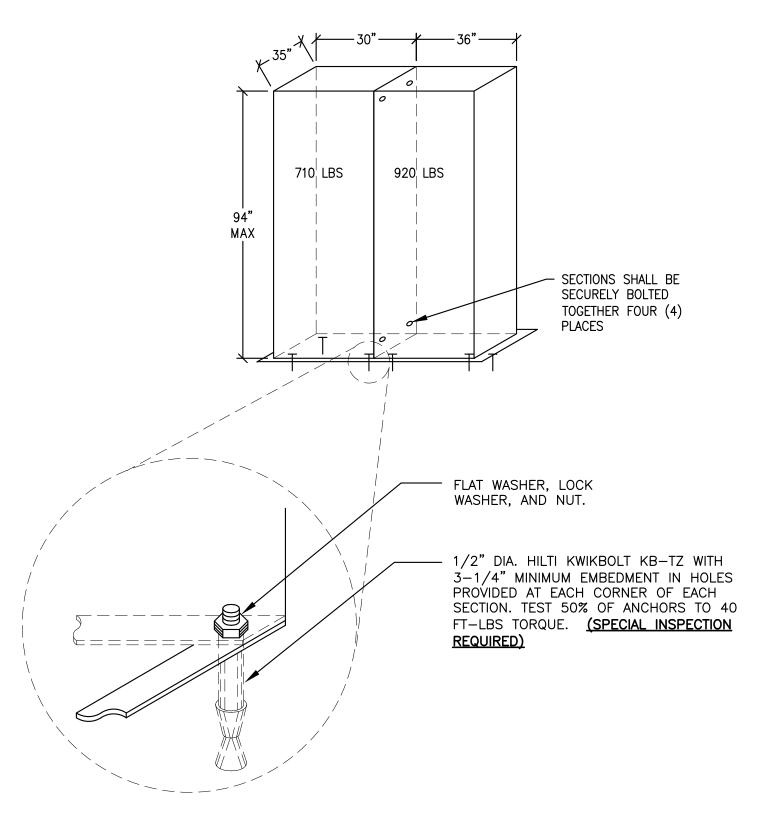


5 BUILDING SERVICE ENTRANCE ELEVATION SCALE: NONE

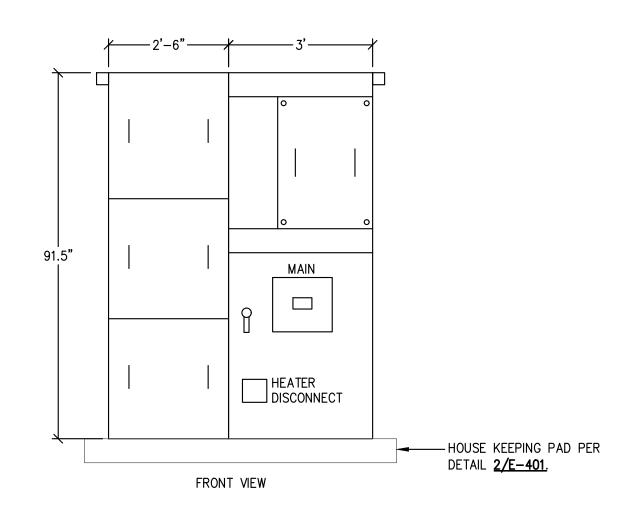


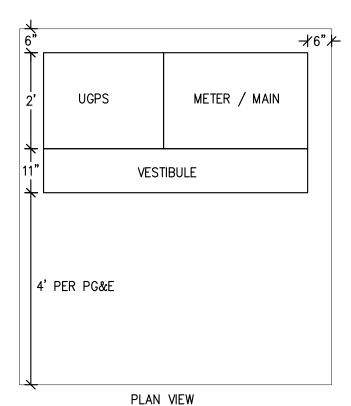
- NOTES:
 1. CONCRETE SHALL ATTAIN A 28 DAY STRENGTH OF 3,000 PSI MINIMUM.
- SPECIAL INSPECTION REQUIRED.2. REBAR SHALL BE ASTM A615 GRADE 60.
- 3. CONCRETE MIX SHALL CONTAIN MIN. OF 5 SACKS OF CEMENT PER CUBIC YARD WITH A WATER: CEMENT RATIO OF .5 MAXIMUM.
- 4. CONCRETE SHALL HAVE 4" MAX. SLUMP & 1" 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—WRAPS 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





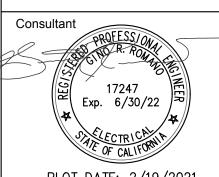
1 METER/MAIN ELEVATION SCALE: NONE

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 FATON 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 KNURLED 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 <u>3/E-401</u> FOR MOUNTING ANCHORAGE.
- 15. GROUND BUS BAR SHALL BE $\frac{1}{4}$ " X 2 $\frac{1}{2}$ " 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.

