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### EXHAUST FAN SCHEDULE

UNIT	SERVES	"GREENHECK" MODEL NO. U.I.N.C.	CFM	SP (IN. W.G.)	DUTY	STYLE	RPM	HP (WATTS)	VOLT/PH	OPER. WT. (LBS.)	INTERLOCK TO RUN WITH	MOUNTING DETAIL	CONTROL DIAGRAM	NOTES
REF 601A	WORK ROOM 601A	G-095-VG	200	0.375	E	RED	1,240	0.1	120/1	30	TIMECLOCK	1 MS.1C	4 MS.1C	1 3 5
REF 603A	LIBRARY/ PRACTICE 603A	G-095-VG	200	0.375	E	RED	1,240	0.1	120/1	30	TIMECLOCK	1 MS.1C	4 MS.1C	1 3 5
REF 604	KILN 604	G-095-VG	200	0.375	E	RED	1,240	0.1	120/1	30	TIMECLOCK	1 MS.1C	4 MS.1C	1 3 5
REF 605	GIRLS 605	G-103-VG	450	0.375	E	RED	1,080	0.25	120/1	35	TIMECLOCK	2 MS.1C	4 MS.1C	1 3 5
CEF 608	CUST 608	G-095-VG	200	0.375	E	RED	1,240	0.1	120/1	30	TIMECLOCK	1 MS.1C	4 MS.1C	1 3 5
CEF 610	STAFF 610	SP-A200	125	0.375	E	CE	760	(30)	120/1	25	OCC SENSOR	1 MS.1C	4 MS.1C	1 2 4
REF 611	BOYS 611	G-103-VG	450	0.375	E	RED	1,080	0.25	120/1	35	TIMECLOCK	2 MS.1C	4 MS.1C	1 3 5

DUTY: E-EXHAUST  
STYLE: CE-CEILING, RED-ROOF EXHAUST DOWNBLAST

- NOTES: 1 PROVIDE WITH THERMAL OVERLOAD PROTECTED MOTOR. 2 PROVIDE WITH FACTORY BACKDRAFT DAMPER & SPEED CONTROLLER. 3 PROVIDE WITH FACTORY ROOF CURB, BACKDRAFT DAMPER & SPEED CONTROLLER. 4 INTERLOCK FAN TO OCCUPANCY SENSOR, BY DIV. 26. 5 CONTROL FAN WITH EMS SYSTEM SCHEDULING.

### DIFFUSER, REGISTER & GRILLE SCHEDULE

SYMBOL	DESCRIPTION	KRUEGER	METALAIRE	NAILOR	TITUS	TUTTLE & BAILEY
CD [Symbol]	MODULAR CORE SURFACE MOUNT CEILING DIFFUSER BEVEL FRAME 3/4" DROP	1240 FRAME 21 - 1-1/4"	9000-2	7500-S	MCD BORDER TYPE 6	SDD-SB
CR & CE [Symbol]	CEILING RETURN OR EXHAUST WITH 1/2" EGG CRATE CORE FOR SURFACE MOUNT	EGC-5	CC5D	61 EC-S	MODEL 50 F BORDER TYPE 1	CRE600-SF
S [Symbol]	DOUBLE DEFLECTION SUPPLY GRILLE WITH VERTICAL FRONT BARS, 3/4" SPACING	880 V	V-4004 S	61 DV	300 RS	T54
R & E [Symbol]	RETURN OR EXHAUST GRILLE WITH 35" OR 45" HORIZONTAL BARS.	S 80 H	SRH	7145 H	350 RL	T70D
SH [Symbol]	HEAVY DUTY DOUBLE DEFLECTION SUPPLY GRILLE WITH VERTICAL FRONT BARS, 3/4" SPACING.	EQUAL	4502	61 HD	EQUAL	T155
RH & EH [Symbol]	HEAVY DUTY RETURN OR EXHAUST GRILLE WITH 35" OR 45" HORIZONTAL BARS	S 480 H	HDRH	6145 HD	33 RL	T115H-40

- NOTES: 1. ALL SYMBOLS NOTED MAY NOT BE USED. REFER TO PLANS FOR SIZE AND QUANTITY. 2. ALL SUPPLY AIR DIFFUSERS ARE 4 WAY BLOW UNLESS SHOWN OTHERWISE. 3. FURNISH ALL PRODUCTS OF A SINGLE MANUFACTURER. 4. COORDINATE DIFFUSER TYPE WITH REFLECTED CEILING PLAN. 5. OPPOSED BLADE DAMPERS ARE NOT REQUIRED AT DIFFUSERS, REGISTERS OR GRILLES. 6. PROVIDE MANUAL AIR DAMPERS AT EACH BRANCH DUCT TO A SINGLE DIFFUSER, REGISTER OR GRILLE. \* ALUMINUM REGISTERS FOR SHOWERS AND DAMP AREAS



Delta	Date	Revisions	By

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**PROGRESS DRAWINGS INCREMENT III**

ISSUE DATE: 11/3/20 BY: MH



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Architect/Engineer Of Record:



HY Architects Project number: 5241

Facility  
WALNUT CREEK SCHOOL DISTRICT  
2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**HVAC SCHEDULES**

Client Project Number: Client Proj. #

Scale: 12" = 1'-0" Sheet

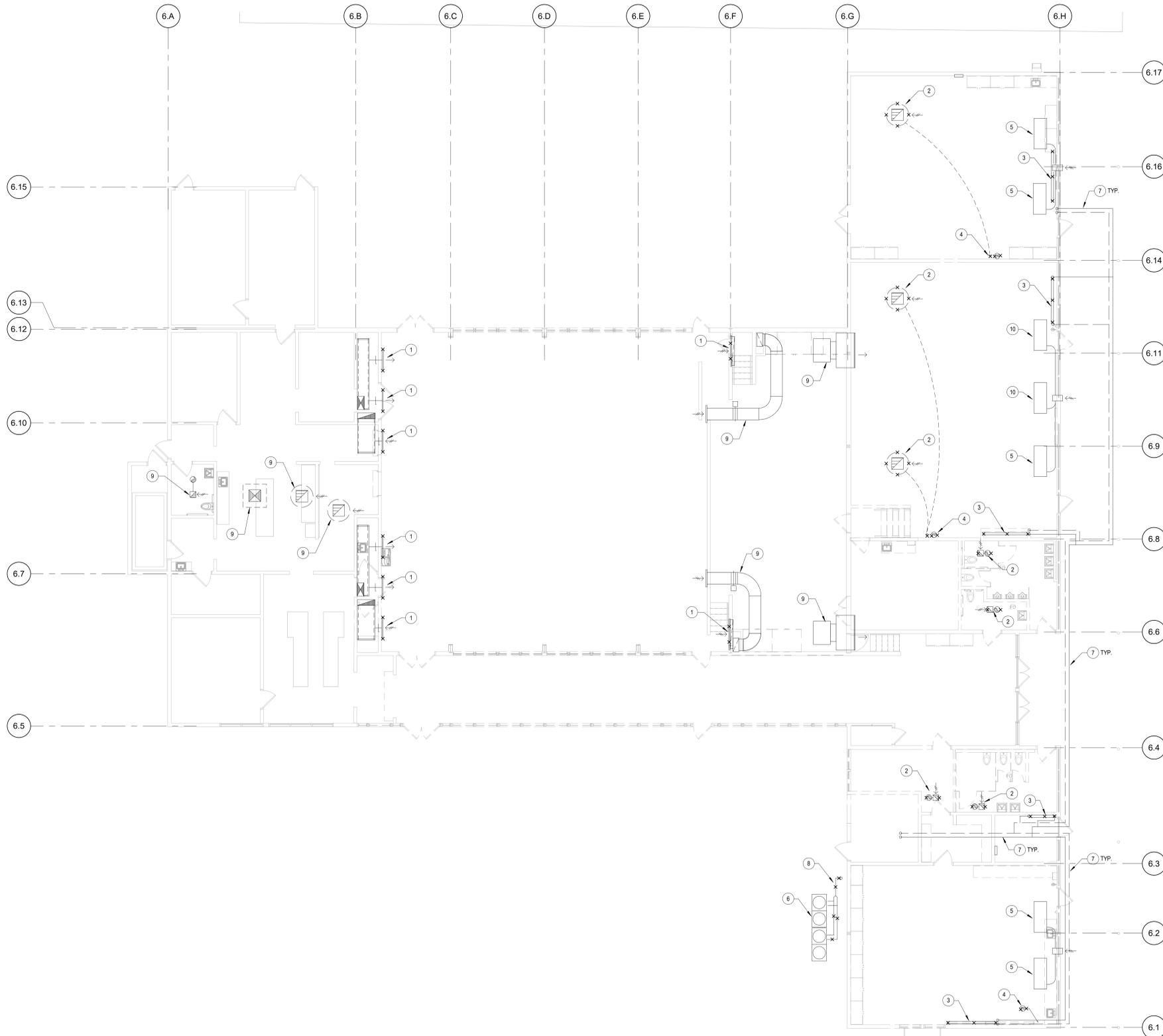
Drawn By: RC/JH

Checked By: TD

Issue Date: 11/3/20

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**M0.2C**



**DEMOLITION SHEET NOTES:**

1. THE HVAC DESIGN HAS BEEN BASED ON RECORD DRAWINGS AND SITE OBSERVATIONS. CONTRACTOR SHALL PERFORM INVESTIGATION OF THE EXISTING CONDITIONS PRIOR TO INSTALLATION OF NEW WORK. CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF EXISTING CONDITIONS THAT MAY NOT ALLOW INSTALLATION OF NEW WORK AS SHOWN.
2. EXISTING EQUIPMENT, PIPING, COMPONENTS, ETC. ARE SHOWN DIAGRAMMATICALLY AND ARE NOT EXACTLY AS SHOWN ON PLANS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. RECORD THE EXISTING CONDITIONS IN "COORDINATED LAYOUTS" REQUIRED BY SPECIFICATION SECTION 23000, AND MAKE ANY ADJUSTMENTS NECESSARY TO COMPLETE THE DESCRIBED SCOPE OF WORK. CONTRACTOR SHALL MAKE ALLOWANCE IN BID FOR THIS REQUIREMENT.
3. WHERE INSTALLED AT EXISTING CLASSROOMS, REMOVE WIRELESS HVAC DOOR CONTACT AT EXTERIOR DOORS.

**DEMOLITION KEYNOTES:**

- 1 REMOVE EXISTING WALL GRILLES. PREPARE DUCTWORK FOR CONNECTION TO NEW GRILLES SHOWN ON SHEET M2.6.
- 2 REMOVE EXISTING EXHAUST FAN, CONTROLS AND SUPPORTS.
- 3 REMOVE EXISTING UNIT VENTILATOR AND CAP PIPING BEHIND ARCHITECTURAL FINISHES.
- 4 REMOVE EXISTING THERMOSTAT AND EXHAUST FAN SWITCHES.
- 5 EXISTING INDOOR HEAT PUMP, PIPING AND OUTSIDE AIR DUCTWORK TO REMAIN.
- 6 EXISTING OUTDOOR HEAT PUMP TO BE RELOCATED. REFER TO SHEET M3.6.
- 7 EXISTING HEATING HOT WATER PIPING BELOW GRADE TO BE ABANDONED.
- 8 REMOVE EXISTING REFRIGERANT PIPING UP TO ROOF. REFER TO M2.6 FOR CONTINUATION OF PIPING TO BE REMOVED UP TO NEW POINT OF CONNECTION.
- 9 EXISTING HVAC EQUIPMENT & DUCTWORK TO REMAIN, TYP.
- 10 RELOCATE EXISTING INDOOR HEAT PUMP TO LOCATION SHOWN ON SHEET M2.6. PREPARE EXISTING REFRIGERANT PIPING, 8" OUTSIDE AIR DUCTS AND CONTROL WIRING FOR NEW CONNECTION.



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INCREMENT III**

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HY Architects Project number: 5241

Facility  
WALNUT CREEK SCHOOL DISTRICT  
2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**BUILDING 600 - HVAC DEMOLITION PLAN**

Client Project Number: Client Proj. #

Scale: 1/8" = 1'-0"  
Drawn By: RC/JH  
Checked By: TD  
Issue Date: 11/3/20  
Revit Version: 2019

**M1.6**

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**1 BUILDING 600 - HVAC DEMOLITION PLAN**  
M1.6 SCALE: 1/8" = 1'-0"



**SHEET NOTES:**

- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF CEILING DIFFUSERS/GRILLES/FANS/ACCESS PANELS, TYP.
- WHERE NOTED ON MECHANICAL FLOOR PLAN WITH "UCD", PROVIDE 3/4" DOOR UNDERCUT FOR TRANSFER/MAKE-UP AIR. REFER TO ARCHITECTURAL DOOR SCHEDULE FOR DETAILS.
- FOR TYPICAL CONCEALED DUCT SUPPORT, REFER TO DETAIL S.M5.2B.

**KEYNOTES:**

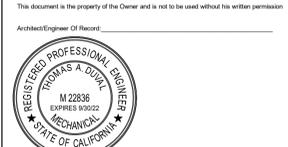
- 9x6 EA DUCT UP THRU ROOF TO MANUFACTURER'S ROOF JACK.
- 14x14 EA DUCT UP THRU ROOF TO EXHAUST FAN.
- DOOR LOUVER W/ MIN. 1.25 SF FREE AREA. REFER TO ARCHITECTURAL DOOR SCHEDULE.
- DOOR LOUVER W/ MIN. 0.5 SF FREE AREA. REFER TO ARCHITECTURAL DOOR SCHEDULE.
- CONNECT NEW GRILLE TO EXISTING DUCTWORK, TYP.
- 10x10 EA DUCT UP THRU ROOF TO EXHAUST FAN.
- PROVIDE ALUMINUM JACKETING ON EXISTING EXPOSED DUCT INSULATION. PAINTED TO MATCH INTERIOR WALLS.
- PROVIDE NEW BMS CONTROLS FOR EXISTING EXHAUST FAN AND HEAT PUMPS. "PELICAN" CONTROLS WITH BAGNET INTERFACE TO EXISTING "MITSUBISHI" HEAT PUMP.
- REINSTALL RELOCATED INDOOR HEAT PUMP UNITS AT LOCATIONS INDICATED. RECONNECT EXISTING REFRIGERANT PIPING, 8" OUTSIDE AIR DUCTS AND CONTROL WIRING.

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**INCREMENT III**  
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 Facility: WALNUT CREEK SCHOOL DISTRICT  
 2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project: MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III

Sheet Title: BUILDING 600 - HVAC FLOOR PLAN

Client Project Number: Client Proj. #  
 Scale: 1/8" = 1'-0"  
 Drawn By: RC/JH  
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 Revit Version: 2019  
**M2.6**  
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**1** BUILDING 600 - HVAC FLOOR PLAN  
 SCALE: 1/8" = 1'-0"

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**SHEET NOTES:**

- COORDINATE OUTSIDE AIR INTAKE LOCATIONS W/ PLUMBING VENT(S) THRU ROOF. EXHAUST AIR DISCHARGE(S), FLUE VENT(S), ETC. TO MAINTAIN A MINIMUM WORKING CLEARANCE OF 10'-0", TYP.

**KEYNOTES:**

- MANUFACTURER'S ROOF CAP.
- EXISTING REFRIGERANT PIPING TO REMAIN.
- RELOCATED OUTDOOR HEAT PUMP. REFER TO 5M5.1C FOR MOUNTING DETAILS. CONNECT REFRIGERANT PIPING AND CONTROL WIRING TO EXISTING SYSTEM.
- PROVIDE "MASON" ULPCS FLEXIBLE HOSE CONNECTORS FOR REFRIGERANT PIPING CONNECTION TO OUTDOOR HEAT PUMP.
- REFRIGERANT PIPING MOUNTED ON ROOF. REFER TO 6M5.1C FOR DETAIL.
- EXISTING REFRIGERANT PIPING SERVING INDOOR HEAT PUMP UNITS TO REMAIN.
- EXISTING REFRIGERANT PIPING ON THE ROOF TO BE REMOVED. REFER TO NOTES ON M1.6 FOR ADDITIONAL INFORMATION.



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**PROGRESS DRAWINGS INCREMENT III**

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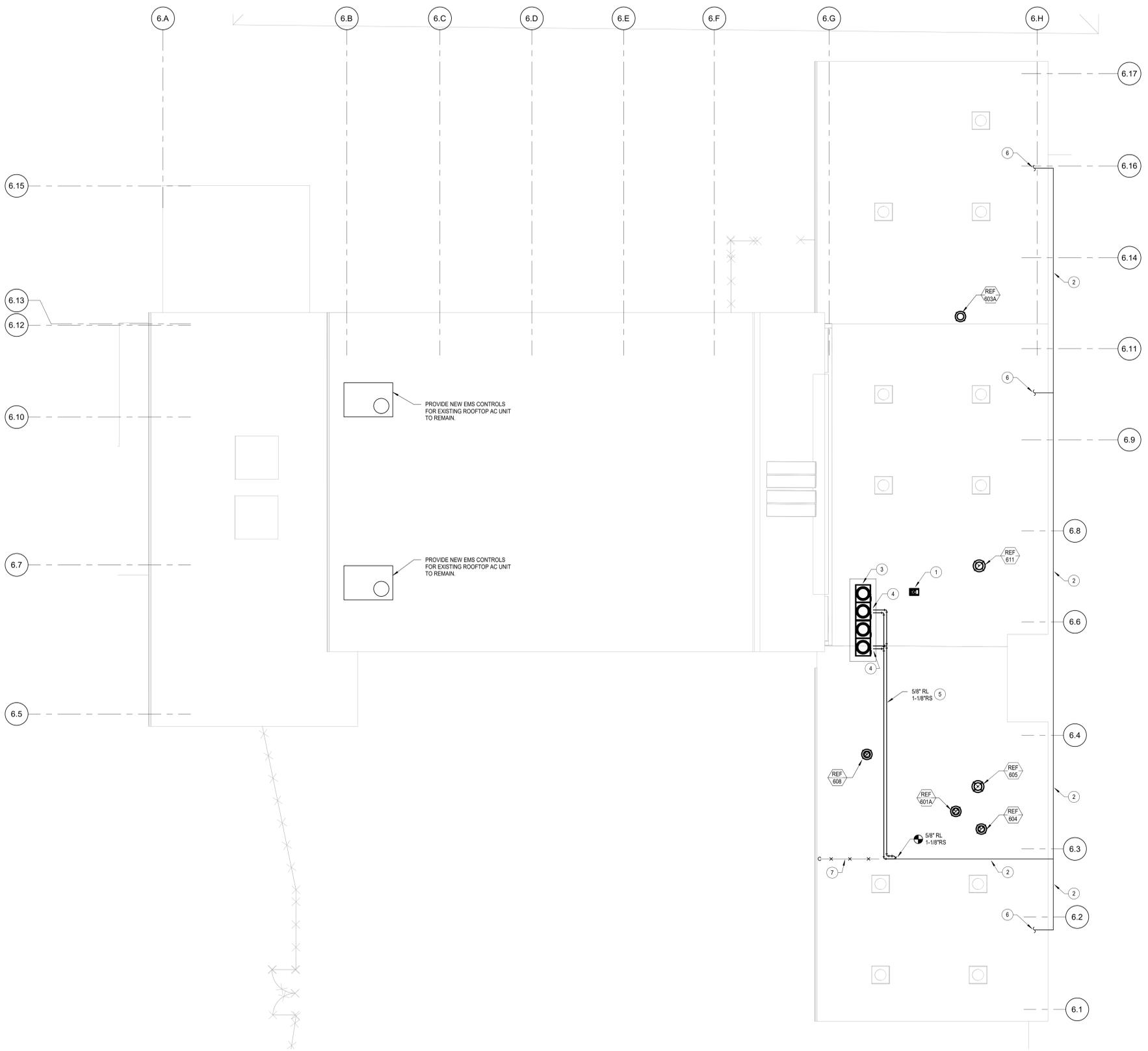
HY Architects Project number: 5241

Facility  
WALNUT CREEK SCHOOL DISTRICT  
2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**BUILDING 600 HVAC ROOF PLAN**

Client Project Number:	Client Proj. #
Scale: 1/8" = 1'-0"	Sheet
Drawn By: RC/JH	<b>M3.6</b>
Checked By: TD	
Issue Date: 11/3/20	
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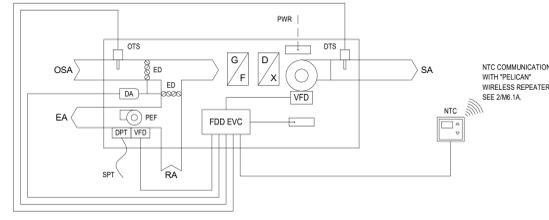
**1 BUILDING 600 - HVAC FLOOR PLAN**  
SCALE: 1/8" = 1'-0"

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**SEQUENCE OF OPERATION**

**GENERAL:**  
THE NETWORK THERMOSTAT SHALL BE PROGRAMMED AS DIRECTED BY THE DISTRICT FOR OCCUPIED PERIODS, UNOCCUPIED PERIODS, AND HOLIDAYS. THE NETWORK THERMOSTAT SHALL BE CAPABLE OF RECEIVING A UTILITY COMPANY 'AUTOMATED DEMAND RESPONSE' (ADR) SIGNAL, VIA WIRELESS SIGNAL FROM INTERNET CONNECTED WIRELESS GATEWAY. THE AC UNIT SHALL PROVIDE MINIMUM OUTSIDE AIR VENTILATION FOR 1 HOUR PRIOR TO SCHEDULED OCCUPANCY. DURING PERIODS OF OCCUPANCY, OR IF THE NETWORK THERMOSTAT OVERRIDE BUTTON IS PUSHED, THE SUPPLY FAN VFD SHALL BE ENABLED AND STAGED HEATING OR COOLING SHALL BE PROVIDED TO MAINTAIN ROOM TEMPERATURE SETPOINT. TCC SHALL INSTALL IN EACH AC UNIT THE 'FAULT DETECTION & DIAGNOSTICS' (FDD) ECONOMIZER/VENTILATION CONTROLLER AND TEMPERATURE SENSORS. THE POWER EXHAUST FAN VFD SHALL BE ENABLED WHENEVER THE AC UNIT SUPPLY FAN IS RUNNING. THE POWER EXHAUST DIFFERENTIAL PRESSURE TRANSDUCER SHALL AUTOMATICALLY MODULATE THE POWER EXHAUST FAN VFD TO MAINTAIN A SLIGHT POSITIVE PRESSURE IN THE ROOMS SERVED. CONTRACTOR SHALL COMMISSION THE POWER EXHAUST SYSTEM TO MAINTAIN ROOM PRESSURE BETWEEN 0.01" AND 0.03" POSITIVE UNDER ALL OPERATING CONDITIONS. THE OUTSIDE AIR DAMPER SHALL MODULATE FULLY CLOSED WHENEVER THE AC UNIT IS DISABLED.

