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TO: City of Wilsonville
Brian Pascoe
Building Inspector/Plans Examiner

FROM: Woofter Architecture
107 SE Washington St. Ste. 228
Portland, Oregon 97214

PROJECT: City of Wilsonville
City Hall Renovation

DATE: November 15, 2019

RE: Addendum No. 1 including Non-Mandatory Pre-Bid Meeting Notes and

ADDENDUM 1

The following items are hereby made a part of the Bidding and Contract Documents effective this date:
November 15, 2019

NON-MANDATORY PRE-BID MEETING NOTES:

Item 1: Refer to attached Pre-Bid Notes with general information as well as answers to questions including Mechanical and Electrical Recording drawings provided for information only.

SPECIFICATION CLARIFICATIONS:

Item 1: Add to Section 01 25 00 included Form ***Substitution Request Form, Bid Phase***

DRAWING CLARIFICATIONS:

None included

ATTACHMENTS:

Non-mandatory Pre-Bid Notes. Mechanical and Electrical Record Drawings dated December 12, 2006.
Substitution Request Form, Bid Phase

End of Addendum

meeting notes

Project: City of Wilsonville
City Hall Renovation
Location: Wilsonville, OR
Regarding: Pre-Bid Meeting Summary Notes
Date of Meeting: Thursday, November 14, 2019
Attendees: Dan Carlson, City of Wilsonville
Brian Pascoe, City of Wilsonville
Miles Woofter, Woofter Architecture
See attached Sign in List

Mtg#/Sec#/Item# Issue/Topic/Action

1. Bidder Questions

1.1.1	Question: Will the City make Mechanical documents available to bidders? Answer: Yes. Record Mechanical and Electrical Drawings Date December 12, 2006 are attached with these notes and are provided for information only.
1.1.2	Question: Is there a Window Schedule? Answer: No Window Schedule is provided. Clarified that question is specific to Division 12 Window Coverings. Refer to Interior Elevations 10 and 12/A2.01 and Reflected Ceiling Plan A1.20 notes for scope of new Blackout Window Shades. Addenda 2 to be issued on Wednesday, November 20 will provide Window Covering specification section.
1.1.3	Question: Will the Entry/Reception Desk remain operational during construction. Answer: Yes, the Reception/Entry desk will remain operational during construction. The Reception/Entry desk will be relocated to the large conference room following demolition of the existing wall. Contractor to include in Bid partial demolition of Office/Conference to accommodate Reception/Entry desk use during renovation of Reception/Entry desk area. Contractor responsible to phase and, or sequence of work to accordingly.

2. Communication/Schedule/Hours of Work/Occupancy During Construction

1.2.1	Communication should be in writing and sent direction to Miles Woofter (miles@wofterarchitecture.com) and copied to Brian Pascoe (pascoe@ci.wilsonville.or.us)
1.2.2	Schedule - As documented on 9 of 39 of ITB - Also as summarized on Agenda

	• Questions are due by Monday, November 18. Including any substitution requests. • Final Addenda will be issued end of day Wednesday, November 20. • Tentative Start is January 6, 2020. Tentative Substantial Completion is April 17, 2020
1.2.3	Hours of Work • Anticipate typical working hours aligned with Building Operation – 8-5 pm. Early hour work is acceptable but after hour work is not anticipated
1.2.4	Occupancy During Construction • Construction is estimated to take 3-4 months to complete. Overall schedule will be established with selected contractor. • The contractor is required to separate areas of construction from occupied areas to maintain safe and required egress as well as manage and control construction debris and dust with hard wall separation.

3. Scope Clarifications / Miscellaneous Items

1.3.1	Refer to Addendum 1 for Substitution Request Form During Bidding
1.3.2	Furniture is shown with a dashed line and is for information only.
1.3.3	Site walk / Building Tour reviewed all areas of work.

End of Notes

[illegible]

LIGHTING			
	AREA LUMINAIRE ARM MOUNTED WITH POLE AND CONCRETE BASE		GROUNDING POINT
	WALL MOUNTED LUMINAIRE		BRANCH PANEL
	RECESSED FLUORESCENT 2' X 4' LUMINAIRE		FLUSH WALL MOUNTED BRANCH PANEL
	SURFACE MOUNTED FLUORESCENT 2' X 4' LUMINAIRE		MAIN DISTRIBUTION PANEL / SUB DISTRIBUTION PANEL
	RECESSED LUMINAIRE		FLEXIBLE CONDUIT
	SURFACE OR PENDANT MOUNTED FLUORESCENT 1' X 4' LUMINAIRE		BRANCH CIRCUIT WIRING. ARROW INDICATES HOME RUN TO PANEL WITH CIRCUITS AS NOTED. WIRE SIZE IS #12 AWG MINIMUM UNLESS NOTED OTHERWISE. SHORT TICK MARKS INDICATE PHASE CONDUCTORS. LONG MARKS INDICATE NEUTRAL CONDUCTORS. A SINGLE CURVED TICK MARK INDICATES INSULATED GREEN GROUND CONDUCTOR. SECOND CURVED MARK INDICATES "ISOLATED GROUND" (GREEN INSULATION WITH YELLOW STRIPE) CONDUCTOR.
	SURFACE OR PENDANT MOUNTED FLUORESCENT 1' X 8' LUMINAIRE		
	SURFACE OR PENDANT MOUNTED FLUORESCENT STRIPLIGHT		CONDUIT CONCEALED IN WALL OR CEILING SPACE
	WALL MOUNTED FLUORESCENT LUMINAIRE		CONDUIT ROUTED BELOW FLOOR / GRADE
	SURFACE MOUNTED LUMINAIRE CONNECTED TO EMERGENCY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT		EXISTING CONDUIT CONCEALED IN WALL OR CEILING SPACE
	EXIT SIGN WALL MOUNTED, ARROW(S) INDICATES DIRECTION IF SHOWN		EXISTING CONDUIT ROUTED BELOW FLOOR / GRADE
	EXIT SIGN CEILING MOUNTED, ARROW(S) INDICATES DIRECTION IF SHOWN		REFERENCE NOTE

	SINGLE POLE SWITCH	<u>ABBREVIATIONS</u>	
	2 = DOUBLE POLE SWITCH	A	AMPERES, AMBER
	3 = THREE-WAY SWITCH	AFF	ABOVE FINISHED FLOOR
	4 = FOUR-WAY SWITCH	AFG	ABOVE FINISHED GRADE
	o THRU z (LOWERCASE) = LUMINAIRE CONTROL DESIGNATION	AIC	AVAILABLE INTERRUPTING CAPACITY
	D = DIMMER	C	CONDUIT, CLOSE, CONTROL
	F = FAN SPEED CONTROL	CLG	CEILING
	K = KEY OPERATED SWITCH	CU	COPPER
	L = LIGHTED HANDLE	(E)	EXISTING TO REMAIN
	M = MANUAL MOTOR STARTER WITH THERMAL OVERLOAD	GFI	GROUND FAULT INTERRUPTER
	P = SWITCH WITH PILOT LIGHT	G, GND	GROUND
	S = SENTRY SWITCH	IG	ISOLATED GROUND
	T = INTERVAL TIMER	KV	KILOVOLT
	W = WEATHER PROOF SWITCH	KVA	KILOVOLT AMPERES
	V = LOW VOLTAGE SWITCH	KW	KILOWATT
	? = DESIGNER DEFINED SWITCH	MCA	MINIMUM CIRCUIT AMPS
	SPECIAL PURPOSE RECEPTACLE. SEE LETTER CODE LIST AT DUPLEX RECEPTACLE FOR OPTIONS	MOCF	MAXIMUM OVERCURRENT PROTECTION
	SINGLE RECEPTACLE. SEE LETTER CODE LIST AT DUPLEX RECEPTACLE FOR OPTIONS	NL	NIGHT LIGHT
	DUPLEX RECEPTACLE	PH	PHASE
	A = ABOVE COUNTER	TTB	TELEPHONE TERMINAL BOARD
	B = CLOCK HANGER	TPP	TYPICAL
	C = FLUSH CEILING MOUNTED	UL	UNDERWRITERS LABORATORIES
	F = ARC FAULT PROTECTED BY BREAKER IN PANEL	V	VOLTS, VOLTAGE
	G = GROUND FAULT CIRCUIT INTERRUPTER	WP	WEATHERPROOF
	H = HOSPITAL GRADE		
	K = CHILD RESISTANT COVER		
	L = ISOLATED GROUND		
	P = PENDANT MOUNTED WITH CORD GRIPS. VERIFY PENDANT LENGTH		
	S = SPLIT WIRED		
	T = TAMPER RESISTANT SHUTTERED RECEPTACLE		
	W = WEATHER PROOF CONTINUOUS COVER AND GFCI PROTECTED		
	E = ON EMERGENCY CIRCUIT		
	DOUBLE DUPLEX RECEPTACLE. SEE LETTER CODE LIST AT DUPLEX RECEPTACLE FOR OPTIONS		
	DOUBLE DUPLEX RECEPTACLE. SPLIT WIRED ON EMERGENCY AND NORMAL POWER		

	MOTOR CONNECTION
	NON-FUSED DISCONNECT SWITCH
	HEAVY DUTY FUSED DISCONNECT SWITCH
	COMBINATION ADJUSTABLE FREQUENCY DRIVE WITH SAFETY DISCONNECT SWITCH
OR	JUNCTION BOX
	TRANSFORMER

▼	TELEPHONE OUTLET WITH 3/4" C. AND PULLSTRING TO ACCESSIBLE CEILING SPACE
▼	COMBINATION TELE/DATA OUTLET WITH 1" C. AND PULLSTRING TO ACCESSIBLE CEILING SPACE
▼	COMBINATION TELE/DATA OUTLET ABOVE COUNTER WITH 1" C. AND PULLSTRING TO ACCESSIBLE CEILING SPACE
Ⓜ	FLUSH FLOOR COMBINATION TELEPHONE/DATA OUTLET AND DUPLEX RECEPTACLE

	CONDUIT ELLED UP
	CONDUIT ELLED DOWN
	CONDUIT/WIRING STUBBED OUT WITH END CAP OR INSULATED PLASTIC BUSHING

TYPE A	DESCRIPTION: PENDANT MOUNTED FLUORESCENT INDIRECT LINEAR LUMINAIRE. HOUSING: 9" WIDE BY 2-3/8" HIGH DIE FORMED 18 GAUGE HOUSING IN LENGTHS AS SHOWN ON DRAWINGS. TWO 1-1/4" WIDE PERFORATED STRIPS IN HOUSING. REFLECTOR: PRECISION DIE-FORMED SEMI-SPECULAR ALUMINUM. MOUNTING: SUSPEND WITH AIRCRFT CABLE AND WHITE CORD FEED. MOUNT BOTTOM OF LUMINAIRE AT 8'-0" AFF. FINISH: ELECTRONIC. BALLAST: ONE F54T5HO LAMP PER 4' SECTION. INPUT WATTS: 58. MANUFACTURERS: LIGHTOLIER LSC-3 SERIES, LEDALITE, CORELITE, OR APPROVED.	TYPE K	DESCRIPTION: HOUSING: WALL MOUNTED FLUORESCENT LUMINAIRE. 6.5" HIGH BY 3.7" DEEP ALUMINUM HOUSING IN LENGTHS AS SHOWN ON DRAWINGS. DIFFUSER: TRANSLUCENT ACRYLIC. MOUNTING: HORIZONTALLY MOUNTED. VERIFY EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL DRAWINGS. FINISH: METALLIC ALUMINUM. BALLAST: ELECTRONIC. LAMP: ONE F54T5HO LAMP PER 4' SECTION. INPUT WATTS: 58. MANUFACTURERS: LIGHTOLIER 40916 SERIES OR APPROVED.	TYPE X	DESCRIPTION: HOUSING: OPTION 1 UNIVERSAL MOUNTED L.E.D. EXIT SIGN. DIE CAST ALUMINUM HOUSING WITH BRUSHED ALUMINUM FACEPLATE AND BLACK TRIM. PROVIDE DIFFUSING LENS. BALLAST: PROVIDE 90 MINUTE NICKEL CADMIUM BATTERY BACK-UP. NOTE: PROVIDE SELF DIAGNOSTIC. RED L.E.D. 2-3. LITHONIA LE ELN SERIES, SURE-LITES CX SERIES, HUBBELL, CHLORIDE, LSI LIGHTING OR APPROVED.
TYPE B	DESCRIPTION: RECESSED FLUORESCENT DOWNLIGHT. HOUSING: 6" NOMINAL DIAMETER HOUSING. REFLECTOR: FEWTER SPECULAR REFLECTOR, SELF FLANGED BALLAST: ELECTRONIC. LAMP: ONE CF32TIT VERTICAL LAMP. INPUT WATTS: 34. MANUFACTURERS: GOTHAM LIGHTING APV SERIES, PORTFOLIO C6 SERIES, LIGHTOLIER, PRESCOLITE, OMEGA OR APPROVED.	TYPE KI	DESCRIPTION: NOT USED.	TYPE X	DESCRIPTION: HOUSING: OPTION 2 UNIVERSAL MOUNTED L.E.D. EXIT SIGN. THERMOPLASTIC HOUSING WITH STENCIL FACE. PROVIDE DIFFUSING LENS. BALLAST: PROVIDE 90 MINUTE NICKEL CADMIUM BATTERY BACK-UP. NOTE: PROVIDE SELF DIAGNOSTIC. RED L.E.D. 2-3. LITHONIA LOW ELN SERIES, SURE-LITES, HUBBELL, CHLORIDE, LSI LIGHTING OR APPROVED.
TYPE BI	DESCRIPTION: SAME AS TYPE 'B' EXCEPT WITH DIMMING BALLAST.	TYPE M	DESCRIPTION: HOUSING: DECORATIVE COMPACT FLUORESCENT PENDANT. 4-1/2" DIAMETER BY 6-3/4" HIGH LUMINOUS CYLINDER WITH METAL CAP. DIFFUSER: LUMINOUS ACRYLIC DIFFUSER. MOUNTING: SJ CORD AND 4-1/2" DIAMETER BY 1/2" HIGH CANOPY. COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS. FINISH: NATURAL ALUMINUM. BALLAST: ELECTRONIC. LAMP: ONE CF26TRI. INPUT WATTS: 28. MANUFACTURERS: SHAPER 461-A SERIES OR APPROVED.	TYPE XI	DESCRIPTION: HOUSING: EDGE LIT L.E.D. EXIT SIGN. INJECTION MOLDED ACRYLIC PANELS. BALLAST: PROVIDE 90 MINUTE NICKEL CADMIUM BATTERY BACK-UP. NOTE: PROVIDE SELF DIAGNOSTIC. RED L.E.D. 2-3. LITHONIA LRP SERIES, SURE-LITES, CHLORIDE/LIGHTGUARD OR APPROVED.
TYPE B3	DESCRIPTION: HOUSING: REFLECTOR: BALLAST: LAMP: INPUT WATTS: MANUFACTURERS:	TYPE N	DESCRIPTION: HOUSING: TRACK LIGHTING WITH LOW VOLTAGE LAMP HOLDER. 2-1/8" DIAMETER BY 2" LONG GIMBAL RING HOUSING FOR LOW VOLTAGE LAMPS LENS: CLEAR GLASS. FINISH: BLACK. NOTE: PROVIDE SINGLE CIRCUIT TRACK IN LENGTHS AS SHOWN ON DRAWINGS. LAMP: ONE 10,000 HOUR LIFE 50 WATT MR16 LOW VOLTAGE LAMP. INPUT WATTS: 55. MANUFACTURERS: HALO L2717P (LOW VOLTAGE) SERIES WITH HALO TRACK CAPRI, LIGHTOLIER OR APPROVED.	TYPE SA	DESCRIPTION: HOUSING: EXTERIOR POLE ARM MOUNTED H.I.D. SITE LUMINAIRE. 18" WIDE BY 31-1/2" LONG BY 6-1/2" HIGH ONE PIECE DIE CAST ALUMINUM HOUSING. LENS: IMPACT RESISTANT TEMPERED GLASS LENS. REFLECTOR: ANODIZED, ALUMINUM SEGMENTED. DISTRIBUTION: TYPE III. MOUNTING: SINGLE HEAD PER POLE. FINISH: BLACK. BALLAST: -20 DEGREE, PULSE START BALLAST. UL LISTED WET. LAMP: ONE 320 WATT PULSE START METAL HALIDE LAMP. INPUT WATTS: 355. MANUFACTURERS: CANADCO GULLWING G18 SERIES OR APPROVED.
TYPE C	DESCRIPTION: SURFACE MOUNTED FLUORESCENT UNDER CABINET STRIP LIGHT. HOUSING: 5" WIDE BY 1-1/8" HIGH BY 4' LONG NOMINAL COLD ROLLED STEEL HOUSING. LENS: TRANSLUCENT OPAL. FINISH: WHITE FINISH. BALLAST: ELECTRONIC. NOTE: PROVIDE ROCKER SWITCH. LAMP: ONE F54T5HO. INPUT WATTS: 58. MANUFACTURERS: ALCKO LIGHTING LITTLE INCH SERIES, NULITE, LIGHTOLIER, HE WILLIAMS OR APPROVED.	TYPE O	DESCRIPTION: NOT USED.	TYPE SB	DESCRIPTION: HOUSING: SAME AS TYPE 'SA' EXCEPT WITH TWO HEADS.
TYPE D	DESCRIPTION: SURFACE MOUNTED LOW PROFILE FLUORESCENT STRIP LIGHT. HOUSING: 2-1/4" HIGH BY 2" WIDE BY 46-1/16" LONG NOMINAL COLD ROLLED STEEL CHANNEL. FINISH: WHITE FINISH. BALLAST: ELECTRONIC. NOTE: PROVIDE WIRE GUARD. LAMP: ONE F54T5HO. . INPUT WATTS: 58. MANUFACTURERS: LITHONIA M55 SERIES, LUMAX, LIGHTOLIER OR APPROVED.	TYPE P	DESCRIPTION: HOUSING: COMPACT FLUORESCENT WALL SCOPCE LENS: OPAL ACRYLIC. MOUNTING: SURFACE MOUNT. CONFIRM MOUNTING HEIGHT WITH INTERIOR DESIGNER PRIOR TO INSTALLATION. FINISH: TBD BY INTERIOR DESIGNER. BALLAST: DIMMING ELECTRONIC. NOTE: SUPPLY WITH 3200 KELVIN LAMP WITH 85 CRI, 3800 LUMEN MINIMUM OUTPUT, GE STUDIOLINE OR EQUIVALENT. LAMP: 55 WATT 3200K BIAX CFL. INPUT WATTS: 57. MANUFACTURERS: BETA-CALCO AXALIS TL OR APPROVED.	TYPE SB	DESCRIPTION: FINISH: BLACK. BALLAST: -20 DEGREE, CWA, HIGH POWER FACTOR BALLAST. LAMP: ONE 100 WATT METAL HALIDE LAMP. MANUFACTURERS: LOUIS LOULSEN SATELIT MINI WITH 12' POLE
TYPE DI	DESCRIPTION: SAME AS TYPE 'D' EXCEPT CHAIN HUNG.	TYPE R	DESCRIPTION: HOUSING: RECESSED DIRECT FLUORESCENT CENTRAL BASKET TROFFER. 2' BY 2' STEEL WITH TWIN MATTE WHITE REFLECTORS. LENS: METAL DIFFUSER STAGGERED ROUND HOLES BACKED WITH WHITE ACRYLIC DIFFUSER. LOUVER: WHITE BLADE LOUVER. DISTRIBUTION: SYMMETRIC DIRECT. MOUNTING: RECESSED IN CEILING. FINISH: WHITE. BALLAST: DIMMING ELECTRONIC. NOTE: SUPPLY WITH 3200 KELVIN LAMP WITH 85 CRI, 3800 LUMEN MINIMUM OUTPUT, GE STUDIOLINE OR EQUIVALENT. PERFORATED BASKET TO BE EVEN WITH THE CEILING PLANE. LAMP: TWO 55 WATT 3200K BIAX CFL. INPUT WATTS: 102. MANUFACTURERS: LITHONIA 24V SERIES, LIGHTOLIER, COLUMBIA, METALUX 2RD1 SERIES, DAYBRITE, HE WILLIAMS OR APPROVED.	TYPE SC	DESCRIPTION: HOUSING: EXTERIOR WALL MOUNTED LUMINAIRE. 15.5" WIDE BY 8" HIGH BY 8.1" DEEP DIE CAST ALUMINUM HOUSING IN HALF CYLINDER SHAPE. LENS: CLEAR TEMPERED GLASS. REFLECTOR: HIGH PERFORMANCE SPECULAR. DISTRIBUTION: NARROW UP - FORWARD FLOOD DOWN. FINISH: BLACK. BALLAST: ZERO DEGREE ELECTRONIC. UL LISTED WET. NOTE: COORDINATE MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL ELEVATIONS. LAMP: ONE CF42TIT. INPUT WATTS: 45. MANUFACTURERS: PACE ROBUSTO (AEDC) SERIES OR APPROVED.
TYPE E	DESCRIPTION: NOT USED.			TYPE SC	DESCRIPTION: HOUSING: EXTERIOR WALL MOUNTED LUMINAIRE. 15.5" WIDE BY 8" HIGH BY 8.1" DEEP DIE CAST ALUMINUM HOUSING IN HALF CYLINDER SHAPE. LENS: CLEAR TEMPERED GLASS. REFLECTOR: HIGH PERFORMANCE SPECULAR. DISTRIBUTION: NARROW UP - FORWARD FLOOD DOWN. FINISH: BLACK. BALLAST: ZERO DEGREE ELECTRONIC. UL LISTED WET. NOTE: COORDINATE MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL ELEVATIONS. LAMP: ONE CF42TIT. INPUT WATTS: 45. MANUFACTURERS: PACE ROBUSTO (AEDC) SERIES OR APPROVED.
TYPE F	DESCRIPTION: HOUSING: LENS: BALLAST: LAMP: INPUT WATTS: MANUFACTURERS:	TYPE R	DESCRIPTION: HOUSING: RECESSED DIRECT FLUORESCENT CENTRAL BASKET TROFFER. 2' BY 2' STEEL WITH TWIN MATTE WHITE REFLECTORS. LENS: METAL DIFFUSER STAGGERED ROUND HOLES BACKED WITH WHITE ACRYLIC DIFFUSER. LOUVER: WHITE BLADE LOUVER. DISTRIBUTION: SYMMETRIC DIRECT. MOUNTING: RECESSED IN CEILING. FINISH: WHITE. BALLAST: DIMMING ELECTRONIC. NOTE: SUPPLY WITH 3200 KELVIN LAMP WITH 85 CRI, 3800 LUMEN MINIMUM OUTPUT, GE STUDIOLINE OR EQUIVALENT. PERFORATED BASKET TO BE EVEN WITH THE CEILING PLANE. LAMP: TWO 55 WATT 3200K BIAX CFL. INPUT WATTS: 102. MANUFACTURERS: LITHONIA 24V SERIES, LIGHTOLIER, COLUMBIA, METALUX 2RD1 SERIES, DAYBRITE, HE WILLIAMS OR APPROVED.	TYPE SC	DESCRIPTION: HOUSING: EXTERIOR RECESSED IN-GROUND H.I.D. FLOODLIGHT. 10.35" DIAMETER BY 12" DEEP NOMINAL MARINE GRADE HOUSING. LENS: HUMAN TOUCH, ADJUSTABLE OPTICS. REFLECTOR: ELECTRONIC. BALLAST: UL LISTED T6. LAMP: ONE 39 WATT T6. INPUT WATTS: 42. MANUFACTURERS: LUMASCOPE LS343 SERIES OR APPROVED.
TYPE G	DESCRIPTION: HOUSING: LENS: BALLAST: UL LISTING: LAMP: INPUT WATTS: MANUFACTURERS:	TYPE R	DESCRIPTION: HOUSING: RECESSED DIRECT FLUORESCENT CENTRAL BASKET TROFFER. 2' BY 2' STEEL WITH TWIN MATTE WHITE REFLECTORS. LENS: METAL DIFFUSER STAGGERED ROUND HOLES BACKED WITH WHITE ACRYLIC DIFFUSER. LOUVER: WHITE BLADE LOUVER. DISTRIBUTION: SYMMETRIC DIRECT. MOUNTING: 		