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Agency Approvals

Issue: 1CONSTRUCTION DOCUMENTS

No. Date Description

12/18/20 MSB
REPLACEMENT

3/1/2021 FINAL REVIEW

S/ 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	
11	DET	AILS

Project Number 20258-31

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.

SIGNAL GENERATOR

WIRE

SIGNAL GENERATOR

AT THIS POINT, A KNOWN CURRENT IS APPLIED ACCROSS X & Z, WHILE THE RESULTING VOLTAGE IS MEASURED ACROSS X & Y. OHMS LAW APPLIED R=V/I. THEN (Y) MOVED TO 2 TIMES THE DIAGONAL LENGTH, THEN MOVE OUT TO 3 TIMES(3X), 4X, .. 9X THE DIAGONAL LENGTH TO COMPLETE THE 3 POINT TEST WITH A TOTAL OF NINE RESISTANCE MEASUREMENTS.

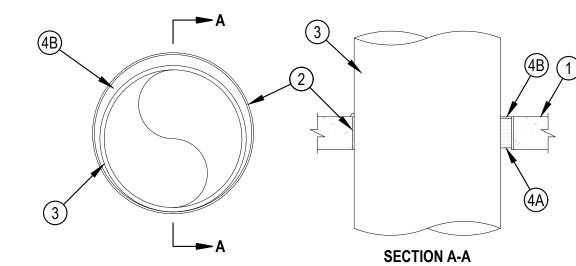
=ROD LENGTH x 10

— #2 B.C. GROUND CONDUCTOR

10FT ROD

3 METHOD OF TESTING GROUND RODS DETAIL SCALE: NONE

System No. C-AJ-1226 ANSI/UL1479 (ASTM E814) CAN/ULC S115 Classified by Underwriters Laboratories, Inc. F Rating — 3 Hr F Rating — 3 Hr to UL 1479 and CAN/ULC-S115 T Rating — 0 Hr FT Rating — 0 Hr L Rating At Ambient — Less Than FH Rating — 3 Hr CFM/sq ft 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



- 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).
 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 congrete 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.

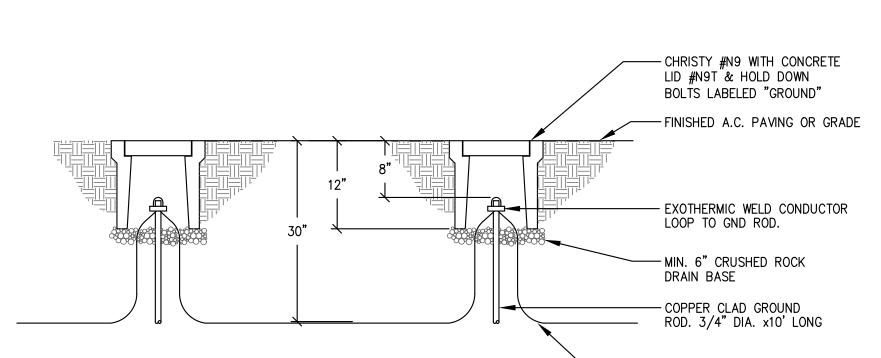


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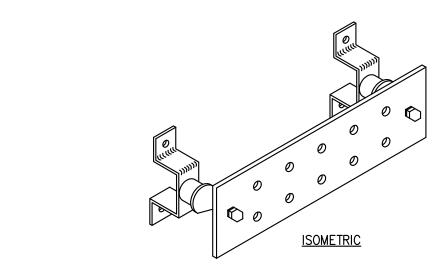
6 CONCRETE CONDUIT PENETRATION FIRESTOP