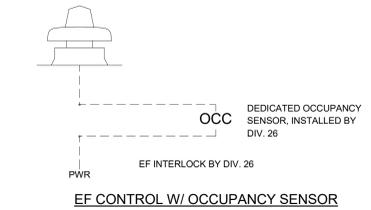
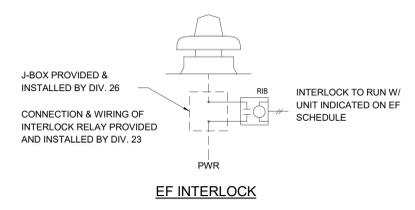
**COOLING:**  
ON A CALL FOR COOLING, IF THE OUTSIDE AIR TEMPERATURE IS BELOW THE ECONOMIZER LOCKOUT TEMPERATURE SET AT 75 DEG F (ADJUSTABLE), THE ECONOMIZER DAMPERS SHALL MODULATE AND THE SUPPLY FAN VFD SHALL MODULATE AS NEEDED TO OPERATE AS THE FIRST STAGE OF COOLING. ON AN ADDITIONAL CALL FOR COOLING, IF THE OUTSIDE AIR TEMPERATURE IS ABOVE THE COOLING LOCKOUT TEMPERATURE SET AT 60 DEG F (ADJUSTABLE), STAGES OF DX COOLING SHALL BE ENABLED IN CONJUNCTION WITH THE ECONOMIZER TO MAINTAIN ROOM COOLING SETPOINT (INTEGRATED ECONOMIZER OPERATION). IF ROOM SETPOINT STILL CANNOT BE MAINTAINED, OR IF THE OUTSIDE AIR TEMPERATURE RISES ABOVE THE ECONOMIZER LOCKOUT TEMPERATURE, THE ECONOMIZER DAMPERS SHALL MODULATE TO LOWER MINIMUM POSITION, STAGES OF DX COOLING SHALL BE ENABLED, AND SUPPLY FAN VFD SHALL MODULATE AS NEEDED TO MAINTAIN ROOM COOLING SETPOINT. SUPPLY FAN AIRFLOW SHALL NEVER BE LESS THAN 66% OF FULL AIRFLOW.

**HEATING:**  
ON A CALL FOR HEATING, IF THE OUTSIDE AIR TEMPERATURE IS BELOW THE HEATING LOCKOUT TEMPERATURE SET AT 65 DEG F (ADJUSTABLE), THE ECONOMIZER DAMPERS SHALL MODULATE TO LOWER MINIMUM POSITION, STAGES OF HEATING SHALL BE ENABLED, AND THE SUPPLY FAN VFD SHALL MODULATE AS NEEDED TO MAINTAIN ROOM HEATING SETPOINT. SUPPLY FAN AIRFLOW SHALL NEVER BE LESS THAN 66% OF FULL AIRFLOW.

**DEMAND CONTROLLED VENTILATION:**  
CO2 CONTROL OVER THE ECONOMIZER SHALL ALWAYS TAKE PRECEDENCE OVER HEATING OR COOLING TO MAINTAIN A ZONE CO2 LEVEL LESS THEN 800 PPM (ADJUSTABLE). WHEN CO2 LEVELS RISE ABOVE 750 PPM (ADJUSTABLE), THE ECONOMIZER SHALL MODULATE OPEN AS NEEDED TO MAINTAIN CO2 LEVELS BETWEEN 750-800 PPM (ADJUSTABLE). IF THE OUTSIDE AIR DAMPER REACHES ITS 'UPPER MINIMUM' POSITION AND CO2 LEVELS ARE STILL RISING, THE OUTSIDE AIR DAMPER SHALL MAINTAIN THIS 'UPPER MINIMUM' POSITION UNTIL ZONE CO2 LEVELS DROP BELOW 700 PPM (ADJUSTABLE). ONCE CO2 LEVELS HAVE DROPPED BELOW 700 PPM (ADJUSTABLE), THE ECONOMIZER SHALL RETURN TO THE POSITION AS DETERMINED BY THE CALL FOR HEATING OR COOLING.

**SHELTER IN PLACE OVERRIDE:**  
UPON ACTIVATION OF 'SHELTER IN PLACE' OVERRIDE AT EMS, ECONOMIZER DAMPER SHALL BE CLOSED TO OUTSIDE AIR BUT THE UNIT SHALL REMAIN IN OPERATION.

**AC UNIT CONTROL DIAGRAM** 3  
SCALE: NONE (SINGLE ZONE VARIABLE AIR VOLUME w/ CO2 DEMAND CONTROL VENTILATION) M6.1C



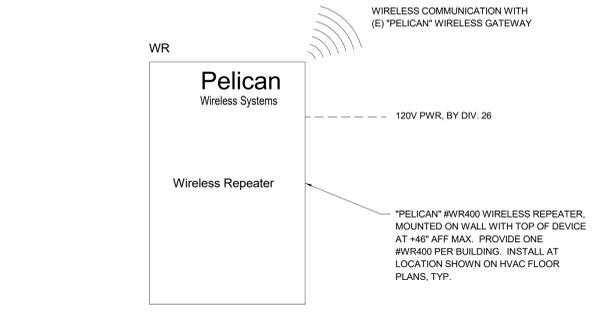
**EF CONTROL DIAGRAMS** 4  
SCALE: NONE M6.1C

CONTROLS LEGEND	
SYMBOL	DESCRIPTION
NT	*PELICAN* #TS200 NETWORK THERMOSTAT WITH OVERRIDE BUTTON
NTC	*PELICAN* #TS250 NETWORK THERMOSTAT WITH INTEGRAL CO2 SENSOR AND OVERRIDE BUTTON
FDD EVC	*PELICAN* PEARL FAULT DETECTION & DIAGNOSTICS ECONOMIZER/VENTILATION CONTROLLER
WR	*PELICAN* #WR400 EXTENDED RANGE WIRELESS REPEATER
PCM	*PELICAN* #PMS-230 WIRELESS POWER CONTROL MODULE
DS	*PELICAN* #PRX1 WIRELESS DOOR SENSOR
RT	*PELICAN* #RT1-AC WIRELESS REMOTE THERMOSTAT (TEMPERATURE ONLY MODE)
TAS	*PELICAN* #TA1 TEMPERATURE/ALARM SENSOR (INSTALLED NEXT TO OCCUPANCY SENSOR)
OCS	*LUTRON* #LOS-CDT-500R-WH (OR EQUAL) OCCUPANCY SENSOR
DCV	DEMAND CONTROLLED VENTILATION
ADR	AUTOMATED DEMAND RESPONSE
DTS	DISCHARGE TEMPERATURE SENSOR
OTS	OUTSIDE AIR TEMPERATURE SENSOR
DA	DAMPER ACTUATOR
ED	ECONOMIZER DAMPER
PEF	POWER EXHAUST FAN
VFD	VARIABLE FREQUENCY DRIVE
DPT	POWER EXHAUST DIFFERENTIAL PRESSURE TRANSDUCER
SPT	SPACE STATIC PRESSURE TUBING (INSTALLED BY TCC)
DSD	DUCT SMOKE DETECTOR BY DIV. 26
RIB	RELAY IN BOX
J-BOX	JUNCTION BOX
PWR	POWER WIRING BY DIV. 16
FAPWR	FIRE ALARM WIRING AND POWER WIRING BY DIV. 16
RA	RETURN AIR
OSA	OUTSIDE AIR
EA	EXHAUST AIR
SA	SUPPLY AIR
TCC	TEMPERATURE CONTROLS CONTRACTOR
EC	ELECTRICAL CONTRACTOR

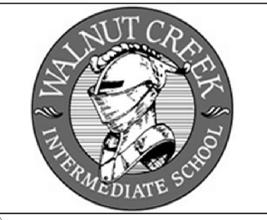
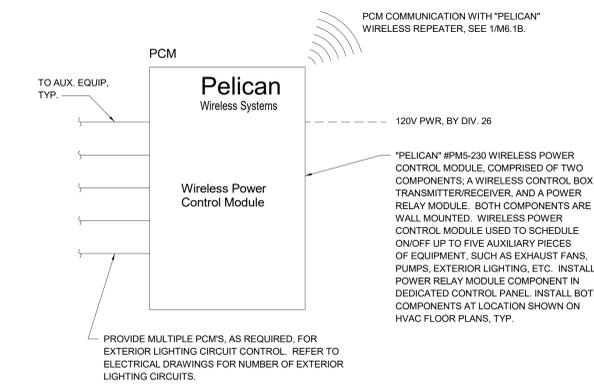
WIRING BY TEMPERATURE CONTROL CONTRACTOR (TCC)  
WIRING BY ELECTRICAL CONTRACTOR (EC)

THESE CONTROL DIAGRAMS ARE DIAGRAMMATIC AND DO NOT DEPICT ALL CONTROL WIRES, RELAYS OR COMPONENTS OF A COMPLETE SYSTEM. IT IS THE RESPONSIBILITY OF THE TEMPERATURE CONTROLS CONTRACTOR TO PROVIDE A COMPLETE AND FUNCTIONAL CONTROL SYSTEM AT NO ADDITIONAL COST TO THE OWNER.  
NOTE: ALL CONTROL WIRING SHALL BE RUN IN CONDUIT.

**WIRELESS REPEATER** 1  
SCALE: NONE M6.1C



**WIRELESS POWER CONTROL MODULE** 2  
SCALE: NONE M6.1C



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Facility: WALNUT CREEK SCHOOL DISTRICT 2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project: MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III

Sheet Title: HVAC CONTROL DIAGRAMS

Client Project Number:	Client Proj. #
Scale: 12" = 1'-0"	Sheet
Drawn By: RC/JH	<b>M6.1C</b>
Checked By: TD	
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### PLUMBING FIXTURE SPECIFICATION & CONNECTION SCHEDULE

ADA	SYMBOL	FIXTURE	FIXTURE MANUFACTURER AND MODEL No.	FAUCET OR VALVE MANUFACTURER AND MODEL No.	TRIM MANUFACTURER AND MODEL No.	REMARKS	VENT	WASTE		COLD WATER		HOT WATER	
								BRANCH	OUTLET	BRANCH	OUTLET	BRANCH	OUTLET
	WC-1	WATER CLOSET WALL MOUNTED FLUSH VALVE STD/ACCESSIBLE	*AMERICAN STANDARD* AFWALL NO. 3351.101, 1.28 GPF WALL HUNG, VITREOUS CHINA, ELONGATED, SIPHON JET ACTION, 1-1/2" TOP SPUD.	*SLOAN* ROYAL 111 HET 1.28, ADA COMPLIANT, 1.28 GPF (MANUAL)	SEAT: *CHURCH* MODEL 295SSCT OR *BEMIS* MODEL 195SSCT PROVIDE WITH SELF-SUSTAINING CONCEALED CHECK HINGES, ONE PIECE STAINLESS STEEL POST HINGES, WHITE COLOR, CARRIER: *J.R. SMITH* 100 OR 200 SERIES OR *ZURN* Z1203 AND Z1204 SERIES PROVIDE REAR SUPPORT LUG AND ANCHOR FOOT ASSEMBLY.	MOUNT AT HEIGHT INDICATED ON ARCHITECTURAL DRAWINGS. WHERE USED FOR CBC ACCESSIBLE WATER CLOSETS, THE FLUSH VALVE HANDLE SHALL BE MOUNTED ON THE WIDE SIDE OF THE WATER CLOSET ENCLOSURE.	2"	4"	4"	1-1/4"	1"	--	--
	UR-1	URINAL WALL MOUNTED FLUSH VALVE ACCESSIBLE	*AMERICAN STANDARD* WASHBROOK NO. 6590.001, 0.125 GPF, WALL HUNG, VITREOUS CHINA, SIPHON JET ACTION, 3/4" TOP SPUD, 2" THREADED OUTLET.	*SLOAN* ROYAL 186-0.125, 0.125 GPF (MANUAL)	CARRIER: *J.R. SMITH* 637 SERIES OR *ZURN* Z1222	MOUNT AT HEIGHT INDICATED ON ARCHITECTURAL DRAWINGS.	1-1/2"	2"	2"	1"	3/4"	--	--
	L-1	LAVATORY WALL MOUNTED HOT AND COLD WATER STD/ACCESSIBLE	*AMERICAN STANDARD* LUCERNE NO. 0355.012, WALL HUNG, VITREOUS CHINA WITH CONTOURED BACK AND SIDE SPLASH SHIELDS, FRONT OVERFLOW, CONCEALED ARM RECESS, 4" CENTERS, 20" x 16" D SHAPED BOWL.	*CHICAGO* 3600-E2805AB FAUCET, PUSH LEVER WITH AERATOR WITH 0.5 GPM FLOW RATE, WITH VANDAL RESISTANT ECONO-FLO SPRAY OUTLET, WITH IPS CONNECTIONS, ADA COMPLIANT. SET MAXIMUM WATER TEMPERATURE STOP TO RESTRICT WATER TEMPERATURE TO 110° F.	ADA COMPLIANT. LAVATORY GRID DRAIN WITH 1-1/4" OFFSET TAILPIECE, INTEGRAL PERFORATED GRID NO. 7723.016, CHROME FINISH. MOUNT P-TRAP FLUSH TO WALL. CARRIER: *J.R. SMITH* 0700 OR ZURN Z1231	MOUNT AT HEIGHT INDICATED ON ARCHITECTURAL DRAWINGS. PROVIDE CONCEALED ARMS AND FLOOR SUPPORT, WITH FEET OF SUPPORT SECURELY ANCHORED TO FLOOR. IN ADDITION ANCHOR TOP OF SUPPORT TO WALL CONSTRUCTION.	1-1/2"	2"	1-1/2"	3/4"	1/2"	3/4"	1/2"
	L-2	LAVATORY WALL MOUNTED COLD WATER ONLY STD/ACCESSIBLE	*AMERICAN STANDARD* LUCERNE NO. 0355.012, WALL HUNG, VITREOUS CHINA WITH CONTOURED BACK AND SIDE SPLASH SHIELDS, FRONT OVERFLOW, CONCEALED ARM RECESS, 4" CENTERS, 20" x 16" D SHAPED BOWL.	*CHICAGO* 857-EE2805-665PSH4BCP TAPERED HANDLE FAUCET, PUSH-BUTTON TYPE, MODEL E2805 VANDAL RESISTANT ECONO-FLO SPRAY OUTLET, 0.5 GPM FLOW RESTRICTOR, ADA COMPLIANT	ADA COMPLIANT. LAVATORY GRID DRAIN WITH 1-1/4" OFFSET TAILPIECE, INTEGRAL PERFORATED GRID NO. 7723.016, CHROME FINISH. MOUNT P-TRAP FLUSH TO WALL. CARRIER: *J.R. SMITH* 0700 OR ZURN Z1231	MOUNT AT HEIGHT INDICATED ON ARCHITECTURAL DRAWINGS. PROVIDE CONCEALED ARMS AND FLOOR SUPPORT, WITH FEET OF SUPPORT SECURELY ANCHORED TO FLOOR. IN ADDITION ANCHOR TOP OF SUPPORT TO WALL CONSTRUCTION.	1-1/2"	2"	1-1/2"	3/4"	1/2"	-	-
	S-1	SINK COUNTER MOUNTED COLD WATER ONLY W/BUBBLER	*JUST* CRAF-ADA-1931-16-GR-VRL STAINLESS STEEL, 19" FRONT TO BACK, 31" WIDE x 6-1/2" DEPTH OVERALL, 18 GAUGE STAINLESS STEEL, SIDE LEDGES WITH SELF-RIM, PROVIDE REAR DRAIN LOCATION, VANDAL RESISTANT BACKING PLATE AT BUBBLER AND FAUCET FOR VANDAL RESISTANT PINS. BACKING PLATE SHALL BE 14 GAUGE SS FORMED AS A CHANNEL.	*CHICAGO* ECAST MODEL 350-E35ABC(VAV/VP) GOOSENECK FAUCET, *HAWES* 5054LF BUBBLER, VANDAL RESISTANT, PROVIDE VANDAL PROOF PIN (VPP) IN BUBBLER AND FAUCET, ARRANGE TO MATE WITH SLOTS IN SINK. PROVIDE 1.5 GPM VANDAL RESISTANT LAMINAR FLOW AERATOR.	*JUST* J-ADA-35-SSF-VR DRAIN SYSTEM. INSTALL P-TRAP FLUSH TO WALL. *JUST* JTS-150 P-TRAP, SWIVEL STYLE WITH CLEAN OUT	ARRANGE FINAL INSTALLATION OF SINK SUCH THAT THE BUBBLER WILL BE WITHIN 5" OF THE EDGE OF THE COUNTERTOP. INSTALL FAUCET IN CENTER OF SIDE SPLASH. PROVIDE SLOT FOR BUBBLER AT 15° ANGLE FROM FRONT OF THE SINK, AND INSTALL THE BUBBLER AT 15° ANGLE	1-1/2"	2"	1-1/2"	3/4"	1/2"	-	-
	S-2	SINK COUNTER MOUNTED COLD WATER ONLY	*JUST* SLX-1621-A-GR, STAINLESS STEEL, 18-1/4" FRONT TO BACK, 210-114" WIDE x 10-1/2" DEPTH OVERALL, 18 GAUGE STAINLESS STEEL, SIDE LEDGES WITH SELF-RIM, PROVIDE REAR DRAIN LOCATION, VANDAL RESISTANT BACKING PLATE AT BUBBLER AND FAUCET FOR VANDAL RESISTANT PINS. BACKING PLATE SHALL BE 14 GAUGE SS FORMED AS A CHANNEL.	*CHICAGO* ECAST MODEL 350-E35ABC(VAV/VP) GOOSENECK FAUCET, *HAWES* 5054LF BUBBLER, VANDAL RESISTANT, PROVIDE VANDAL PROOF PIN (VPP) IN BUBBLER AND FAUCET, ARRANGE TO MATE WITH SLOTS IN SINK. PROVIDE 1.5 GPM VANDAL RESISTANT LAMINAR FLOW AERATOR.	*JUST* J-ADA-35-SSF-VR DRAIN SYSTEM. INSTALL P-TRAP FLUSH TO WALL. *JUST* JTS-150 P-TRAP, SWIVEL STYLE WITH CLEAN OUT	ARRANGE FINAL INSTALLATION OF SINK SUCH THAT THE BUBBLER WILL BE WITHIN 5" OF THE EDGE OF THE COUNTERTOP. INSTALL FAUCET IN CENTER OF SIDE SPLASH.	1-1/2"	2"	1-1/2"	3/4"	1/2"	-	-
	DF-1	DRINKING FOUNTAIN WALL MOUNTED STD/ACCESSIBLE DUAL HEIGHT W/BOTTLE FILLER	*HAWES* 1117L, STAINLESS STEEL DUAL HEIGHT, WALL MOUNTED STAINLESS STEEL BACK PANEL MODEL 6700R, WITH MODEL 1920 BOTTLE FILLER	INTEGRAL	WITH P-TRAP	SURPORT SYSTEM. MODEL 6717 MOUNTING PLATE AND 6800 SUPPORT CARRIER. PROVIDE MANUFACTURER'S INTERNAL SUPPORT SYSTEM. WHERE INSTALLED ON CONCRETE OR CMU WALL, PROVIDE TWO MODEL 6700 MOUNTING PLATES AND INSTALL WITH ONE PLATE ON EACH SIDE OF WALL. SET AT HEIGHT INDICATED ON ARCH DRAWINGS.	1-1/2"	2"	1-1/2"	3/4"	1/2"	-	-
	SS-1	SERVICE SINK FLOOR MOUNTED HOT AND COLD WATER JANITORS	*ACORN* TNC-24-TF2, 24" x 24" x 12" FLOOR MOUNTED, TERRAZZO, WITH STAINLESS STEEL CAP. UNIT SHALL INCLUDE MODEL KH36 36" LONG HOSE WITH WALL HANGER AND MODEL KM1 MOP HANGER WITH 3 GRIPS ON A STAINLESS STEEL BRACKET.	*T&S* MODEL B-0665-BSTP WALL MOUNTED POLISHED CHROME FAUCET WITH INLET STOPS, SPRING CHECK CARTRIDGES, VACUUM BREAKER, LEVER HANDLES, ADJUSTABLE TOP BRACE AND 3/4" MALE THREADED HOSE OUTLET.		AS PART OF ROUGH-IN FOR FAUCET, PROVIDE SUITABLE BLOCKING FOR TOP BRACE. PROVIDE GAP WITH FLANGE ON SIDES ADJACENT TO WALLS.	2"	3"	3"	3/4"	3/4"	3/4"	3/4"
	SS-2	SERVICE SINK WALL MOUNTED HOT AND COLD WATER JANITORS	*KOHLER* BANNON K-6714, 22-1/4" x 18-1/4" x 12" DEEP WALL MOUNTED WITH MODEL 64515 STAINLESS STEEL CAP ON ALL FOUR TOP SURFACES.	*KOHLER* KNOXFORD K-8907 DOUBLE HANDLE POLISHED CHROME FAUCET WITH VACUUM BREAKER, ADJUSTABLE TOP BRACE AND 3/4" MALE THREADED HOSE OUTLET.		AS PART OF ROUGH-IN FOR FAUCET, PROVIDE SUITABLE BLOCKING FOR TOP BRACE. PROVIDE CAP WITH FLANGE ON SIDES ADJACENT TO WALLS.	2"	3"	3"	3/4"	3/4"	--	--
	SI	SOLIDS INTERCEPTOR	*ZURN* Z1180", FLOOR MOUNTED				-	-	2"	-	-	-	-
	HB	HOSE BIBB	INTERIOR WALL MOUNTED - *WOODFORD* B24P(BR), 3/4", NON-REMOVABLE VACUUM BREAKER, ROUGH BRASS FINISH, LOOSE KEY HANDLE, FLUSH MOUNTED LOCKING BOX	WITH INTEGRAL VACUUM BREAKER PROTECTED, CARTRIDGE OPERATED HOSE VALVE WITH LOCK SHIELD BONNET AND REMOVABLE LOOSE KEY HANDLE.			-	-	-	3/4"	3/4"	-	-
	TP	TRAP PRIMER	MIFAB "M-500" SERIES, PRECISION PLUMBING PRODUCTS				-	-	-	1/2"	1/2"	-	-
	FD	FLOOR DRAIN	*ZURN* FD-2321 NO HUB, FOOT TRAFFIC AND LIGHT CART APPLICATION, CAST IRON BODY WITH FLASHING COLLAR, ADJUSTABLE HEAD AND 5" DIAMETER NICKLE BRONZE TOP W/ 1/2" TRAP PRIMER CONNECTION, TYPE "B" STRAINER				2"	2"	2"	-	-	-	-

**GENERAL NOTES:**

- WATER SUPPLIES AND STOPS
  - PROVIDE 85 PERCENT IPS RED BRASS PIPE, SECURELY ANCHORED TO BUILDING CONSTRUCTION. FOR EACH CONNECTION TO FAUCETS, STOPS, HOSE BIBBS, ETC., EACH FIXTURE, EXCEPT HOSE BIBBS, SHALL HAVE A STOP VALVE INSTALLED ON WATER SUPPLY LINES TO PERMIT REPAIRS WITHOUT SHUTTING OFF WATER MAINS.
  - PROVIDE ALL WATER SUPPLIES TO FIXTURES WITH COMPRESSION SHUT-OFF STOPS WITH IPS INLETS WITH THREADED BRASS NIPPLES AT PIPE CONNECTION AND LOCK SHIELD LOOSE KEY. PROVIDE COMBINATION FIXTURES WITH COMPRESSION STOP AND IPS INLET ON EACH WATER SUPPLY FITTING. PROVIDE LOOSE KEY HANDLE FOR EACH STOP.
  - PROVIDE 1/2 INCH RISER TUBES WITH REDUCING COUPLING FOR ALL FIXTURES, UNLESS OTHERWISE NOTED. REFER TO SPECIFICATION SECTION, 15440 OR 22 40 00.
- PIPE, PLUMBING FITTINGS, FIXTURES, SOLDER AND FLUX SHALL COMPLY WITH LEAD FREE REQUIREMENTS OF THE CALIFORNIA HEALTH AND SAFETY CODE SECTION 116875. PROVIDE PRODUCTS LISTED AND LABELED AS COMPLYING WITH NSF 61, ANNEX G, OR PROVIDE OTHER EVIDENCE OF COMPLIANCE WITH THE CALIFORNIA HEALTH AND SAFETY CODE SECTION 116875. PROVIDE PRODUCT SUBMITTAL INFORMATION PROVING COMPLIANCE WITH LEAD FREE REQUIREMENTS.