TYPE J	DESCRIPTION: HOUSING: DIFFUSER: MOUNTING: FINISH: BALLAST: LAMP: INPUT WATTS: MANUFACTURERS:	NOT USED. 36" DECORATIVE COMPACT FLUORESCENT PENDANT. ACRYLIC BOWL MATERIAL WITH METAL TRIM. WHITE ACRYLIC. MOUNTING CONFIGURATION TO BE SELECTED BY OWNER /ARCHITECT. COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS. TRIM AS SELECTED BY ARCHITECT. ELECTRONIC. FOUR CF42TRT. 180. SHAPER 404 SERIES OR APPROVED.	TYPE T1	DESCRIPTION: HOUSING: LOUVER: REFLECTOR: DISTRIBUTION: MOUNTING: FINISH: BALLAST: NOTE:	VIDEENCE POWER KEY SERIES. RECESSED 2X2 FLUORESCENT TELEVISION KEY LIGHT. 23.75" SQUARE BY 7.5" DEEP CONSTRUCTED 20 GAUGE SHROUD WITH .063 FORMED ALUMINUM WITH CR COATED WHITE TGC POLYESTER POWDER COAT FINISH. WHITE ZONE CONTROL SCREEN WIDE. FORMED .020 HIGH PURITY ALUMINUM REFLECTOR WITH 95% REFLECTANCE FINISH. DIRECT. RECESSED. WHITE. DIMMING ELECTRONIC (PHASE). SUPPLY WITH 3200 KELVIN LAMP WITH 85 CRI, 3600 LUMEN MINIMUM OUTPUT, GE STUDIOLINE OR EQUIVALENT. LAMP: INPUT WATTS: MANUFACTURERS:	1. THIS LUMINAIRE SCHEDULE IS NOT COMPLETE WITHOUT A COPY OF THE PROJECT MANUAL CONTAINING THE ELECTRICAL SPECIFICATIONS. 2. VERIFY LUMINAIRE VOLTAGE WITH BRANCH CIRCUIT SUPPLYING POWER TO LUMINAIRE PRIOR TO ORDERING. 3. COMPACT FLUORESCENT LAMPS TO BE 3500K WITH A MINIMUM CRI OF 82. 4. METAL HALIDE LAMPS TO BE 3900K WITH A MINIMUM CRI OF 70. 5. TS LAMPS TO BE 4100K WITH A MINIMUM CRI OF 82. 6. VERIFY AND COORDINATE ALL CEILING TYPES WITH LUMINAIRE LOCATIONS. 7. PROVIDE 12" ADJUSTABILITY IN AIRCRAFT CABLE LENGTH, IF USED, AS DETERMINED BY CONTRACTOR. 8. ALL COMPACT FLUORESCENT LAMPS TO COMPLY WITH FEDERAL TOXIC CHARACTERISTIC LEACHING PROCEDURE (TCLP), WHERE AVAILABLE. 9. ALL STANDARD LENGTH FLUORESCENT LAMPS TO COMPLY WITH FEDERAL TOXIC CHARACTERISTIC LEACHING PROCEDURE (TCLP), WHERE AVAILABLE. 10. SPECIFIED MANUFACTURERS ARE APPROVED TO SUBMIT BID WHERE SPECIFIED. INCLUSION DOES NOT RELIEVE MANUFACTURER FROM PROVIDING PRODUCT AS DESCRIBED.
TYPE J1	DESCRIPTION: HOUSING: DIFFUSER: MOUNTING: FINISH: BALLAST: LAMP: INPUT WATTS: MANUFACTURERS:	14-1/2" DECORATIVE COMPACT FLUORESCENT PENDANT. ACRYLIC BOWL MATERIAL WITH METAL TRIM. WHITE ACRYLIC. SU CORD AND 6-1/4" DIAMETER BY 2-7/8" HIGH CANOPY. COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS. TRIM AS SELECTED BY ARCHITECT. ELECTRONIC. ONE CF32TRT. 34. SHAPER 418 SERIES OR APPROVED.	TYPE V	DESCRIPTION: HOUSING:	SURFACE MOUNT LOW VOLTAGE TRACK. .682" DEEP BY 1.42" WIDE EXTRUDED ALUMINUM CHANNEL, SURFACE MOUNT, SINGLE-CIRCUIT	

DIFFUSER:	WALL MOUNT	LOCATION:	SUITS WITH BARNDOORS.	E0.1	COVER SHEET	E4.2	ELECTRICAL SCHEDULES
MOUNTING:	WALL MOUNT	DISTRIBUTION:	DIRECT.				
	WALL MOUNT CONFIGURATION TO BE SELECTED BY OWNER	MOUNTING:	SURFACE MOUNT.	E1.0	ELECTRICAL SITE PLAN	E5.1	DETAILS - ELECTRICAL
	/ARCHITECT. COORDINATE EXACT MOUNTING HEIGHT		TRD BY INTERIOR DESIGNER.				
	WITH ARCHITECTURAL DRAWINGS.	FINISH:		E2.1	FIRST FLOOR LIGHTING PLAN	E5.2	DETAILS - ELECTRICAL
FINISH:	TERM AS SELECTED BY ARCHITECT.	BALLAST:	DIMMING ELECTRONIC.				
BALLAST:	ELECTRONIC.	NOTE:	PROVIDE SINGLE CIRCUIT TRACK IN LENGTHS AS	E2.2	SECOND FLOOR LIGHTING PLAN		
LAMP:	FORM CF32TRF.		SHOWN ON DRAWINGS.	E3.1	FIRST FLOOR POWER/SIGNAL PLAN		
INPUT WATTS:	140.	LAMP:	ONE 50 WATT MR-16 FLOOD 10,000 HOUR LAMP.	E3.2	SECOND FLOOR POWER/SIGNAL PLAN		
MANUFACTURERS:	SHAPER 404 SERIES OR APPROVED.	INPUT WATTS:	52.	E4.1	ONE-LINE DIAGRAM, PANEL SCHEDULES		
		MANUFACTURERS:	TIMES SQUARE ARCHITECTURAL MR-16 CUBELIGHT				
			OR APPROVED.				

INCOMING ELECTRICAL SERVICE DIVISION OF RESPONSIBILITY					
	ELEC. CONTR.	UTILITY CO.		ELEC. CONTR.	UTILITY CO.
PRIMARY CONDUIT	☒	☐	SECONDARY CONDUIT	☒	☐
PRIMARY CONDUCTORS	☐	☒	SECONDARY CONDUCTORS	☐	☒
TRANSFORMER	☐	☒	C/T ENCLOSURE	☒	☐
TRANSFORMER PAD	☒	☐	C/T's	☒	☐
PRIMARY GROUNDING	☐	☒	METER BASE	☒	☐
BOLLARDS	☒	☐	METER	☐	☒
TRANSFORMER CONNECTIONS	☐	☒	METER GROUNDING	☒	☐
ELECTRIC ROOM DOOR LOCK BOX (OBTAIN FROM POWER COMPANY)	☒	☐			
PGE: CONTACT: LORRAINE KATZ PHONE: (503) 570-4413		VERIZON: CONTACT: KIMBERLY SIMPSON PHONE: (503) 644-9848		COMCAST: CONTACT: MIKE MADLER PHONE: (503) 605-6311	
<u>NOTES:</u> 1. CONTACT AND COORDINATE ALL REQUIREMENTS AND RESPONSIBILITIES WITH SERVING UTILITY COMPANIES PRIOR TO SUBMITTING BID. 2. ALL SERVICE INSTALLATION WORK SHALL BE IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE SERVING UTILITIES. 3. HIGH VOLTAGE CONTRACTOR MUST BE ON CPU'S APPROVED LIST OF ELECTRICAL INSTALLATION CONTRACTORS AND HAVE A COPY OF CPU'S FINAL DESIGN PRINT. 4. INSTALLATION OF HIGH VOLTAGE FACILITIES MUST BE INSPECTED AND APPROVED BY CPU PERSONNEL. 5. ALL HIGH VOLTAGE MATERIAL MUST BE FROM CPU'S APPROVED LIST AND DISTRIBUTORS.					

NOTES THIS SHEET:

- ROUTE TO EXISTING CITY HALL. BORE UNDER ROADWAY, COORDINATE WITH ODOT AND THE CITY OF WILSONVILLE.
- CONNECT TO EXISTING VERIZON VAULT.
- PROVIDE PULL CORD AND INSTALL PER VERIZON REQUIREMENTS.
- ROUTE THRU EXTERIOR LIGHTING CONTACTOR.
- MOUNT ON FENCE NEXT TO GATE OPENING.
- STUB-UP AT EXISTING COMCAST PEDESTAL.
- PROVIDE PULL CORD AND INSTALL PER COMCAST REQUIREMENTS.
- PROVIDE TRANSFORMER PAD TO PGE REQUIREMENTS.

GROUP MACKENZIE

Architecture
Interior Design
Structural Engineering
Transportation Planning
Land Use Planning

Seattle WA
Vancouver WA
Portland OR
503.224.9560
360.695.7879
206.749.9993

Client

Project

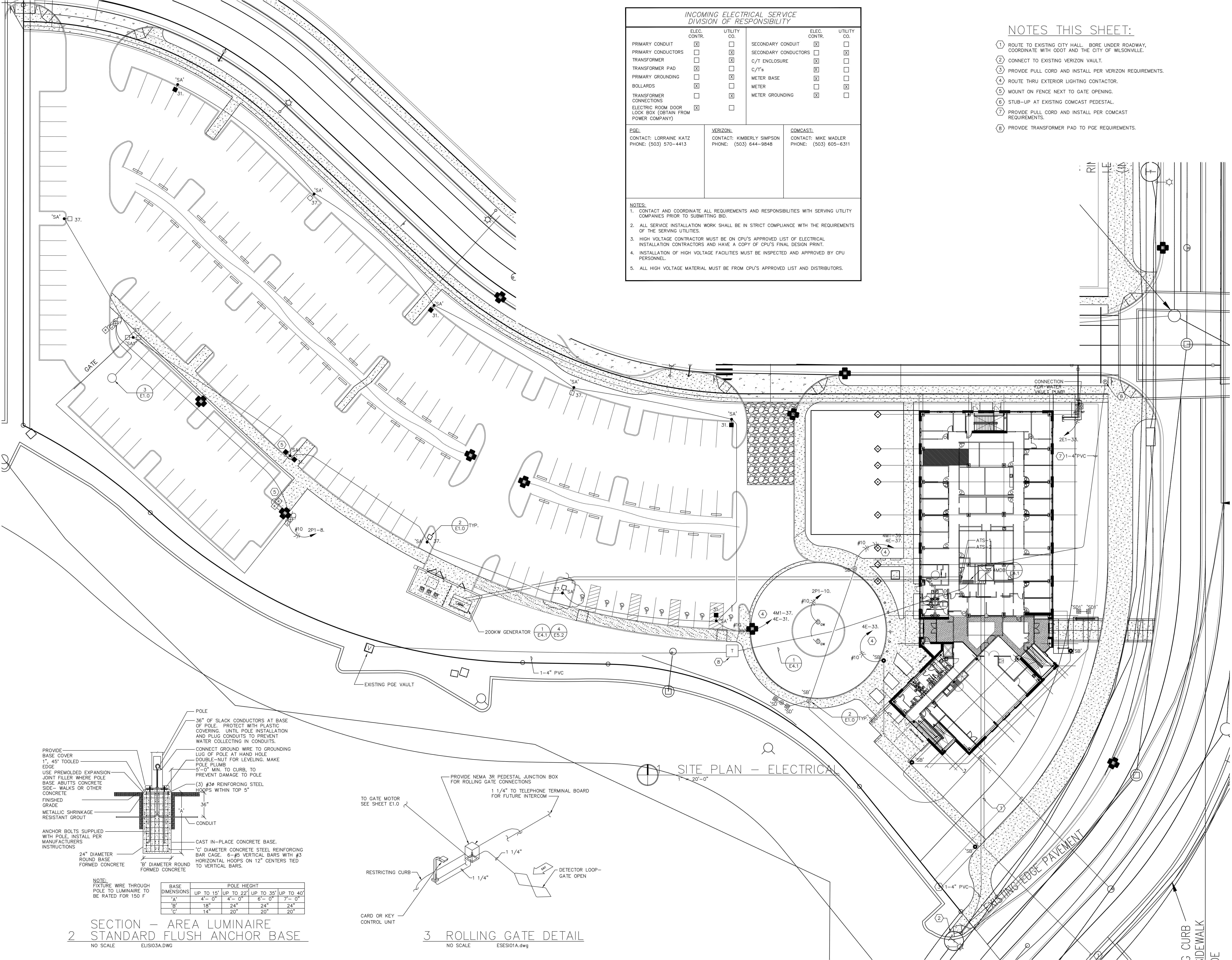
WILSONVILLE
CITY
HALL

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SHEET TITLE:

SITE PLAN -
ELECTRICAL

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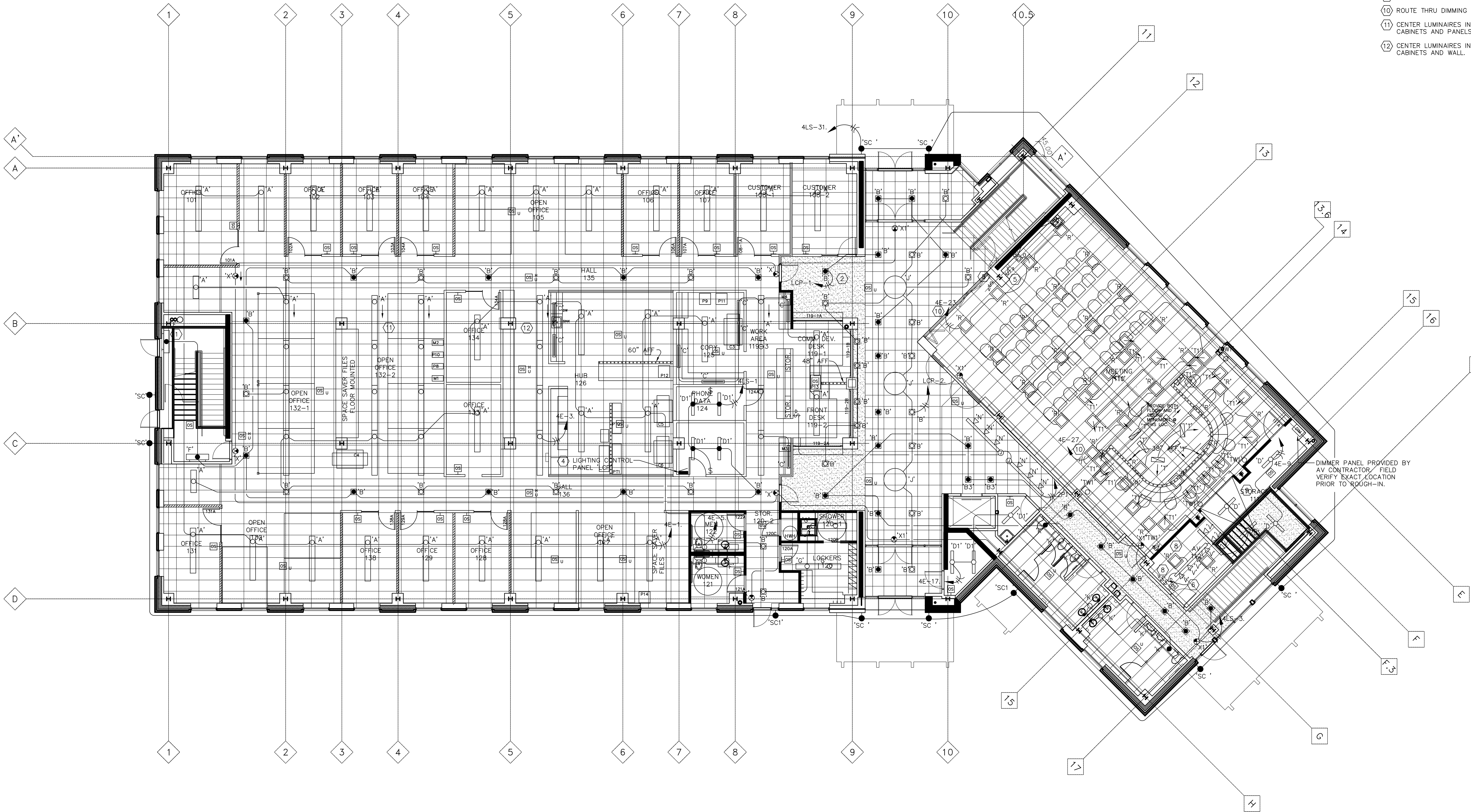
SHEET

E1.0

JOB NO. 2050030.00

NOTES THIS SHEET

- 1 MOUNT LUMINAIRE ON WALL UNDER STAIR LANDING TO PROVIDE LIGHTING UNDER THE STAIRS.
- 2 ROUTE THRU LIGHTING CONTROL PANEL LCP, PROVIDE EMERGENCY OVERRIDE RELAY CONTROL (UL 924).
- 3 ROUTE THRU LIGHTING CONTROL PANEL LCP.
- 4 PROVIDE LC&D LIGHTING CONTROLS GR 1400 CONTROL PANEL - 16 RELAY ENCLOSURE, GR1416DTC-D1 OR APPROVED SWITCHKEEPER SUBSTITUTE- SEE DETAIL 5/E5.2.
- 5 PROVIDE ARCHITECTURAL WALL PRESET DIMMING STATION, 2 BUTTON SWITCH. CRESTRON COMPATIBLE SWITCH.
- 6 PROVIDE (3) WALL DIMMERS FOR EA TRACK LIGHTING SECTION AND FOR FIXTURES TYPE 'R'.
- 7 CRESTRON 8" WIRELESS DOCKING STATION. INTERCONNECT LIGHTING IN NOTE #9 PER MANUFACTURER'S INSTRUCTIONS.
- 8 PROVIDE ARCHITECTURAL WALL PRESET DIMMING STATION, 4 BUTTON SWITCH. CRESTRON COMPATIBLE SWITCH.
- 9 ROUTE THRU ARCHITECTURAL DIMMING PANEL.
- 10 ROUTE THRU DIMMING STATION IN NOTE #8.
- 11 CENTER LUMINAIRES IN AISLE BETWEEN FILE CABINETS AND PANELS.
- 12 CENTER LUMINAIRES IN AISLE BETWEEN FILE CABINETS AND WALL.



1 FIRST FLOOR PLAN - LIGHTING
1/8" = 1'-0"

Client

Project

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SHEET TITLE:
FIRST FLOOR
PLAN -
LIGHTING

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SHEET

E2.1

JOB NO. 2050030.00

Client

Project

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SHEET TITLE:

SECOND FLOOR
PLAN -
LIGHTING

DRAWN BY:

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SHEET

JOB NO. 2050030.00

NOTES THIS SHEET

- NOT USED.
- ROUTE THRU LIGHTING CONTROL PANEL LCP ON FIRST FLOOR, PROVIDE EMERGENCY OVERRIDE RELAY CONTROL (UL 924).
- ROUTE THRU LIGHTING CONTROL PANEL LCP ON FIRST FLOOR.
- NOT USED.
- PROVIDE LC&D CHELSEA DIGITAL SWITCH.

1 SECOND FLOOR PLAN - LIGHTING
1/8" = 1'-0"

Client

Project

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SHEET TITLE:
FIRST FLOOR
PLAN -
POWER/SIGNAL

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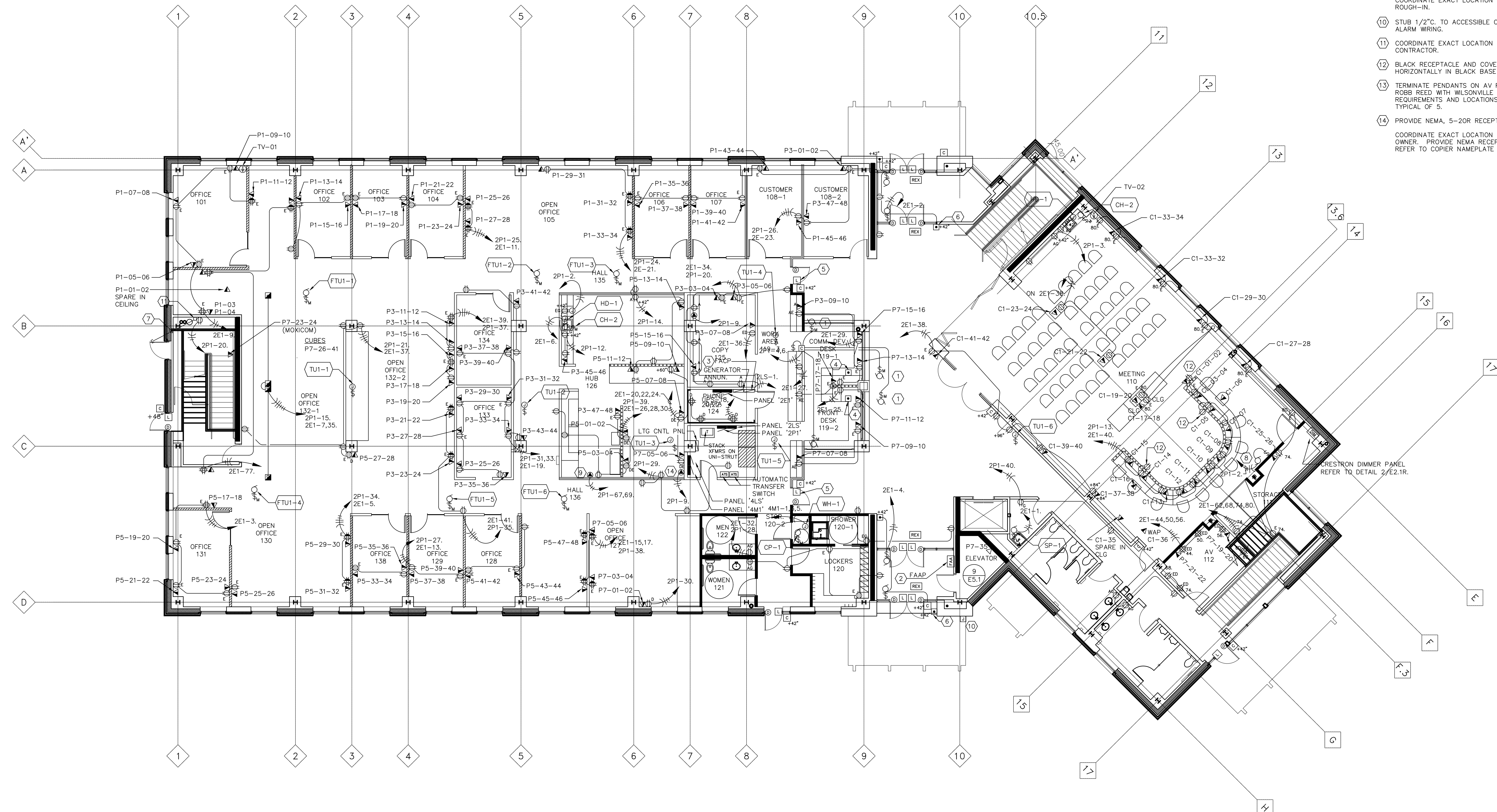
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JOB NO. 20500300.00

NOTES THIS SHEET

- MOTORIZED DOOR CONNECTION.
- FIRE ALARM ANNUNCIATOR PANEL. OBTAIN APPROVAL OF LOCATION FROM FIRE MARSHALL PRIOR TO ROUGH-IN. SEE SPECIFICATION 16721.
- FIRE ALARM CONTROL PANEL, SEE SPECIFICATION 16721.
- DOOR RELEASE REMOTE. INSTALL UNDER DESK. COORDINATE WITH DOOR HARDWARE SCHEDULE AND WITH OWNER FOR EXACT ENTRY DOOR TO BE RELEASED.
- DOOR RELEASE IN NOTE #4.
- HANDICAP ACCESS DOOR ACCUATION CONTROL. COORDINATE WITH DOOR SCHEDULE FOR EXACT HANDICAP MOTOR/COMPRESSOR REQUIREMENTS.
- STUB-OUT (1) 1-1/2"C. 5 FEET FROM BUILDING FOUNDATION, FOR IRRIGATION CONTROL.
- CONNECTION FOR PROJECTION SCREEN. COORDINATE EXACT LOCATION AND REQUIREMENTS PRIOR TO ROUGH-IN.
- PROVIDE BID ALTERNATE FOR NEMA, 6-20R RECEPTACLE. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- STUB 1/2"C. TO ACCESSIBLE CEILING FOR KNOX BOX ALARM WIRING.
- COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.
- BLACK RECEPTACLE AND COVERPLATE MOUNTED HORIZONTALLY IN BLACK BASE OF DIAS CASEWORK.
- TERMINATE PENDANTS ON AV RACKS. COORDINATE WITH ROBB REED WITH WILSONVILLE CITY HALL FOR EXACT REQUIREMENTS AND LOCATIONS PRIOR TO ROUGH-IN. TYPICAL OF 5.
- PROVIDE NEMA, 5-20R RECEPTACLE. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH OWNER. PROVIDE NEMA RECEPTACLE TO MATCH COPIER, REFER TO COPIER NAMEPLATE DATA.