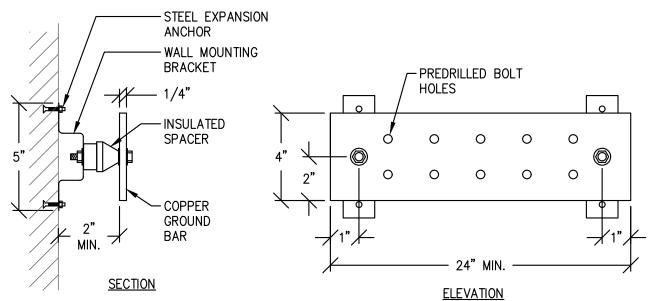
SCALE: NONE

MAIN ELECTRICAL GROUND BUS BAR SCALE: NONE



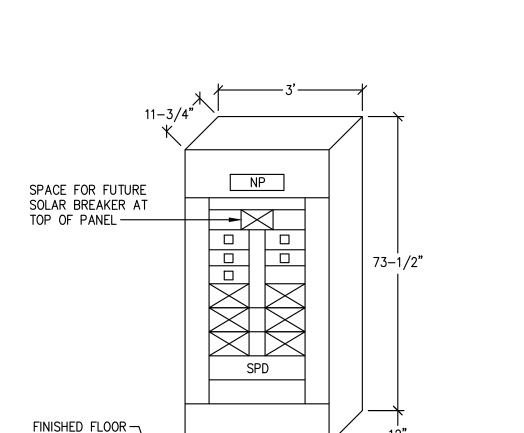
GROUND ROD & INSPECTION CELL DETAIL





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.



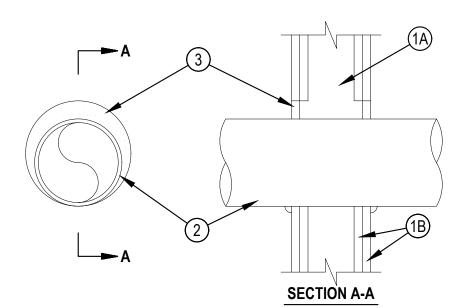
1 COMMERCIAL POWER DISTRIBUTION 'CPD'



to UL 1479 and CAN/ULC-S11

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

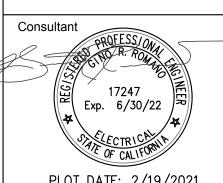
 * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



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STUD WALL CONDUIT PENETRATION FIRESTOP SCALE: NONE







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	
	Checked By	
_	File Date	
	9/1/2020	
	01 (T)	

DETAILS

Project Number

20258-31

- 404

HAMMOND+PLAYLE ARCHITECTS, LLP art, architecture + ecology 909 FIFTH STREET, DAVIS, CA 530.750.0756 WWW.INDIGOARCH.COM ─ 3/8" DIA THREADED ROD, DOUBLE NUTTED WITH LOCK WASHERS, TOP & BOTTOM. 1/8" THICK, 2" SQUARE METAL WASHER, TOP & BOTTOM. (E) METAL TRUSS SYSTEM — DOUBLE NUT AND LOCK WASHERS, TOP AND BOTTOM. Consultant — B-LINE B3690 SERIES ADJUSTABLE J-HANGER. PLOT DATE: <u>2/19/2021</u> PETERS engineering lelectrical engineers consulting mechanical 1 CONDUIT SUPPORT DETAIL
SCALE: NONE engineers

2411 Alhambra Blvd, Ste. 100
Sacramento, CA 95817
Tel (916) 447-2841
www.peterseng.com
Job no. 19.090 Agency Approvals Issue: 1CONSTRUCTION DOCUMENTS 12/18/20 MSB REPLACEMENT 3/1/2021 FINAL REVIEW FIRE STATION 31 530 5TH STREET CITY OF DAVIS, CALIFORNIA 95616 9/1/2020 DETAILS Project Number 20258-31 E-403