Delta	Date	Revisions	By

Delta	Date	Revisions	By

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**PROGRESS DRAWINGS**

**INCREMENT III**

ISSUE DATE: 11/3/20 BY: MH

**CAPITAL**  
ENGINEERING CONSULTANTS, INC.  
RANCHO CERRITOS, CALIFORNIA

RCC - JH 181202.00  
PM - DESIGN TEAM PROJECT NO.

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Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**PLUMBING FIXTURE SPECIFICATION AND CONNECTION SCHEDULE**

Client Project Number: Client Proj. #

Scale: 12" = 1'-0"

Drawn By: Author

Checked By: Checker

Issue Date: 11/3/20

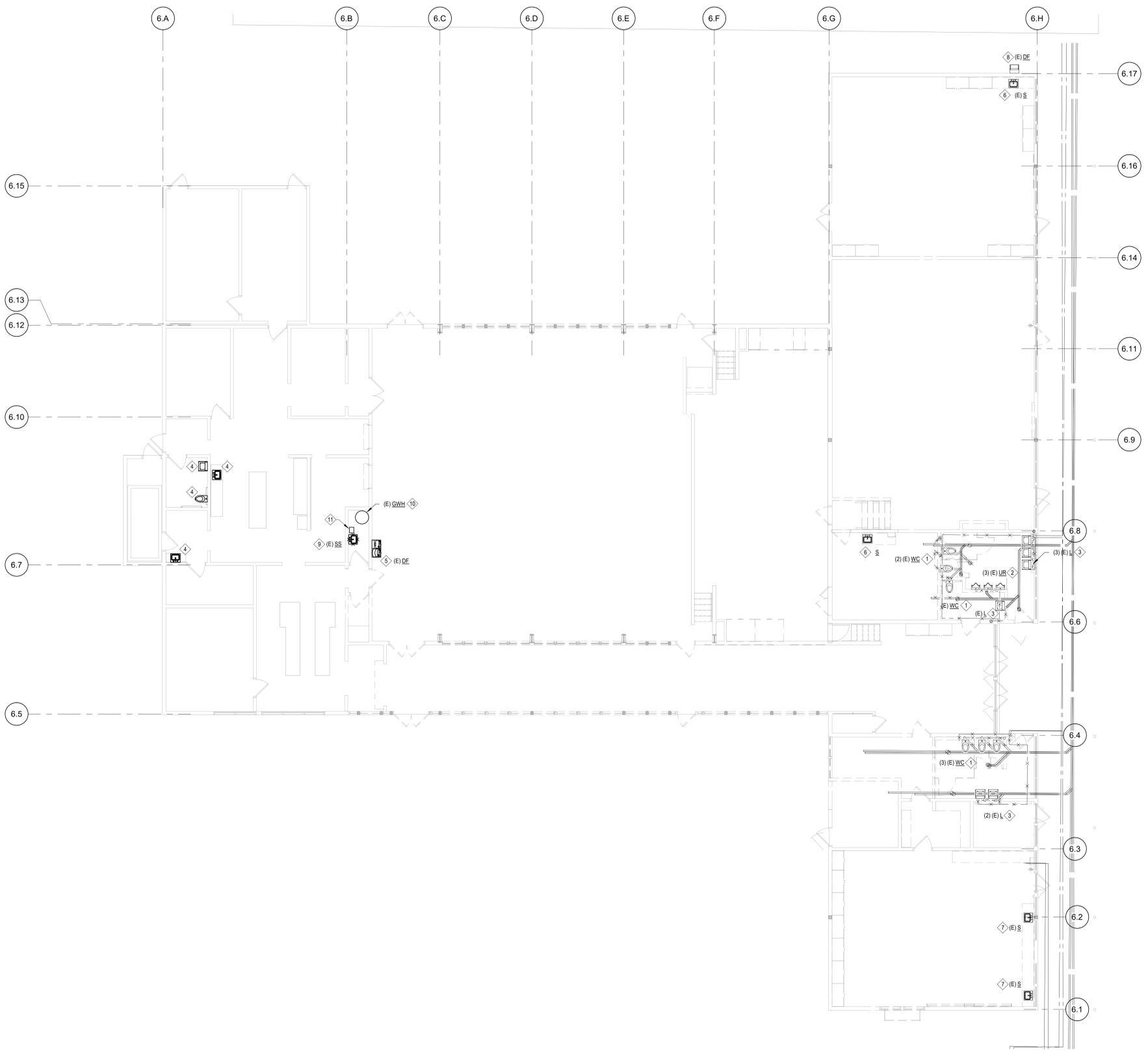
Revit Version: 2019

Sheet  
**P0.2C**  
Sheet 65 of 95

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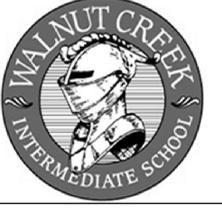


**SHEET NOTES:**

1. PLUMBING DESIGN HAS BEEN BASED ON RECORD DRAWINGS AND SITE OBSERVATIONS OF EXPOSED FEATURES. RECORD DRAWINGS OF EXISTING PLUMBING LINES WERE NOT AVAILABLE FOR MANY OF THE AREAS. CONTRACTOR SHALL INCLUDE IN HIS BID THE COST OF CONNECTING NEW FIXTURES TO EXISTING FIXTURE UTILITIES. FIELD INVESTIGATION OF EXISTING CONDITIONS, SELECTIVE DEMOLITION, AND CONCEALED UTILITY LOCATING REVEALED BY DEMOLITION. THE CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERABLE PLUMBING SYSTEM WHICH COMPLIES WITH THE SPECIFICATIONS AND THE 2018 CPC. CONTRACTOR SHALL PERFORM INVESTIGATION OF EXISTING CONDITIONS PRIOR TO INSTALLATION OF NEW WORK. CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY OF EXISTING CONDITIONS THAT MAY NOT ALLOW INSTALLATION OF NEW FIXTURES AS SHOWN.
2. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS, SIZES, ROUTING, AND INVERTS OF ALL PIPING PRIOR TO CONSTRUCTION.
3. ALL PIPING SHALL BE INSTALLED BEHIND FINISHED SURFACES EXCEPT AS NOTED OTHERWISE. SAW CUT AND REMOVE PORTIONS OF ARCHITECTURAL FINISHES AS REQUIRED TO RUN NEW PIPING OR CAP EXISTING PIPING BEHIND ARCHITECTURAL FINISHES. PATCH FINISHES TO MATCH EXISTING ADJACENT SURFACES.
4. SEE SHEET P01 FOR ADDITIONAL NOTES.

**KEYNOTES:**

1. EXISTING WATER CLOSET TO BE REMOVED AND REPLACED WITH NEW FIXTURE. ADJUST EXISTING PIPING TO ACCOMMODATE FOR NEW ROUGH-IN REQUIREMENTS OF REPLACEMENT.
2. EXISTING URINAL TO BE REMOVED AND REPLACED WITH NEW FIXTURE. ADJUST EXISTING PIPING TO ACCOMMODATE FOR NEW ROUGH-IN REQUIREMENTS OF REPLACEMENT.
3. EXISTING LAVATORY TO BE REMOVED AND REPLACED WITH NEW FIXTURE. ADJUST EXISTING PIPING TO ACCOMMODATE FOR NEW ROUGH-IN REQUIREMENTS OF REPLACEMENT.
4. EXISTING FIXTURE TO REMAIN.
5. EXISTING DRINKING FOUNTAIN TO BE REMOVED AND REUSED. PREPARE EXISTING PIPING TO ACCOMMODATE FOR NEW ROUGH-IN REQUIREMENTS.
6. EXISTING SINK TO BE REMOVED. CAP PIPING ABOVE, BEHIND, OR BELOW ARCHITECTURAL FINISHES.
7. EXISTING SINK TO BE REMOVED AND REPLACED WITH NEW FIXTURE. ADJUST EXISTING PIPING TO ACCOMMODATE FOR NEW ROUGH-IN REQUIREMENTS OF REPLACEMENT.
8. EXISTING DRINKING FOUNTAIN TO BE REMOVED. CAP PIPING ABOVE, BEHIND, OR BELOW ARCHITECTURAL FINISHES.
9. EXISTING SERVICE SINK TO BE REMOVED AND REPLACED WITH NEW FIXTURE. ADJUST EXISTING PIPING TO ACCOMMODATE FOR NEW ROUGH-IN REQUIREMENTS OF REPLACEMENT.
10. EXISTING GAS WATER HEATER TO BE REMOVED AND REUSED. PREPARE EXISTING PIPING TO ACCOMMODATE FOR NEW ROUGH-IN REQUIREMENTS.
11. EXISTING "HATCO" BOOSTER WATER HEATER TO BE REMOVED AND REUSED. PREPARE EXISTING PIPING TO ACCOMMODATE FOR NEW ROUGH-IN REQUIREMENTS.



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INCREMENT III**

ISSUE DATE: 11/3/20 BY: MH



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Architect/Engineer Of Record:



HY Architects Project number: 5241

Facility  
WALNUT CREEK SCHOOL DISTRICT  
2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**BUILDING 600 - PLUMBING DEMOLITION PLAN**

Client Project Number: Client Proj. #

Scale: 1/8" = 1'-0"  
Sheet  
Drawn By: Author  
Checked By: Checker  
Issue Date: 11/3/20  
Revit Version: 2019

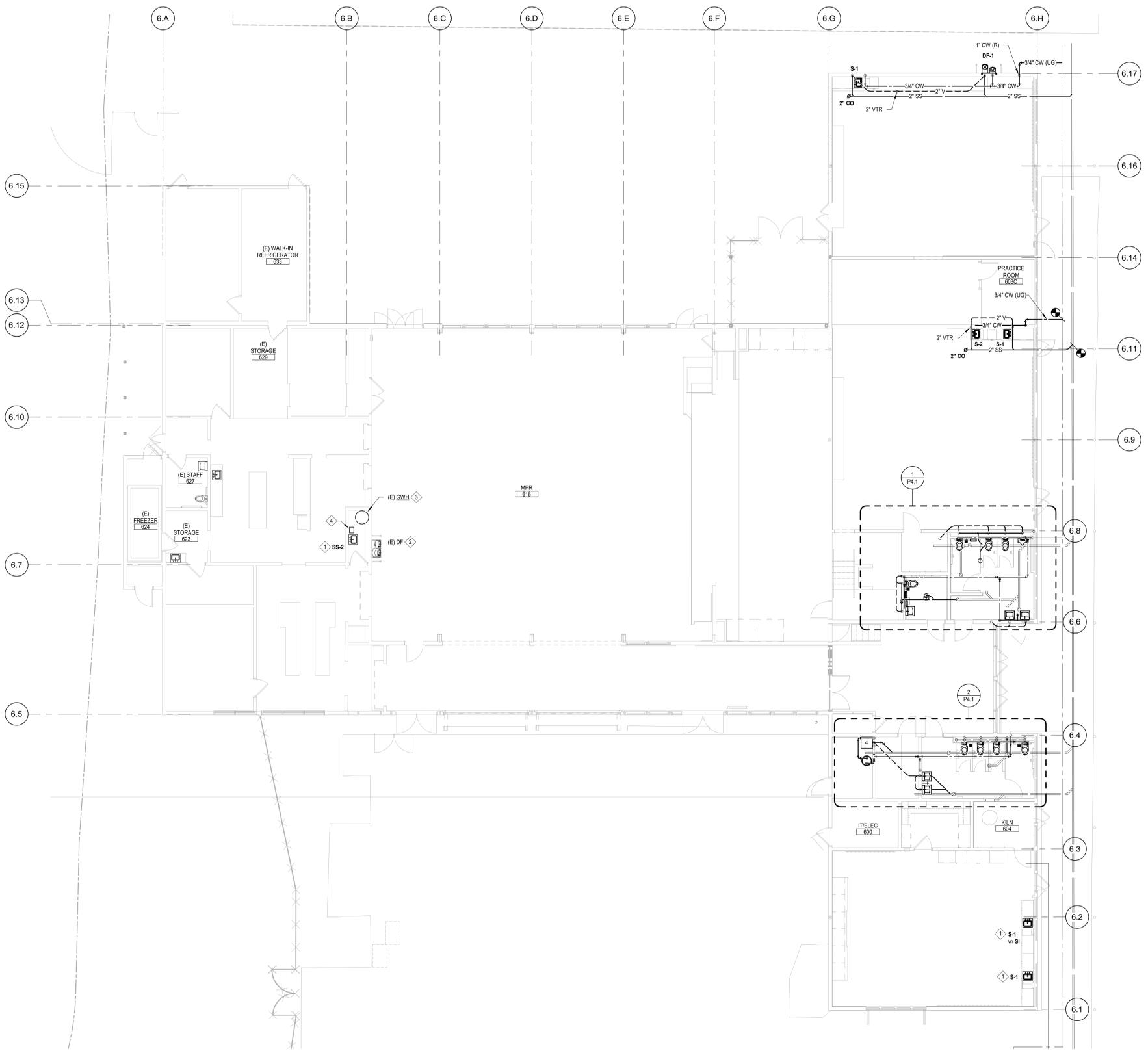
**P1.6**

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**1 BUILDING 600 - PLUMBING DEMOLITION PLAN**  
SCALE: 1/8" = 1'-0"

P1.6

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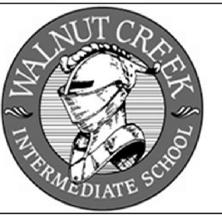
**SHEET NOTES:**

1. PLUMBING DESIGN HAS BEEN BASED ON RECORD DRAWINGS AND SITE OBSERVATIONS OF EXPOSED FEATURES. RECORD DRAWINGS OF EXISTING PLUMBING LINES WERE NOT AVAILABLE FOR MANY OF THE AREAS. CONTRACTOR SHALL INCLUDE IN HIS BID THE COST OF CONNECTING NEW FIXTURES TO EXISTING FIXTURE UTILITIES. FIELD INVESTIGATION OF EXISTING CONDITIONS, SELECTIVE DEMOLITION, AND CONCEALED UTILITY LOCATING REVEALED BY DEMOLITION. THE CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERABLE PLUMBING SYSTEM WHICH COMPLIES WITH THE SPECIFICATIONS AND THE 2019 UPC. CONTRACTOR SHALL PERFORM INVESTIGATION OF EXISTING CONDITIONS PRIOR TO INSTALLATION OF NEW WORK. CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY OF EXISTING CONDITIONS THAT MAY NOT ALLOW INSTALLATION OF NEW FIXTURES AS SHOWN.
2. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS, SIZES, ROUTING, AND INVERTS OF ALL PIPING PRIOR TO CONSTRUCTION.
3. ALL PIPING SHALL BE INSTALLED BEHIND FINISHED SURFACES EXCEPT AS NOTED OTHERWISE. SAW CUT AND REMOVE PORTIONS OF ARCHITECTURAL FINISHES AS REQUIRED TO RUN NEW PIPING OR CAP EXISTING PIPING BEHIND ARCHITECTURAL FINISHES. PATCH FINISHES TO MATCH EXISTING ADJACENT SURFACES.
4. SAWCUT AND REMOVE (E) CONCRETE AS REQUIRED FOR CONNECTION OF NEW SERVICES TO EXISTING SERVICES. REPLACE CONCRETE TO MATCH EXISTING. PROVIDE ALL HARDWARE MATERIALS AND FITTINGS AS REQUIRED TO CONNECT TO EXISTING SYSTEMS. ALL PIPING SHALL BE BEHIND FINISHED SURFACES.
5. SEE SHEET P0.1 FOR ADDITIONAL NOTES.

**KEYNOTES:**

1. NEW SERVICE SINK TO BE CONNECTED TO EXISTING DOMESTIC HOT & COLD WATER, WASTE AND VENT SYSTEMS. EXTEND EXISTING PLUMBING SERVICES AS REQUIRED TO MAKE NEW CONNECTIONS. ALL PIPING SHALL BE BEHIND ARCHITECTURAL FINISHES.
2. EXISTING DRINKING FOUNTAIN TO BE REINSTALLED. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION. EXTEND EXISTING PLUMBING SERVICES AS REQUIRED TO MAKE NEW CONNECTIONS. ALL PIPING SHALL BE BEHIND ARCHITECTURAL FINISHES.
3. EXISTING GAS WATER HEATER TO BE RECONNECTED TO DOMESTIC COLD WATER, HOT WATER, HOT WATER RETURN, AND GAS SYSTEMS. PROVIDE NEW LINE SIZE GAS SHUTOFF VALVE, UNION, AND 6" DIRT LEG. FIELD VERIFY SIZES. EXTEND EXISTING PLUMBING SERVICES AS REQUIRED TO MAKE NEW CONNECTIONS.
4. EXISTING "HATCO" WATER BOOSTER HEATER TO BE RECONNECTED TO DOMESTIC COLD & HOT WATER SYSTEMS. EXTEND EXISTING PLUMBING SERVICES AS REQUIRED TO MAKE NEW CONNECTIONS.

**1 BUILDING 600 - PLUMBING FLOOR PLAN**  
 P2.6 SCALE: 1/8" = 1'-0"



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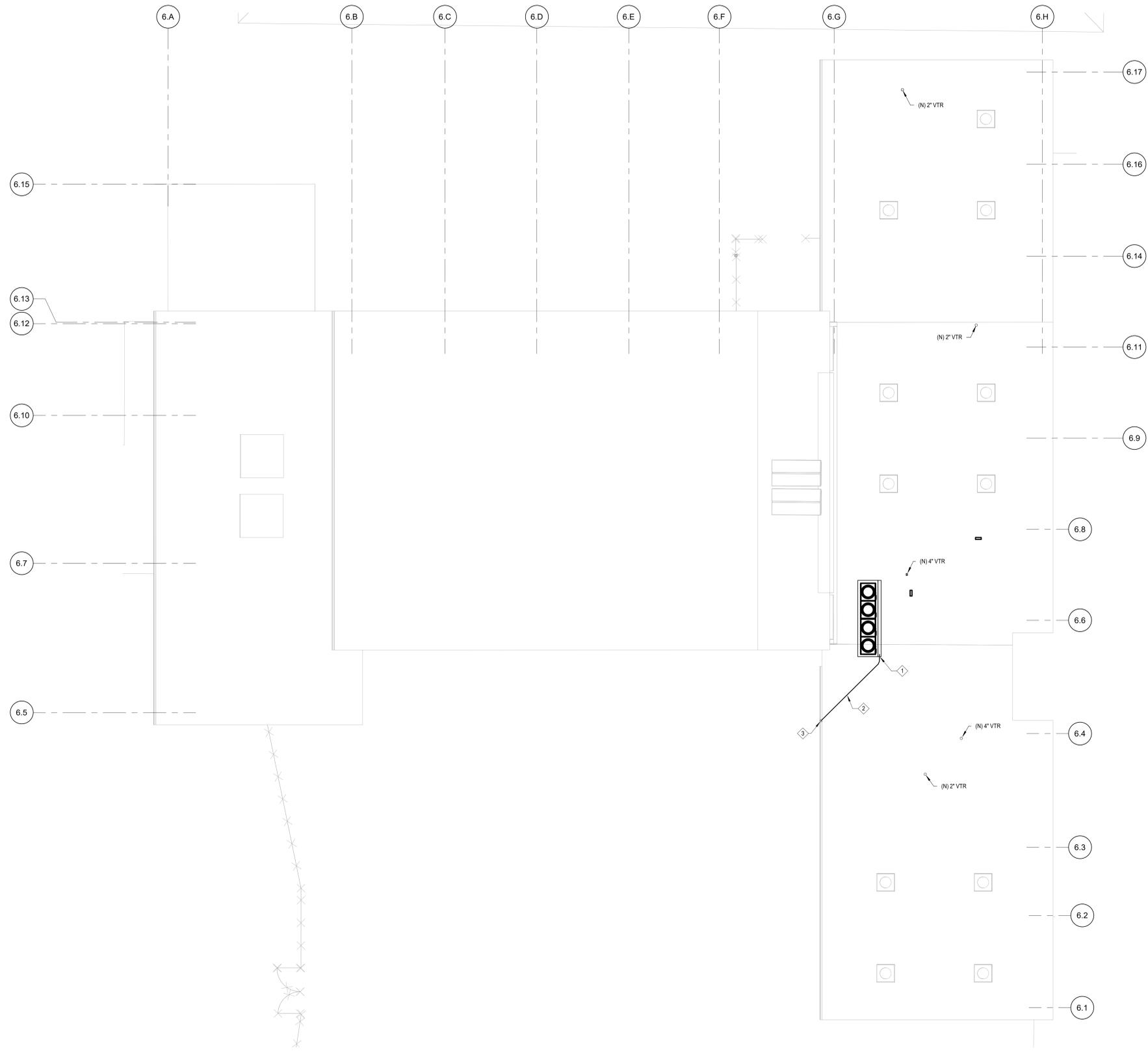
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HY Architects Project number: 5241  
 Facility: WALNUT CREEK SCHOOL DISTRICT  
 2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project: **MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title: **BUILDING 600 - PLUMBING FLOOR PLAN**

Client Project Number:	Client Proj. #
Scale: 1/8" = 1'-0"	Sheet
Drawn By: Author	<b>P2.6</b>
Checked By: Checker	
Issue Date: 11/3/20	
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**SHEET NOTES:**

1. PLUMBING DESIGN HAS BEEN BASED ON RECORD DRAWINGS AND SITE OBSERVATIONS OF EXPOSED FEATURES. RECORD DRAWINGS OF EXISTING PLUMBING LINES WERE NOT AVAILABLE FOR MANY OF THE AREAS. CONTRACTOR SHALL INCLUDE IN HIS BID THE COST OF CONNECTING NEW FIXTURES TO EXISTING FIXTURE UTILITIES. FIELD INVESTIGATION OF EXISTING CONDITIONS, SELECTIVE DEMOLITION, AND CONCEALED UTILITY LOCATING REVEALED BY DEMOLITION. THE CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERABLE PLUMBING SYSTEM WHICH COMPLIES WITH THE SPECIFICATIONS AND THE 2018 CPC. CONTRACTOR SHALL PERFORM INVESTIGATION OF EXISTING CONDITIONS PRIOR TO INSTALLATION OF NEW WORK. CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY OF EXISTING CONDITIONS THAT MAY NOT ALLOW INSTALLATION OF NEW FIXTURES AS SHOWN.
2. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS, SIZES, ROUTING, AND INVERTS OF ALL PIPING PRIOR TO CONSTRUCTION.
3. SEE SHEET P0.1 FOR ADDITIONAL NOTES.