1 FIRST FLOOR PLAN - POWER/SIGNAL
1/8" = 1'-0"

Client

Project

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SHEET TITLE:
SECOND FLOOR
PLAN -
POWER/SIGNAL

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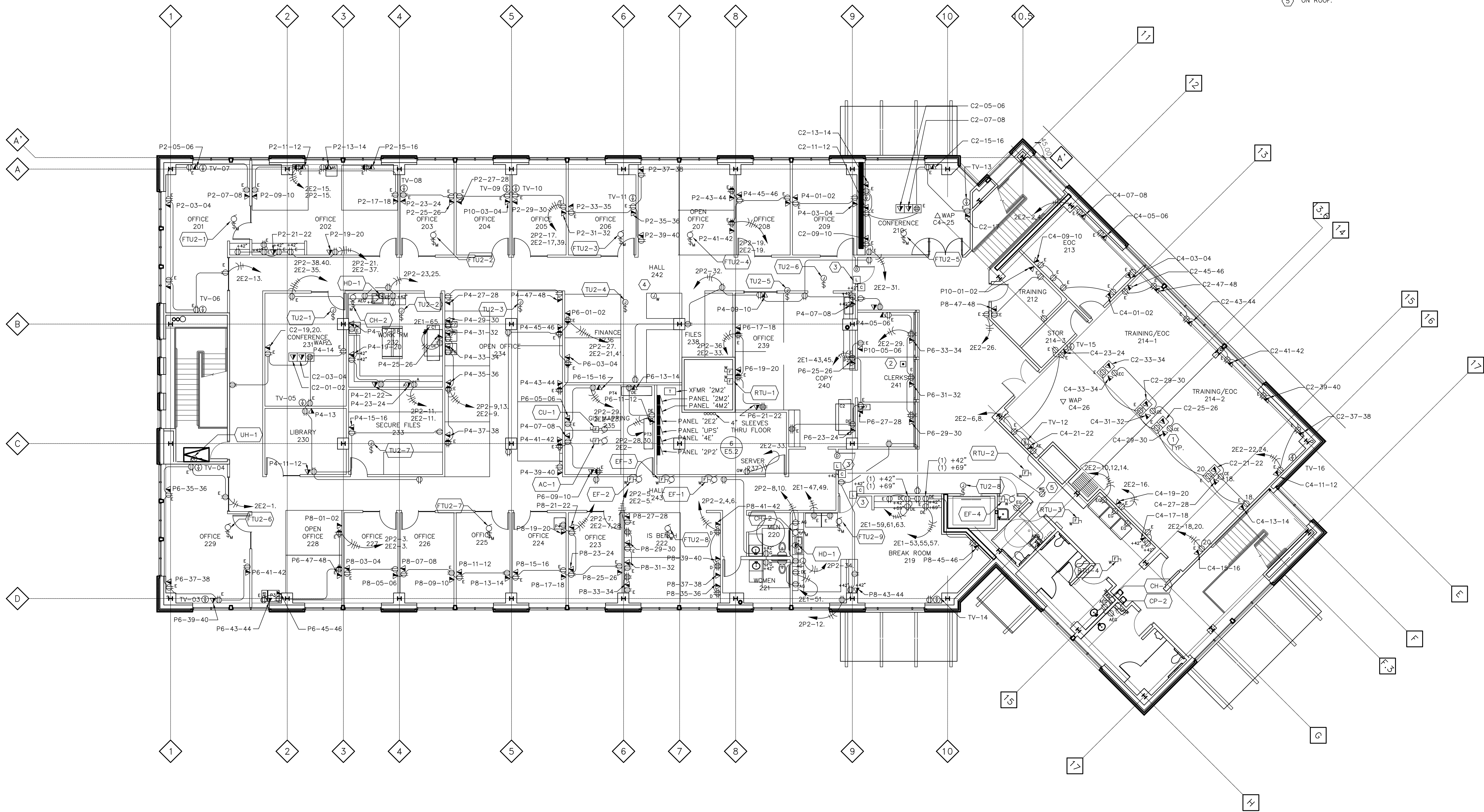
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SHEET

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NOTES THIS SHEET

- 1 PROVIDE BOTH FLOOR AND CEILING MOUNTED RECEPTACLES AND DATA DEVICES.
- 2 PROVIDE DOOR RELEASE, MOUNT UNDER DESK IN ACCESSIBLE LOCATION. COORDINATE WITH DOOR HARDWARE SCHEDULE FOR CONNECTION REQUIREMENTS.
- 3 DOOR TO BE RELEASED IN NOTE #2. COORDINATE WITH DOOR HARDWARE SCHEDULE FOR CONNECTION REQUIREMENTS.
- 4 PROVIDE 2" WEATHER HEAD AND #6 COPPER GROUND CONDUCTOR TO BUILDING GROUND AND STRUCTURAL STEEL. WEATHER HEAD FOR OWNER PROVIDED ANTENNA. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.
- 5 ON ROOF.



Panel 2LS				PANEL SCHEDULE						Project:		IEI 2005-0059 Wilsonville City Hall	
120/208V, 3Ph, 4W.				100A Bus		60A MCB				SURFACE MOUNTED		10-Oct-05	
Ckt. No.	Description / Location	Load (VA)	Load Type	C.B. Amp	C.B. Pole	Phase	C.B. Amp	C.B. Pole	Load (VA)	Load Type	Description / Location	Ckt. No.	
1	FACP	200	G	20	1	A						2	
3	GENERATOR BATTERY CHARGER	200	G	20	1	B						4	
5	GENERATOR HEATER	200	G	20	1	C						6	
7	GENERATOR RECEPTACLE	200	G	20	1	A						8	
9	ELEVATOR PIT REC/LTS	500	G	20	1	B						10	
11	ELEVATOR MACH. ROOM LTG	124	L	20	1	C						12	
13	ELEVATOR MACH. RM. CONTROLLER	200	G	20	1	A						14	
15	ELEVATOR CAR LIGHTS	200	G	20	1	B						16	
17	ELEVATOR PIT SUMP PUMP	540	M	20	1	C						18	
19	SPARE			20	1	A						20	
21	SPARE			20	1	B						22	
23	SPARE			20	1	C						24	
25	SPARE			20	1	A						26	
27	SPARE			20	1	B						28	
29	SPARE			20	1	C						30	
31						A						32	
33						B						34	
35						C						36	
37						A						38	
39						B						40	
41						C						42	
Total Connected Load:Ph A				600VA		5A							
Total Connected Load:Ph B				900VA		8A					#REF!	A rms Available Fault Duty	
Total Connected Load:Ph C				864VA		7A							
Maximum Phase Connected Load: Ph B				900VA									
Total Connected Load (3 X Maximum)				2.7 KVA		7.5 AMPS			Total Demand Load	2.4 KVA	6.7 AMPS		
												Accessories:	
												<User Defined Additional Panel Requirement>	
NOTES:													
1.													
2.													
3.													
4.													
5.													

Panel 4E				PANEL SCHEDULE						PROJECT		IEI 2005-0059 Wilsonville City Hall	
277/480V, 3Ph, 4W, 250A Bus				M.L.O.						SURFACE MOUNTED		8-Feb-06	
Ckt. No.	Description / Location	Load (VA)	Load Type / Amp	C.B. Pole	C.B. Amp	Phase	C.B. Pole	C.B. Amp	Load (VA)	Load Type	Description / Location	Ckt. No.	
1	LIGHTING - 1ST FLOOR OUTER OFFICES	2,790	L 20	1	A	20	1	2976	L	LIGHTING - 2ND FLOOR OUTER OFFICES	2		
3	LIGHTING - 1ST FLOOR INNER OFFICES	2,517	L 20	1	B	20	1	2974	L	LIGHTING - 2ND FLOOR INNER OFFICES	4		
5	LIGHTING - 1ST FLOOR INNER OFFICES	2,426	L 20	1	C	20	1	2669	L	LIGHTING - 2ND FLOOR INNER OFFICES	6		
7	LIGHTING - 1ST FLOOR LOBBY	1,231	L 20	1	A	20	1	1830	L	LIGHTING - 2ND FLOOR EAC	8		
9	LIGHTING - 1ST FLOOR EAC	2,760	L 20	1	B	20	1	1,150	L	LIGHTING - 2ND FLOOR LOBBY	10		
11	RTU-1	11,085	M 70	3	C	20	1			SPARE	12		
13	---	11,085	M ---	---	A	20	1			SPARE	14		
15	---	11,085	M ---	---	B	20	1			SPARE	16		
17	LIGHTING 1ST FLOOR BATHROOMS	960	L 20	1	C	20	1			SPARE	18		
19	LIGHTING 1ST FLOOR LOBBY	1,250	L 20	1	A	20	3	2,786	M	RTU-3	20		
21	LIGHTING - MEETING 110	1,000	L 20	1	B	---	---	2,786	M	---	22		
23	LIGHTING - MEETING 110	1,000	L 20	1	C	---	---	2,786	M	---	24		
25	LIGHTING - MEETING 110	1,000	L 20	1	A	20	3	2,786	M	RTU-4	26		
27	LIGHTING - MEETING 110	1,000	L 20	1	B	---	---	2,786	M	---	28		
29	---	---	---	---	C	---	---	2,786	M	---	30		
31	LIGHTING - PARKING EMERGENCY	2,208	L 20	1	A	90	3	9,418	M	ELEVATOR	32		
33	LIGHTING - PARKING EMERGENCY	450	L 20	1	B			9,418	M		34		
35	LIGHTING - PARKING	2,576	L 20	1	C			9,418	M		36		
37	LIGHTING - TURNABOUT	468	L 20	1	A	125	3	20,694	XFMR "2E"		38		
39					B	--	--	21,954			40		
41					C	--	--	19,794			42		
Total Connected Load: Ph A		60,522 VA			218A								
Total Connected Load: Ph B		59,880 VA			216A								
Total Connected Load: Ph C		55,500 VA			200A								
Maximum Phase Connected Load: Ph A		175,902 VA											
Total Connected Load (3 X Maximum)		175.9 KVA			211.6 AMPS			Total Demand Load	165.9 KVA	199.5 AMPS			
Accessories:													
<User Defined Additional Panel Requirement>													
SOURCE = Panel 4MS													
NOTES:													
1.													
2.													
3.													
4.													
5.													

Panel 4LS				PANEL SCHEDULE						PROJECT:		IEI 2005-0059 Wilsonville City Hall	
277/480V, 3Ph, 4W, 100A Bus				M.L.O.						SURFACE MOUNTED		28-Jun-06	
Ckt. No.	Description / Location	Load (VA)	Load Type	C.B. Amp	C.B. Pole	Phase	C.B. Amp	C.B. Pole	Load (VA)	Load Type	Description / Location	Ckt. No.	
1	EMERGENCY LTG - 1ST FLOOR	1,204	L	20	1	A	20	1	1,247	L	EMERGENCY LTG - 2ND FLOOR	2	
3	EXIT SIGNS - 1ST FLOOR	200	L	20	1	B	20	1	14	L	EXIT SIGNS - 2ND FLOOR	4	
5	LIGHTING - 1ST FLOOR	620	L	20	1	C	20	1	2,890	L	DIAS DIMMER PACK	6	
7	LIGHTING - 2ND FLOOR	540	L	20	1	A						8	
9	SPARE			20	1	B						10	
11	DIAS DIMMER PACK	770	L	20	1	C						12	
13	SPARE			20	1	A						14	
15						B						16	
17	DIAS DIMMER PACK	990	L	20	1	C						18	
19						A						20	
21						B						22	
23	DIAS DIMMER PACK	990	L	20	1	C						24	
25						A						26	
27						B						28	
29	DIAS DIMMER PACK	495	L	20	1	C						30	
31	LIGHTING - PARKING	940	L	20	1	A						32	
33						B						34	
35						C						36	
37						A	30	3	600		TRANSFORMER '2LS'	38	
39						B	-	-	900		-	40	
41						C	-	-	864		-	42	
Total Connected Load: Ph A		4,537VA		16A					17,431A rms Available Fault Duty				
Total Connected Load: Ph B		1,114VA		4A									
Total Connected Load: Ph C		7,623VA		28A									
Maximum Phase Connected Load: Ph C		7,623VA											
Total Connected Load (3 X Maximum)		22.9KVA		27.5AMPS					Total Demand Load		13.6KVA	16.4AMPS	

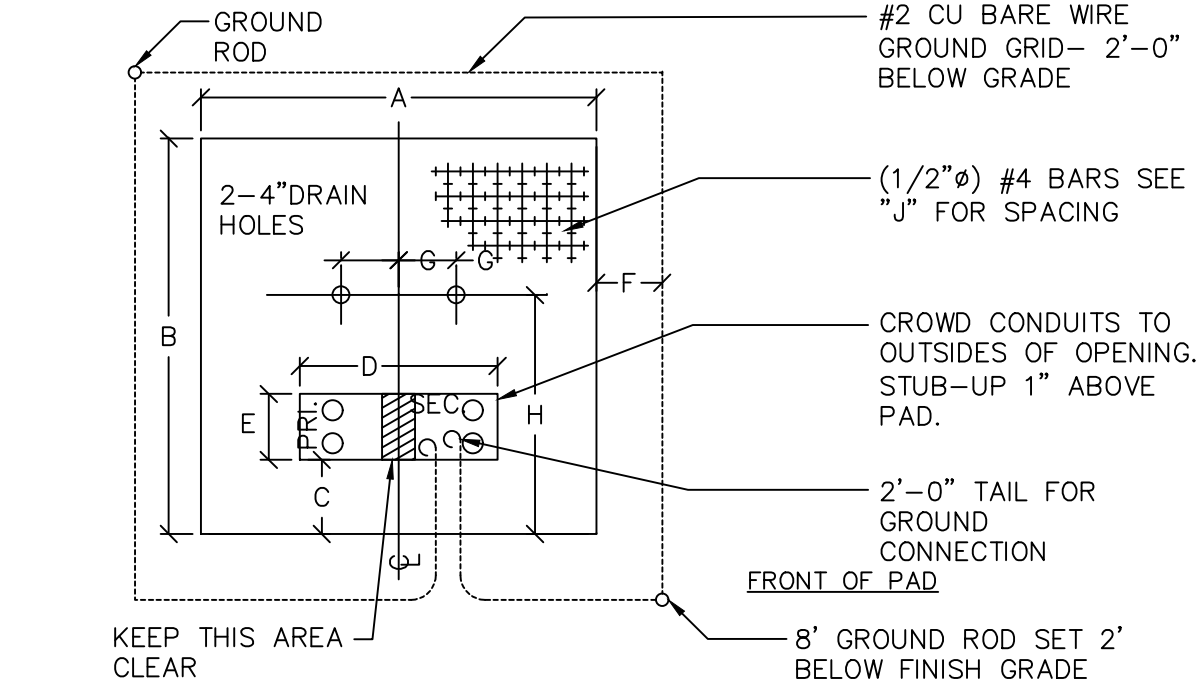
Panel 2P1		PANEL SCHEDULE						Project:		IEI 2005-0059 Wilsonville City Hall		
120/208V, 3Ph, 4W,		200A Bus		150A M.C.B.				SURFACE MOUNTED		8-Feb-06		
Ckt. No.	Description / Location	Load (VA)	Load Type	C.B. Amp	C.B. Pole	Phase	C.B. Amp	C.B. Pole	Load (VA)	Load Type	Description / Location	Ckt. No.
1	R-MEETING	540	R	20	1	A	20	1	500	M	PROJECTION SCREEN	2
3	R-MEETING	1,080	R	20	1	B	20	1	1,170	M	ROLL UP DOORS	4
5	R-MEETING	1,440	R	20	1	C	20	1	1,170	M	ROLL UP DOORS	6
7	R-MEETING	1,080	R	20	1	A	20	1	600	G	GATE EXT.	8
9	R-MEETING	1,080	R	20	1	B	20	1			SPARE	10
11	DISHWASHER	1,200	G	20	1	C	20	1			SPARE	12
13	SPARE			20	1	A	20	1	1,080	R	R-HUB 126	14
15	OPEN OFFICE 132-1	1,080	R	20	1	B	20	1	180	R	R-HUB 126 DEDICATED	16
17	SPARE			20	1	C	20	1	180	R	R-HUB 126 DEDICATED	18
19	SPARE			20	1	A	20	1			SPARE	20
21	OPEN OFFICE 132-1	720	R	20	1	B	20	1			SPARE	22
23	SPARE			20	1	C	20	1	180	R	R-OPEN OFFICE 105	24
25	R-OFFICES 102-104	1,080	R	20	1	A	20	1	720	R	R-OFFICES 106-107	26
27	R-OFFICES 128-129	720	R	20	1	B	20	1	1,080	R	R-RESTROOMS	28
29	R-RECEPTACLES	540	R	20	1	C	20	1	180	R	R-OPEN OFFICE 127 DEDICATED	30
31	R-OFFICES 133-134	900	R	20	1	A	20	1			SPARE	32
33	R-OFFICES 133-134	900	R	20	1	B	20	1	1,080	G	OPEN OFFICE 130	34
35	R-OPEN OFFICE 132-2	1,080	R	20	1	C	20	1			SPARE	36
37	R-OPEN OFFICE 132-2	1,080	R	20	1	A						38
39	R-HUB 126	900	R	20	1	B	20	1	900	R	R-BATHROOMS	40
41	R-HUB 126 DEDICATED	180	R	20	1	C	20	1	1,080	R	R-COPY 125	42
Total Connected Load Ph A		7,580 VA	63A									
Total Connected Load Ph B		10,890 VA	91A									
Total Connected Load Ph C		7,230 VA	60A									
Maximum Phase Connected Load: Ph B		10,890 VA										
Total Connected Load (3 X Maximum)		32.7 KVA	90.6 AMPS						Total Demand Load		18.1 KVA	50.3 AMPS
SOURCE = IEEE												
Accessories: <User Defined Additional Panel Requirement> Provide Feed-Thru Lugs												
NOTES: 1. 2. 3. 4. 5.												

Panel 4M1			PANEL SCHEDULE							PROJECT:		IEI 2005-0059 Wilsonville City Hall		7-Sep-06	
277/480V, 3Ph, 4W.			250A Bus			M.L.O.			SURFACE MOUNTED						
Ckt. No.	Description / Location	Load (VA)	Load Type	C.B. Amp	C.B. Pole	Phase	C.B. Amp	C.B. Pole	Load (VA)	Load Type	Description / Location	Ckt. No.			
1	WH-1	3,000	H	20	3	A	20	3	1,105	M	TU1-5	2			
3	---	3,000	H	---	---	B	---	---	1,105	M	---	4			
5	---	3,000	H	---	---	C	---	---	1,105	M	---	6			
7	---					A	20	3	1,776	M	TU1-6	8			
9	---					B	---	---	1,776	M	---	10			
11	---					C	---	---	1,776	M	---	12			
13	TU1-1	1,010	M	20	3	A	20	3	1,133	M	TU1-3	14			
15	---	1,010	M	---	---	B	---	---	1,133	M	---	16			
17	---	1,010	M	---	---	C	---	---	1,133	M	---	18			
19	TU1-2	1,138	M	20	3	A	20	3	1,600	M	TU1-4	20			
21	---	1,138	M	---	---	B	---	---	1,600	M	---	22			
23	---	1,138	M	---	---	C	---	---	1,600	M	---	24			
25	TU1-3	1,504	M	20	3	A	20	3	2,000	M	TU1-6	26			
27	---	1,504	M	---	---	B	---	---	2,000	M	---	28			
29	---	1,504	M	---	---	C	---	---	2,000	M	---	30			
31	TU1-4	872	M	20	3	A	20	1	2,000	M	TU1-1	32			
33	---	872	M	---	---	B	20	1	3,000	M	TU1-2	34			
35	---	872	M	---	---	C	20	1	3,000	M	TU1-5	36			
37	LIGHTING - PARKING	2,576	L	20	1	A	60	3		L	SHIMMING PANEL	38			
39	LIGHTING - TURNABOUT	468	L	20	1	B				L		40			
41						C				L		42			
Total Connected Load:Ph A		19,714 VA		71A											
Total Connected Load:Ph B		18,606 VA		67A											
Total Connected Load:Ph C		18,138 VA		65A											
"Maximum" Phase Connected Load: Ph A		19,714 VA													
Total Connected Load (3 X Maximum)		59.1KVA		71.1AMPS		Total Demand Load		57.2 KVA		68.8 AMPS					
SOURCE = Panel 4MDS		Accessories: <User Defined Additional Panel Requirement>													
NOTES:															
1.															
2.															
3.															
4.															
5.															