DI LIMBING I ECENID

| L | K | J | I | H | G | F

	PLUMBING	LEGEN	ND
	— SANITARY SEWER (SS)	<u></u> –15⊢	BALL VALVE
	SANITARY VENT (V)		CIRCUIT SETTER
	— COLD WATER (CW)	— <u>X</u> —	CHECK VALVE
	— HOT WATER (140° F) (HW)	$-\!$	BALANCING VALVE
	— HOT WATER RETURN (140° F) (HWR)	\dashv \vdash	
	— COMPRESSED AIR		BUTTERFLY VALVE
	ACID VENT (AV)	 ₩-	FLEXIBLE CONNECTION
	— ACID WASTE (AW)		STRAINER & BLOW-OFF VALVE
	— CONDENSATE DRAIN		THERMOMETER
	— DRAIN LINE		PRESSURE GAUGE
	— FIRE PROTECTION		PUMP
	— GAS (G)	*1—	SAFETY RELIEF VALVE
	— GAS – MEDIUM PRESSURE	Ť,	AUTOMATIC AIR VENT
	— GAS — HIGH PRESSURE	卒	NO TOMOTHIA THE VEICE
	— RAIN WATER LEADER OVERFLOW (OF)		
	— RAIN WATER LEADER (RWL)		
	— STORM DRAIN (SD)	GV	GATE VALVE
	— TEMPERED WATER (110° F) (TW)	GWH	GAS WATER HEATER
	— TEMPERED WATER RETURN (110° F) (TWR)	HW	HOT WATER
	— WET STAND PIPE (WSP)	HW,D/R	HOT WATER DROP/RISER
	— REVERSE OSMOSIS (RO)	ΙE	INVERT ELEVATION
	— SHUT OFF VALVE IN VALVE BOX	MV	MIXING VALVE
R	GAS PRESSURE REGULATOR	(N)	NEW
	POINT OF CONNECTION	NIPC	NOT IN PLUMBING CONTRACT
	I GINT OF CONNECTION	OF	OVER FLOW
		P&TRV	PRESSURE & TEMP RELIEF VALVE
ABC	ABOVE CEILING	PC	PLUMBING CONTRACTOR
ADA	AMERICAN DISABILITIES ACT	PRV	PRESSURE REGULATING VALVE
AFF	ABOVE FINISH FLOOR	PSI	POUNDS PER SQUARE INCH
AFG	ABOVE FINISH GRADE	RD	ROOF DRAIN
BFF(G)	BELOW FINISH FLOOR (GRADE)	RWL	RAIN WATER LEADER
BV	BALL VALVE	RWL,D	RAIN WATER LEADER DROP
CD	CONDENSATE DRAIN	SMD	SEE MECHANICAL DRAWINGS
CD,D	CONDENSATE DRAIN DROP	SAD	SEE ARCHITECTURAL DRAWINGS
CE	CIVIL ENGINEER	SPD	SEE PLUMBING DRAWING
CI	CAST IRON	SOC	SHUT OFF COCK
CO	CLEAN OUT	SOV	SHUT OFF VALVE
CW	COLD WATER	TP(C)	TRAP PRIMER (CONNECTION)
CW,D/R	COLD WATER DROP/RISER	TW	TEMPERED WATER
DSP	DRY STAND PIPE	TW,D/R	TEMPERED WATER DROP/RISER
DSP,R	DRY STAND PIPE RISER	TYP	TYPICAL
(E)	EXISTING	UF	UNDER FLOOR
ÈWH	ELECTRIC WATER HEATER	US	UNDER SLAB
FA	FROM ABOVE	VB	VALVE BOX
FB	FROM BELOW	V	VENT
FCO	FLOOR CLEANOUT	V,R	VENT RISER
FFE	FINISHED FLOOR ELEVATION	VTR	VENT THRU ROOF
FHC	FIRE HOSE CABINET	WCO	WALL CLEANOUT
FM	FLOOR MOUNT	SS	SANITARY SEWER
FSR	FIRE SPRINKLER RISER	SS,D	SANITARY SEWER DROP
G	GAS	WHA	WATER HAMMER ARRESTOR
G,R/D	GAS RISER/DROP	WM	WALL MOUNT
0,11,12	ODADE CLEANOUT	WCD	WET STAND DIDE