**KEYNOTES:**

- ① RELOCATED OUTDOOR HEAT PUMP. CONNECT CONDENSATE DRAIN PIPE TO GUTTER SYSTEM. REFER TO 5MS.1C FOR CONTINUATION.
- ② CONDENSATE DRAIN PIPE ON ROOF. SEE DETAIL 6PS.1C.
- ③ 2" CONDENSATE DRAIN PIPE. ROUTE TO AND TERMINATE AT GUTTER WITH TURNED DOWN ELL WHILE MAINTAINING MINIMUM 1" AIR GAP.



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Facility  
WALNUT CREEK SCHOOL DISTRICT  
2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**BUILDING 600 PLUMBING ROOF PLAN**

Client Project Number:	Client Proj. #
Scale: 1/8" = 1'-0"	Sheet
Drawn By: Author	<b>P3.6</b>
Checked By: Checker	
Issue Date: 11/3/20	
Revit Version: 2019	
	Sheet 66 of 95

**1 BUILDING 600 - PLUMBING FLOOR PLAN**  
P3.6 SCALE: 1/8" = 1'-0"







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### GENERAL ELECTRICAL NOTES

- ELECTRICAL CONTRACTOR IS TO PROVIDE LABOR, MATERIALS, TRANSPORTATION, EQUIPMENT, RELATED HAND TOOLS, SPECIAL AND OCCASIONAL SERVICES TO CONSTRUCT AND INSTALL THE COMPLETE ELECTRICAL SYSTEM AS SPECIFIED AND SHOWN ON THE PLANS.
- MOUNTING HEIGHTS SHALL BE A MAXIMUM +48" TO TOP OF BOX OR MINIMUM 15" TO BOTTOM OF BOX PER CBC 1142A. ALL MOUNTING HEIGHTS SHALL BE AS SHOWN ON SYMBOL LIST UNLESS OTHERWISE NOTED ON DRAWINGS.
- BONDING JUMPERS SHALL BE INSTALLED TO INSURE CONTINUITY WHERE CONDUIT CONNECTIONS AT CONCENTRIC KNOCKOUTS ARE TO SERVE AS A GROUND.
- PROVIDE GREEN THWLN COPPER GROUND WIRE FROM PANELBOARD GROUND BUS TO ALL BRANCH CIRCUITS.
- THE ELECTRICIAN SHALL CHECK THE TIGHTNESS OF ALL PANELBOARD BUSES AND CIRCUIT BREAKER LUGS. COMPLETELY VACUUM AND CLEAN INTERIOR OF EQUIPMENT PRIOR TO TURN OVER TO THE OWNER.
- ALL NEW AND EXISTING PANELBOARDS AND SWITCHBOARDS SHALL BE PROVIDED WITH NEW TYPEWRITTEN DIRECTORIES TO IDENTIFY THE LOCATION OF EACH LOAD SERVED.
- ALL EQUIPMENT SHALL BE U.L. LISTED AND INSTALLED AS PER LISTING OR LABELING (I.E. MAX. FUSE SIZES MEAN FUSE PROTECTION REQUIRED).
- REFER TO ARCHITECTURAL DRAWINGS FOR ACTUAL LAYOUTS OF ALL LIGHTING FIXTURES AND EQUIPMENT.
- CONTRACTOR TO COORDINATE ALL NEW WORK WITH ALL OTHER TRADES FOR A SMOOTH FLOW OF INSTALLATION WORK.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO ALL WALLS, FLOORS AND CEILINGS INCURRED DURING ELECTRICAL CONSTRUCTION. IF DAMAGE OCCURS DURING ELECTRICAL CONSTRUCTION, THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR TO PATCH, PAINT AND REPAIR TO MATCH EXISTING CONDITIONS.
- COORDINATE EQUIPMENT LOCATIONS AND ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT REQUIRING ELECTRICAL HOOK-UP WITH CONTRACTOR RESPONSIBLE FOR PROVIDING EQUIPMENT AND EQUIPMENT MANUFACTURER DATA SHEETS.
- COORDINATE ELECTRICAL OUTLET LOCATIONS WITH ARCHITECTURAL ELEVATIONS (I.E. CABINETS), AVOID ALL COUNTER SUPPORTS, AND LOCATIONS BEHIND INACCESSIBLE FIXED CABINETS.
- UPON COMPLETION OF THE INSTALLATION OF THE FIRE PROTECTIVE SIGNALING EQUIPMENT, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING FIRE AGENCY.
- ALL CORRIDOR AND EXTERIOR WALL PENETRATIONS FOR PIPES, CONDUITS, ETC., IN WALLS REQUIRING PROTECTED OPENINGS SHALL BE FIRE STOPPED. FIRE STOP MATERIAL SHALL BE A TESTED ASSEMBLY APPROVED BY THE CALIFORNIA STATE FIRE MARSHAL.
- ELECTRICAL CONTRACTOR SHALL REVIEW MECHANICAL AND PLUMBING CONTRACT DRAWINGS AND VERIFY ALL MECHANICAL EQUIPMENT LOCATIONS, MOTOR SIZES AND CONTROL WIRING REQUIREMENTS WITH MECHANICAL CONTRACTOR AND MECHANICAL CONTRACTOR AND MANUFACTURERS PRIOR TO INSTALLATION OF ELECTRICAL CONNECTIONS.
- RECEPTACLES SHALL NOT BE INSTALLED BACK TO BACK AND SHALL BE SPACED 24" APART. WHERE RECEPTACLES CANNOT BE SPACED 24" APART, PROVIDE 3M FIRE RATED PUTTY PADS TO MATCH WALL FIRE RATING.
- PROVIDE AN ISOLATED GROUND WIRE IN ADDITION TO NORMAL EQUIPMENT GROUND IN ALL COMPUTER DEDICATED CIRCUITS.
- ALL CONTROL DEVICES TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA SHALL BE INSTALLED AT A MINIMUM OF 36" C/L, TO A MAXIMUM OF 48" TO TOP OF BOX FROM THE FINISHED FLOOR.
- ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND ALTHOUGH THE SIZE AND LOCATIONS OF EQUIPMENT IS SHOWN TO SCALE WHEREVER POSSIBLE, CONTRACTOR SHALL MAKE USE OF MANUFACTURER'S OR OWNER'S DATA AVAILABLE AND/OR VERIFY DATA IN THE FIELD FOR PROVIDING AND INSTALLING CORRECT CABLE LENGTHS.
- ALL EQUIPMENT MUST BE LISTED, LABELED, OR CERTIFIED BY A NATIONAL RECOGNIZED TESTING LABORATORY (NRTL).
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES TO KEEP ELECTRICAL ROOMS EXCLUSIVELY DEDICATED TO PANELBOARDS, SIGNAL AND OTHER ELECTRICAL EQUIPMENT. NO PLUMBING, PIPING OR MECHANICAL DUCTS SHALL RUN OVER ELECTRICAL PANEL OR OTHER ELECTRICAL EQUIPMENT PER C.E.C. 110-26(f).
- ALL SWITCHES AND RECEPTACLES SHALL BE PROVIDED WITH 'BROTHER' LABELING SYSTEM TO IDENTIFY THE PANEL AND CIRCUIT NUMBER OF EACH OUTLET. COLOR TO BE 3/8" HIGH BLACK ON TRANSPARENT TAPE.
- ALL CABINETS, DISCONNECT SWITCHES, PULLBOXES, AND TERMINAL BOXES SHALL BE PROVIDED WITH LABELING SYSTEM TO IDENTIFY THE PANEL AND ITS USE. SEE SPECIFICATIONS FOR REQUIREMENTS.
- MAINTAIN "AS-BUILT" RECORDS AT ALL TIMES, SHOWING EXACT LOCATION OF ALL UNDERGROUND AND/OR CONCEALED CONDUITS AND SERVICES INSTALLED UNDER THIS CONTRACT, INCLUDING CIRCUIT IDENTIFICATION WHERE APPLICABLE. PROVIDE OWNER WITH "AS-BUILT" DOCUMENTS AS INDICATED IN THE PROJECT MANUAL.
- DRAWINGS INDICATE THE LOCATION OF DEVICES, FIXTURES AND EQUIPMENT AND THE CIRCUIT NUMBER AND PANEL DESIGNATION WHICH SUPPLIES THEM. THE CONTRACTOR SHALL VERIFY WITH ARCHITECT VENDOR'S AND COORDINATE ALL LOCATIONS PRIOR TO INSTALLATION. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETELY CONNECTING ALL ELECTRICAL DEVICES TO CIRCUITS INDICATED ON THE DRAWINGS.
- ALL EQUIPMENT GROUNDING SHALL CONFORM TO ARTICLE 250 OF THE NATIONAL ELECTRIC CODE, LATEST EDITION.
- ALL EXTERIOR CONDUIT ABOVE GRADE INCLUDING ALL ROOF MOUNTED CONDUIT, SHALL BE RIGID GALVANIZED STEEL, U.O.N. COAT ALL EXPOSED THREADS WITH GALVANIZING PAINT.
- ALL CONDUIT SHALL BE CONCEALED, UNLESS OTHERWISE NOTED.
- ALL UNDERGROUND CONDUIT RUNS SHALL BE SEALED TO PREVENT GAS/MOISTURE ENTERING THE PIPE PER ARTICLE 230-8, 300.5 AND 300.50E.
- PROVIDE EXPANSION FITTINGS AND/OR CONDUIT FLEX TO CONDUITS PASSING THROUGH STRUCTURAL EXPANSION JOINT SYSTEM. VERIFY/COORDINATE WITH ARCHITECT FOR LOCATION.
- ALL SIGNAL WIRING/CABLING (TELEPHONE/INTERCOM/DATA/FIRE ALARM/CATV/INTRUSION ALARM SYSTEMS) SHALL BE NEATLY TERMINATED WITH TERMINAL BLOCKS AND LABELED WITH WIRE MARKERS AT ITS CABINETS/PANELS.
- ALL RACEWAY PASSING THROUGH EXPANSION JOINT AREA SHALL BE PROVIDED WITH EXPANSION JOINT FITTINGS AND/OR FLEX CONDUIT AS REQUIRED.
- ALL FIXTURES WITH EMERGENCY BATTERY PACK SHALL BE PROVIDED WITH UNSWITCHED HOT.
- ALL EXTERIOR MOUNTED GFI RECEPTACLE OUTLETS TO BE PROVIDED WITH LOCKABLE COVERS, TAYMAC MX3200.
- FOR POWER AND LIGHTING CIRCUITS, CONTRACTOR SHALL PROVIDE SEPARATE NEUTRAL FOR EACH CIRCUIT IN THE RACEWAY OR PROVIDE BREAKER TIES TO MEET NEC CODE 230.4.
- ALL EQUIPMENT/COMPONENTS/DEVICES INSTALLED OUTDOOR SHALL BE U.L. LISTED FOR WET LOCATION.
- THE CONTRACTOR SHALL PAY FOR ALL REQUIRED PERMITS AND INSPECTION FEES.
- THE CONTRACTOR SHALL VERIFY WITH THE ARCHITECTURAL DRAWINGS ALL LOCATIONS AND DIMENSIONS OF DEVICES/EQUIPMENT PRIOR TO ROUGH-IN.
- ALL EXIT SIGNS SHALL COMPLY WITH SECTIONS 1013 OF THE C.B.C.
- ALL DIVISION 15 EQUIPMENT LOW VOLTAGE CONTROL WIRING SHALL BE PROVIDED AND INSTALLED BY DIVISION 15 U.O.N. PROVIDE CONDUIT WHERE REQUIRED BY DIV 15.
- COORDINATE INSTALLATION OF ALL RECESSED LIGHT FIXTURES WITH DIVISION 15 PRIOR TO INSTALLATION OF HVAC DUCTS AND SPRINKLER HEADS. ENSURE AFTER INSTALLATION OF FIXTURES THAT THERE IS NO CONTACT BETWEEN DUCTS AND FIXTURES TO AVOID VIBRATION IN FIXTURES.
- ALL CONDUIT STUB OUTS AND CONDUITS TERMINATING TO A J-BOX, CABINET, AND THE LIKE SHALL BE PROVIDED WITH INSULATED THROAT. BOX OR CABINET COVER SHALL BE LABELED AS TO USE.
- MEP COMPONENT ANCHORAGE NOTES:  
ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTER 13, 26 AND 30.  
1. ALL PERMANENT EQUIPMENT AND COMPONENTS.  
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.  
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.  
THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE. BUT THE ATTACHMENT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:  
A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.  
B. COMPONENTS WEIGHING LESS THAN 30 POUNDS OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.  
THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL. IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.  
PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE  
PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.  
THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G. OSHPD OPM FOR 2023 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.  
MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

- MP  MD  PP  E  - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.  
MP  MD  PP  E  - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) # \_\_\_\_\_

### ELECTRICAL SYMBOL LIST

NOTE: DASHED SYMBOLS ON PLANS DENOTE EXISTING DEVICES

- |                                     |  |        |   |
|-------------------------------------|--|--------|---|
| <input checked="" type="checkbox"/> | LIGHT FIXTURE - SEE FIXTURE SCHEDULE   | (E)    | EXISTING  |
| <input checked="" type="checkbox"/> | EMERGENCY LIGHT FIXTURE WITH BATTERY PACK - SEE FIXTURE SCHEDULE   | (N)    | NEW   |
|                                     | WALL MOUNTED LIGHT FIXTURE - SEE FIXTURE SCHEDULE  | AL     | ALUMINUM  |
|                                     | EXIT SIGN - WALL OR CEILING MOUNT WITH DIRECTIONAL ARROWS WHERE INDICATED SEE FIXTURE SCHEDULE   | ANN    | ANNUNCIATOR   |
|                                     | EMERGENCY LIGHT FIXTURE - SEE FIXTURE SCHEDULE   | CL     | CENTERLINE  |
|                                     | 1PST LIGHT SWITCH +48" U.O.N.  | CR     | CLASSROOM   |
|                                     | 3-WAY LIGHT SWITCH, +48" TO TOP OF BOX U.O.N.  | CU     | COPPER  |
|                                     | 4-WAY LIGHT SWITCH, +48" TO TOP OF BOX U.O.N.  | FACP   | FIRE ALARM CONTROL PANEL  |
|                                     | KEYED LIGHT SWITCH +48" TO TOP OF BOX U.O.N.   | FATC   | FIRE ALARM TERMINAL CABINET   |
|                                     | IPST LIGHT SWITCH WITH PILOT LIGHT, +48" TO TOP OF BOX U.O.N.  | GFI    | GROUND FAULT INTERRUPTER  |
|                                     | CEILING MOUNT DUAL TECHNOLOGY OCCUPANCY SENSOR, WATTSTOPPER LMDC-100   | GFP    | GROUND FAULT PROTECTION   |
|                                     | CEILING MOUNT PHOTO SENSOR, WATTSTOPPER LMLS-400   | IDF    | INTERMEDIATE DISTRIBUTION FRAME   |
|                                     | LIGHTING CONTROLLER WITH DAYLIGHTING, SEE LIGHTING DETAILS   | IG     | ISOLATED GROUND   |
|                                     | LIGHTING CONTROLLER WITHOUT DAYLIGHTING, SEE SEE LIGHTING DETAILS  | IGB    | ISOLATED GROUND BUS   |
|                                     | DIMMING SWITCH, WATTSTOPPER #LMSW-SERIES, +48" TO TOP OF BOX   | MDP    | MAIN DISTRIBUTION FRAME   |
|                                     | MULTI-SCENE DIMMING SWITCH, WATTSTOPPER  | MT     | EMPTY CONDUIT WITH PULL CORD  |
|                                     | WALL MOUNT OCCUPANCY SENSOR, +48" TO TOP OF BOX  | PB     | PULL BOX  |
|                                     | DIMMING SWITCH WITH OCC SENSOR, LUTRON MS-2101-XX  | RPS    | REMOTE POWER SUPPLY   |
|                                     | 20A, 125V, 3W GROUNDING TYPE DUPLEX RECEPTACLE, +18" U.O.N.  | SAD    | SEE ARCHITECTURAL DRAWINGS  |
|                                     | 20A, 125V, 4W DUPLEX RECEPTACLE, CEILING MOUNTED   | STC    | SIGNAL TERMINAL CABINET   |
|                                     | 20A, 125V, 3W GROUNDING TYPE, FOURPLEX RECEPTACLE, +18" U.O.N.   | TMGB   | TELECOMMUNICATIONS MAIN GROUNDING BUS BAR                                     |
|                                     | 20A, 125V, 3W GROUNDING TYPE DUPLEX RECEPTACLE, MOUNTED HORIZONTALLY   | TB     | TELEPHONE TERMINAL BOARD  |
|                                     | 20A, 125V DUPLEX GFI RECEPTACLE, +18" U.O.N.   | WP     | WEATHERPROOF  |
|                                     | 20A, 125V DUPLEX GFI RECEPTACLE WITH ONE SWITCHED PLUG   | UG     | UNDERGROUND   |
|                                     | SPECIAL RECEPTACLE AS REQUIRED BY EQUIPMENT SPECIFIED  | U.O.N. | UNLESS OTHERWISE NOTED  |
|                                     | JUNCTION BOX, CEILING OR WALL MOUNTED - SIZED PER CODE   | VF     | VERIFY IN FIELD   |
|                                     | DATA JUNCTION BOX FOR SECURITY CAMERA. WP INDICATES WEATHERPROOF   | xfmr   | TRANSFORMER   |
|                                     | AV WALL PLATE  |        | FIXTURE TAG - LETTER DENOTES TYPE, NUMBERS INDICATE LAMP QUANTITY AND WATTAGE |
|                                     | DUPLEX DATA OUTLET +18" U.O.N.   |        | NUMBERED ELECTRICAL NOTE  |
|                                     | FOURPLEX OUTLET +18" U.O.N.  |        | MECHANICAL TAG - LETTER DENOTES TYPE, NUMBER DENOTES EQUIPMENT NUMBER         |
|                                     | TELEPHONE OUTLET +48" TO TOP OF BOX  |        |   |
|                                     | WIRELESS ACCESS POINT  |        |   |
|                                     | INTRUSION ALARM KEYPAD BACKBOX WITH 3/4" CONDUIT TO IACP LOCATION  |        |   |
|                                     | INTRUSION ALARM MOTION SENSOR BACKBOX WITH 3/4" CONDUIT TO IACP LOCATION   |        |   |
|                                     | INTERCOM SYSTEM CLOCK/SPEAKER UNIT   |        |   |
|                                     | PAGING SPEAKER - CEILING OR WALL MOUNTED   |        |   |
|                                     | FIRE ALARM CONTROL PANEL (FACP)  |        |   |
|                                     | FIRE ALARM REMOTE POWER SUPPLY   |        |   |
|                                     | FIRE ALARM MANUAL PULL STATION, +48" TO TOP OF BOX, U.O.N.   |        |   |
|                                     | FIRE ALARM SMOKE DETECTOR  |        |   |
|                                     | 200° FIXED HEAT DETECTOR   |        |   |
|                                     | 135° FIXED HEAT DETECTOR   |        |   |
|                                     | DUCT SMOKE DETECTOR  |        |   |
|                                     | CARBON MONOXIDE DETECTOR   |        |   |
|                                     | FLOW SWITCH  |        |   |
|                                     | TAMPER SWITCH  |        |   |
|                                     | FIRE ALARM SPEAKER/STROBE, CANDELA AS NOTED  |        |   |
|                                     | FIRE ALARM SPEAKER WITH WEATHER PROOF BACK BOX   |        |   |
|                                     | FIRE ALARM STROBE, CANDELA AS NOTED  |        |   |
|                                     | ADDRESSABLE MONITOR MODULE   |        |   |
|                                     | ADDRESSABLE CONTROL RELAY  |        |   |
|                                     | END OF LINE RESISTOR   |        |   |
|                                     | ISOLATED GROUND BUS  |        |   |
|                                     | DISCONNECT SWITCH - FUSED AS REQUIRED, WEATHERPROOF FOR OUTDOORS, SIZED PER MANUFACTURER'S REQUIREMENTS  |        |   |
|                                     | MOTOR CONNECTION   |        |   |
|                                     | THERMAL OVERLOAD SWITCH  |        |   |
|                                     | MANUAL MOTOR STARTING SWITCH, HORSE POWER RATED WITH OVERLOADS   |        |   |
|                                     | EXISTING CONDUIT   |        |   |
|                                     | BRANCH CIRCUIT CONDUIT CONCEALED IN WALL OR CEILING  |        |   |
|                                     | BRANCH CIRCUIT CONDUIT CONCEALED UNDER FLOOR OR UNDERGROUND  |        |   |
|                                     | HOMERUN TO PANELBOARD OR OTHER TERMINATION POINT   |        |   |
|                                     | STUB CONDUIT TO ACCESSIBLE SPACE   |        |   |
|                                     | CONDUIT UP   |        |   |
|                                     | CONDUIT DOWN   |        |   |
|                                     | ANY BRANCH CIRCUIT CONDUIT SHALL BE MINIMUM 3/4" C - 2#12, 1#12 GREEN GROUND UNLESS OTHERWISE NOTED. FOR A GREATER NUMBER OF #12 WIRES: ( 1 - 1#12 C - 3#12, 1#12G) ETC. FOR WIRE SIZES OTHER THAN #12: ( 1 - 1#12 C - 1#12G), (GROUND SIZED PER CEC, IN CODE SIZE CONDUIT) ETC. |        |   |

SIGNAL WIRE/CABLE SCHEDULE		
TYPE	DESCRIPTION	SYSTEM
A	2#16 TWISTED/UNSHIELDED	INITIATION - SLC LOOP
B	2#12	SIGNAL
C	2#18	SPEAKER
D	2#14	24 VDC POWER
E	FIBER OPTIC CABLE	FACP/INC DATA LOOP
F	2#18 TWISTED SHIELDED	EXTERIOR AND INDOOR SPEAKERS
G	CATEGORY 6A	FOR WIRELESS ACCESS
K	CATEGORY 6A	SECURITY CAMERAS, DATA, VOICE, CLOCK/SPEAKER

NOTE: ALL EXTERIOR CABLE SHALL BE WET RATED.