Panel 2E1 Section 1		PANEL SCHEDULE										PROJECT:		IEI 2005-0059 Wilsonville City Hall		8-Feb-06			
120/208V, 3Ph, 4W		200A Bus		200A M.C.B.										SURFACE MOUNTED					
Ckt. No.	Description / Location	Load (VA)	Load Type	C.B. Amp	C.B. Pole	Phase	C.B. Amp	C.B. Pole	Load (VA)	Load Type	Description / Location	Ckt. No.							
1	SP-1	864	M	15	1	A	20	1	300	M	HANDICAP DOOR MOTOR	2							
3	R-OFFICE 131	1,080	R	20	1	B	20	1	300	M	HANDICAP DOOR MOTOR	4							
5	OPEN OFFICE 130	1,080	G	20	1	C	20	1	500	H	HD-1	6							
7	OPEN OFFICE 132	1,080	G	20	1	A	30	3	2,280	M	AC-1	8							
9	R-OFFICE 101	1,260	R	20	1	B	--	--	2,280	M	--	10							
11	R-OFFICES 102-104	1,260	R	20	1	C	--	--	2,280	M	--	12							
13	R-OFFICES 128-129	360	R	20	1	A	30	3	1,800	M	CU-1	14							
15	R-OPEN OFFICE 127	720	R	20	1	B	--	--	1,800	M	--	16							
17	R-OPEN OFFICE 127	720	R	20	1	C	--	--	1,800	M	--	18							
19	R-OFFICES 133-134	360	R	20	1	A	20	1	180	R	R-OFFICE	20							
21	R-OPEN OFFICE 104	720	R	20	1	B	20	1	180	R	R-OFFICE	22							
23	R-OFFICES 106-107	720	R	20	1	C	20	1	180	R	R-OFFICE	24							
25	R-FRONT DESK	720	R	20	1	A	20	1	450	R	R-PLOTTER	26							
27	R-WORK AREA	540	R	20	1	B	20	1	450	R	R-PLOTTER	28							
29	R-COMM DESK	900	R	20	1	C	20	1	180	R	R-OFFICE	30							
31	R-ROOF	360	R	20	1	A	20	1	540	R	R-OFFICE	32							
33	WATER VAULT CONNECTION	200	G	20	1	B	20	1	360	R	R-OFFICE	34							
35	R-OPEN OFFICE	720	R	20	1	C	20	1	1,500	R	R-COPIER	36							
37	R-COPIER	1,500	G	20	1	A	20	1	900	R	R-MEETING 110	38							
39	R-OPEN OFFICE	720	R	20	1	B	20	1	360	R	R-MEETING 110	40							
41	R- OPEN OFFICE	360	R	20	1	C						42							
Total Connected Load:Ph A		11,694 VA		97A		#REF! A rms Available Fault Duty													
Total Connected Load:Ph B		11,694 VA		97A															
Total Connected Load:Ph C		11,694 VA		97A															
"Maximum" Phase Connected Load: Ph A		11,694 VA																	
Total Connected Load (3 X Maximum)		35.1KVA		97.5AMPS		Total Demand Load		51.5KVA		143.1AMPS									
SOURCE = #####		Accessories: <User Defined Additional Panel Requirement> Provide Feed-Thru Lugs																	
NOTES:																			
1.*LOAD SUMMARY INCLUDES PANELS 2E1 SECTION 2 AND 2E2																			
2																			
3																			
4																			

Panel 2E1 Section 2		PANEL SCHEDULE							PROJECT:		IEI 2005-0059 Wilsonville City Hall		8-Feb-06	
120/208V, 3Ph, 4W.		200A Bus		M.L.O.			SURFACE MOUNTED							
Ckt. No.	Description / Location	Load (VA)	Load Type	C.B. Amp	C.B. Pole	Phase	C.B. Amp	C.B. Pole	Load (VA)	Load Type	Description / Location	Ckt. No.		
43	R-CLERKS	720	R	20	1	A	20	1				44		
45	R-CLERKS	720	R	20	1	B						46		
47	R-BREAKROOM	720	R	20	1	C						48		
49	R-BREAKROOM	720	R	20	1	A	20	1	360	R	R-AV ROOM	50		
51	R-BREAKROOM	720	R	20	1	B						52		
53	R-BREAKROOM	720	R	20	1	C						54		
55	R-BREAKROOM	720	R	20	1	A	20	1	360	R	R-AV ROOM	56		
57	R-BREAKROOM	720	R	20	1	B						58		
59	R-BREAKROOM	720	R	20	1	C						60		
61	R-BREAKROOM	720	R	20	1	A	20	1	360	R	R-AV ROOM	62		
63	R-BREAKROOM	720	R	20	1	B						64		
65	R-OFFICE	720	R	20	1	C						66		
67	R-OFFICE	720	R	20	1	A	20	1	360	R	R-AV ROOM	68		
69	HD-1	500	H	20	1	B						70		
71	HD-1	500	H	20	1	C						72		
73	HD-1	500	H	20	1	A	20	1	360	R	R-AV ROOM	74		
75	HD-1	500	H	20	1	B						76		
77	SPARE	20	1	C								78		
79	SPARE	20	1	A	20	1	360	R	R-AV ROOM			80		
81	SPARE	20	1	B								82		
83	SPARE	20	1	C								84		
Total Connected LoadPh A		6,620VA		55A										
Total Connected LoadPh B		3,980VA		32A										
Total Connected LoadPh C		3,380VA		28A										
Maximum Phase Connected Load: Ph A		6,620VA												
Total Connected Load (3 X Maximum)		19.9KVA		55.2AMPS					Total Demand Load	17.9KVA		49.8AMPS		
NOTES: SOURCE = ###														
Accessories: <User Defined Additional Panel Requirement> Provide Feed-Thru Lugs														

DESIGNER NOTE: DO NOT USE THIS DETAIL IF A UTILITY IS INVOLVED. THIS DETAIL SHOULD ONLY BE USED IF THE CONTRACTOR IS PROVIDING THE TRANSFORMER AND THE TRANSFORMER WILL NOT BE OWNED BY THE UTILITY (I.E. UNIVERSITY PRIMARY METERED SYSTEMS.)



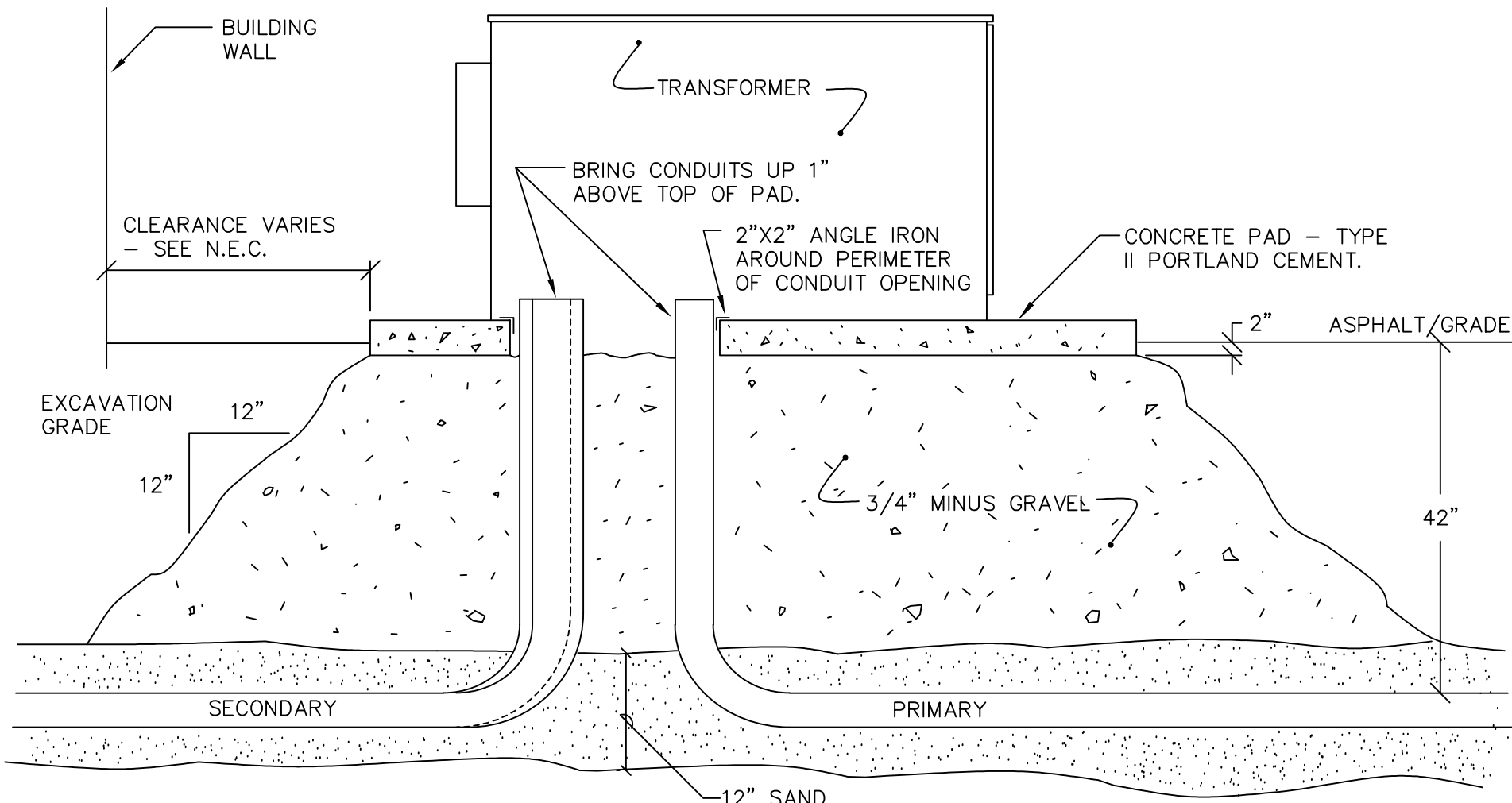
ALL DIMENSIONS IN INCHES (BE SURE TO ALLOW FOR LOAD GROWTH.)

KVA	A	B	C	D	E	F	G	H	J
75-112	66	72	16	38	10	12	10	44	14
150-225	66	72	16	42	10	12	10	44	10
300-500	72	72	16	42	12	12	10	44	8
750-1000	96	96	14	46	12	24	12	51	8
1500	96	96	14	56	14	24	12	51	6
2000-2500	108	96	14	60	14	24	12	51	6

1. CONCRETE SLAB TO BE 6" THICK UP TO AND INCLUDING 1,500 kva. THE 2,000-kva AND 2,500-kva SLAB TO BE 8" THICK.

3-PHASE TRANSFORMER PAD SLAB CONSTRUCTION AND DETAILS

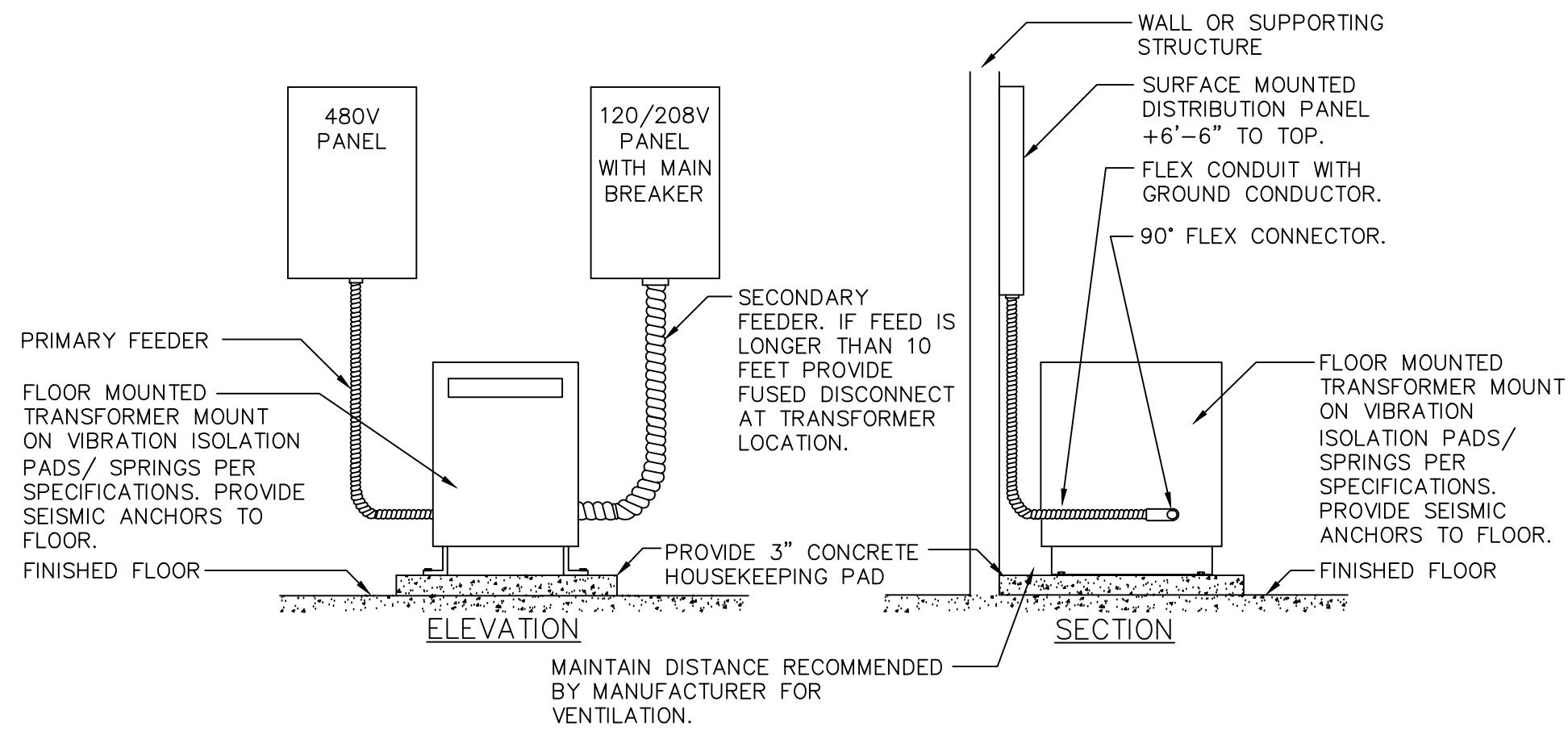
NO SCALE EPOEQ04A.DWG



EXCAVATE ENTIRE AREA TO A DEPTH OF 12" BELOW FINAL GRADE. INSTALL CONDUITS IN TRENCH TO PROJECT 1'-8" BEYOND FINAL EXCAVATION AND BACK FILL TO WITHIN 4" OF FINAL GRADE WITH 3/4" MINUS GRAVEL. SET PAD TO PROJECT 2" ABOVE FINAL GRADE.

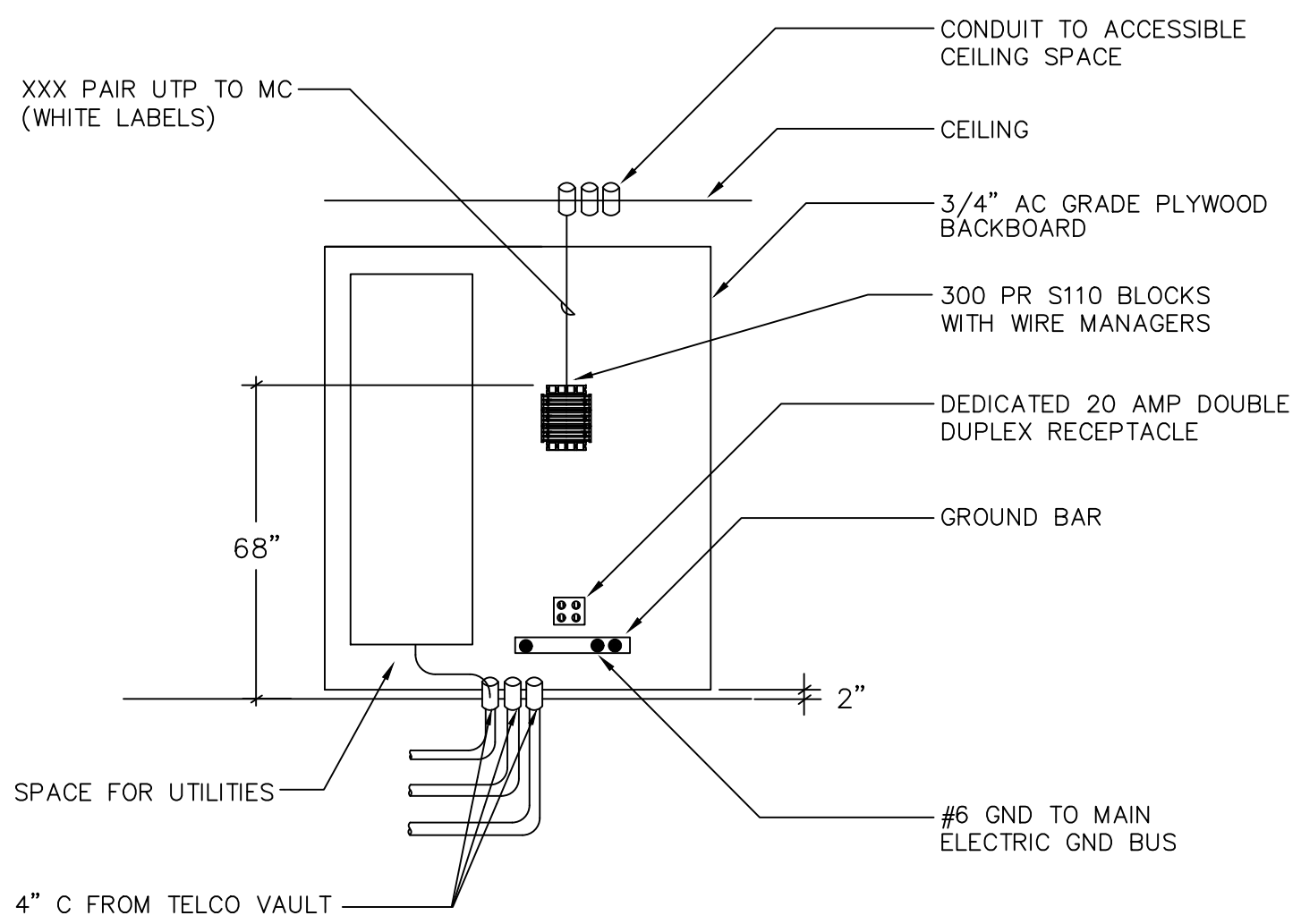
2 TRANSFORMER PAD-SECTION

NO SCALE EPOEQ05A.DWG



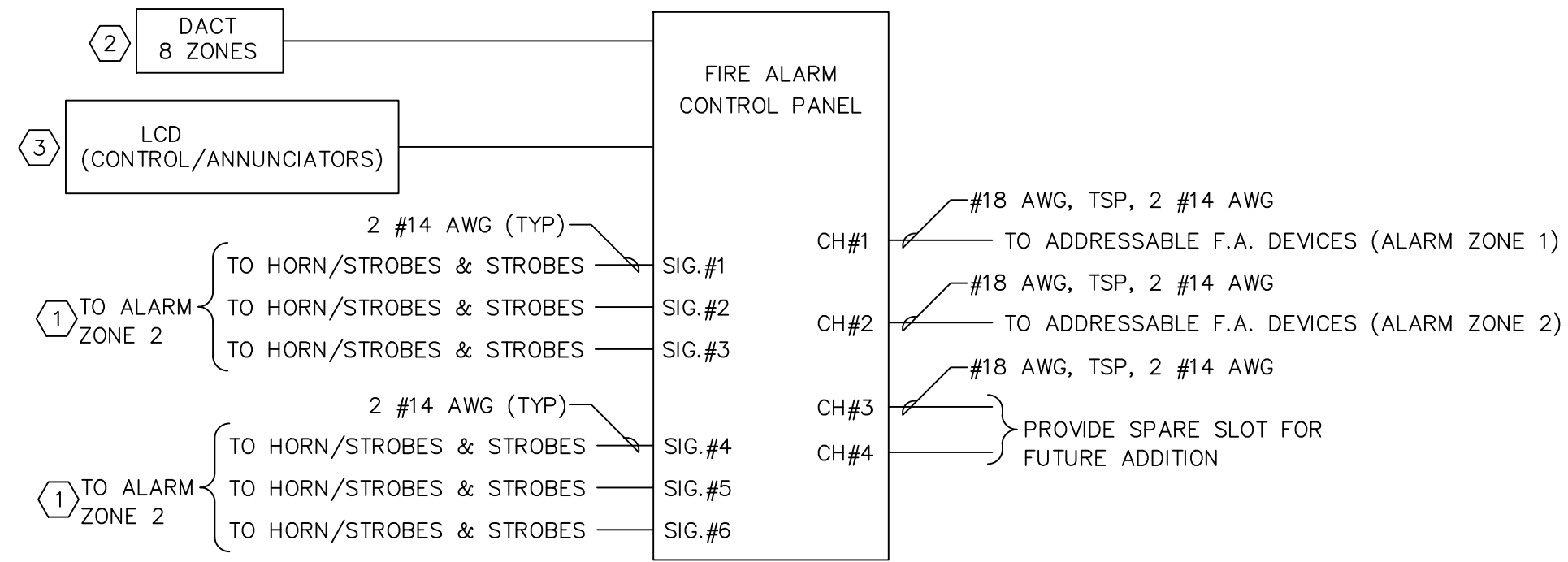
FLOOR MOUNTED TRANSFORMER DETAIL FOR SURFACE MOUNTED PANELS

NO SCALE EPOEQ01A.DWG



4 ENTRANCE FACILITY ELEVATION

NO SCALE ECOEQ03A.DWG



NOTES THIS DETAIL

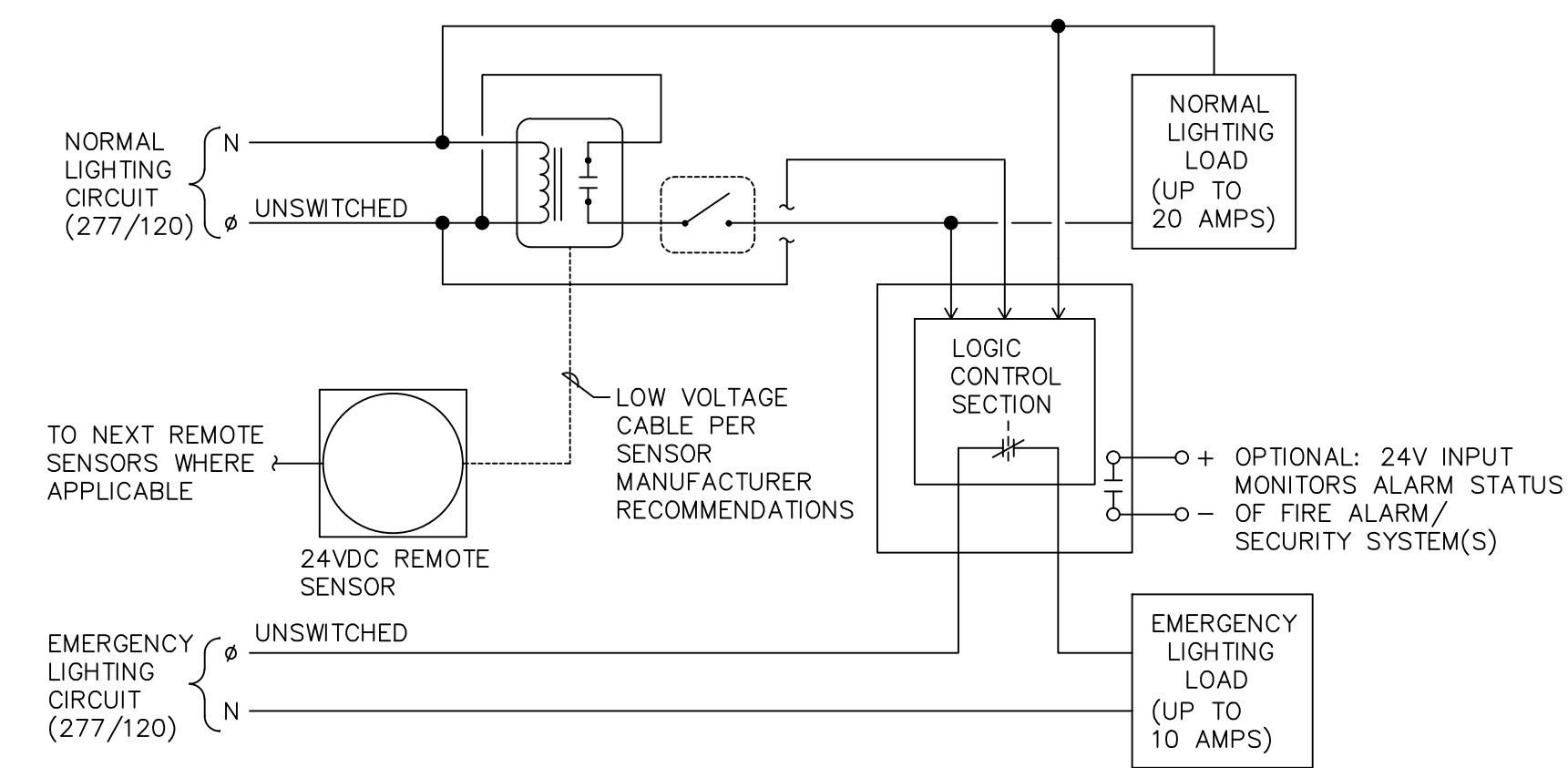
- SIGNAL POWER EXTENDERS CAN BE USED.
- DACT TO BE INTERNAL TO FACP.
- SERIAL CONTROL/ANNUNCIATOR PANEL.