GCO GRADE CLEANOUT

GPR GAS PRESSURE REGULATOR

	PLUMBING FIXTURE SCHEDULE						
SYMBOL	MAKE	NUMBER	DESCRIPTION/TRIM	SUPPORT	MATERIAL	LOCATION	
<u>IMB</u>	GUY GRAY	АВ9700НА	ICE MAKER CONNECTION BOX, LEAD FREE 1/2" QUARTER TURN BALL VALVE WITH HAMMER ARRESTOR.	WALL			
<u>S-1</u>	EMODERN	ARLI-RT3622	SINGLE COMPARTMENT SINK, 36"L x 22"W x 10" DEPTH, PRE DRILLED WITH 3 HOLES FOR FAUCET, REAR DRAIN LOCATION. SUPPLIES AND STOPS.	COUNTER	16 GA T-304 STAINLESS STEEL		
	ELKAY	LK6000	HOT AND COLD SUPPLY, SINGLE HOLE, GOOSENECK FLEXIBLE/SWING FAUCET WITH PRESSURE SPRAYER. PROVIDED WITH 1.5 GPM AERATOR.				
<u>TMV-1</u>	LEONARD	170-ALF-BP- BRKT	THERMOSTATIC MIXING VALVE, INTEGRAL CHECK VALVES, MOUNTING BRACKET, LEAD FREE, 0.25 GPM MIN. FLOW, LOCKING TEMPERATURE REGULATOR, 3/8" INLETS, 3/8" OUTLET, SET AT A MAX. TEMP. OF 120° F	UNDER COUNTER	BRONZE BODY	UNDER COUNTER	
AG	ZURN	CD3P	SPEEDFLEX AIR GAP FITTING FOR <u>S-1</u> MOUNTED ON SINK LEDGE.		LEAD FREE		
<u>FS</u>	ZURN	Z-1901-2- KC-2	12" X 12" X 8" DEEP, HALF GRATE, DOME STRAINER, ACID RESISTING EPOXY COATED INTERIOR WITH NICKEL BRONZE RIM. 2" WASTE CONNECTION.			UNDER CABINET	

WSP WET STAND PIPE

WSP,R WET STAND PIPE RISER

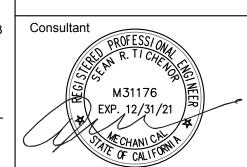
PLUMBING GENERAL NOTES

- 1. 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.
- 2. ALL FIXTURES WHITE UNLESS OTHERWISE NOTED.
- 3. PROVIDE FLOW CONTROL DEVICES ON LAVS AND SINKS PER T-24, PART 5, CCR.
- 4. ALL FIXTURES SHALL BE PROVIDED WITH STOP VALVES. VALVES MAY BE IN SUPPLY PIPES OR INTEGRAL WITH SUPPLY FITTINGS.
- 5. CONTRACTOR SHALL COORDINATE ALL PLUMBING LINE LOCATIONS WITH OTHER TRADES.
- 6. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF FIXTURES AND MOUNTING HEIGHTS.
- 7. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND PAY ALL COSTS INVOLVED.
- 8. INSULATE HOT & COLD WATER SUPPLY PIPES, STOPS, P-TRAP AND DRAIN LINE AT EACH ADA LAVATORY AND SINK WITH ANTI-MICROBIAL, SEAMLESS, VANDAL RESISTANT PROTECTIVE PIPE COVER "PROWRAP" OR EQUAL.
- 9. CONTRACTOR SHALL VERIFY LOCATION AND ADEQUACY OF SIZE AND DEPTH OF EXISTING PLUMBING UTILITIES PRIOR TO COMMENCEMENT OF ANY WORK OR ORDERING ANY MATERIALS.
- 10. PROVIDE MATERIALS IN ACCORDANCE WITH 2016 CALIFORNIA PLUMBING CODE AND STATE CODE REGULATIONS.
- 11. CONTRACTOR SHALL SAWCUT AND PATCH EXISTING SLAB AS REQUIRED FOR INSTALLATION OF THE PIPING SYSTEM.
- 12. ANY HORIZONTAL DRAINAGE PIPE SERVING SINKS OR URINALS SHALL BE PROVIDED WITH A CLEANOUT AT ITS UPPER TERMINAL PER CPC 2016 707.4. A CLEANOUT SHALL BE FURNISHED ABOVE THE FIXTURE CONNECTION FITTING SERVING EACH URINAL, REGARDLESS OF THE LOCATION OF THE URINAL IN THE BUILDING.
- 13. WHERE EXISTING FIXTURES ARE BEING REMOVED, THE CONTRACTOR SHALL INCLUDE THE REMOVAL OF ALL SUPPORT MECHANISMS SUCH AS CARRIERS, SUPPORT PLATES, PEDESTALS, ETC. AND SHALL PROVIDE DEMOLITION OF WALLS, FLOOR AND CONCRETE CURBS AS NECESSARY WHERE NEW FIXTURES ARE TO BE INSTALLED. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF NEW CHAIR CARRIERS AND PEDESTAL SUPPORTS WITH THE NEW PLUMBING FIXTURE AND WITH ARCHITECTURAL AND STRUCTURAL.
- 14. SEE SHEET **DIV 22** FOR PLUMBING SPECIFICATIONS.