FIXTURE SCHEDULE						
TYPE	MANUFACTURER AND CATALOG NUMBER	LAMP QUANTITY AND TYPE	WATTAGE AND VOLTAGE	DESCRIPTION	WEIGHT	MOUNTING DETAIL
A	FINELITE #512 LED ID-DCO-4-3E-S-H-830-OEPN-120-SC-FA-FE	LED	37 WATTS 120 V	SUSPENDED LINEAR FIXTURE	16 LBS	3/E0.06
AE	FINELITE #512 LED ID-DCO-4-3E-S-H-830-OEPN-120-SC-FA-FE-EM	LED	37 WATTS 120 V	SAME AS TYPE A EXCEPT WITH EMERGENCY BATTERY PACK	16 LBS	3/E0.06
D	WILLIAMS # 75-2-L15/B35-DRV-LNV	LED	31 WATTS 120 V	2' LED STRIP LIGHT	10 LBS	7/E0.05
E	WILLIAMS #AVX-4-L36-835-CPC	LED	52 WATTS 120 V	11" WIDE X 4' LONG LED SURFACE MOUNT FIXTURE WITH INTEGRAL OCCUPANCY SENSOR	20 LBS	7/E0.05
EE	WILLIAMS #AVX-4-L36-835-CPC-EM	LED	52 WATTS 120 V	SAME AS TYPE E EXCEPT WITH EMERGENCY BATTERY PACK	20 LBS	7/E0.05
F	WILLIAMS #11-4-L43/B35-SAF-12125	LED	31 WATTS 120 V	SURFACE MOUNT 1X4 FIXTURE, ACRYLIC PRISMATIC LENS	30 LBS	7/E0.05
FE	WILLIAMS #11-4-L43/B35-SAF-12125-EM	LED	31 WATTS 120 V	SAME AS TYPE F EXCEPT WITH EMERGENCY BATTERY PACK	30 LBS	7/E0.05
L	VISA #CP2000-L35K-H-MVOLT-**-*	LED	82 WATTS 120 V	SUSPENDED 29" DIAMETER FIXTURE	20 LBS	2/E0.06
LE	VISA #CP2000-L35K-H-MVOLT-**-*	LED	82 WATTS 120 V	SAME AS TYPE L EXCEPT WITH EMERGENCY BACKUP	30 LBS	2/E0.06
M	FINELITE #P-4ID-B-B-B-835-WSO-F-120V-FA-SC C4	LED	73 WATTS 120 V	SUSPENDED 4" WIDE LENSED LINEAR FIXTURE WITH INDIRECT/DIRECT LIGHTING	30 LBS	3/E0.06
H0	EVENLITE #LEX-20-12-G-W-VS			SELF-LUMINOUS LED EXIT SIGN WITH GREEN LETTERS AND WHITE BODY. CEILING OR WALL MOUNTED AS SHOWN ON PLANS AND TAMPER RESISTANT SCREWS	5 LBS	



Revisions				
No.	Revisions	By	Date	Appr.

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### NOT FOR CONSTRUCTION

#### DSA SUBMITTAL INCREMENT III

ISSUE DATE: 8/25/20 BY: \_\_\_\_\_ MH \_\_\_\_\_

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Project

### MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III

Sheet Title  
ELECTRICAL SYMBOLS, NOTES AND SCHEDULES

Client Project Number: \_\_\_\_\_ Client Proj. # \_\_\_\_\_

Scale: AS NOTED Sheet

Drawn By: DAM

Checked By: TLK

Issue Date: 8/25/20

# E0.01c

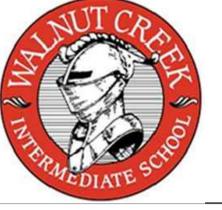
Sheet 71 of 95







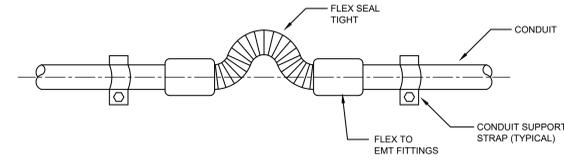
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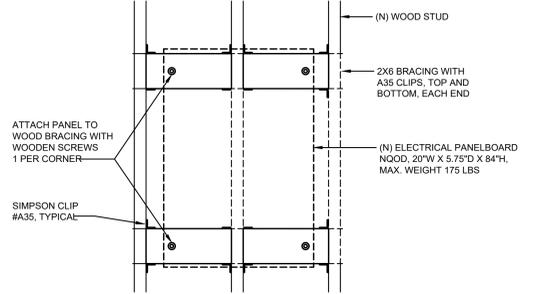
Revisions				
No.	Revisions	By	Date	Appr.

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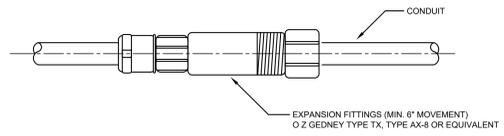
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 ISSUE DATE: 8/25/20 BY: MH



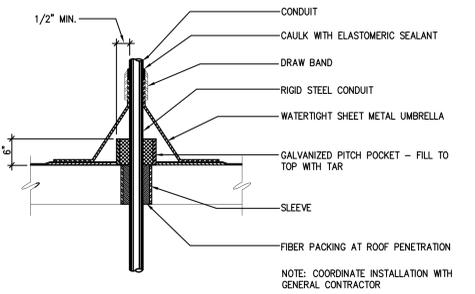
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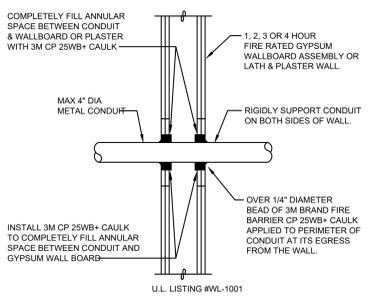
SURFACE PANELBOARD MOUNTING DETAIL - WOOD NTS 4



EXPOSED CONDUIT EXPANSION FITTING DETAIL - WALL NTS 9



CONDUIT ROOF PENETRATION DETAIL NTS 6



CONDUIT PENETRATION DETAIL - FIRE RATED WALL NTS 7

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Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**ELECTRICAL DETAILS**

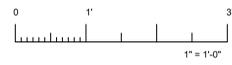
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Scale: AS NOTED  
 Drawn By: DAM  
 Checked By: TLK  
 Issue Date: 8/25/20

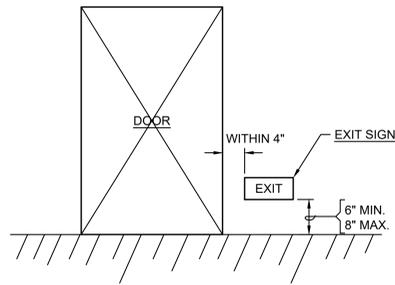
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Sheet 74 of 95

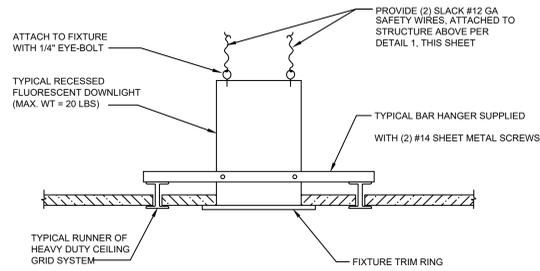
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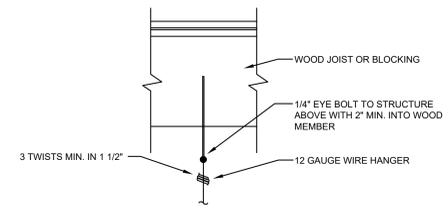
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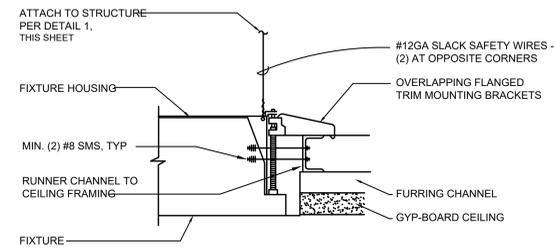
LOW LEVEL EXIT SIGN DETAIL NTS 8



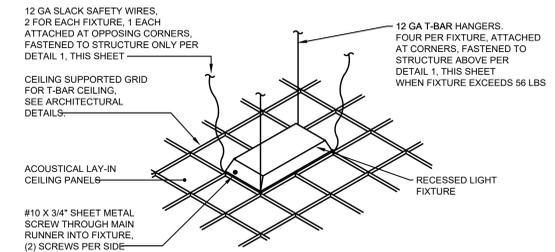
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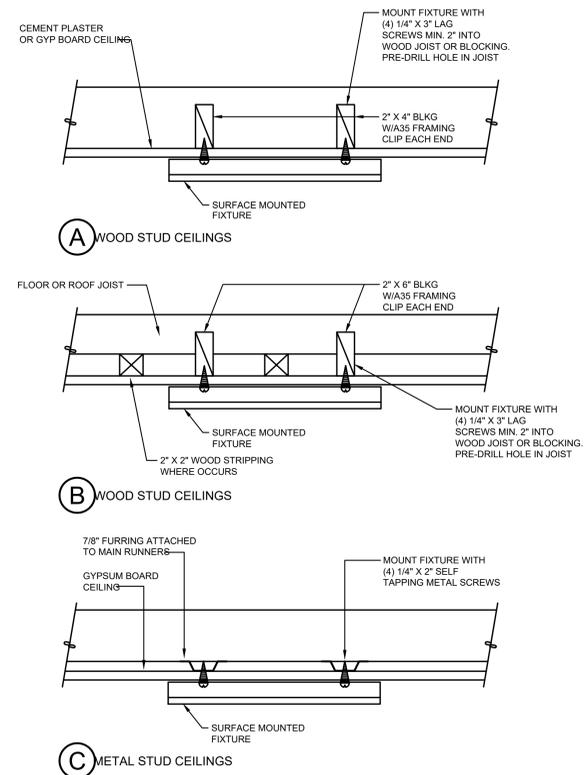
TYPICAL SAFETY WIRE CONNECTION NTS 1



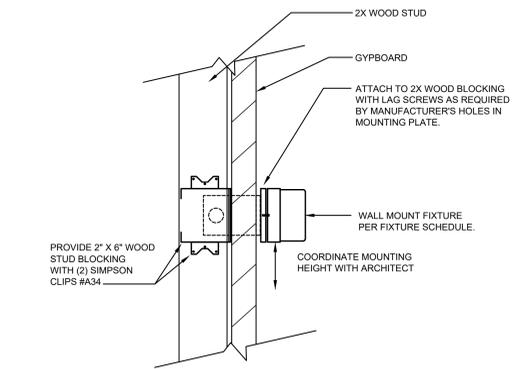
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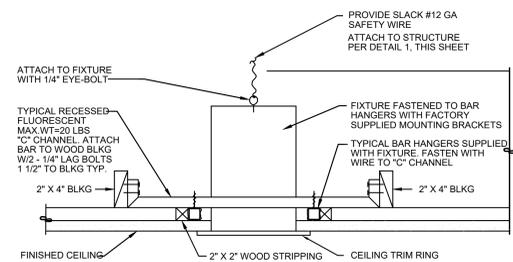
RECESSED FIXTURE MOUNTING DETAIL - T-BAR NTS 2



SURFACE MOUNT FIXTURE MOUNTING DETAIL NTS 7



WALL MOUNTED FIXTURE MOUNTING DETAIL - WOOD NTS 3



RECESSED FIXTURE MOUNTING DETAIL - GYP BOARD NTS 4



No.	Revisions	By	Date	Appr.

**WJRM**

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19-002 INC 1

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HY ARCHITECTS JOB NUMBER 5241

Facility  
WALNUT CREEK SCHOOL DISTRICT  
2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**ELECTRICAL DETAILS**

Client Project Number: Client Proj. #

Scale: AS NOTED Sheet

Drawn By: DAM

Checked By: TLK

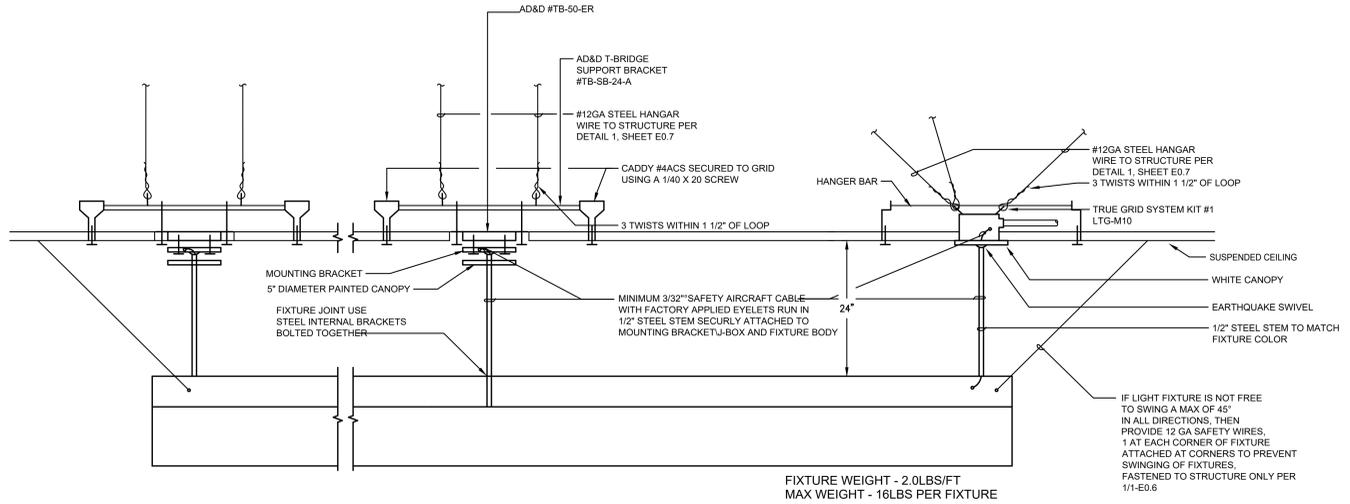
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Sheet 75 of 95

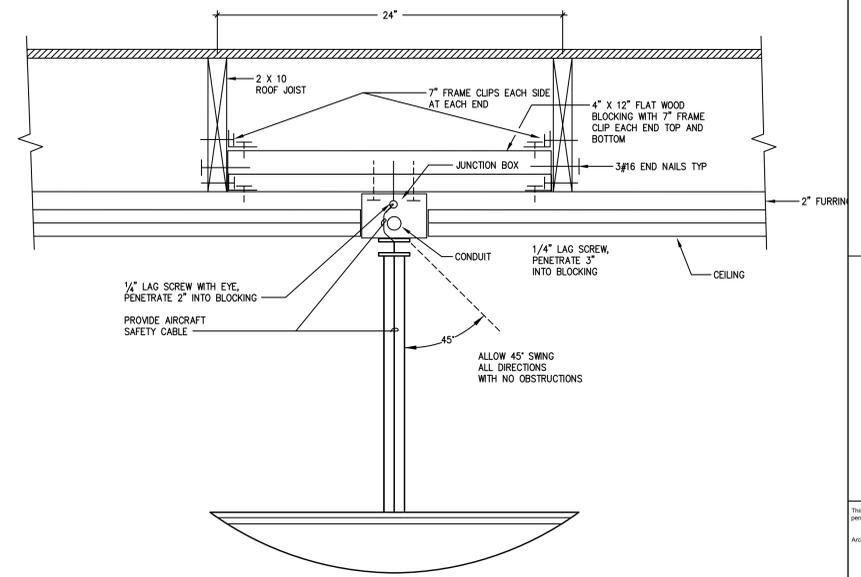


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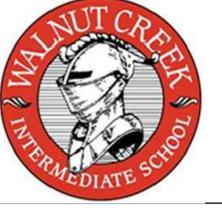


**8** SUSPENDED FIXTURE MOUNTING DETAIL - T-BAR CEILING  
NOT TO SCALE

SUSPENDED FIXTURE MOUNTING DETAIL - T-BAR NTS 3



PENDANT MOUNTED FIXTURE DETAIL - MULTI-USE NTS 2



Revisions				
No.	Revisions	By	Date	Appr.

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2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**ELECTRICAL DETAILS**

Client Project Number: Client Proj. #

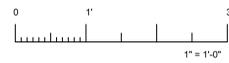
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Drawn By: DAM  
Checked By: TLK  
Issue Date: 8/25/20

**E0.06c**

Sheet 76 of 95

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STATE OF CALIFORNIA  
**Electrical Power Distribution**  
CEC-NRCC-ELC-01-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE  
 Electrical Power Distribution NRCC-ELC-01-E  
 Page 1 of 4

Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3 Date Prepared: 01-31-20

**General Information**

Project Address: 2425 WALNUT BLVD, WALNUT CREEK 94597 Climate Zone: 3 Conditioned Floor Area: 0  
 Unconditioned Floor Area: 0

Building Type:  Nonresidential  High-Rise Residential  Hotel/Motel  
 Schools  Relocatable Public Schools  Conditioned Spaces  Unconditioned Spaces

Phase of Construction:  New Construction  Addition  Alteration

In the table below identify all applicable construction documents that specify the requirements for the scope of responsibility reported by this certificate. Use additional pages as needed to list all construction documents related to compliance of Section 130.5.

Document Number	Document Title/Descriptions (include description information for Table or Schedule if it contains compliance information)	Document Sheet # or Page #	Indicate which subsection of Section 130.5 is related to the document (e.g. 130.5(a) for service electrical metering)
<input type="button" value="Add Row"/> <input type="button" value="Remove Last"/>			

**A. Service Electrical Metering**

Check one of the three boxes below if the electrical power distribution system is in compliance with Section 130.5(a). Fill out Column 1 through 6 of table below.

For newly installed electrical service in newly constructed buildings, Service Electrical Metering is required according to Section 130.5(a). Fill out Column 1 through 6 of table below.

For new or replacement electrical service equipment in existing buildings, Service Electrical Metering is required according to Section 141.0(b)(2)(P). Fill out Column 1 through 6 of table below.

EXCEPTION to Electrical Service Metering: Service or feeder for which the utility company provides a metering system that indicates instantaneous kW demand and kWh for a utility-defined period. Fill out Column 1, 2 and 6 of table below with the compliance information.

Fill out a separate line for each electrical service that is connected to the building.

Electrical Service Schedule	Electrical Service Rating	Metering Capabilities (check all that are present)				Exception to 130.5 (a)	Field Inspector
01	02	03	04	05	06	07	08
Electrical Service Designation/Location/Description	kVA	Instantaneous (at the time) kW	Historical peak (kW)	Tracking kWh for a user-definable period	kWh per rate period	Utility metering system	Check that the metering complies
Existing main switchboard 'MSB-A'	779	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="button" value="Add Row"/> <input type="button" value="Remove Last"/>							

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

STATE OF CALIFORNIA  
**Electrical Power Distribution**  
CEC-NRCC-ELC-01-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE  
 Electrical Power Distribution NRCC-ELC-01-E  
 Page 2 of 4

Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3 Date Prepared: 01-31-20

**B. Separation of Electrical Circuits for Electrical Energy Monitoring**

Check all boxes below if the electrical power distribution system is in compliance with Section 130.5(b).

The electrical power distribution system meets the separation of electrical circuits for electrical energy monitoring requirement of Section 130.5(b). The electrical power distribution systems is designed so that measurement devices can monitor the electrical energy usage of load types according to TABLE 130.5-B.

Describe the electrical power distribution system installed and the compliance method chosen in meeting the requirement of Section 130.5(b). Use the space below to include the information. Examples of compliance methods are detailed in Nonresidential Compliance Manual Chapter 8. Fill out Column 1 thru 3 with the compliance information.

General Information	Electrical Power Distribution System Information and Method of compliance	Electrical Service Rating	Enforcement Agency
01	02	03	04
Electrical Service Designation/Location/Description	Describe the electrical power distribution system installed and the compliance method used	kVA	Check that the system complies
<input type="checkbox"/>			

Field Inspector Notes:

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STATE OF CALIFORNIA  
**Electrical Power Distribution**  
CEC-NRCC-ELC-01-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE  
 Electrical Power Distribution NRCC-ELC-01-E  
 Page 3 of 4

Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3 Date Prepared: 01-31-20

**C. Voltage Drop**

Check all boxes below if the electrical power distribution system is in compliance with Section 130.5(c).

The electrical power distribution system meets the voltage drop requirement of Section 130.5(c). The maximum combined voltage drop on feeder conductors and branch circuit conductors to the farthest connected load or outlet, do not exceed 5%.

Voltage drop calculation documents showing compliance to Section 130.5(c) are submitted as part of the compliance document submittal.

Enforcement Agency  
 Check that the system complies

**D. Circuit Controls for 120-Volt Receptacles and Controlled Receptacles**

Check one or more boxes below for applicable requirements of Section 130.5(d) for the electrical power distribution system.

The control is capable of automatically shutting OFF the controlled receptacles when the space is typically unoccupied, either at the receptacle or circuit level. For the automatic time switch control, it incorporates an override control that allows the controlled receptacle to remain ON for no more than 2 hours when an override is initiated and an automatic holiday "shut-OFF" feature that turns OFF all loads for at least 24 hours and then resumes the normally scheduled operation. Countdown timer switches are not to be used to comply with the automatic time switch control requirements. The controls meet the requirement of Section 130.5(d)(1).

There is at least one controlled receptacle within 6 ft from each uncontrolled receptacle. Where receptacles are installed in modular furniture in open office area, at least one controlled receptacle is installed at each workstation. The receptacles meet the requirement of Section 130.5(d)(2).

There are installed split wired receptacles with at least one controlled and one uncontrolled receptacle. Where receptacles are installed in modular furniture in open office area, at least one controlled receptacle is installed at each workstation. The receptacles meet the requirement of Section 130.5(d)(2).

Permanent and durable marking for controlled receptacles or circuits to differentiate them from uncontrolled receptacles or circuits is provided. The markings meet the requirement of Section 130.5(d)(3).

For hotel and motel guest rooms, there are controlled receptacles for at least one-half of the 120-volt receptacles in each guest room. Electric circuits serving controlled receptacles in guestrooms are installed to have captive key controls, occupancy sensing controls, or automatic controls so the power is switched off no longer than 30 minutes after the guest room has been vacated. The receptacles meet the requirement of Section 130.5(d)(4).