GENERAL NOTES THIS DETAIL

- PROVIDE ALL WIRING AS REQUIRED.
- DO NOT EXCEED 80% OF EACH CIRCUIT CAPACITY.
- HORN TO PUT OUT APPROPRIATE SOUND LEVEL PER NFPA 72.
- HORN/STROBE TO MEET ADA REQUIREMENTS.
- VOLTAGE DROP NOT TO EXCEED 10% PER CIRCUIT.

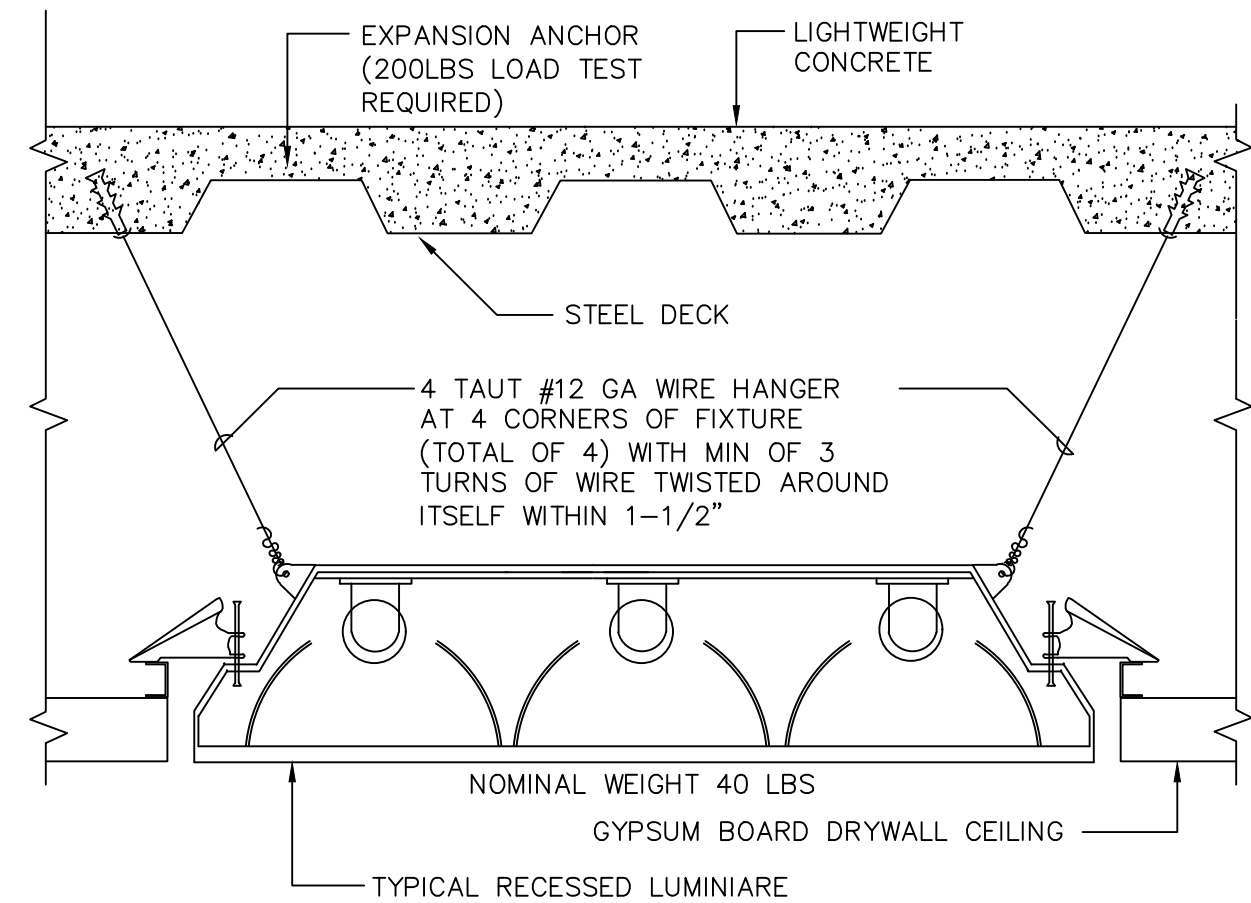
5 ADDRESSABLE FIRE ALARM 'PARTIAL' RISER DIAGRAM

NO SCALE EFICD06A.DWG



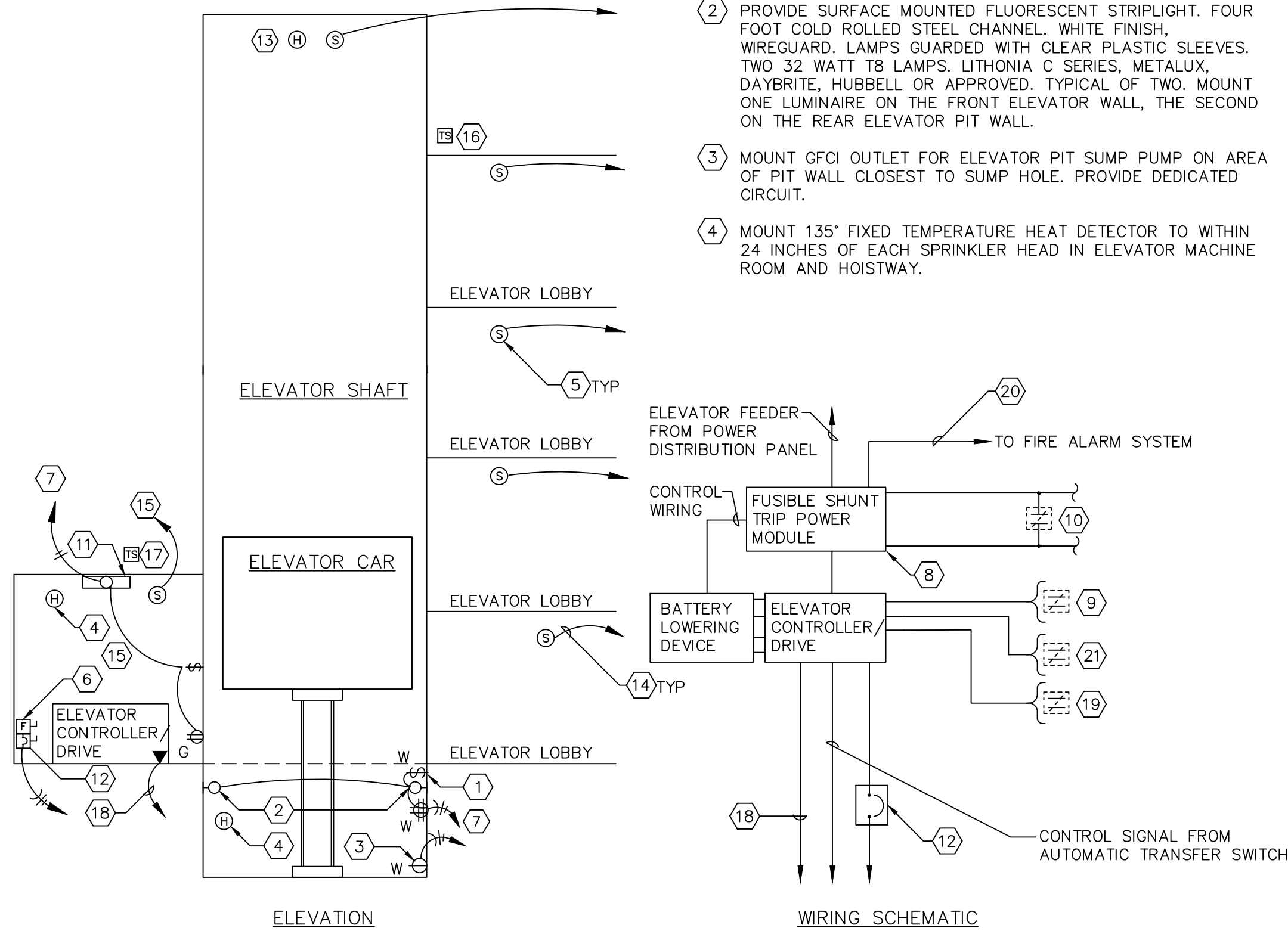
OCCUPANCY SENSOR/SWITCH BYPASS DEVICE EMERGENCY LIGHTING RELAY SCHEMATIC

NO SCALE



RECESSED FLUORESCENT LUMINAIRE HANGING METHOD

NO SCALE ELICL07B.DWG



9 HYDRAULIC TYPE ELEVATOR ELECTRICAL DETAIL

ADDRESSABLE FIRE ALARM SYSTEM

- ### NOTES THIS DETAIL
- MOUNT WEATHERPROOF TOGGLE SWITCH FOR PIT LIGHTING CIRCUIT BY TOP OF PIT LADDER.
 - PROVIDE SURFACE MOUNTED FLUORESCENT STRIPLIGHT. FOUR FOOT COLD ROLLED STEEL CHANNEL WHITE FINISH. WIREGUARD. LAMPS GUARDED WITH CLEAR PLASTIC SLEEVES. TWO 32 WATT T8 LAMPS. LITHONIA C SERIES, METALUX, DAYBRITE, HUBBELL OR APPROVED. TYPICAL OF TWO. MOUNT ONE LUMINAIRE ON THE FRONT ELEVATOR WALL, THE SECOND ON THE REAR ELEVATOR PIT WALL.
 - MOUNT GFCI OUTLET FOR ELEVATOR PIT SUMP PUMP ON AREA OF PIT WALL CLOSEST TO SUMP HOLE. PROVIDE DEDICATED CIRCUIT.
 - MOUNT 135° FIXED TEMPERATURE HEAT DETECTOR TO WITHIN 24 INCHES OF EACH SPRINKLER HEAD IN ELEVATOR MACHINE ROOM AND HOISTWAY.
 - MOUNT SMOKE DETECTOR IN ELEVATOR LOBBY ON CEILING TO WITHIN 21 FEET OF ELEVATOR DOOR.
 - MOUNT SHUNT POWER MODULE TO WITHIN 24 INCHES OF STRIKE SIDE OF DOOR TO ELEVATOR MACHINE ROOM.
 - PROVIDE DEDICATED CIRCUIT ROUTE INCOMING CIRCUIT TO LUMINAIRES UPSTREAM OF GFCI RECEPTACLE IN BOTH MACHINE ROOM AND ELEVATOR PIT, PER N.E.C. ARTICLES 620.23 AND 620.24.
 - PROVIDE FUSIBLE SHUNT TRIP POWER MODULE WITH CONTROL TRANSFORMER, TEST SWITCH, PILOT LIGHT, AUXILIARY CONTACTS AND ALARM CONTACTS. PROVIDE 100 AMP 3 POLE SWITCH FOR 480 VOLT SYSTEMS OR 200 AMP, 3 POLE SWITCH FOR 208 VOLT SYSTEMS. BUSSMAN, FERRAZ-SHAWMUT, LITTELFUSE OR APPROVED.
 - PROVIDE ADDRESSABLE F.A. CONTROL RELAY AND WIRING TO ELEVATOR CONTROLLER/DRIVE FOR ELEVATOR PRIMARY RECALL. SEE WIRING SCHEMATIC.
 - PROVIDE ADDRESSABLE F.A. CONTROL RELAY AND WIRING TO SHUNT TRIP CONTROL OF ELEVATOR POWER, SEE WIRING SCHEMATIC.
 - ROOM LIGHTING SEE FLOOR PLAN.
 - PROVIDE LOCKABLE ENCLOSED CIRCUIT BREAKER FOR ELEVATOR CAR LIGHTS (AND HVAC/HEATING NOT SHOWN). PROVIDE DEDICATED CIRCUIT. LOCATE IN ELEVATOR MACHINE ROOM NEAR ENTRY DOOR. PROVIDE ENGRAVED LABEL.
 - PROVIDE HEAT AND SMOKE DETECTORS AT THE TOP OF EACH ELEVATOR SHAFT.
 - CONNECT TO FIRE ALARM SYSTEMS SUPERVISED MONITORING CIRCUIT.
 - COORDINATE WALL MOUNTING SPACE FOR ALL ELECTRICAL EQUIPMENT WITH ELEVATOR SUPPLIER/INSTALLER PRIOR TO ROUGH-IN.
 - WHERE REQUIRED BY LOCAL CODE PROVIDE A TAMPER SWITCH TO CONTROL SPRINKLER HEAD IN TOP OF ELEVATOR SHAFT. CONNECT TO FIRE ALARM CONTROL PANEL FOR MONITORING.
 - WHERE REQUIRED BY LOCAL CODE PROVIDE A TAMPER SWITCH TO CONTROL SPRINKLER HEAD IN ELEVATOR MACHINE ROOM. CONNECT TO FIRE ALARM CONTROL PANEL FOR MONITORING.
 - PROVIDE DEDICATED PHONE LINE IN 3/4" C. TO TELEPHONE TERMINAL BOARD.
 - PROVIDE ADDRESSABLE F.A. CONTROL RELAY AND WIRING TO ELEVATOR CONTROLLER TO ACTIVATE FIREMAN HAT LIGHT IN ELEVATOR CAB UPON INITIATION OF SMOKE DETECTION.
 - CONNECT TO FIRE ALARM SYSTEM FOR MONITORING OF CONTROL POWER.
 - PROVIDE ADDRESSABLE F.A. CONTROL RELAY AND WIRING TO ELEVATOR CONTROLLER FOR ELEVATOR ALTERNATE RECALL. SEE WIRING SCHEMATIC.

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REVISIONS:			
REVISION DELTA	REVISIONS THIS SHEET	REVISION CLOSING	DELTA DATE

SHEET TITLE:
**ELECTRICAL
DETAILS**

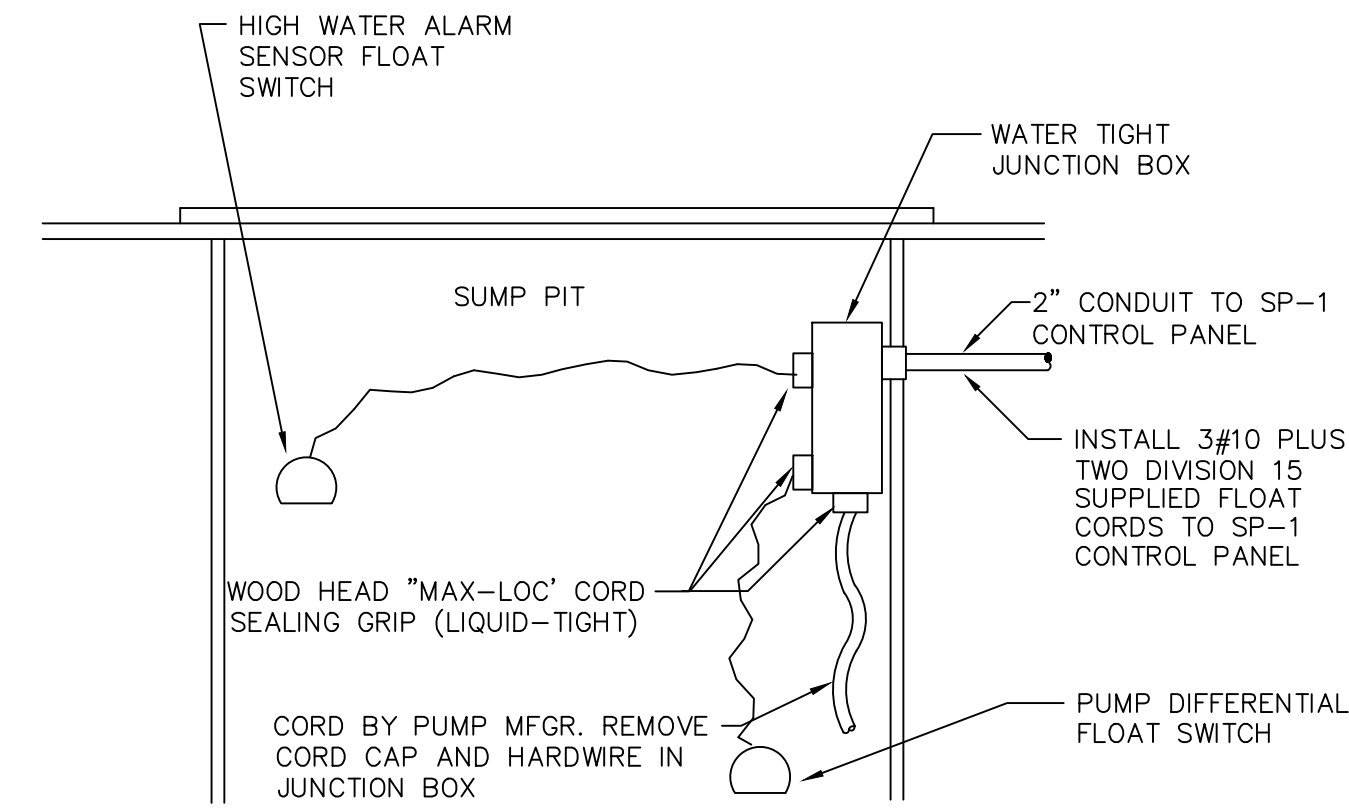
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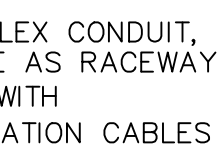
SHEET

E5.1

JOB NO. 2050030.00

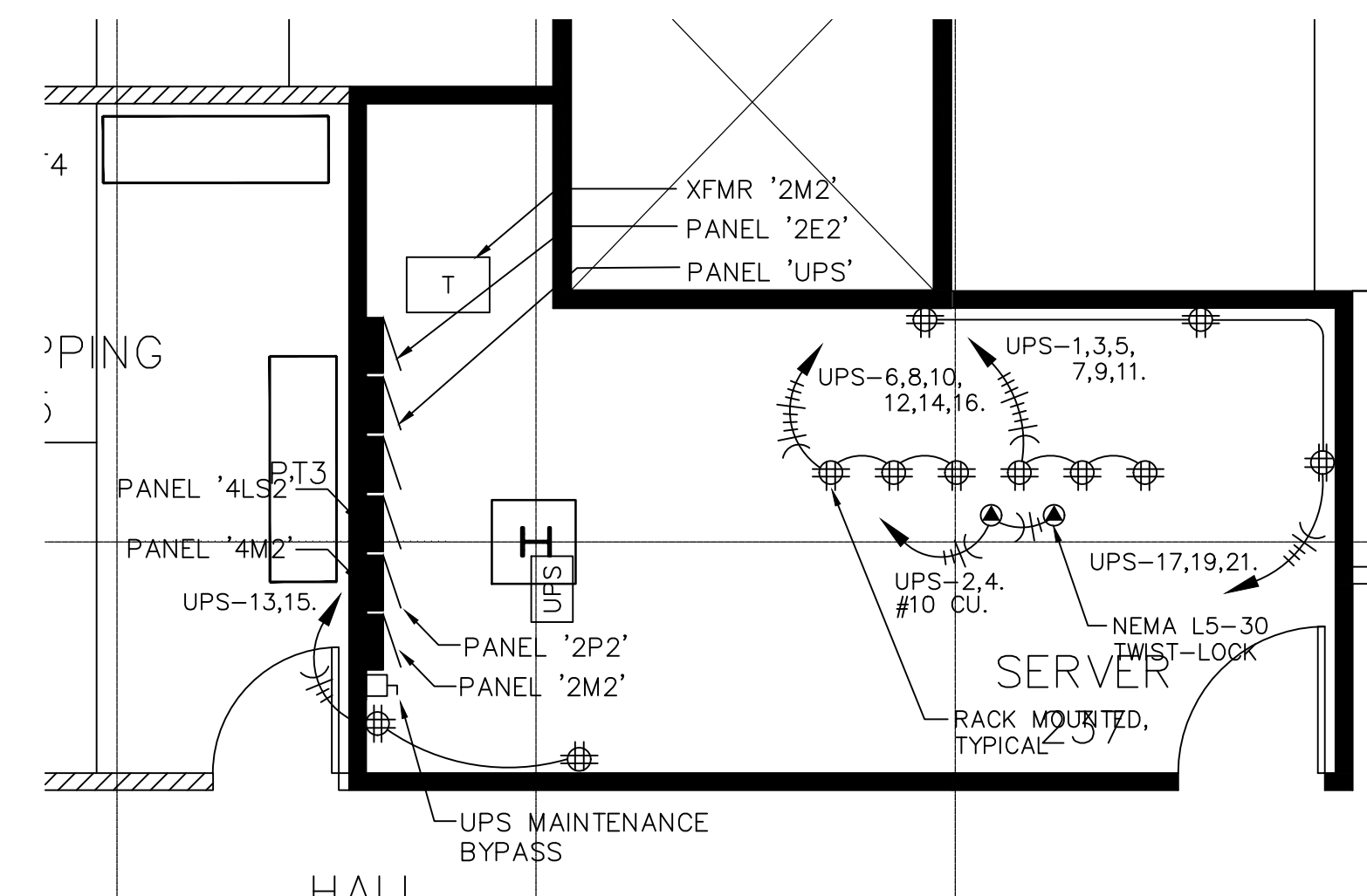


3 SUMP PUMP WIRING



The diagram illustrates a complex electrical system with the following components and connections:

- Power Generation & Regulation:** A "POWER GENERATOR WITH AMORTISSEUR WINDING" is connected to a "ROTATING VOLTAGE REGULATOR". The output passes through a "MAIN CIRCUIT BREAKER" before being distributed.
- Battery System:** Includes "ENGINE CRANKING BATTERIES 24 VOLT D.C. NOMINAL SEaled CELL MAINTENANCE FREE". These are connected to a "BATTERY CHARGER" and a "BATTERY WARMING BLANKET WITH INTEGRAL THERMOSTAT, OVER CURRENT PROTECTION."
- Control & Monitoring:** An "ENGINE GENERATOR CONTROL PANEL" features "24 VOLT D.C. REMOTE ALARM ANNUNCIATION CIRCUITS" and controls for "ENGINE START" and "ENGINE STOP".
- Engine & Heating Systems:** The "ENGINE CRANKING MOTOR SOLENOID" is powered by the 24VDC system. Additionally, there is an "ENGINE COOLING WATER JACKET HEATER, WITH INTEGRAL THERMOSTAT."
- Safety & Protection:** A "GFI WP" (Ground Fault Interrupter) receptacle is provided for servicing, and a "SERVICING RECEPTACLE ON EMERGENCY POWER" is also shown.
- Wiring & Installation Details:**
 - "ENGRAVED LABELS ON SWITCHES"
 - "NEMA 3R ENGINE GENERATOR WEATHERPROOF HOUSING. DOUBLE DOORS THROUGHOUT WITH HOLD OPEN BARS. DOORS ARE REMOVABLE FOR SERVICING. DOUBLE PIN LOCK. ALL DOORS ARE PAD LOCKABLE IN ADDITION TO LOCKABLE CATCH MECHANISM."
 - Cables are specified as "PURE SOFT DRAWN ENAMELED COPPER LOOP NO. 36" BEYOND FEETER OF GENERATOR AND 24" BELOW GRADE."
 - Connections include "TO BLDG.", "GROUND ROD TYPICAL OF 4, TO REMOTE ANNUNCIATOR", "ROUTED IN 1 1/2" SCHEDULE 40 P.V.C. CONDUIT 36" BELOW FINISH GRADE IN COMMON TRENCH WITH POWER FEEDER", and "ROUTED IN 1" SCHEDULE 40 P.V.C. CONDUIT 36" BELOW FINISH GRADE IN COMMON TRENCH WITH POWER FEEDER."