EQUIPMENT SCHEDULE					
SYMBOL	MAKE	NUMBER	DESCRIPTION/TRIM	LOCATION	DETAIL
GD 1	BADGER	5XP	3/4 HP UNDER SINK GARBAGE DISPOSAL UNIT. 1725 RPM, 9.5 AVG. AMP LOAD, 120V/1PH/60HZ ELECTRICAL SERVICE. INTEGRAL DISHWASHER DRAIN CONNECTION. PROVIDE WITH WALL SWITCH. LOCATE SWITCH PER ELECTRICAL DRAWINGS. 15 LBS IN WEIGHT.	UNDER SINK	<u>4/P-401</u>
RO 1	WATTS	PWR04	4-STAGE RESIDENTIAL REVERSE OSMOSIS SYSTEM. STAGE 1: 5-MICRON SEDIMENT FILTER STAGE 2: 5-MICRON CARBON BLOCK STAGE 3: 50 GPD THIN FILM COMPOSITE MEMBRANE STAGE 4: 10" GRANULAR ACTIVATED CARBON INLINE FINAL FILTER PROVIDE 3 GALLON UNDER COUNTER STORAGE TANK, DEDICATED FAUCET DIMENSIONS: 16"W x 16"H x 6"D 25 LBS IN WEIGHT.	UNDER CABINET	3/P-401



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



PLOT DATE: 2/17/2021



Agency Approvals

Issue: 1CONSTRUCTION DOCUMENTS Description No. Date MSB REPLACEMENT 12/18/20

3/1/2021 FINAL REVIEW

FIRE STATION 31

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

9/1/2020 Sheet Title

SYMBOLS, NOTES & SCHEDULES

Project Number 20258-31

P-001

PLUMBING SHEET LIST

Sheet Number Sheet Title

SYMBOLS, NOTES & SCHEDULES FIRE STATION 31 PLAN - PLUMBING P-101

P-401

DETAILS

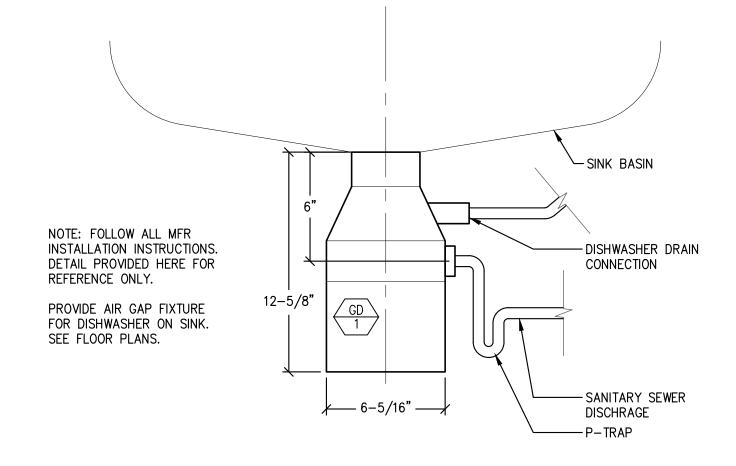
KEYED NOTES: SHEET NOTES: PROVIDE 1/2" RO PVC WATER LINE TO ICE MAKER BOX IN EXISTING WALL, ABOVE COUNTER. ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED SITE SURVEYS, AND SHOWN FOR CLARITY ONLY. 2 1/2" RO PVC WATER LINE 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 909 FIFTH STREET, DAVIS, CA 530.750.0756 WWW.INDIGOARCH.COM DISHWASHER DRAIN TO TAILPIECE OF <u>GD-1</u>, PER <u>4/P-401</u>, UPSTREAM OF P-TRAP. CONNECT VENT LINE TO <u>AG</u> 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. Consultant 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 <u>5/P-401</u>. 11> PROVIDE FLOOR SINK BELOW CABINET, ADJACENT TO RO SYSTEM. TAKE DRAIN LINE FROM RO SYSTEM TO INDIRECT CONNECTION ABOVE FLOOR SINK. PLOT DATE: 2/17/2021 12 CONNECT 2" SANITARY SEWER TO EXISTING 2" SANITARY SEWER LINE. SAW CUT SLAB PER ARCHITECTURAL DRAWINGS FOR NEW SANITARY LINE. mechanical PETERS and engineering electrical 2411 Alhambra Blvd, Ste. 100 Sacramento, CA 95817 Tel (916) 447-2841 www.peterseng.com Job no. 19.090 Agency Approvals HOOD 12/18/20 FAN COIL 30"X18" LOUVER FC-1 FIRE STATION 31 530 5TH STREET CITY OF DAVIS, CALIFORNIA 95616 (E) GAS METER (E) PATIO File Date (E) GENERATOR 9/1/2020 FIRE STATION 31 PLAN - PLUMBING Project Number 20258-31 FIRE STATION 31 - PLUMBING