Receptacles that are only for the following purposes are exempt from Section 130.5(d):  
 - Receptacles specifically for refrigerators and water dispensers in kitchen areas.  
 - Receptacles located a minimum of six ft above the floor that are specifically for clocks.  
 - Receptacles for network copiers, fax machines, A/V and data equipment other than personal computers in copy rooms.  
 - Receptacles on circuits rated more than 20 amperes.  
 - Receptacles connected to an uninterruptible power supply (UPS) that are intended to be in continuous use, 24 hours per day/365 days per year, and are marked to differentiate them from other uncontrolled receptacles or circuits.

Field Inspector  
 Check that the system complies

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

STATE OF CALIFORNIA  
**Electrical Power Distribution**  
CEC-NRCC-ELC-01-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE  
 Electrical Power Distribution NRCC-ELC-01-E  
 Page 4 of 4

Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3 Date Prepared: 01-31-20

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

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

Documentation Author Name: JOSE L. WE  
 Signature Date: 01-31-20

Company: WKM ELECTRICAL CONSULTANTS, INC  
 Address: 3397 MT. DIABLO BLVD, SUITE C  
 City/State/Zip: LAFAYETTE, CA 94549  
 Phone: 925-385-0649

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

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

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

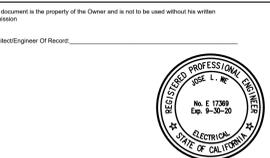
Responsible Designer Name: JOSE L. WE  
 Signature Date: 01-31-20  
 License No: E 17369  
 City/State/Zip: LAFAYETTE, CA 94549  
 Phone: 925-385-0649

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016



**WKM**  
 Electrical Consultants Incorporated  
 3397 Mt. Diablo Blvd., Suite C  
 Lafayette, CA 94549  
 Tel: 925.385.0649  
 19-002 INC 1

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 ISSUE DATE: 8/25/20 BY: MH



**HY HIBSER YAMAUCHI**  
 Architects, Inc.  
 300 - 27th Street  
 Oakland, CA 94612  
 510.446.2222 tel; 510.446.2211 fax  
 HY ARCHITECTS JOB NUMBER 5241

Facility: WALNUT CREEK SCHOOL DISTRICT  
 2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project: MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III

Sheet Title: ELECTRICAL TITLE 24 POWER

Client Project Number: Client Proj. #

Scale: AS NOTED Sheet

Drawn By: DAM

Checked By: TLK

Issue Date: 8/25/20

**E0.08c**

Sheet 78 of 95



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STATE OF CALIFORNIA INDOOR LIGHTING CERTIFICATE OF COMPLIANCE. Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3. Date Prepared: 03-31-20. Section: NRCC-LTI-01-E (Page 1 of 6).

STATE OF CALIFORNIA INDOOR LIGHTING CERTIFICATE OF COMPLIANCE. Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3. Date Prepared: 03-31-20. Section: NRCC-LTI-01-E (Page 2 of 6).

STATE OF CALIFORNIA INDOOR LIGHTING CERTIFICATE OF COMPLIANCE. Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3. Date Prepared: 03-31-20. Section: NRCC-LTI-01-E (Page 3 of 6).

STATE OF CALIFORNIA INDOOR LIGHTING CERTIFICATE OF COMPLIANCE. Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3. Date Prepared: 03-31-20. Section: NRCC-LTI-01-E (Page 4 of 6).

STATE OF CALIFORNIA INDOOR LIGHTING CERTIFICATE OF COMPLIANCE. Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3. Date Prepared: 03-31-20. Section: NRCC-LTI-01-E (Page 5 of 6).

STATE OF CALIFORNIA INDOOR LIGHTING CERTIFICATE OF COMPLIANCE. Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3. Date Prepared: 03-31-20. Section: NRCC-LTI-01-E (Page 6 of 6).

STATE OF CALIFORNIA INDOOR LIGHTING - LIGHTING CONTROLS CERTIFICATE OF COMPLIANCE. Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3. Date Prepared: 03-31-20. Section: NRCC-LTI-02-E (Page 1 of 3).

STATE OF CALIFORNIA INDOOR LIGHTING - LIGHTING CONTROLS CERTIFICATE OF COMPLIANCE. Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3. Date Prepared: 03-31-20. Section: NRCC-LTI-02-E (Page 2 of 3).

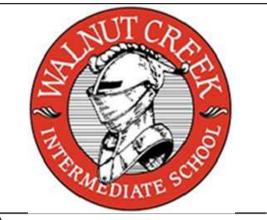
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STATE OF CALIFORNIA INDOOR LIGHTING POWER ALLOWANCE CERTIFICATE OF COMPLIANCE. Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3. Date Prepared: 03-31-20. Section: NRCC-LTI-03-E (Page 1 of 4).

STATE OF CALIFORNIA INDOOR LIGHTING POWER ALLOWANCE CERTIFICATE OF COMPLIANCE. Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3. Date Prepared: 03-31-20. Section: NRCC-LTI-03-E (Page 2 of 4).

STATE OF CALIFORNIA INDOOR LIGHTING POWER ALLOWANCE CERTIFICATE OF COMPLIANCE. Project Name: WALNUT CREEK INTERMEDIATE SCHOOL, INC 3. Date Prepared: 03-31-20. Section: NRCC-LTI-03-E (Page 3 of 4).

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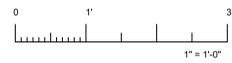
WCKM Electrical Consultants Incorporated 3397 Mt. Diablo Blvd., Suite C Lafayette, CA 94549 Tel: 925.385.0649 19-002 INC 1

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HIBSER YAMAUCHI Architects, Inc. 300 - 27th Street Oakland, CA 94612 510.446.2222 ext. 510.446.2211 fax 510.446.2222. Project: WALNUT CREEK SCHOOL DISTRICT 2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597. Project: MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III. Sheet Title: ELECTRICAL TITLE 24 INTERIOR LIGHTING. Client Project Number: AS NOTED. Sheet: E0.09c. Sheet 79 of 95.





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**GENERAL NOTES**

- EXISTING SITE POWER DISTRIBUTION IN THIS INCREMENT TO REMAIN.

**SHEET NOTES**



Revisions				
No.	Revisions	By	Date	Appr.



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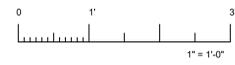
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**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**ELECTRICAL EXISTING SITE LIGHTING AND POWER PLAN**

Client Project Number:	Client Proj. #
Scale: AS NOTED	Sheet
Drawn By: DAM	<b>E1.01Sc</b>
Checked By: TLK	
Issue Date: 8/25/20	
Sheet 81 of 95	

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**GENERAL NOTES**

1.

**SHEET NOTES**

- ◆ EXTEND EXISTING LOW VOLTAGE CONDUITS TO NEW IDF ROOM.
- ◆ EXISTING FIBER OPTIC CABLE TO IDF 600 TO BE REPLACED WITH NEW.



Revisions				
No.	Revisions	By	Date	Appr.



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HY ARCHITECTS JOB NUMBER 5241

Facility  
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2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project  
**MODERNIZATION AND RECONFIGURATION PROJECT  
INCREMENT III**

Sheet Title  
**ELECTRICAL EXISTING SITE  
SIGNAL PLAN**

Client Project Number: Client Proj. #

Scale: AS NOTED Sheet  
Drawn By: DAM  
Checked By: TLK  
Issue Date: 8/25/20

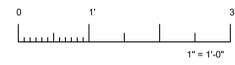
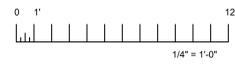
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Sheet 82 of 95

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**ELECTRICAL EXISTING SITE SIGNAL PLAN 1" = 40'-0" 1**



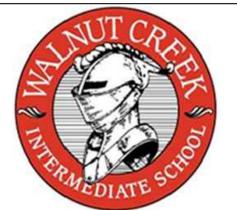
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**GENERAL NOTES**

1.

**SHEET NOTES**

- ◆ REPLACE EXISTING FIBER OPTIC CABLE TO BUILDING 600 WITH NEW.
- ◆ PROVIDE NEW 2" CONDUIT AND FIBER OPTIC CABLE FROM NEW IDF 600 TO KITCHEN IDF.
- ◆ PULL NEW FIRE ALARM CABLE IN EXISTING CONDUIT.



Revisions				
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Facility  
 WALNUT CREEK SCHOOL DISTRICT  
 2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**ELECTRICAL REVISED SITE SIGNAL PLAN**

Client Project Number: Client Proj. #

Scale: AS NOTED Sheet  
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 Checked By: TLK  
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**E1.04Sc**

Sheet 83 of 95

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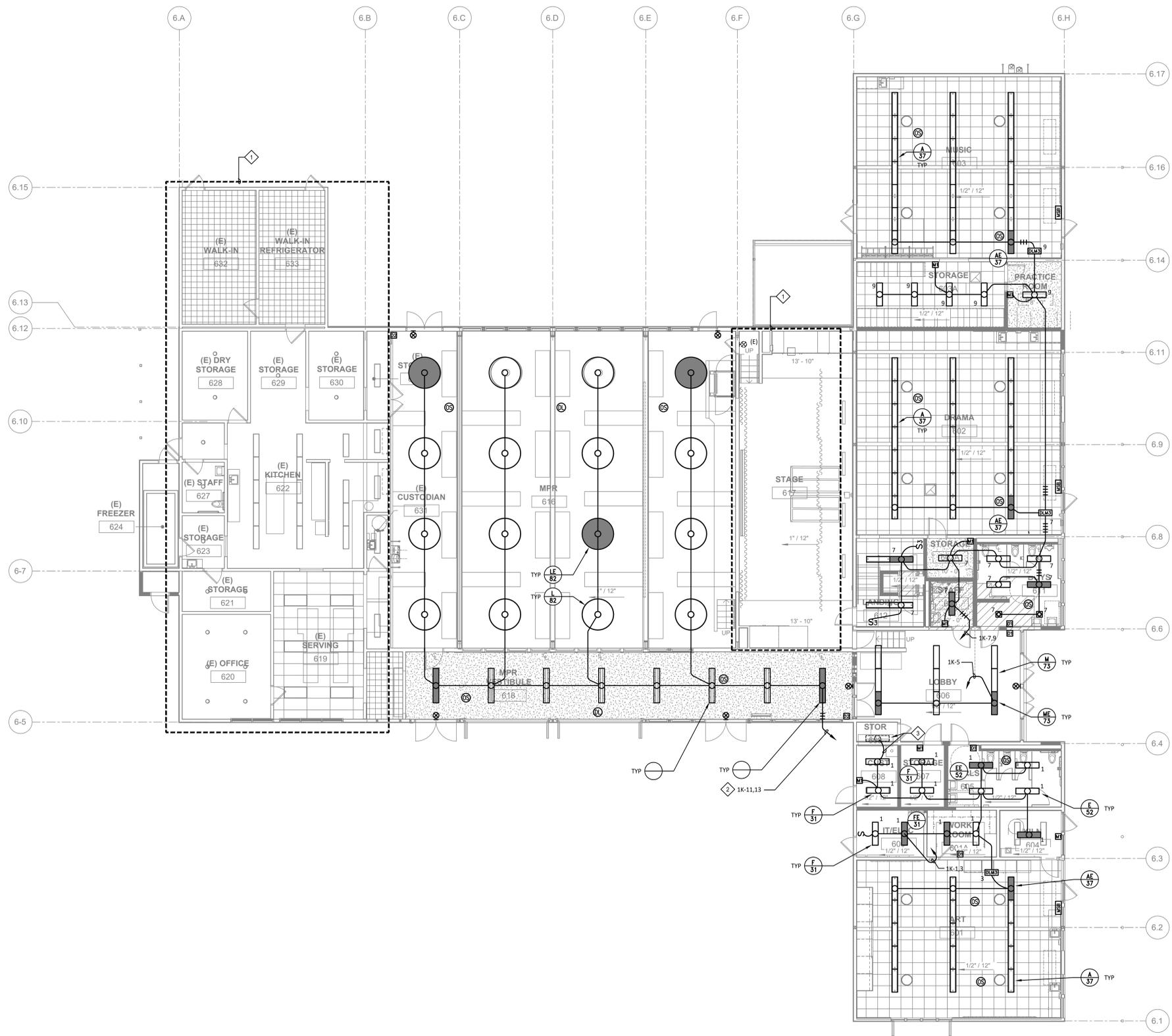


**ELECTRICAL REVISED SITE SIGNAL PLAN 1" = 40'-0" 1**





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**GENERAL NOTES**

- ALL LIGHT FIXTURES AND CONTROLS ARE TO REMAIN, U.O.N.

**SHEET NOTES**

- ◊ EXISTING LIGHTING AND CONTROLS IN THIS AREA TO REMAIN.
- ◊ CONNECT NEW FIXTURES TO EXISTING CIRCUITS.
- ◊ RECONNECT EXISTING LIGHT FIXTURE TO NEW CIRCUITING.



Revisions				
No.	Revisions	By	Date	Appr.

**WJRM**

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 Tel: 925.385.0649  
 19-002 INC 1

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Architect/Engineer Of Record:



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 2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project  
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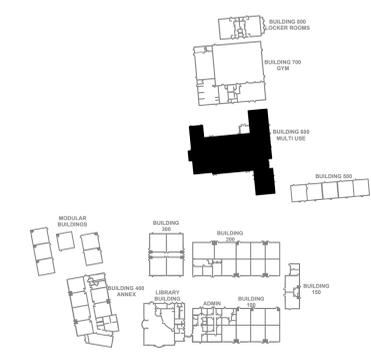
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**ELECTRICAL REVISED LIGHTING PLAN BUILDING 600**

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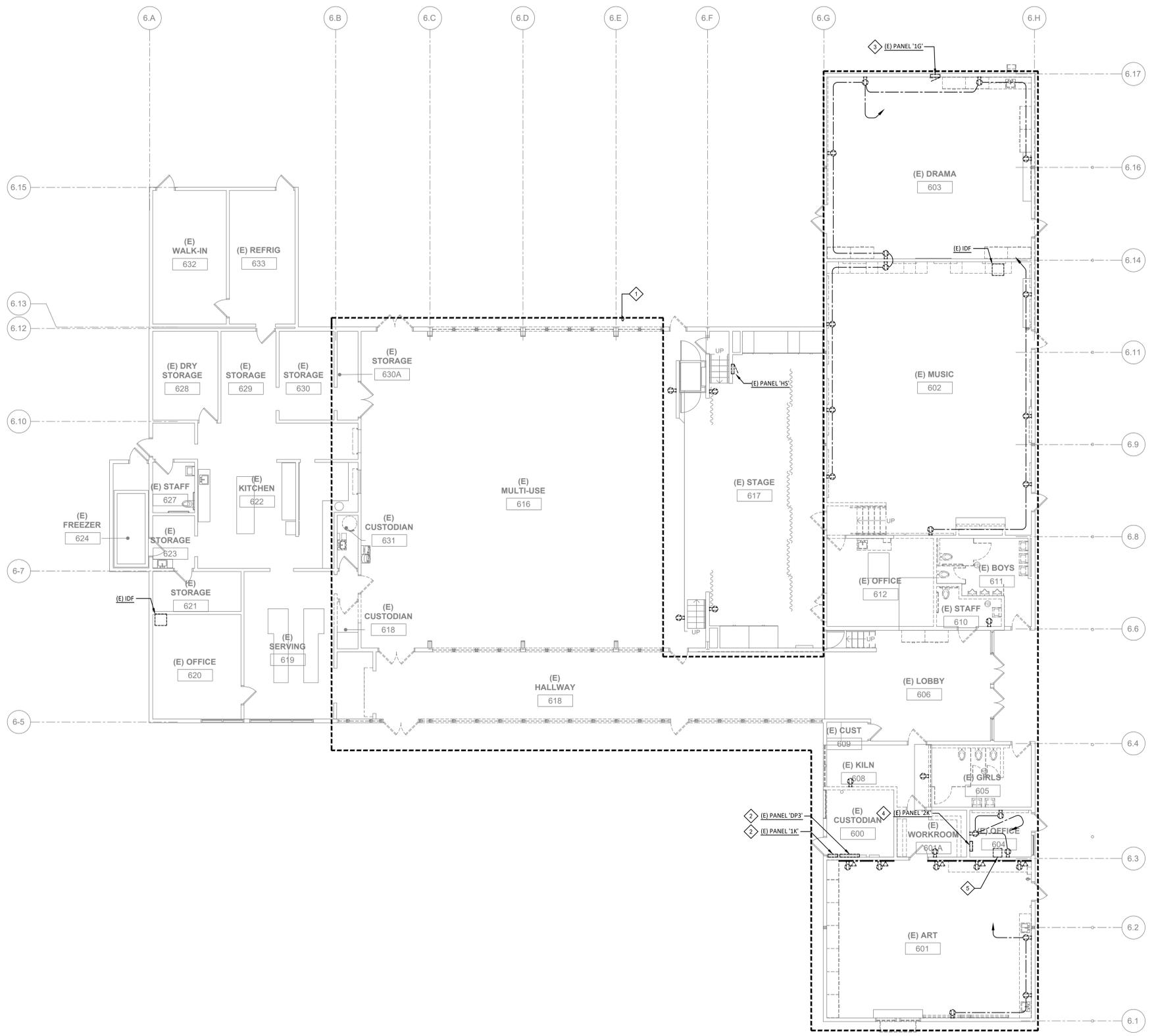
Sheet 85 of 95



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**GENERAL NOTES**

1. ALL POWER AND DATA TO REMAIN, U.O.N.

**SHEET NOTES**

- 1. EXISTING POWER AND DATA TO BE REMOVED.
- 2. EXISTING PANEL TO REMAIN.
- 3. EXISTING PANEL TO BE DISCONNECTED AND REMOVED.
- 4. EXISTING PANEL TO BE REMOVED. EXTEND CIRCUITS TO NEW PANEL.
- 5. EXISTING IDF TO BE REMOVED.



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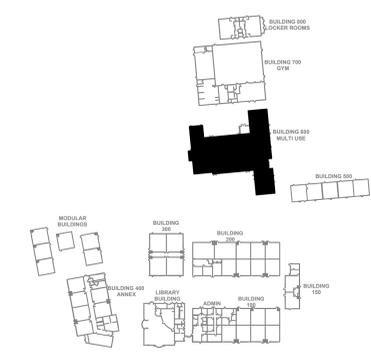
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**ELECTRICAL DEMOLITION POWER AND DATA PLAN BUILDING 600**

Client Project Number: Client Proj. #

Scale: AS NOTED Sheet  
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Checked By: TLK  
Issue Date: 8/25/20

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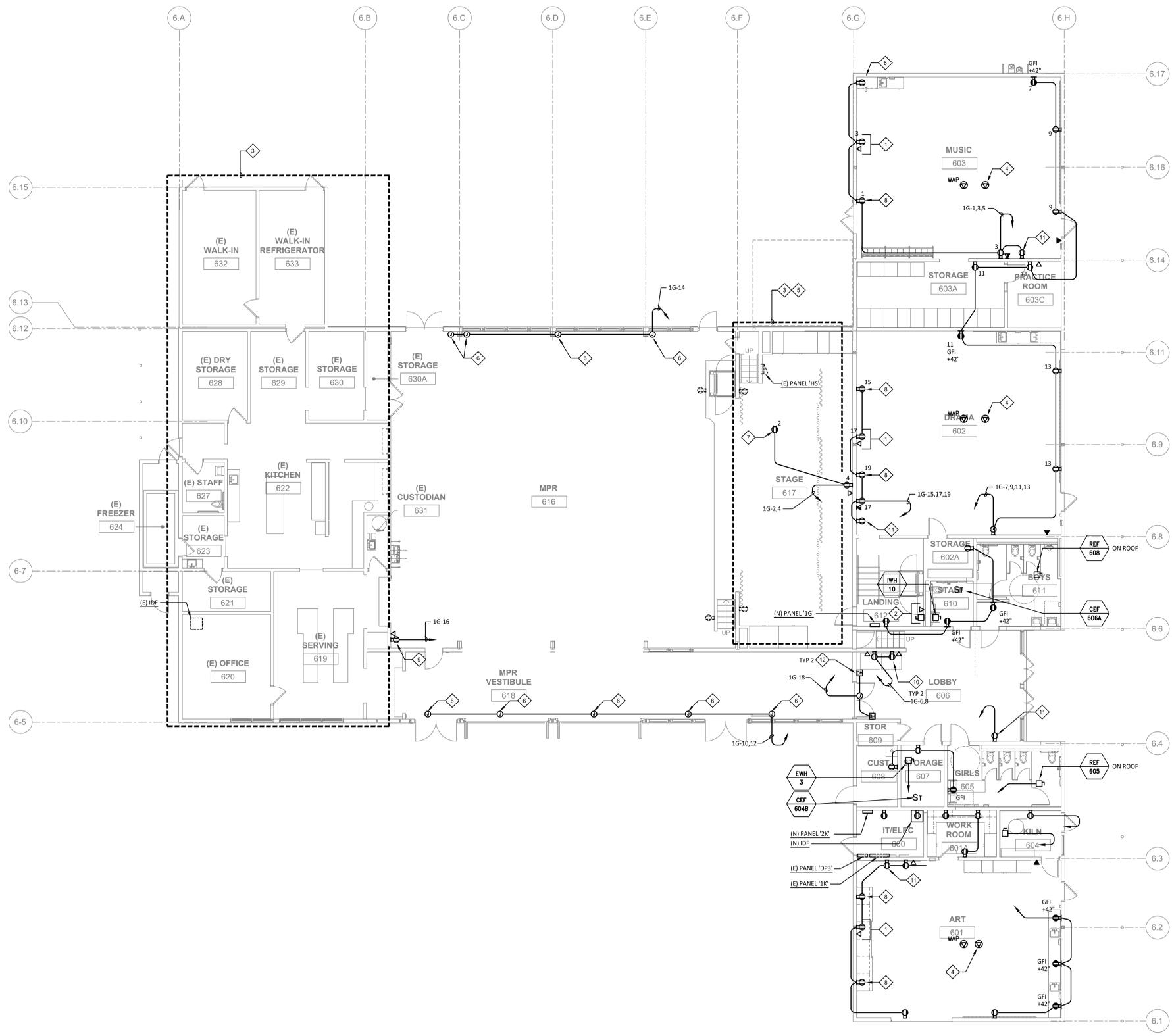
Sheet 86 of 95



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**GENERAL NOTES**

- ALL POWER, DATA, CLOCK/PAGING, INTRUSION ALARM AND FIRE ALARM SYSTEMS IN THESE BUILDINGS ARE TO BE REPLACED WITH NEW.