CONTROL_ZONE NOTES:

1. "LCP" SHALL HAVE 4 CONTROL ZONES –
 - 1 FOR PARKING LOT LIGHTS
 - 1 FOR PARKING FLAGPOLE LIGHT
 - 1 FOR LOBBY LIGHTING
 - 1 FOR LOBBY EMERGENCY LIGHTING
2. ZONES SHALL BE CONTROLLED AS FOLLOWS:
[WRITE SEQUENCE]
3. PROVIDE [X] SPACE RELAY IN EACH LCC

ZONE	CIRC.	ZONE	CIRC.
1	4E-19.	9	SPARE
2	4LS-5.	10	
3	4LS-6.	11	
4	4E-10.	12	
5	4E-31.	13	
6	4E-33.	14	
7	4E-35.	15	
8	4E-37.	16	

Project

WILSONVILLE
CITY
HALL

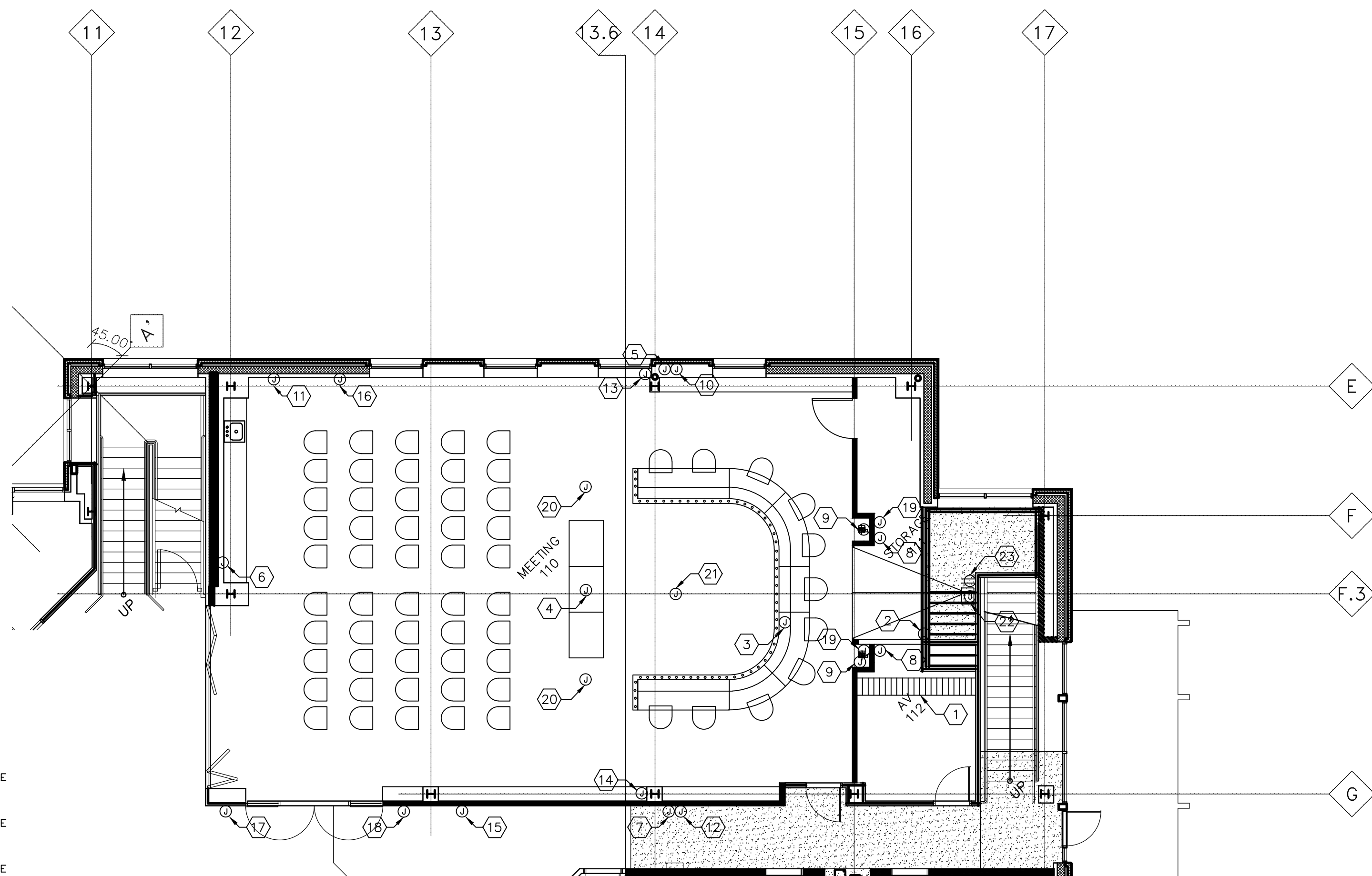
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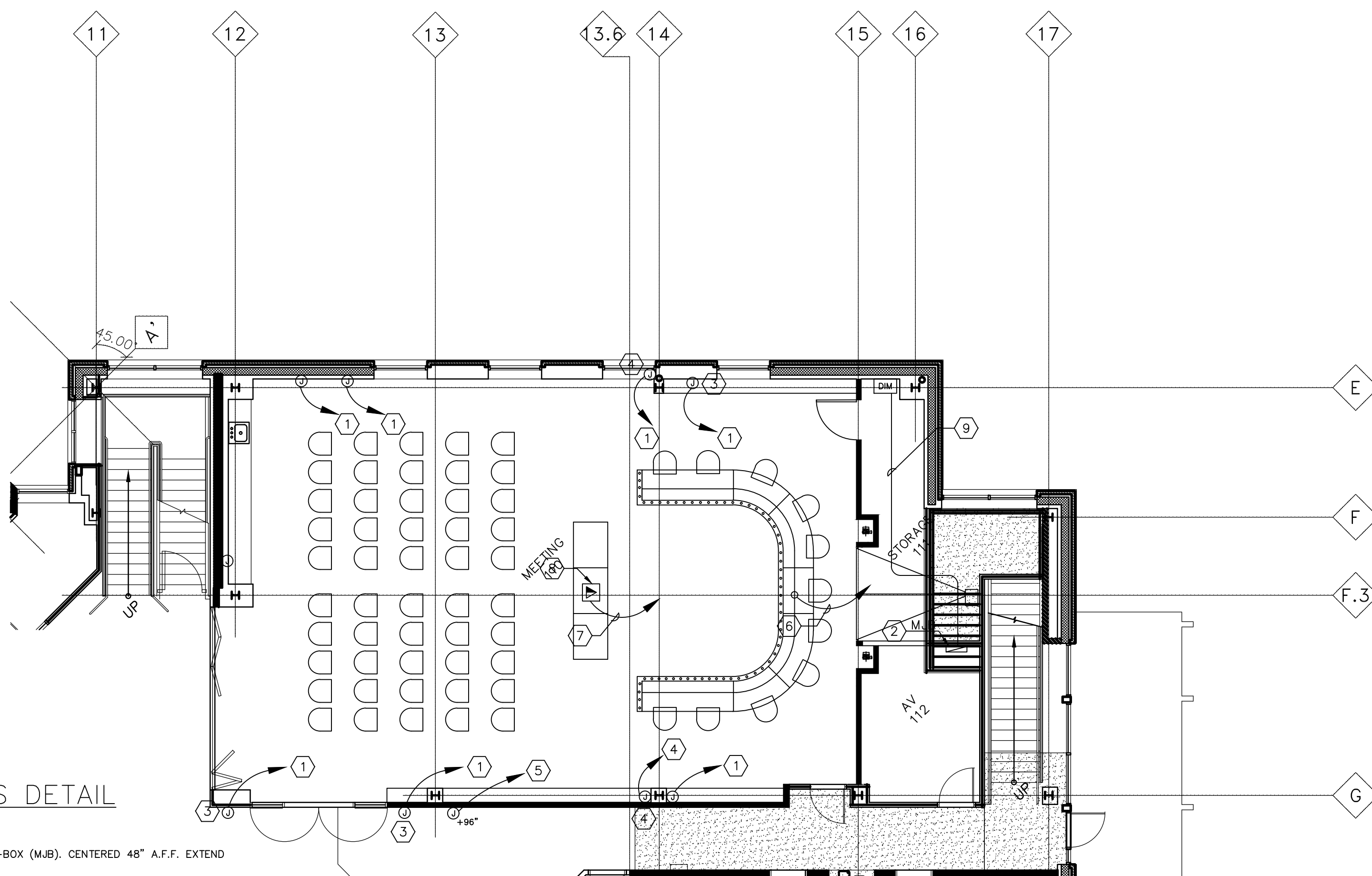
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- 17 CEILING 2" VIDE CABLE TRAY #17 ABOVE CONTROL ROOM H2
- 18 PROVIDE VARY EXACT LOCATION WITH ROBB REED WITH CITY WALL AND 1" VIDE CABLE TRAY #17 AND STUB-OUT OF AV RECEIVERS OVER TRAY.
- 19 PROVIDE 30"x24"x4" MAIN JUNCTION BOX-MJB CENTERED 48" AFF, EXTEND 2' TO CONDUTITS TO CABLE TRAY IN ROOM H12.
- 20 PROVIDE 4" PVC FROM MJB TO AREA BELOW TABLE. STUB-OUT EXTEND 4" PVC FROM INSIDE WALL TO INSIDE WALL OF TABLE.
- 21 PROVIDE FL-600P FLUSH MOUNT FLOOR BOX AND EXTEND 5" IC TO MJB, PROVIDE POWER.
- 22 CEMERAS 1, EXTEND 2" PVC FROM CABLE TRAY AND STUB-OUT IN WALL 8'-6" AFF. PROVIDE EXTERN MR300-BLACK, 2-GANG MUD RING ASSEMBLY (70-519-22). CENTERED AT 8'-6" AFF.
- 23 CEMERAS 2 & 3, EXTEND 2" PVC FROM CABLE TRAY AND STUB-OUT IN WALL 8'-6" AFF. PROVIDE EXTERN MR300-BLACK, 2-GANG MUD RING ASSEMBLY (70-519-22). CENTERED AT 8'-6" AFF.
- 24 CEMERAS 4, EXTEND 2" PVC FROM CABLE TRAY AND STUB-OUT IN WALL 8'-6" AFF. PROVIDE EXTERN MR300-BLACK, 2-GANG MUD RING ASSEMBLY (70-519-22). CENTERED AT 8'-6" AFF.
- 25 CEMERAS 5 & 6, EXTEND 2" PVC FROM CABLE TRAY AND STUB-OUT IN WALL 8'-6" AFF. PROVIDE EXTERN MR300-BLACK, 2-GANG MUD RING ASSEMBLY (70-519-22). CENTERED AT 8'-6" AFF.
- 26 CEMERAS 1, EXTEND 2" PVC FROM CABLE TRAY AND STUB-OUT IN WALL 8'-6" AFF. PROVIDE EXTERN MR300-BLACK, 2-GANG MUD RING ASSEMBLY (70-519-22). CENTERED AT 6'-10" AFF.
- 27 CEMERAS 5 & 6, ENCLOSURE, 24" X 18" X 18".
- 28 AV ACCESS PANEL #41, EXTEND 1" IC FROM CABLE TRAY TO 20" AFF. PROVIDE EXTERN MR400-BLACK, 4-GANG MUD RING ASSEMBLY (70-519-22) AT 17" AFF.
- 29 AV ACCESS PANEL #42, EXTEND 1" IC FROM CABLE TRAY TO 20" AFF. PROVIDE EXTERN MR400-BLACK, 4-GANG MUD RING ASSEMBLY (70-519-22) AT 17" AFF.
- 30 AV ACCESS PANEL #43, EXTEND 1" IC FROM CABLE TRAY TO 20" AFF. PROVIDE EXTERN MR400-BLACK, 4-GANG MUD RING ASSEMBLY (70-519-22) AT 17" AFF.
- 31 AV ACCESS PANEL #44, EXTEND 1" IC FROM MJB TO 8'-6" AFF. PROVIDE EXTERN MR400-BLACK, 4-GANG MUD RING ASSEMBLY (70-519-22) AT 17" AFF. PROVIDE SEPARATE POWER AT 8'-4" AFF.
- 32 AV ACCESS PANEL #45, EXTEND 1" IC FROM MJB TO 8'-6" AFF. PROVIDE EXTERN MR400-BLACK, 4-GANG MUD RING ASSEMBLY (70-519-22) AT 17" AFF. PROVIDE SEPARATE POWER AT 8'-4" AFF.
- 33 OVERFLUD MONITOR, EXTEND 1" IC FROM MJB TO 8'-6" AFF. PROVIDE EXTERN MR400-BLACK, 4-GANG MUD RING ASSEMBLY (70-519-22) AT 17" AFF. PROVIDE SEPARATE POWER AT 8'-4" AFF.
- 34 PRESS FEED #1, EXTEND 1" IC FROM CABLE TRAY TO 20" AFF. PROVIDE EXTERN MR400-BLACK, 4-GANG MUD RING ASSEMBLY (70-519-22) AT 17" AFF.
- 35 PRESS FEED #1, EXTEND 1" IC FROM CABLE TRAY TO 20" AFF. PROVIDE EXTERN MR400-BLACK, 4-GANG MUD RING ASSEMBLY (70-519-22) AT 17" AFF.
- 36 PRESS FEED #1, EXTEND 1" IC FROM CABLE TRAY TO 20" AFF. PROVIDE EXTERN MR400-BLACK, 4-GANG MUD RING ASSEMBLY (70-519-22) AT 17" AFF.
- 37 EXTEND 3/4"C FROM CABLE TRAY AND TERMINATE IN SPEAKER ENCLOSURE.
- 38 EXTEND 3/4"C FROM CABLE TRAY AND STUB-OUT IN CEILING ABOVE COUNCIL CHAMBERS.
- 39 EXTEND 3/4"C FROM CABLE TRAY AND STUB-OUT IN CEILING ABOVE COUNCIL CHAMBERS.
- 40 EXTEND 2" IC FROM CABLE TRAY AND TERMINATE END AT 9'-0" AFF IN ROOM H12. PROVIDE EXTERN MR400-BLACK, 2-GANG MUD RING ASSEMBLY (70-519-22). CENTERED AT 8'-10" AFF. SEE SHEET C3.2 FOR CIRCUIT.
- 41 MOUNT AT 8'-3".



NOTES THIS DETAIL

- (1) 1" TO "MJB IN NOTE #2.
- (2) PROVIDE 36"x24"x4" MAIN J-BOX (MJB). CENTERED 48" A.F.F. EXTEND 4")-2"C. TO CABLE TRAY.
- (3) PROVIDE 4-GANG J-BOX @ +17" A.F.F.
- (4) PROVIDE 2-GANG J-BOX @ +96" A.F.F., ROUTE 3/4"C. TO CABLE TRAY.
- (5) PROVIDE SINGLE-GANG J-BOX @ +96" A.F.F., ROUTE 3/4"C. TO CABLE TRAY.
- (6) 2"C. TO "MJB IN NOTE #2.
- (7) 1" TO "MJB IN NOTE #2.
- (8) PROVIDE FL-600P FLUSH FLOOR BOX.
- (9) ROUTE IN ACCESSIBLE CEILING (1) 1-1/4"C. FROM DIMMING PANEL TO MAIN J-BOX (MJB) IN ROOM A/J12.



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ELECTRICAL DETAILS

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JOB NO.

2050030.00

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COVER SHEET -
HVAC

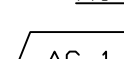
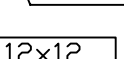
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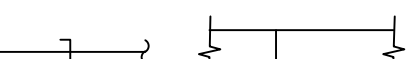
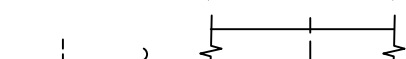
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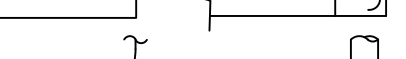
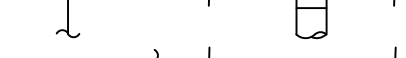
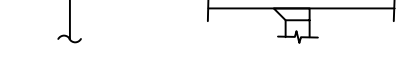
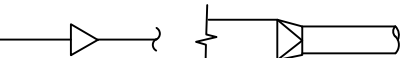
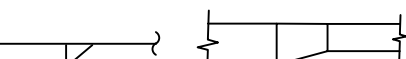
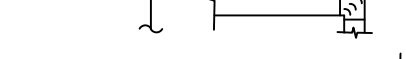
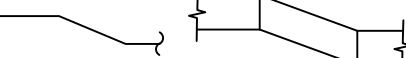
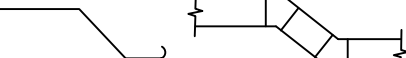
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MECHANICAL SYMBOL LIST

DUCTWORK		ABBREVIATIONS	
	SUPPLY AIR	A/C	AIR CONDITION(ED)
	RETURN OR EXHAUST AIR	CD	CEILING DIFFUSER
	OUTSIDE AIR	CFM	CUBIC FEET PER MINUTE
	ROOM THERMOSTAT	CONT.	CONTINUATION
	EQUIPMENT IDENTIFICATION	DB	DRY BULB
	DIFFUSER OR GRILLE IDENTIFICATION	DX	DIRECT EXPANSION
		EAT	ENTERING AIR TEMPERATURE
		EER	ENERGY EFFICIENCY RATING
		EF	EXHAUST FAN
		EEF	EFFICIENT
		ELECT	ELECTRICAL
		F	FAHRENHEIT
		FC	FAN COIL
		FT	FEET
		HP	HORSEPOWER
		IN	INCHES
		KW	KILOWATT
		LAT	LEAVING AIR TEMPERATURE
		LBS.	POUNDS
		MAX	MAXIMUM
		MBH	THOUSAND BTU'S PER HOUR
		MIN	MINIMUM
		N/A	NOT APPLICABLE
		NTS	NOT TO SCALE
		OA	OUTSIDE AIR
		PSI	POUNDS PER SQUARE INCH
		RA	RETURN AIR
		RPM	REVOLUTIONS PER MINUTE
		SA	SUPPLY AIR
		SEER	SEASONAL ENERGY EFFICIENCY RATING
		SP	STATIC PRESSURE
		TEMP	TEMPERATURE
		V	VOLT
		VAV	VARIABLE AIR VOLUME
		W	WATT
		W/	WITH
		WB	WET BULB
		W/O	WITHOUT

	VOLUME DAMPER
	FIRE/SMOKE DAMPER

	MITERED ELBOW WITH TURNING VANES
	RADIUSED ELBOW
	RECTANGULAR MAIN WITH ROUND BRANCH
	RECTANGULAR MAIN WITH RECTANGULAR BRANCH
	CONCENTRIC SQUARE TO ROUND
	ECCENTRIC TRANSITION, RECTANGULAR OR ROUND
	SYMMETRICAL WYE
	RECTANGULAR DUCT RISER
	ROUND DUCT RISER
	RECTANGULAR DUCT DROP
	ROUND DUCT DROP
	RECTANGULAR OFFSET LESS THAN 15°
	RECTANGULAR OFFSET MORE THAN 15°
	ROUND WYE
	ROUND DUCT WITH ROUND BRANCH
	CONCENTRIC TRANSITION, RECTANGULAR OR ROUND
	ACCOUSTICALLY LINED DUCT (SIZES SHOWN ARE NET INSIDE)

GENERAL NOTES

- A. COORDINATE FINAL LOCATION OF EQUIPMENT, DUCTS, DIFFUSERS AND GRILLES WITH STRUCTURE, REFLECTED CEILING PAN, AND LIGHTING LAYOUT PRIOR TO ROUGH-IN.
- B. INSTALL EQUIPMENT TO PROVIDE SERVICE CLEARANCES AS RECOMMENDED BY THE MANUFACTURER, AND AS REQUIRED BY CODE AND LOCAL INSPECTOR. PROVIDE CLEAR LABELING OF FILTER PANELS VERIFY ADEQUATE ACCESS FOR ROUTINE MAINTENANCE.
- C. PROVIDE ROOF CURBS FOR EQUIPMENT REQUIRING A ROOF PENETRATION. PROVIDE EQUIPMENT SUPPORTS FOR ROOF MOUNTED EQUIPMENT NOT REQUIRING A PENETRATION. COORDINATE ROOF CURBS AND SUPPORTS WITH ROOFING SYSTEM. SEISMICALLY ATTACH EQUIPMENT TO CURB AND STRUCTURE.
- D. PROVIDE VOLUME DAMPERS IN RUNOUTS TO SUPPLY, EXHAUST, AND RETURN GRILLES UNLESS NOTED OTHERWISE AND WHERE SHOWN ON DRAWINGS. LOCATE VOLUME DAMPERS AT BRANCH CONNECTION WHERE POSSIBLE. PROVIDE CONCEALED DAMPER OPERATOR IN LOCATIONS WHERE DAMPER IS UNACCESSIBLE.
- E. ALL DUCTWORK TO BE MINIMUM 24 GAUGE SHEETMETAL WHEN TRAVELLING BETWEEN RATED OCCUPANCY SEPARATIONS, AREA SEPARATIONS, OR OVER RATED EXIT CORRIDORS AND PASSAGEWAYS.
- F. VERIFY WALL, FLOOR, AND CEILING TYPES WHERE ALL PENETRATIONS OCCUR WITH ARCHITECTURAL DRAWINGS. COORDINATE PENETRATIONS OF ALL FIRE RATED ASSEMBLIES WITH ARCHITECTURAL SPECIFICATIONS FOR APPROVED FIRE RATED SEALING SYSTEM.
- G. MOUNT ALL SENSORS, THERMOSTATS, AND SWITCHES 48" AFF.
- H. TRANSITION FROM DUCT SIZE SHOWN TO DIFFUSER NECK SIZE A MINIMUM OF 2 FEET BEFORE OUTLET OR INSTALL DUCT THE SAME SIZE AS OUTLET, AT CONTRACTOR'S OPTION.

EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	ELECTRICAL
AC-1	SERVER ROOM AIR CONDITIONING UNIT: SUPPLY: 1,200 CFM AT 0.50 IN. E.S.P. 300 CFM MIN. OSA. MINIMUM 11 SEER. MIN. COOLING: 35 MBH TOTAL; 29 MBH SEN. AT 75°F EDB, 62.5°F EWB, 95°F AMBIENT. APPROXIMATE OPERATING WEIGHT: 125 LB., BASIS OF DESIGN: TRANE PINNACLE	208V/ 1 PHASE 3 MCA 25 MOCP
CU-1	OUTDOOR CONDENSING UNIT (SERVER ROOM): MINIMUM COOLING: 35 MBH TOTAL AT 95°F AMBIENT TO MATCH WITH AC-1 APPROXIMATE OPERATING WEIGHT: 191 LBS., BASIS OF DESIGN: TRANE PINNACLE	208V/ 3 PHASE 18 MCA 30 MOCP
EF-1	CENTRIFUGAL BELT-DRIVE INLINE EXHAUST FAN (RESTROOM EXHAUST): 3,460 CFM AT .50 IN. E.S.P. WITH ROOF CURB AND BACKDRAFT DAMPER. MAX. 13 SONES. APPROXIMATE OPERATING WEIGHT: 160 LBS., BASIS OF DESIGN: GREENHECK GB	208V/ 3PHASE 1 HP
EF-2	CENTRIFUGAL BELT-DRIVE ROOFTOP EXHAUST FAN, ALUMINUM DOME (WORKROOM EXHAUST): 2,800 CFM AT 0.50 IN. E.S.P. WITH ROOF CURB AND BACKDRAFT DAMPER. MAX. 9 SONES. APPROXIMATE OPERATING WEIGHT: 160 LBS., BASIS OF DESIGN: GREENHECK GB	208V/ 3PHASE 1/2 HP
EF-3	CENTRIFUGAL BELT-DRIVE ROOFTOP EXHAUST FAN, ALUMINUM DOME (ELECTRICAL EXHAUST): 400 CFM AT 0.50 IN. E.S.P. WITH ROOF CURB AND BACKDRAFT DAMPER. MAX. 7 SONES. APPROXIMATE OPERATING WEIGHT: 50 LBS., BASIS OF DESIGN: GREENHECK GB	208V/ 3PHASE 1/4 HP
EF-4	CEILING MOUNTED DIRECT-DRIVE EXHAUST FAN (ELEVATOR MACHINE ROOM): 500 CFM AT 0.25 IN. E.S.P. MAX. 7 SONES. BASIS OF DESIGN: GREENHECK SP	120V/1ø 350 W
RTU-1	PACKAGED VAV ROOFTOP AIR CONDITIONING UNIT (SERVES OFFICES): SUPPLY: 17,925 CFM AT 2.0 IN.; EXHAUST: 16,130 CFM AT 0.50 IN. E.S.P. 5,000 CFM MIN. OSA. MINIMUM EER 9.4 MIN. COOLING: 895 MBH TOTAL; 729 MBH SEN. AT 85°F EDB, 66°F EWB, 95°F AMBIENT. MIN. HEATING: 850 MBH INPUT; 697 MBH OUTPUT 14-INCH ROOF CURB ON 38-INCH CONCRETE TUB, APPROXIMATE OPERATING WEIGHT: 8,970 LBS. BASIS OF DESIGN: TRANE INTELLIPAK	460 V/ 3 PHASE (EMERGENCY POWER) 50 MCA/ 70MOCP 460 V/ 3 PHASE 150 MCA/ 150MOCP 25 HP SUPPLY FAN. (VFD) 15 HP EXHAUST FAN. (VFD)
RTU-2	PACKAGED CV ROOFTOP AIR CONDITIONING UNIT (SERVES MEETING ROOM.): SUPPLY: 2,500 CFM AT 1.50 IN.; 1,385 CFM MIN. OSA. MINIMUM EER 11.5 MIN. COOLING: 90 MBH TOTAL; 81 MBH SEN. AT 85°F EDB, 66°F EWB, 95°F AMBIENT. MIN. HEATING: 200 MBH INPUT; 162 MBH OUTPUT 14-INCH ROOF CURB , APPROXIMATE OPERATING WEIGHT: 1,160 LBS. BASIS OF DESIGN: TRANE PRECEDENT	460 V/ 3 PHASE 20 MCA 25 MOCP
RTU-3	PACKAGED CV ROOFTOP AIR CONDITIONING UNIT (SERVES MEETING ROOM.): SUPPLY: 1,600 CFM AT 1.00 IN.; 1,385 CFM MIN. OSA. MINIMUM SEER 13.0 MIN. COOLING: 60 MBH TOTAL; 43 MBH SEN. AT 85°F EDB, 66°F EWB, 95°F AMBIENT. MIN. HEATING: 130 MBH INPUT; 104 MBH OUTPUT 14-INCH ROOF CURB , APPROXIMATE OPERATING WEIGHT: 745 LBS. BASIS OF DESIGN: TRANE PRECEDENT	460 V/ 3 PHASE (EMERGENCY POWER) 14 MCA 20 MOCP
RTU-4	PACKAGED CV ROOFTOP AIR CONDITIONING UNIT (SERVES MEETING ROOM.): SUPPLY: 1,600 CFM AT 1.00 IN.; 1,385 CFM MIN. OSA. MINIMUM SEER 13.0 MIN. COOLING: 60 MBH TOTAL; 54 MBH SEN. AT 85°F EDB, 66°F EWB, 95°F AMBIENT. MIN. HEATING: 130 MBH INPUT; 104 MBH OUTPUT 14-INCH ROOF CURB , APPROXIMATE OPERATING WEIGHT: 745 LBS. BASIS OF DESIGN: TRANE PRECEDENT	460 V/ 3 PHASE (EMERGENCY POWER) 14 MCA 20 MOCP
UH-1	ELECTRIC UNIT HEATER (STAIR 1): MIN. HEATING: 7.5 KW, 670 CFM CONTROL TRANSFORMER AND WALL MOUNTING BRACKET. APPROXIMATE OPERATING WEIGHT: 150 LBS. BASIS OF DESIGN: TRANE UHEC	208 V/ 3 PHASE 9.1 AMPS

OUTSIDE AIR VENTILATION SCHEDULE

SYMBOL	ROOM OR ZONE	AREA (SQ. FT.)	EXISTING OCCUPANT LOAD FACTOR	OCCUPANT LOAD (PEOPLE/ FXTURE)	REQUIRED OUTSIDE AIR (CFM/PERSON OR FXTURE)*	REQUIRED OUTSIDE AIR (CFM/SQ. FT.)	TOTAL OSA REQUIRED (CFM)	TOTAL OSA PROVIDED (CFM)
RTU-1	OFFICE SPACE	23,000	100.00	230.00	20.00		4,600	5,000
RTU-2	MEETING 110	2,050	50.00	41.00	20.00		820	1,385
RTU-3	TRAINING/EOC 214-1	760	50.00	15.20	20.00		304	1,385
RTU-4	TRAINING/EOC 214-2	760	50.00	15.20	20.00		304	1,385
* ACCORDING TO SECTION 403.3 OF THE OREGON MECHANICAL SPECIALTY CODE, VENTILATION SYSTEMS SHALL BE DESIGNED TO HAVE CAPACITY TO SUPPLY MINIMUM OUTDOOR AIRFLOW RATE DETERMINED IN ACCORDANCE WITH TABLE 403.3 BASED ON OCCUPANCY OF SPACE AND THE OCCUPANT LOAD.								

TERMINAL UNIT SCHEDULE

SYMBOL	AREA SERVED	CFM		MAX. PRESS.	MAX. SIZE	INLET	HEAT CAP.	HTG	ELECTRICAL		REMARKS
		MAX	MIN	"WC" AT DROP	MAX S.P.	SIZE (IN.)	KW	STAGES	VOLT	PHASE	
TU1-1	OFFICE 132	520	390	0.30	35	8	2.0	1	277	1	
TU1-2	OFFICE 132 THRU 134	720	590	0.30	35	8	3.0	1	277	1	
TU1-3	HUB 126 - COPY 125 - MENS 122	1,120	690	0.30	35	10	3.5	1	480	3	
TU1-4	RECEPTION 119 - LOBBY 118	795	440	0.30	35	8	5.0	1	480	3	
TU1-5	RECEPTION 119 - LOBBY 118	650	340	0.30	35	8	3.0	1	277	1	
TU1-6	MEN 113 - WOMEN 114 - GALLERY 116	1,160	440	0.30	35	10	6.0	2	480	3	
TU2-1	CONFERENCE 231	210	120	0.30	35	6	1.0	1	277	1	
TU2-2	WORK ROOM 232	560	170	0.30	35	8	1.0	1	277	1	
TU2-3	OPEN OFFICE 234	700	660	0.30	35	8	3.5	1	480	3	
TU2-4	FILES 236/ FINANCE 236/ GIS MAPPING 235	545	390	0.30	35	8	2.0	1	277	1	
TU2-5	OFFICE 239 / COPY 240	475	280	0.30	35	6	1.5	1	277	1	
TU2-6	LOBBY 211 / CLERKS 241 / TRAINING 212	609	460	0.30	35	8	2.5	1	277	1	
TU2-7	LIBRARY 230 / SECURE FILES 233	180	180	0.30	35	6	1.0	1	277	1	
TU2-8	HALLWAY 230	1,235	530	0.30	35	10	6.0	2	480	3	

FAN POWERED TERMINAL UNIT SCHEDULE

SYMBOL	AREA SERVED	CFM		MAX. PRESS.	MAX. SIZE	INLET SIZE (IN.)	HEAT CAP.		ELECTRICAL		FAN		REMARKS
		MAX	MIN	DROP	"WC" AT	S.P.	KW	STAGES	VOLT	PHASE	CFM	F.S.P.	
FTU1-1	OFFICE 101	525	160	0.30	35	8	2.8	1	480	3	290	0.40	1/8
FTU1-2	OFFICE 101 THRU 105	790	240	0.30	35	8	3.3	1	480	3	200	0.40	1/15
FTU1-3	OFFICE 105 THRU 107 / CUSTOMER 108A/B	950	390	0.30	35	10	4.4	1	480	3	200	0.40	1/15
FTU1-4	OFFICE 131	360	130	0.30	35	6	2.5	1	480	3	110	0.40	1/15
FTU1-5	OFFICE 129 / 130	785	290	0.30	35	8	3.2	1	480	3	230	0.40	1/15
FTU1-6	OFFICE 128/129 - WOMEN 121 - LOCKER 120	1,275	490	0.30	35	12	5.1	2	480	3	340	0.40	1/8
FTU2-1	OFFICE 201	415	160	0.30	35	6	3.4	1	480	3	110	0.40	1/15
FTU2-2	OFFICE 202 / 203	725	260	0.30	35	8	3.3	1	480	3	220	0.40	1/15
FTU2-3	OFFICE 204 THRU 206	620	230	0.30	35	8	2.9	1	480	3	300	0.40	1/8
FTU2-4	OFFICE 207 THRU 209	785	270	0.30	35	8	3.5	1	480	3	400	0.40	1/8
FTU2-5	CONFERENCE 210	490	150	0.30	35	8	2.2	1	480	3	270	0.40	1/15
FTU2-6	OFFICE 229	500	160	0.30	35	8	3.4	1	480	3	270	0.40	1/15
FTU2-7	OFFICE 225 THRU 228	1,010	330	0.30	35	10	4.2	1	480	3	530	0.40	1/3
FTU2-8	WOMEN 221 - IS BENCH 222 - OFFICE 223/224	970	320	0.30	35	10	4.1	1	480	3	510	0.40	1/3
FTU2-9	BREAK ROOM 219	820	250	0.30	35	10	3.1	1	480	3	290	0.40	1/8

DIFFUSER, REGISTER AND GRILLE SCHEDULE

SYMBOL	TYPE	FACE	FRAME	DAMPER	FINISH	MODEL NO.	REMARKS
CD-1	CEILING SUPPLY DIFFUSER	PERFORATED	LAY-IN	NONE	WHITE	TITUS PCS	
CD-2	CEILING SUPPLY DIFFUSER	PERFORATED	SURFACE	NONE	WHITE	TITUS PCS	CONCEALED BRANCH DUCT DAMPER
CTG-1	CEILING TRANSFER GRILLE	PERFORATED	T-BAR	NONE	WHITE	TITUS PAR-AA	
SD-1	ADJUSTABLE LINEAR SLOT DIFFUSER	2-SLOT, 1 INCH	T-BAR	NONE	WHITE	TITUS MP-39	1 IN. INSULATED INTEGRAL PLENUM.
SEG-1	SIDEWALL EXHAUST GRILLE	DOUBLE DEFL.	1-1/4" BORDER	NONE	WHITE	TITUS 300RL	
SG-1	SIDEWALL SUPPLY GRILLE	DOUBLE DEFL.	1-1/4" BORDER	NONE	WHITE	TITUS 300RL	
CRG-1	CEILING RETURN GRILLE	PERFORATED	LAY-IN	NONE	WHITE	TITUS PAR	
CRG-2	CEILING RETURN GRILLE	PERFORATED	SURFACE	NONE	WHITE	TITUS PAR	
RG-1	HEAVY DUTY RETURN GRILLE	FIXED BAR 40 DEG. DEFL.	SURFACE	NONE	WHITE	TITUS 33RS	HEAVY DUTY, ANTI-CORROSION
CEG-1	CEILING EXHAUST GRILLE	PERFORATED	LAY-IN	NONE	WHITE	TITUS PAR	
CEG-2	CEILING EXHAUST GRILLE	PERFORATED	SURFACE	NONE	WHITE	TITUS PAR	CONCEALED BRANCH DUCT DAMPER

DRAWING LIST

M0.1 COVER SHEET - HVAC
M2.1 FIRST FLOOR PLAN - HVAC
M2.2 SECOND FLOOR PLAN - HVAC
M3.1 DETAILS - HVAC
M3.2 DETAILS - HVAC

M0.1

NOTES THIS SHEET

- ① CEILING RETURN GRILLE AND DUCT BOOT. DUCT OPEN TO RETURN AIR PLENUM. TYPICAL. SEE DETAIL 2/M3.1.
- ② SUPPLY AND RETURN DUCTS UP TO ROOFTOP UNIT.

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SHEET TITLE:

**FIRST FLOOR
PLAN -
MECHANICAL**

DRAWN BY: JEM

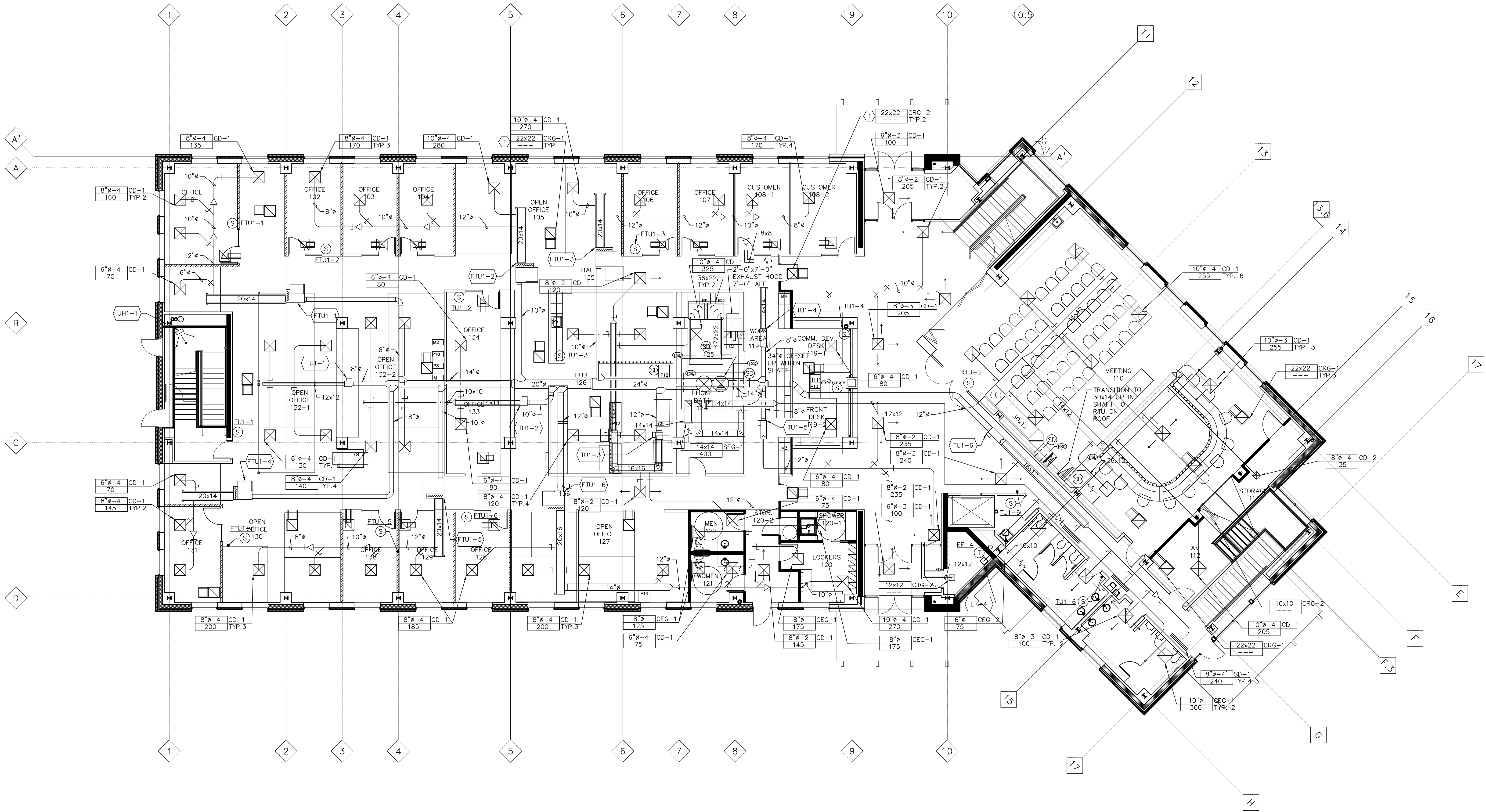
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SHEET

M2.1

JOB NO. 2050030.00

RECORD DRAWINGS * 12 DECEMBER 2006



1 FIRST FLOOR PLAN — MECHANICAL
1/8" = 1'-0"

NOTES THIS SHEET

- 1

CEILING RETURN GRILLE AND DUCT BOOT. DUCT OPEN TO RETURN AIR PLENUM. TYPICAL. SEE DETAIL 2/M3.1.
- 2

TRANE SUMMIT DDC SYSTEM WITH GRAPHICS. COMPUTER INTERFACE INSTALLED IN SERVER ROOM. CONTROL SYSTEM TO BE COMMISSIONED.
- 3

COMPUTER SERVER ROOM TO BE SERVED BY A 3 TON HORIZONTAL MOUNT UNIT WITH HUMIDITY CONTROL. WITH BACKUP FROM A COOLING ONLY VAV BOX.
- 4

SEE DETAIL 4/M3.2.

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REVISIONS:

REVISION	REVISION	REVISION
DATE	DATE	DATE

SHEET TITLE:

SECOND FLOOR
PLAN -
MECHANICAL

DRAWN BY: JEM

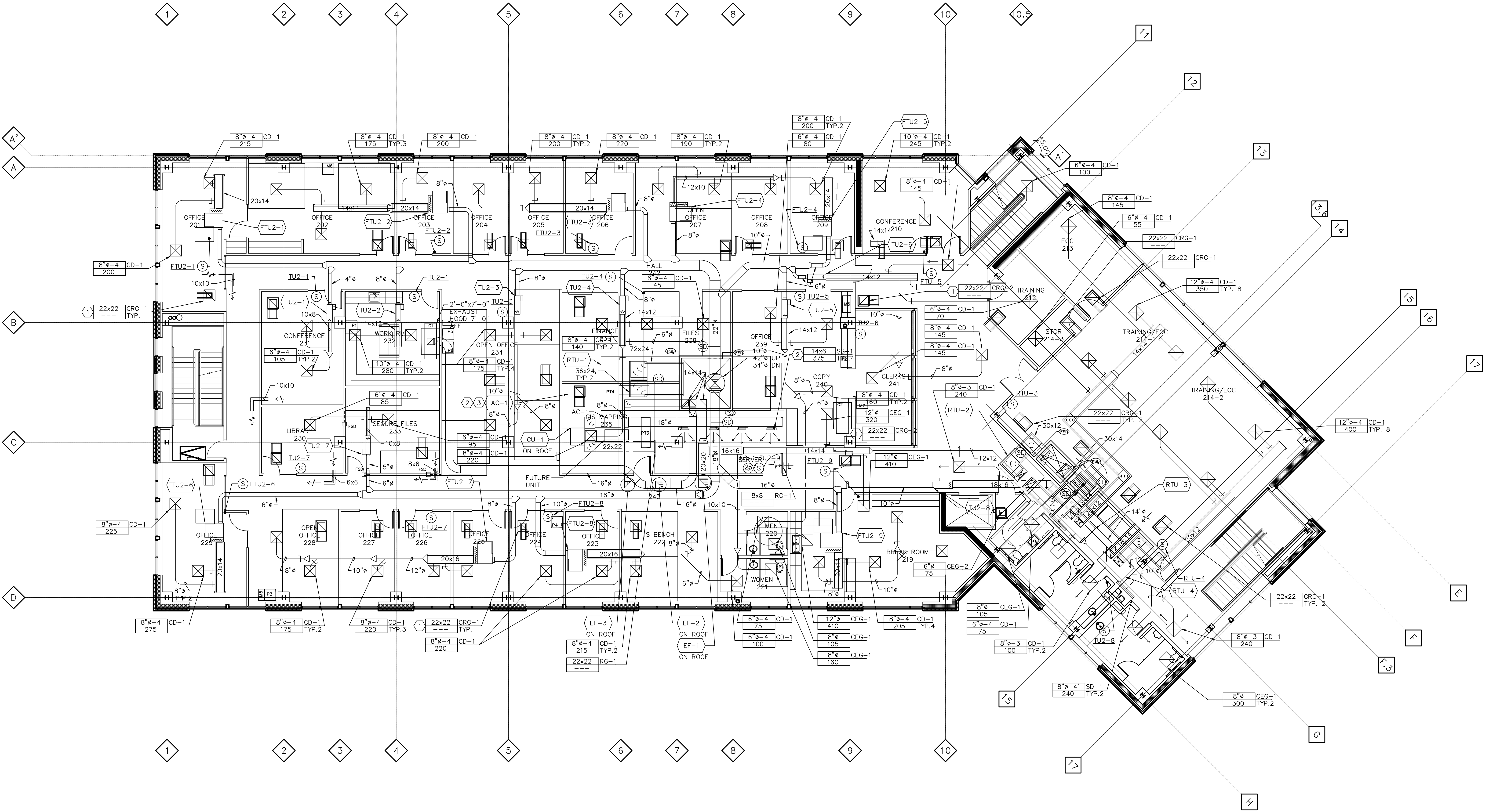
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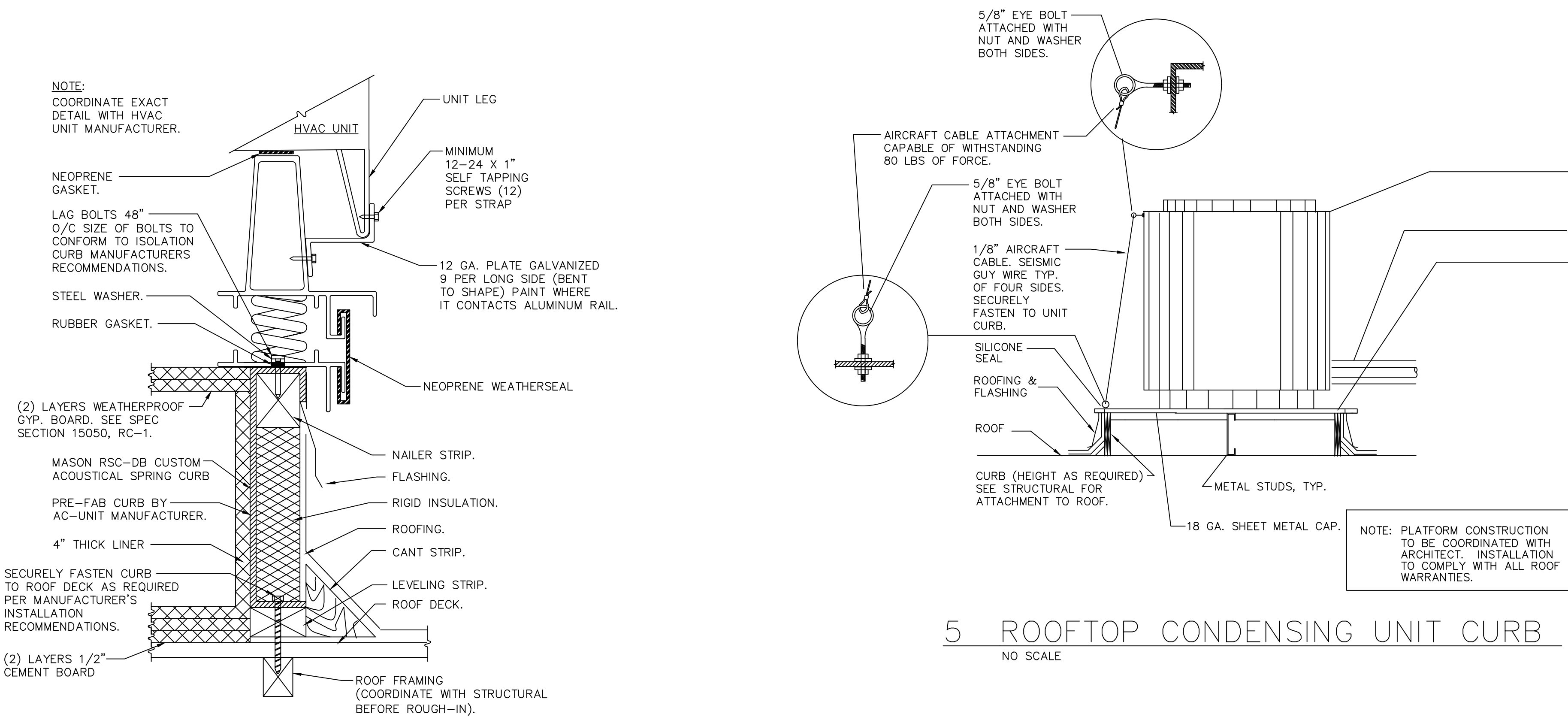
M2.2