SCALE: 1/4" - 1'-0" P-101

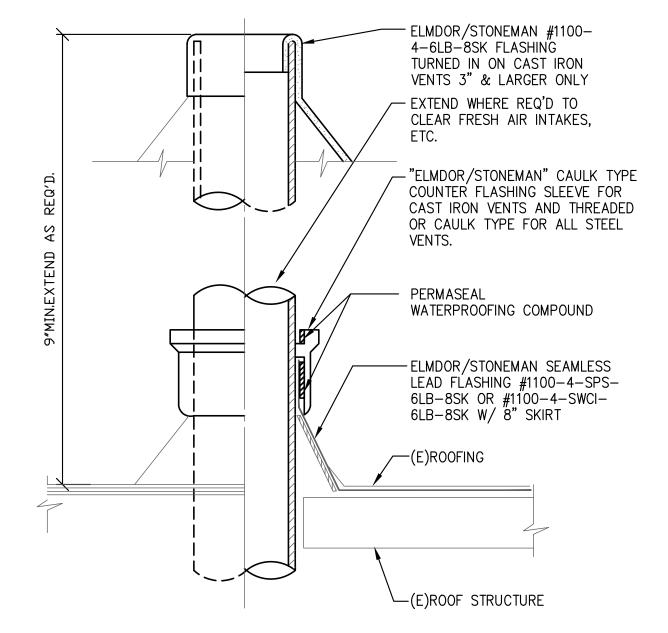


Issue: 1CONSTRUCTION DOCUMENTS

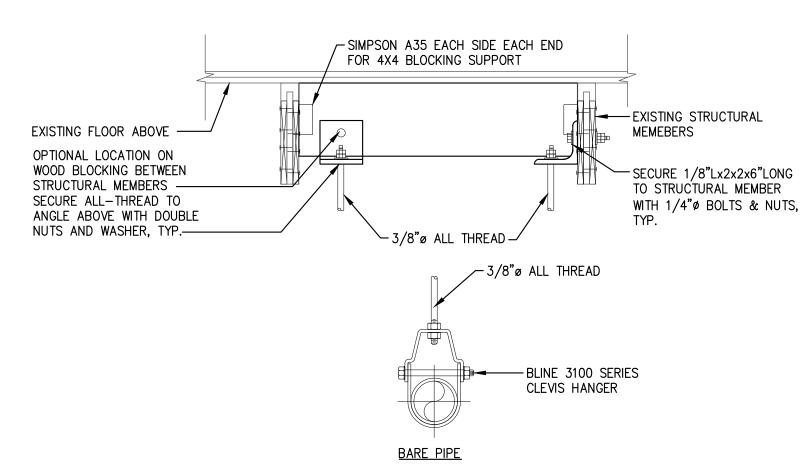
MSB REPLACEMENT 3/1/2021 FINAL REVIEW



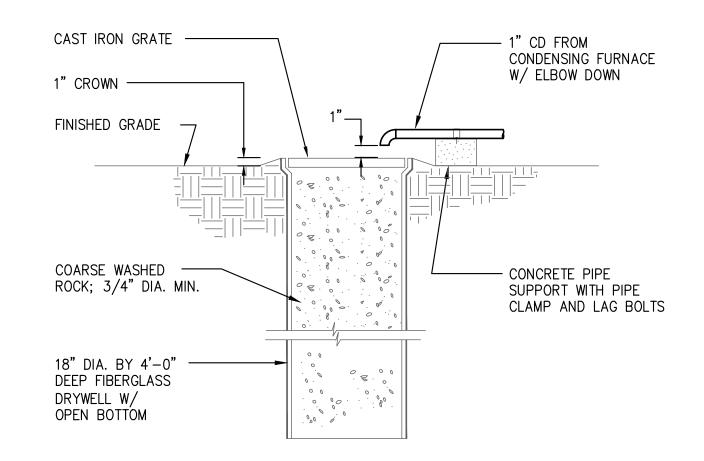
4 GARBAGE DISPOSAL SYSTEM SCALE: NONE



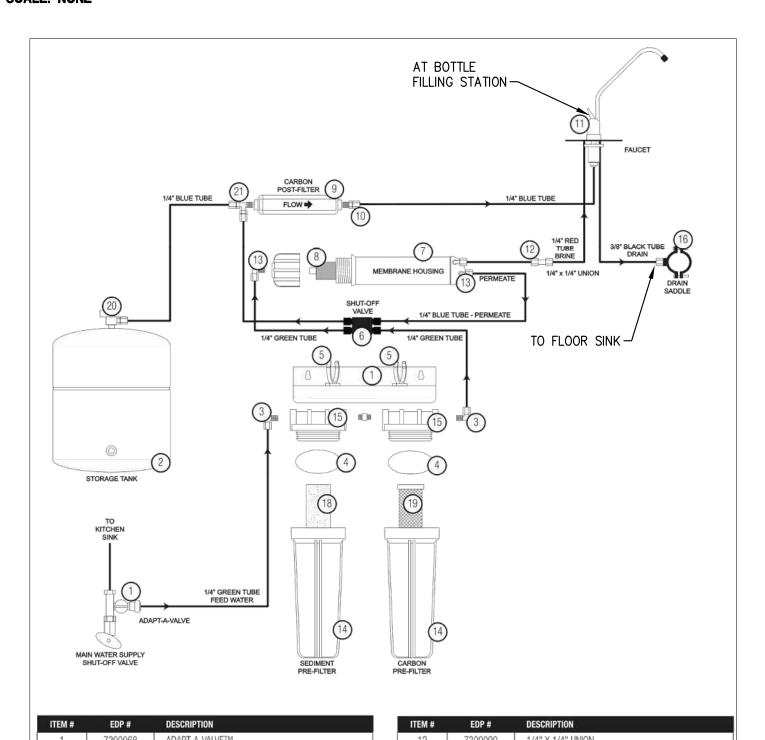
5 VENT THRU ROOF
SCALE: NONE



1 TYPICAL PIPE SUPPORT DETAIL SCALE: NONE



2 DRYWELL INSTALLATION DETAIL SCALE: NONE

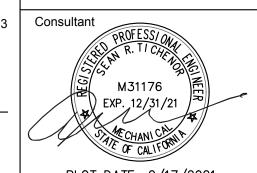


I	/300068	ADAPT-A-VALVE***		12	/300090	1/4" X 1/4" UNIUN
2	7100174	STORAGE TANK-3 GAL WHITE]	13	7300032	ELBOW - 1/4 C X 1/8 M
3	7300031	ELBOW - 1/4" C x 1/4" M		14	7300044	FILTER HOUSING - BOWL - 10" - WHITE
4	7300060	O-RING FOR FILTER HOUSING		15	7300081	FILTER HOUSING - LID - 1/4" PORTS
5	7300049	MOUNTING CLIP - MEMBRANE HOUSING		16	7300030	DRAIN SADDLE-3/8"
6	7300070	AUTOMATIC SHUT-OFF-VALVE - 1/4" QC		17	7300022	FLOW RESTRICTOR (NOT SHOWN)
7	7300042	MEMBRANE HOUSING		18	7100331	SEDIMENT FILTER
8	7100122	REVERSE OSMOSIS MEMBRANE		19	7100446	CARBON BLOCK FILTER
9	7100454	GAC INLINE FILTER - 10"		20	7300615	TANK BALL VALVE
10	7300091	PLASTIC CONNECTOR-1/4"Cx1/4"M		21	7300038	TEE 1/4 C X 1/4 C X 1/4M
11	7100195	AIRGAP FAUCET-CHROME		22		
			-	23		

REVERSE OSMOSIS SYSTEM STAGING
SCALE: NONE

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Agency Approvals

Issue: 1CONSTRUCTION DOCUMENTS

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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
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