**SHEET NOTES**

- 1 POWER AND DATA IN TEACHING CABINET FOR PRINTER.
- 2 POWER AND TELEPHONE FOR LIFT.
- 3 EXISTING POWER AND DATA IN THIS AREA TO REMAIN.
- 4 (2) 20' CAT 6 COILS FOR FUTURE.
- 5 PROVIDE INFRASTRUCTURE FOR NEW AV SYSTEM TO INCLUDE CONDUIT AND BOXES FOR SPEAKERS IN MPR SPACE, PROJECTOR, PROJECTION SCREEN. ALSO PROVIDE FOR NEW AV CABINET ON STAGE FOR CONTROLS OF SYSTEM.
- 6 PROVIDE POWER FOR MECHOSHADOWS.
- 7 PROVIDE POWER FOR PROJECTION SCREEN.
- 8 DEDICATED POWER FOR CHARGING CART IN CABINET.
- 9 POWER AND DATA FOR MENU BOARD AT +5'-0" AFF.
- 10 POWER AND DATA FOR VENDING.
- 11 POWER FOR MONITOR AT +5'-0".
- 12 PROVIDE 120V POWER FOR DOOR HOLDERS.



Revisions				
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Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**ELECTRICAL REVISED POWER AND DATA PLAN BUILDING 600**

Client Project Number: Client Proj. #

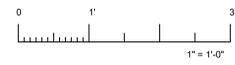
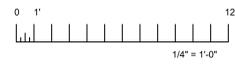
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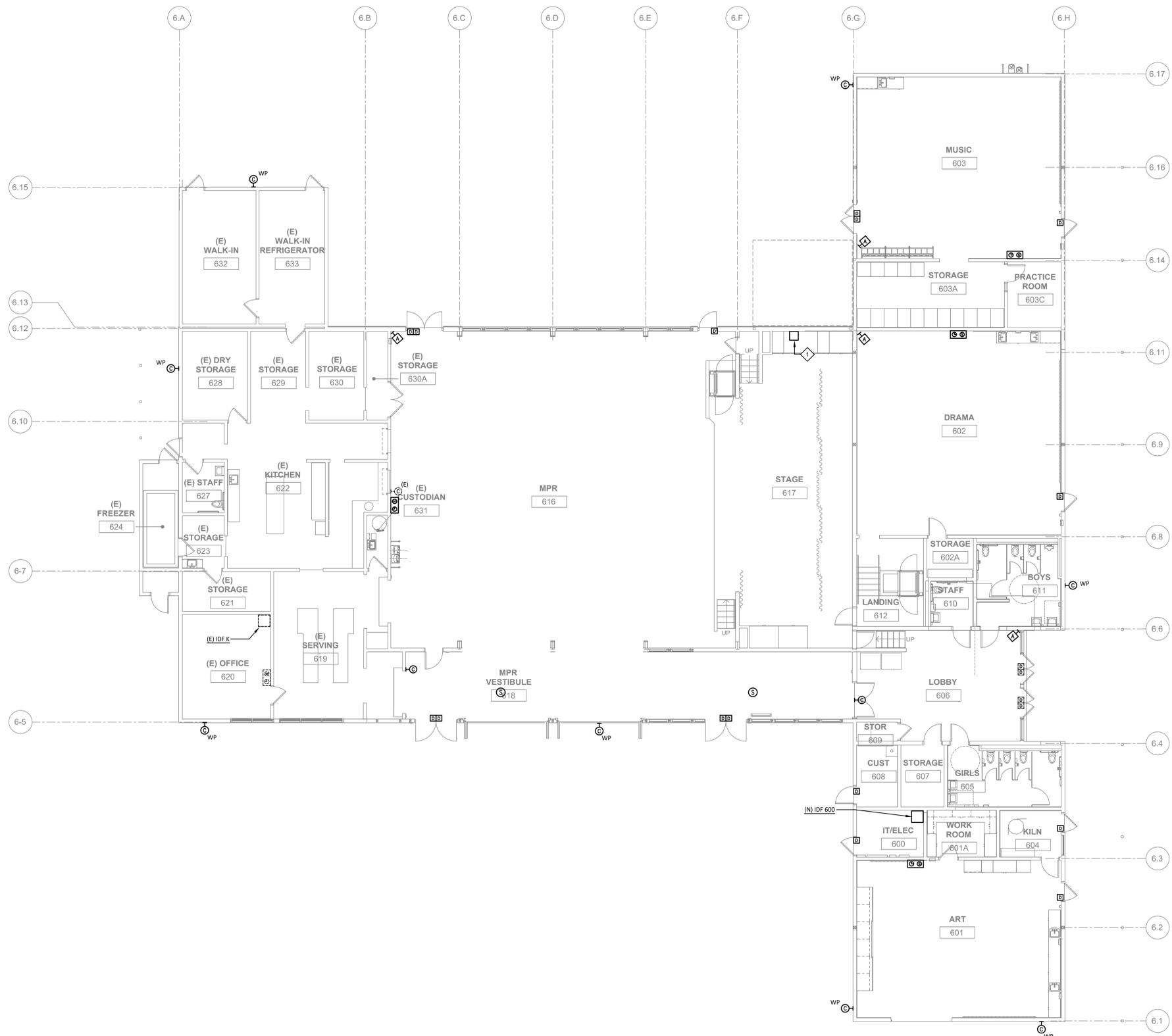
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**GENERAL NOTES**

- SEE WIRING DIAGRAMS FOR CABLING REQUIREMENTS.

**SHEET NOTES**

- ◇ PROVIDE NEW AUDIO/VISUAL CONTROLS IN EXISTING CABINET.



Revisions				
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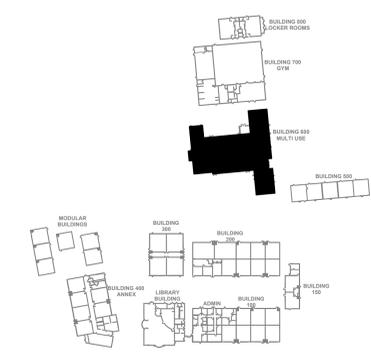
Project  
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Sheet Title  
**ELECTRICAL REVISED SIGNAL PLAN BUILDING 600**

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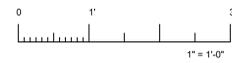
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CAMPUS FIRE ALARM OPERATION MATRIX (SOME ITEMS MAY NOT APPLY TO THIS INCREMENT)												
	INPUT	ANNUNCIATE ALARM CONDITION AT FAC	ANNUNCIATE TROUBLE CONDITION AT FAC	ANNUNCIATE ALARM CONDITION AT ANNUNCIATOR	ANNUNCIATE TROUBLE CONDITION AT ANNUNCIATOR	ACTIVATE SPEAKER/STROBE AND SPEAKER/STROBE UNITS THROUGHOUT CAMPUS	ACTIVATE SPRINKLER RISER BELL	SHUTDOWN ASSOCIATED AHU AND FIRE SMOKE DAMPERS	SHUTDOWN CEILING FANS	ACTIVATE ALARM SIGNAL FOR CENTRAL STATION SIGNAL VIA DRY CONTACTS	ACTIVATE TROUBLE SIGNAL FOR CENTRAL STATION SIGNAL VIA DRY CONTACTS	ANNUNCIATE SUPERVISORY AT PANEL AND ANNUNCIATOR AND CENTRAL STATION
MANUAL STATION	X	X	X	X	X	X	X	X	X	X	X	X
HEAT/SMOKE DETECTORS	X	X	X	X	X	X	X	X	X	X	X	X
DUCT DETECTORS	X	X	X	X	X	X	X	X	X	X	X	X
WATER FLOW	X	X	X	X	X	X	X	X	X	X	X	X
TAMPER / PIV SYSTEM TROUBLE	X	X	X	X	X	X	X	X	X	X	X	X
KITCHEN HOOD SUPPRESSION SYSTEM	X	X	X	X	X	X	X	X	X	X	X	X
CARBON MONOXIDE DETECTOR	X	X	X	X	X	X	X	X	X	X	X	X

BILL OF MATERIALS				
QTY.	DESCRIPTION	MODEL #	MANUFACTURER	CSFM LISTING #
1	(E) FIRE ALARM VOICE EVAC CONTROL PANEL WITH INTEGRAL DAC	NFS2-3030	NOTIFIER	7165-0028-0224
38	ADDRESSABLE SMOKE DETECTOR	FSP-851	NOTIFIER	7272-0028-0206
13	ADDRESSABLE 135 DEGREE HEAT DETECTOR	FST-851	NOTIFIER	7270-0028-0196
5	ADDRESSABLE 200 DEGREE HEAT DETECTOR	FST-851H	NOTIFIER	7270-0028-0196
2	ADDRESSABLE MONITOR MODULE	FMM-1	NOTIFIER	7300-0028-0219
3	ADDRESSABLE CONTROL MODULE	FCM-1	NOTIFIER	7300-0028-0219
3	ADDRESSABLE CONTROL RELAY	FRM-1	NOTIFIER	7300-0028-0219
3	ISOLATOR MODULE	ISO-X	NOTIFIER	7300-0028-0261
1	REMOTE POWER SUPPLY	PS-8	COOPER WHEELOK	7315-0785-0167
2	EXTERIOR WEATHERPROOF SPEAKER	ET-1010-R	COOPER WHEELOK	7320-0785-0105
25	INTERIOR WALL MT. SPEAKER/STROBE ADJUSTABLE CANDELA	ET70-24MCM-FR	COOPER WHEELOK	7125-0785-0152
2	INTERIOR WALL MT. STROBE ADJUSTABLE CANDELA	ST	COOPER WHEELOK	7125-0785-0168

RPS #6 PANEL MODULES				
QTY	DESCRIPTION	STANDBY	ALARM	
1	WHEELOK PS-8	0.1290	0.1290	0.1290
PANEL STANDBY CURRENT		0.1290		0.1290
PANEL ALARM CURRENT				0.1290

FIELD DEVICES				
QTY	DESCRIPTION	STANDBY	ALARM	
10	WALL MOUNT SPEAKER/STROBE (15CD)	0.0000	0.0000	0.6000
2	WALL MOUNT SPEAKER/STROBE (30CD)	0.0000	0.0000	0.1940
3	WALL MOUNT SPEAKER/STROBE (75CD)	0.0000	0.0000	0.1650
10	WALL MOUNT SPEAKER/STROBE (110CD)	0.0000	0.0000	0.2200
10	WALL MOUNT SPEAKER/STROBE (135CD)	0.0000	0.0000	0.3000
10	WALL MOUNT SPEAKER/STROBE (185CD)	0.0000	0.0000	0.4000
2	WALL MOUNT STROBE (15CD)	0.0000	0.0000	0.0570
10	WALL MOUNT STROBE (30CD)	0.0000	0.0000	0.0850
10	WALL MOUNT STROBE (75CD)	0.0000	0.0000	0.1350
10	WALL MOUNT STROBE (110CD)	0.0000	0.0000	0.1820
10	WALL MOUNT STROBE (135CD)	0.0000	0.0000	0.2500
10	WALL MOUNT STROBE (185CD)	0.0000	0.0000	0.2530
DEVICE STANDBY CURRENT		0.0000		3.5930
DEVICE ALARM CURRENT				3.5930

TOTAL SYSTEM CURRENT			
DESCRIPTION	STANDBY	ALARM	
CONTROL PANEL	0.1290	0.1290	0.1290
FIELD DEVICES	0.0000	0.0000	3.5930
TOTAL STANDBY CURRENT	0.1290		
X 24 HOUR STANDBY			3.7220
TOTAL ALARM CURRENT		0.0000	0.9205
15 MINUTES OF ALARM (X 25)		0.0680	1.8263
TOTAL BATTERY REQUIREMENT		4.6285	
TOTAL BAT. WITH 20% SAFETY MARGIN		4.8318	
BATTERY SUPPLIED		(2) 12AH	

AUDIO AMPLIFIER #6 BATTERY CALCULATIONS				
PANEL MODULES				
QTY (N)	DESCRIPTION	STANDBY	ALARM	
1	DAA2	0.0120	0.0120	0.0120
1	1/2 WATT SPEAKER	0.0330	0.0000	0.0000
27	1 WATT SPEAKER	0.0660	1.8263	
2	2 WATT SPEAKER	0.1320	0.0000	
PANEL STANDBY CURRENT		0.0120		
PANEL ALARM CURRENT				1.8480
TOTAL SYSTEM CURRENT				
DESCRIPTION	STANDBY	ALARM		
CONTROL PANEL	0.0120		1.8480	
FIELD DEVICES	0.0120		1.8480	
TOTAL STANDBY CURRENT	0.0240			
X 24 HOUR STANDBY			0.5760	
TOTAL ALARM CURRENT		3.6960		
15 MINUTES OF ALARM (X 25)		0.9240		
TOTAL BATTERY REQUIREMENT		1.5000		
20% SAFETY MARGIN		0.3000		
TOTAL BATTERY REQUIREMENT		6.4200		
BATTERY SUPPLIED		(2) 7AH		

FIRE ALARM CONTROL PANEL BATTERY CALCULATIONS				
PANEL MODULES				
QTY (N)	QTY (E)	DESCRIPTION	STANDBY	ALARM
1	1	NFS2-3030 CPU WITH KEYBOARD/DISPLAY	0.3800	0.3800
1	1	LOOP CONTROL MODULE	0.1300	0.1300
1	1	LOOP EXPANDER MODULE	0.1000	0.1000
1	1	POWER SUPPLY WITH CHARGER 24V	0.0520	0.0520
1	1	NETWORK CONTROL	0.1100	0.1100
1	1	ANNUNCIATOR LCD-160	0.3000	0.3000
1	1	DIGITAL VOICE COMMAND - DVC-EM	1.0000	1.0000
1	1	DAA-2	0.5000	0.5000
PANEL STANDBY CURRENT		2.5720		
PANEL ALARM CURRENT				6.8220

FIELD DEVICES				
QTY (N)	QTY (E)	DESCRIPTION	STANDBY	ALARM
1	1	ANNUNCIATOR	0.2000	0.4000
1	1	MANUAL PULL STATION	0.0030	0.0030
38	125	ADDRESSABLE SMOKE DETECTOR	0.00036	0.0587
13	3	ADDRESSABLE 135 DEGREE HEAT DETECTOR	0.00030	0.0048
5	64	ADDRESSABLE 200 DEGREE HEAT DETECTOR	0.00030	0.0207
2	2	DUCT DETECTOR	0.00038	0.0000
2	10	MONITOR MODULE	0.00038	0.0045
3	9	CONTROL MODULE	0.00038	0.0045
10	10	ISOLATOR MODULE	0.00045	0.0050
DEVICE STANDBY CURRENT		0.4989		
DEVICE ALARM CURRENT				2.1662

TOTAL SYSTEM CURRENT			
DESCRIPTION	STANDBY	ALARM	
CONTROL PANEL	2.5720	6.8220	
FIELD DEVICES	0.4989	2.1662	
TOTAL STANDBY CURRENT	3.0709		
X 24 HOUR STANDBY		73.7011	
TOTAL ALARM CURRENT		8.9882	
15 MINUTES OF ALARM (X 25)		2.2471	
TOTAL BATTERY REQUIREMENT		75.9482	
TOTAL BAT. WITH 20% SAFETY MARGIN		91.1378	
BATTERY SUPPLIED		(2) 110 AH	

\* REQUIRES EXTERNAL BATTERY CABINET

## SCOPE OF WORK

PROVIDE AND INSTALL NEW NOTIFIER VOICE EVACUATION FIRE ALARM SYSTEM AS SHOWN ON PLANS.

## TYPE OF SYSTEM

- THIS IS A NEW AUTOMATIC ADDRESSABLE VOICE EVACUATION SYSTEM.
- CLASS 'B' DETECTION.
- CLASS 'B' INITIATION.
- SYSTEM IS A PROTECTED PREMISES AND REQUIRES 24 HOUR STANDBY. - THE SUPERVISING STATION SHALL BE LISTED AS EITHER UFXR OR INITIATING DEVICES FOR AREA OF WORK SHALL BE AUTOMATIC TYPE AS REQUIRED BY FIRE PROTECTION ACT (88575) GREEN OAKS FAMILY ACADEMY MIDDLE SCHOOL.
- BUILDINGS ARE TYPE 'E' OCCUPANCY.
- SYSTEM DESIGNER: TIFFANY L. KANE, WKM ELECTRICAL CONSULTANTS

## APPLICABLE CODES

- 2016 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, CCR)
- 2016 CALIFORNIA BUILDING CODE, VOLUMES 1 AND 2 (PART 2, TITLE 24, CCR)
- (2012 EDITION INTERNATIONAL BUILDING CODE WITH 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ELECTRICAL CODE (PART 3, TITLE 24, CCR)
- (2011 EDITION NATIONAL ELECTRICAL CODE WITH 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA MECHANICAL CODE (PART 4, TITLE 24, CCR)
- (2012 EDITION IPMVD UNIFORM MECHANICAL CODE WITH 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA PLUMBING CODE (PART 5, TITLE 24, CCR)
- (2012 EDITION IPMVD UNIFORM PLUMBING CODE WITH 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ENERGY CODE (PART 6, TITLE 24, CCR)

- 2016 CALIFORNIA FIRE CODE (PART 9, TITLE 24, CCR)
- 2016 CALIFORNIA REFERENCED STANDARDS CODE (PART 12, TITLE 24, CCR)
- TITLE 19 PUBLIC SAFETY - STATE FIRE MARSHAL (CCR)
- NFPA 13, 2016 EDITION, INSTALLATION OF AUTOMATIC SPRINKLER SYSTEMS, AS AMENDED
- NFPA 14, 2016 EDITION, INSTALLATION OF STANDPIPE, PRIVATE HYDRANT AND HOSE SYSTEMS.
- NFPA 24, 2016 EDITION, INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES.
- NFPA 72, 2016 EDITION, NATIONAL FIRE ALARM CODE, AS AMENDED.

## FIRE ALARM SYSTEM NOTES

- FINAL FIRE ALARM TEST SHALL BE MADE WITH THE DSA PROJECT INSPECTOR (PI). LOCAL FIRE AUTHORITY SHALL BE NOTIFIED OF DATE AND TIME OF FINAL FIRE ALARM TESTING AND SHALL ASSIST/ WITNESS SUCH TESTING WHEN ABLE.
- UNDERGROUND AND EXTERIOR CONDUITS WILL HAVE WATER-TIGHT FITTINGS. (CEC 110-11 AND 300-6)
- FIRE ALARM DEVICE MOUNTING HEIGHTS:
  - PULL STATION: 48" TO TOP OF HANDLE ABOVE FINISHED FLOOR. (CEC 380-8c)
  - HORN INTERIOR: MINIMUM 90" TO TOP OF DEVICE ABOVE FINISHED FLOOR, NOT LESS THAN 6" FROM CEILING. (2016 NFPA72-18.4.8.1)
  - WALL MOUNTED STROBE OR HORN/STROBE: MINIMUM 80" TO BOTTOM OF STROBE LENS AND NOT GREATER THAN 96" TO TOP OF STROBE LENS, ABOVE FINISHED FLOOR, NOT LESS THAN 6" FROM CEILING. (2016 NFPA72-18.5.4.1)
- TO ENSURE THAT AUDIBLE PUBLIC MODE SIGNALS ARE CLEARLY HEARD, UNLESS OTHERWISE PERMITTED BY 2016 NFPA72-18.4.3.2 THROUGH 18.4.3.5, THEY SHALL HAVE A SOUND LEVEL AT LEAST 15db ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5db ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, MEASURED 5 ft (1.5 m) ABOVE THE FLOOR IN THE AREA REQUIRED TO BE SERVED BY THE SYSTEM USING THE A-WEIGHTED SCALE (dba). (2016 NFPA72-18.4.3.1)
- AUDIBLE DEVICES SHALL SOUND THE CALIFORNIA UNIFORM FIRE ALARM SIGNAL IN TEMPORAL MODE.
- VISUAL DEVICES SHALL NOT EXCEED 2 FLASHES PER SECOND AND SHALL NOT BE SLOWER THAN 1 FLASH EVERY SECOND. (2016 NFPA72-18.5.2.1)
- FIRE ALARM CONTRACTOR SHALL PROVIDE A "RECORD OF COMPLETION" TO THE PROJECT INSPECTOR (PI) / DSA AFTER COMPLETION OF OPERATIONAL ACCEPTANCE TESTS. (2016 NFPA 72-14.6.2.4 AND FIGURE 14.6.2.4)
- ALL CIRCUITS SHALL BE SUPERVISED AGAINST OPENS, SHORTS AND GROUNDS.
- INSTALLATION OF DEVICES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- MARK ALL WIRES IN ACCORDANCE WITH 760-10.
- ALL OUTSIDE FIRE ALARM DEVICES SHALL BE CSFM LISTED AS WEATHERPROOF TYPE.
- EXISTING CAMPUS FIRE ALARM SYSTEM SHALL NOT BE DISCONNECTED OR TAKEN OUT OF SERVICE WITHOUT WRITTEN PERMISSION FROM SCHOOL DISTRICT. 48 HOUR NOTICE SHALL PROVIDED TO LOCAL FIRE AUTHORITY PRIOR TO FIRE ALARM SYSTEM SHUTDOWN.
- ALL FIRE ALARM WIRING SHALL BE CONTINUOUS WITHOUT SPLICES AND TERMINATED IN TERMINAL BLOCKS OF THE DEVICE OR FIRE ALARM APPROVED TERMINAL BLOCKS IN TERMINAL CABINETS OR JUNCTION BOXES.
- ALL FIRE ALARM WIRING INSTALLED IN UNDERGROUND CONDUIT OR OTHER WET LOCATIONS SHALL BE UL LISTED FOR WET LOCATIONS.
- ALL WIRING TO BE RUN IN FIRE ALARM DEDICATED CONDUIT. ALL NEW FA WIRING SHALL BE INSTALLED IN CONDUIT MINIMUM SIZE 3/4" O.D. USE EXISTING FIRE ALARM CONDUITS WHERE PRACTICAL TO INSTALL A NEW FA WIRING. FIELD VERIFY EXACT EXISTING CONDUIT ROUTING.
- ALL SHIELDS TO BE CONTINUOUS, DRY AND FREE FROM ALL GROUNDS AND SHORTS.
- ELECTRICAL/FIRE ALARM CONTRACTOR SHALL VERIFY EXISTING AVAILABLE ADDRESSES ON EXISTING SYSTEM AND CORRECT ON AS-BUILT DRAWINGS FOR SUBMITTAL TO SCHOOL DISTRICT AT END OF PROJECT.
- THIS CAMPUS HAS AN EXISTING UL LISTED CENTRAL MONITORING STATION: SUPERVISING STATION: AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72, AS AMENDED BY CFC CHAPTER 80. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UFXR OR ULUS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011.
- THE DOCUMENTATION CABINET SHALL BE PROMINENTLY LABELED SYSTEM RECORD DOCUMENTS PER NFPA 72, 7.7.2.4.
- AFTER APPROVAL, SUBSTITUTIONS OF FIRE ALARM MANUFACTURERS SHALL REQUIRE A CHANGE ORDER WITH MANUFACTURER CUT SHEETS AND APPLICABLE CSFM LISTINGS.



Revisions				
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**WKM**

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Architect/Engineer of Record:



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Facility  
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2425 WALNUT BOULEVARD, WALNUT CREEK, CA 94597

Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**ELECTRICAL FIRE ALARM NOTES**

Client Project Number: Client Proj. #

Scale: AS NOTED Sheet

Drawn By: DAM

Checked By: TLK

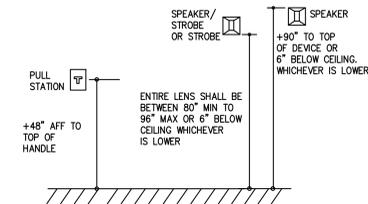
Issue Date: 8/25/20

**E6.01c**

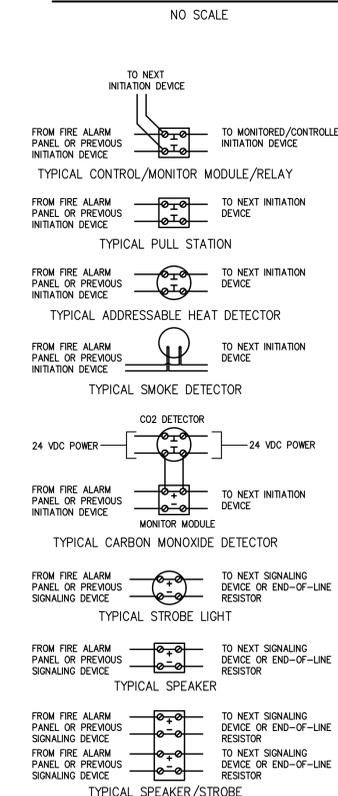
Sheet 92 of 95

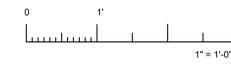
## 2 TYPICAL FIRE ALARM DETAILS

NOT TO SCALE

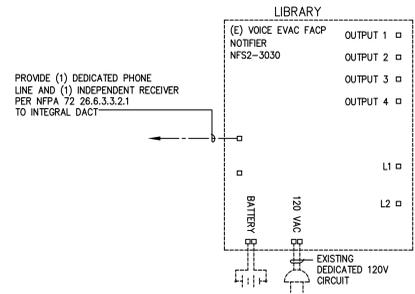


## 1 TYPICAL ELEVATIONS PULLS/SPEAKER/STROBE





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VOLTAGE DROP (VD) CALCULATION

PROJECT NAME: WALNUT CREEK INTERMEDIATE  
SIGNAL CIRCUIT #: S21

DEVICE #	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
GAUGE WIRE	12	12	12	12	12	12	12	12	12	12
DISTANCE (FT)	10	15	10	15	15	35	10	5	10	10
AMPS OF DEVICE	0.06	0.22	0.06	0.06	0.092	0.165	0.06	0.06	0.06	0.06
TOTAL_AMPS@DEV.	1.397	1.337	1.117	1.057	0.997	0.905	0.74	0.68	0.62	0.56
VOLT. DROP @ DEV.	0.04621	0.066338	0.036948	0.052445	0.049468	0.104775	0.024478	0.011247	0.020508	0.018524

DEVICE #	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th
GAUGE WIRE	12	12	12	12	12	12	12	12	12	12
DISTANCE (FT)	15	40	5							
AMPS OF DEVICE	0.22	0.06	0.22	0	0	0	0	0	0	0
TOTAL_AMPS@DEV.	0.5	0.28	0.22	0	0	0	0	0	0	0
VOLT. DROP @ DEV.	0.024809	0.037047	0.003639	0	0	0	0	0	0	0

TOTAL CKT. AMPS	1.397 AMPS	WIRE SIZE /M FT.	10 1.24	CIRC. MILS.	10380
TOTAL CKT V DROP =	0.4964 VDC		12 1.59	6530	** FORMULA **
CKT VOLTAGE =	20.4		14 2.52	4110	
% VOLTAGE DROP =	2.4%		16 4.02	2580	1 * FEET * 21.6
			18 6.39	1620	C.M.
			20 10.1	1020	

VOLTAGE DROP (VD) CALCULATION

PROJECT NAME: WALNUT CREEK INTERMEDIATE  
SIGNAL CIRCUIT #: S22

DEVICE #	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
GAUGE WIRE	12	12	12	12	12	12	12	12	12	12
DISTANCE (FT)	15	45	15	30	50	25				
AMPS OF DEVICE	0.06	0.22	0.22	0.22	0.22	0.22				
TOTAL_AMPS@DEV.	1.16	1.1	0.88	0.66	0.44	0.22	0	0	0	0
VOLT. DROP @ DEV.	0.057556	0.163737	0.043663	0.065495	0.072772	0.018193	0	0	0	0

DEVICE #	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th
GAUGE WIRE	12	12	12	12	12	12	12	12	12	12
DISTANCE (FT)										
AMPS OF DEVICE	0	0	0	0	0	0	0	0	0	0
TOTAL_AMPS@DEV.	0	0	0	0	0	0	0	0	0	0
VOLT. DROP @ DEV.	0	0	0	0	0	0	0	0	0	0

TOTAL CKT. AMPS	1.16 AMPS	WIRE SIZE /M FT.	10 1.24	CIRC. MILS.	10380
TOTAL CKT V DROP =	0.4214 VDC		12 1.59	6530	** FORMULA **
CKT VOLTAGE =	20.4		14 2.52	4110	
% VOLTAGE DROP =	2.1%		16 4.02	2580	1 * FEET * 21.6
			18 6.39	1620	C.M.
			20 10.1	1020	

VOLTAGE DROP (VD) CALCULATION

PROJECT NAME: WALNUT CREEK INTERMEDIATE  
SIGNAL CIRCUIT #: S23

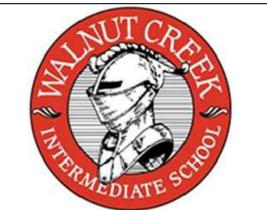
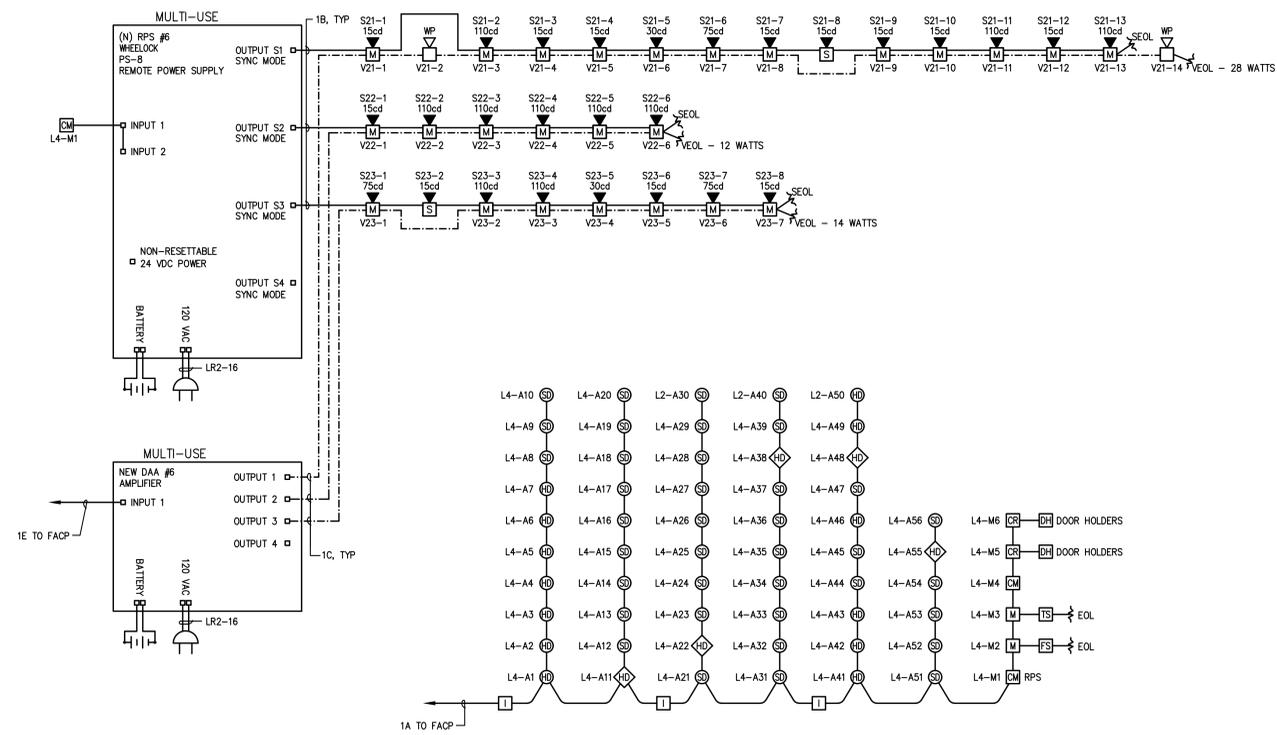
DEVICE #	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
GAUGE WIRE	12	12	12	12	12	12	12	12	12	12
DISTANCE (FT)	65	30	10	35	60	20	50	5		
AMPS OF DEVICE	0.165	0.06	0.22	0.22	0.092	0.06	0.165	0.06	0	0
TOTAL_AMPS@DEV.	1.042	0.877	0.817	0.597	0.377	0.285	0.225	0.06	0	0
VOLT. DROP @ DEV.	0.224038	0.087028	0.027025	0.069117	0.074823	0.018555	0.037213	0.000992	0	0

DEVICE #	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th
GAUGE WIRE	12	12	12	12	12	12	12	12	12	12
DISTANCE (FT)										
AMPS OF DEVICE	0	0	0	0	0	0	0	0	0	0
TOTAL_AMPS@DEV.	0	0	0	0	0	0	0	0	0	0
VOLT. DROP @ DEV.	0	0	0	0	0	0	0	0	0	0

TOTAL CKT. AMPS	1.042 AMPS	WIRE SIZE /M FT.	10 1.24	CIRC. MILS.	10380
TOTAL CKT V DROP =	0.5391 VDC		12 1.59	6530	** FORMULA **
CKT VOLTAGE =	20.4		14 2.52	4110	
% VOLTAGE DROP =	2.6%		16 4.02	2580	1 * FEET * 21.6
			18 6.39	1620	C.M.
			20 10.1	1020	



Revisions

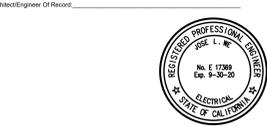
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INCREMENT III  
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Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**ELECTRICAL FIRE ALARM RISER DIAGRAM AND CALCULATIONS**

Client Project Number: AS NOTED Client Proj. #

Scale: AS NOTED Sheet  
Drawn By: DAM  
Checked By: TLK  
Issue Date: 8/25/20

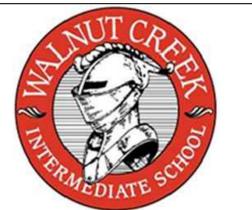
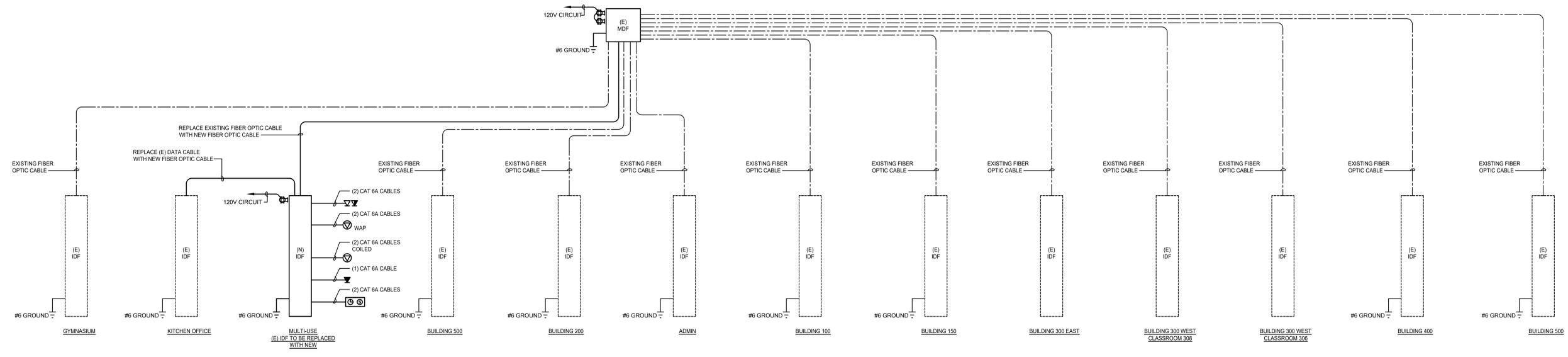
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Sheet 93 of 95

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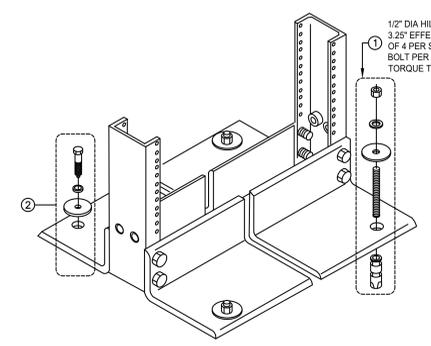
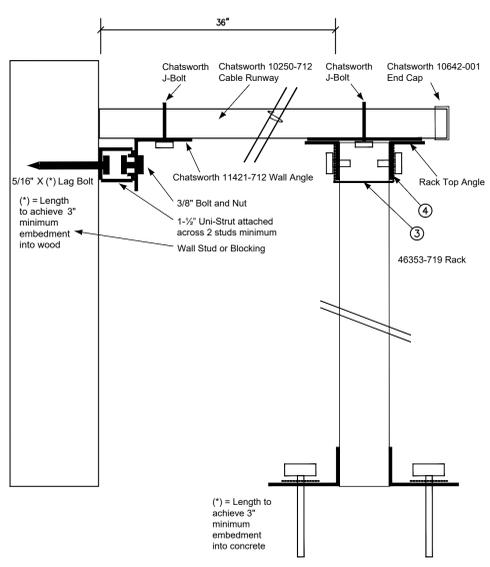
Revisions			
No.	Revisions	By	Date

**WCKM**  
 Electrical Consultants Incorporated  
 3397 Mt. Diablo Blvd., Suite C  
 Lafayette, CA 94549  
 Tel: 925.385.0649  
 19-002 INC 1

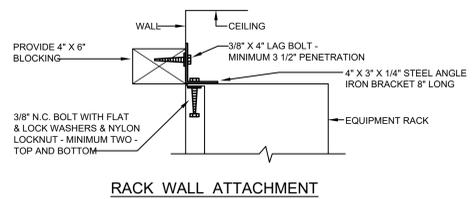
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**INCREMENT III**  
 ISSUE DATE: 8/25/20 BY: MH

**DATA/TELEPHONE DISTRIBUTION RISER DIAGRAM NTS 1**

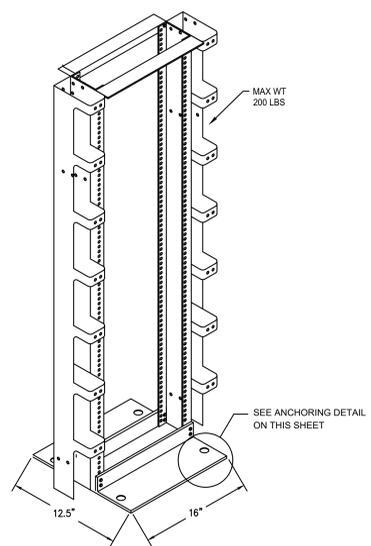
- NOTES:**
- 1 CONCRETE FLOOR ANCHORING
  - 2 WOOD FLOOR ANCHORING
  - 3 USE CHATSWORTH 12730-712 RACK-TO-RUNWAY MOUNTING PLATE TO ALLOW USE TO TOP RACK RU MOUNTING SPACE
  - 4 PANDUIT RGW-31-1 PAINT PIERCING WASHER. USE AT ALL RACK ASSEMBLY BOLTS



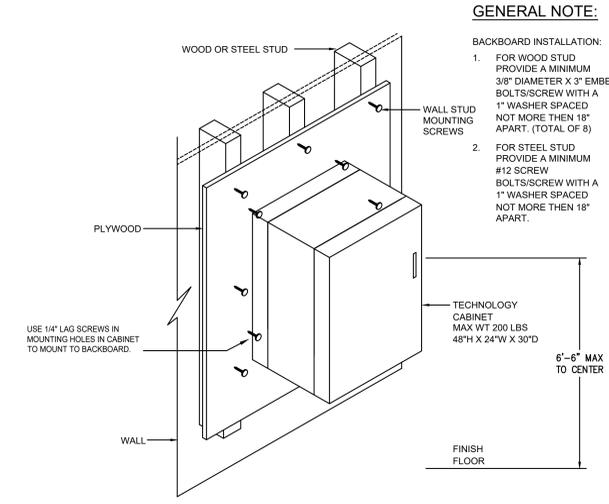
**CONCRETE OR WOOD FLOOR ANCHORING DETAIL**



**RACK WALL ATTACHMENT**



**RACK-ISOMETRIC VIEW**



**GENERAL NOTE:**

- BACKBOARD INSTALLATION:**
1. FOR WOOD STUD PROVIDE A MINIMUM 3/8\"/>
  2. FOR STEEL STUD PROVIDE A MINIMUM #12 SCREW BOLTS/SCREW WITH A 1\"/>

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Project  
**MODERNIZATION AND RECONFIGURATION PROJECT INCREMENT III**

Sheet Title  
**ELECTRICAL DATA DETAILS**

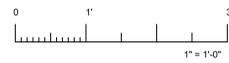
Client Project Number: Client Proj. #  
 Scale: AS NOTED Sheet  
 Drawn By: DAM  
 Checked By: TLK  
 Issue Date: 8/25/20

**E7.01c**  
 Sheet 94 of 95

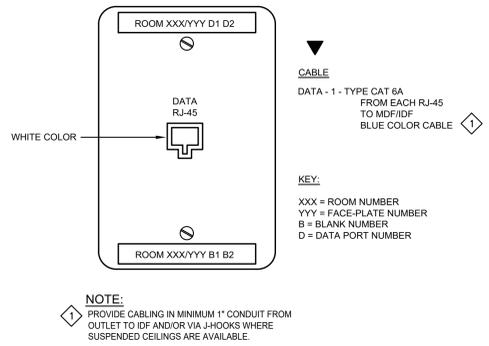
**CABLE RUNWAY/DATA RACK ANCHORING DETAILS NTS 3**

**CABINET MOUNTING DETAIL NTS 2**

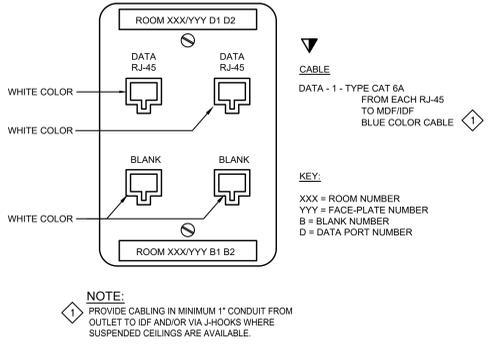
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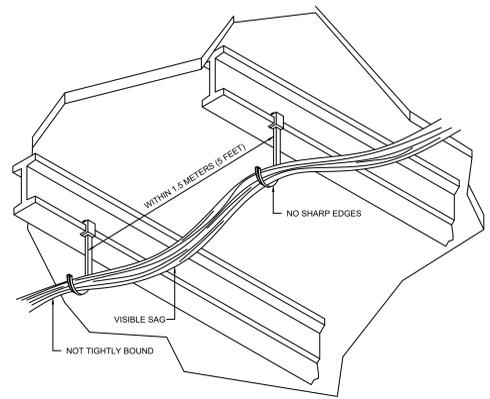
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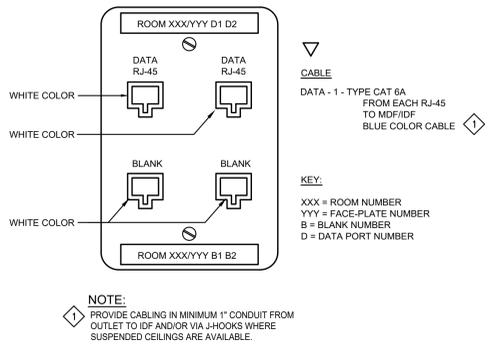
TYPICAL WALL PHONE OUTLET NTS 7



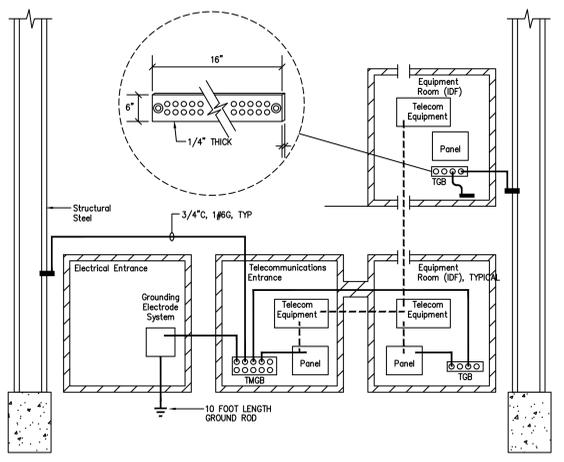
TYPICAL ADMIN/TEACHER'S VOICE/DATA OUTLET NTS 4



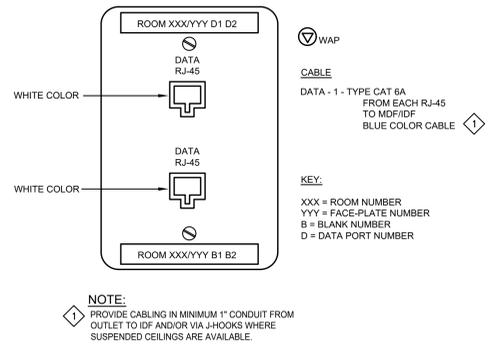
CABLE PATHWAYS DETAIL NTS 1



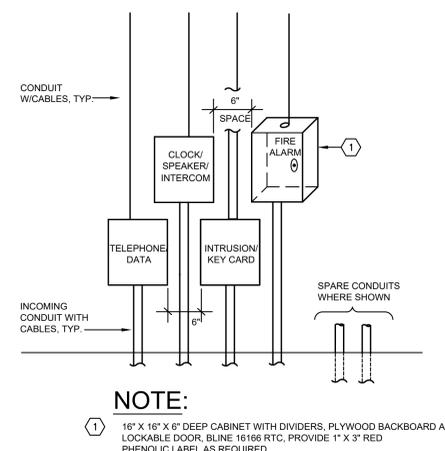
TYPICAL STUDENT DATA OUTLET NTS 5



BUILDING GROUND DETAIL NTS 2



TYPICAL WIRELESS DATA OUTLET NTS 6



TYPICAL STC LAYOUT NTS 3



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Drawn By: DAM  
Checked By: TLK  
Issue Date: 8/25/20

**E7.02c**  
Sheet 95 of 95

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