JOB NO. 2050030.00

RECORD DRAWINGS * 12 DECEMBER 2006



1 SECOND FLOOR PLAN - MECHANICAL
1/8" = 1'-0"

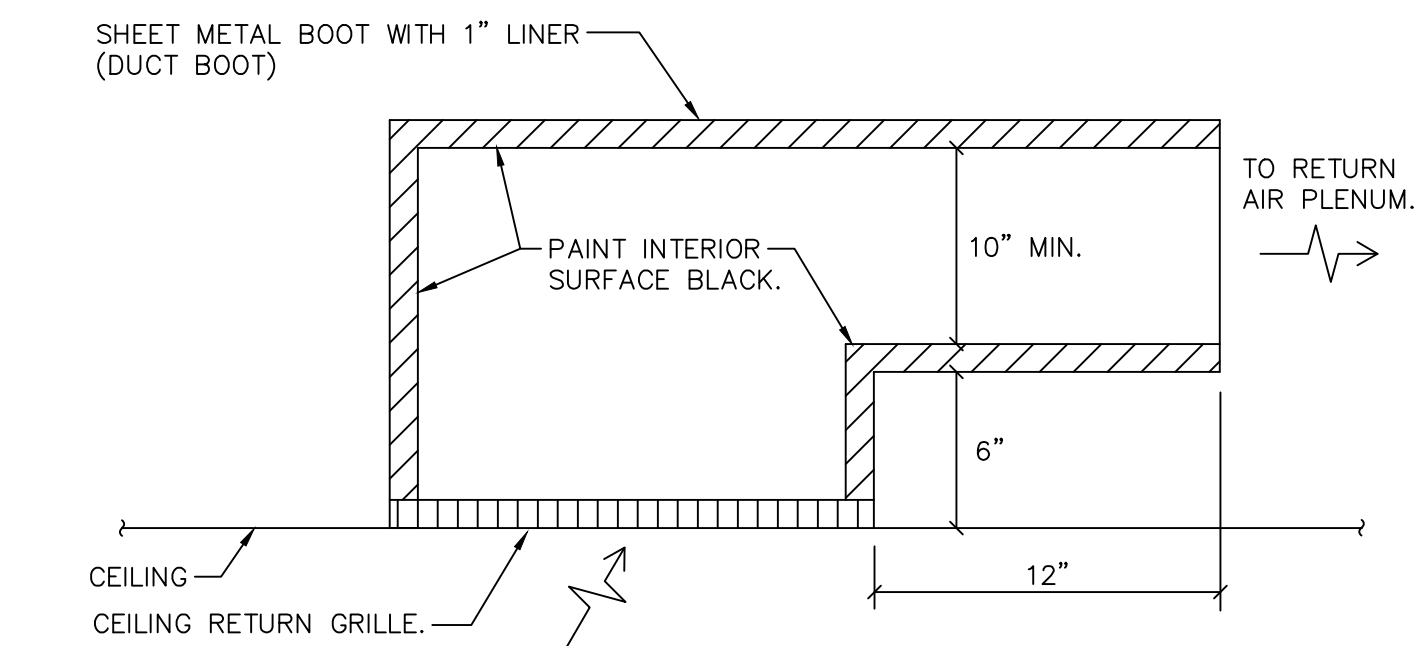


5 ROOFTOP CONDENSING UNIT CURB

NO SCALE

1 VAV UNIT CURB

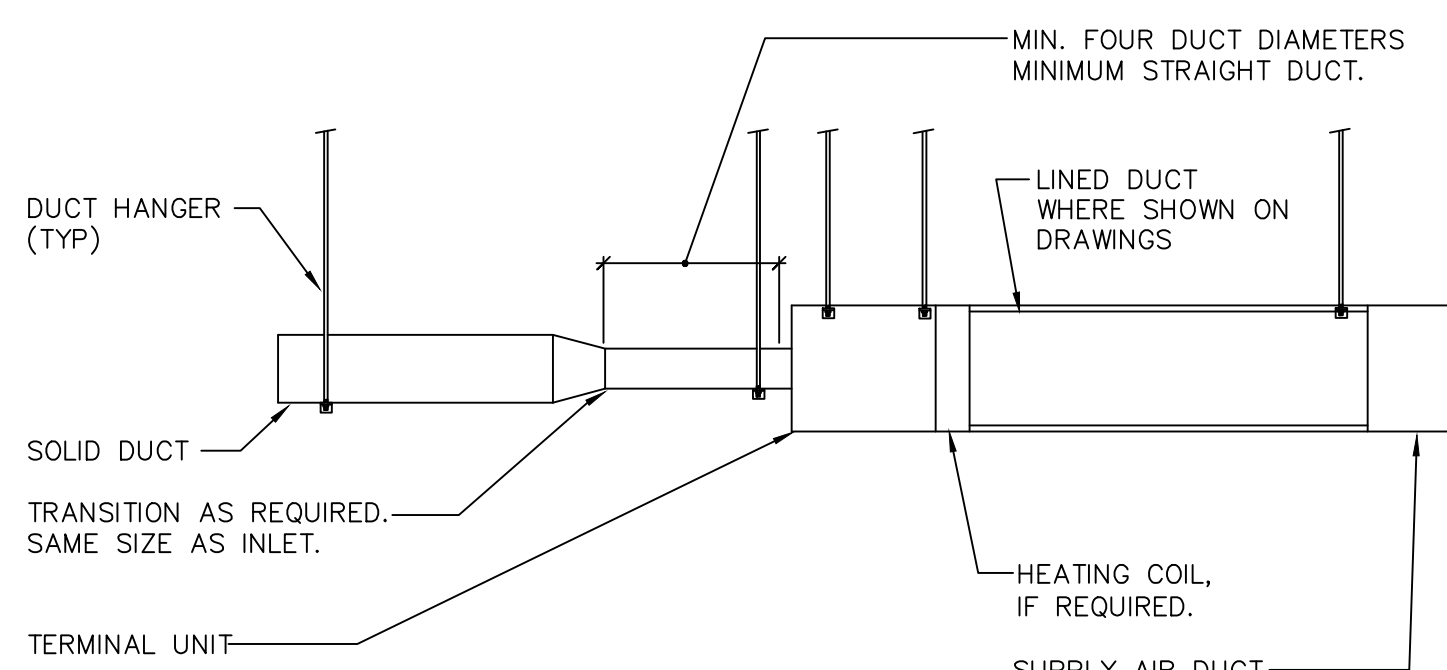
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2 CEILING RETURN ACOUSTIC BOOT

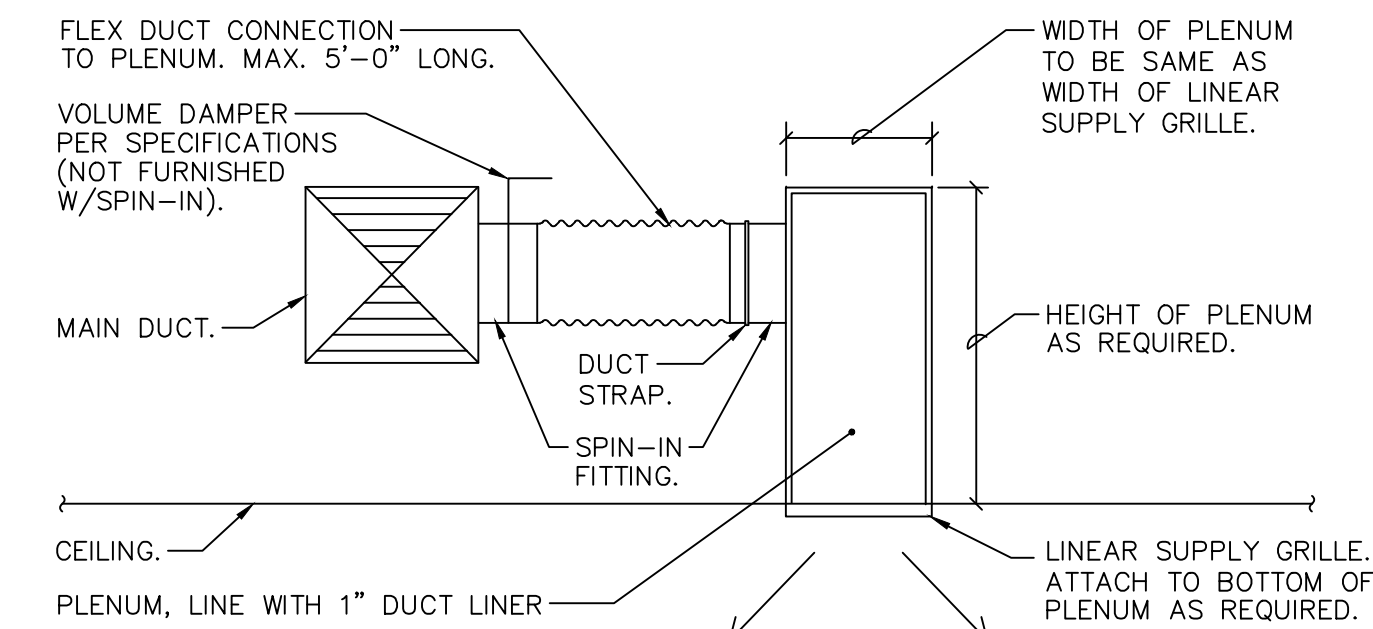
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MHVDU13A.dwg



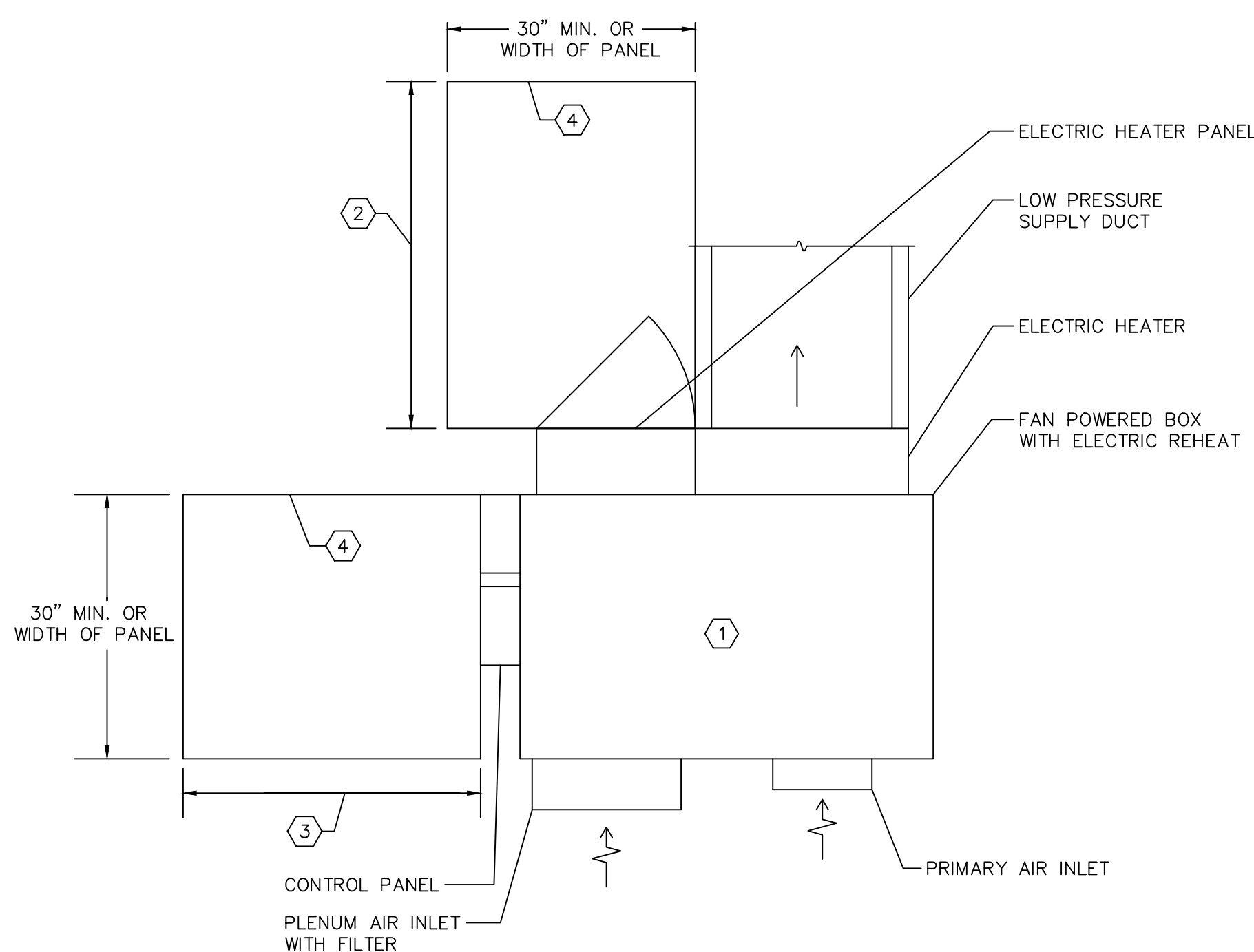
3 TERMINAL UNIT DETAIL

NO SCALE



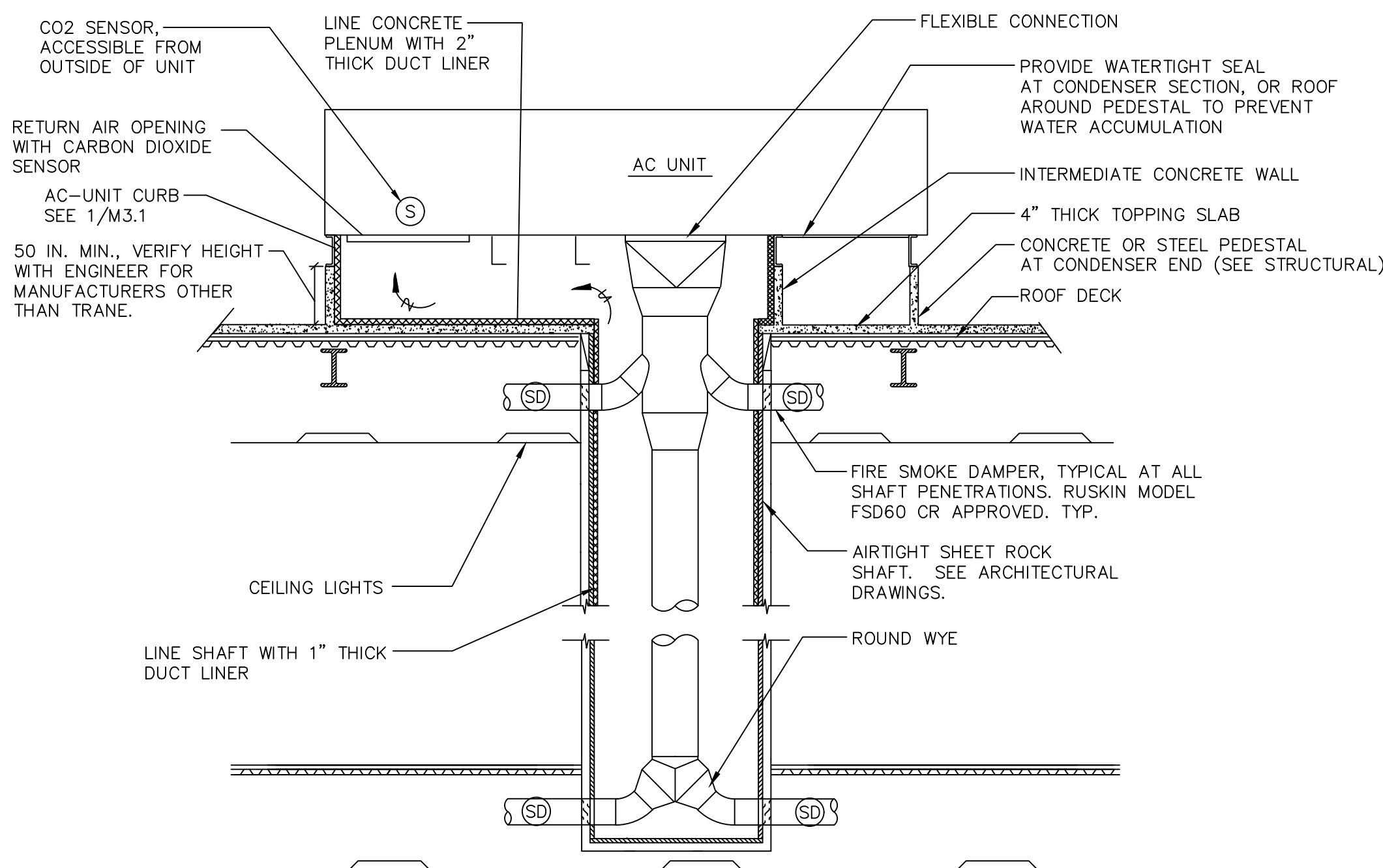
4 LINEAR SUPPLY GRILLE

NO SCALE



6 FAN POWERED VAV BOX WITH ELECTRIC REHEAT - NEC CLEARANCES

NO SCALE

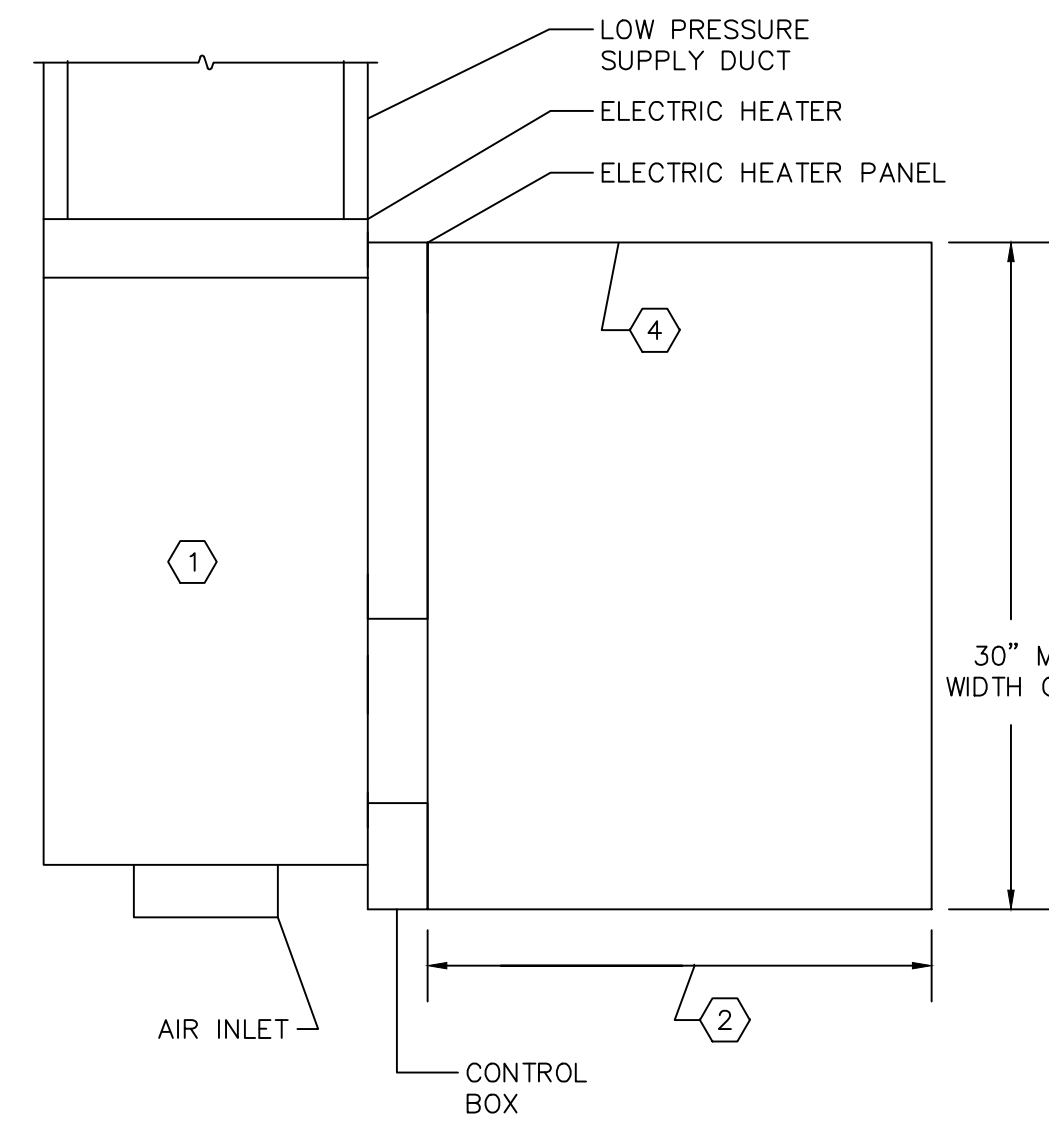


7 AC DUCT DROP DETAIL

NO SCALE

NOTES

- CLEARANCES ARE BASED ON TRANE VAV BOXES. VERIFY ALL PANEL LOCATIONS AND CLEARANCES WITH MANUFACTURER AND LOCAL ELECTRICAL INSPECTOR.
- PROVIDE 42" MINIMUM CLEARANCE FOR 460V, 277V AND 208V SERVICES TO ELECTRIC HEATER PANEL. THERE SHALL BE NO PIPES, CEILING TIE WIRES, T-BAR MAINS, LIGHTS, DRAIN PIPES, DUCTWORK OR STRUCTURAL ELEMENTS WITHIN ACCESS AREA. MINIMUM CLEARANCE OF 6-1/2 FT. OR TO BOTTOM OF STRUCTURE IS REQUIRED.
- SIMILAR TO NOTE 1, EXCEPT WITH 36" MINIMUM CLEARANCE FOR 24V AND 120V CONTROL PANEL CONNECTIONS. 30" WIDE BY 18" DEEP MINIMUM CLEARANCE IF APPROVED BY ELECTRICAL INSPECTOR WITH WRITTEN REQUEST PER TERMINAL UNIT.
- ACCESS TO ELECTRICAL PANEL SHALL BE THROUGH CEILING TILE OR ACCESS PANEL. ACCESS THROUGH CEILING LIGHTS IS NOT ACCEPTABLE.

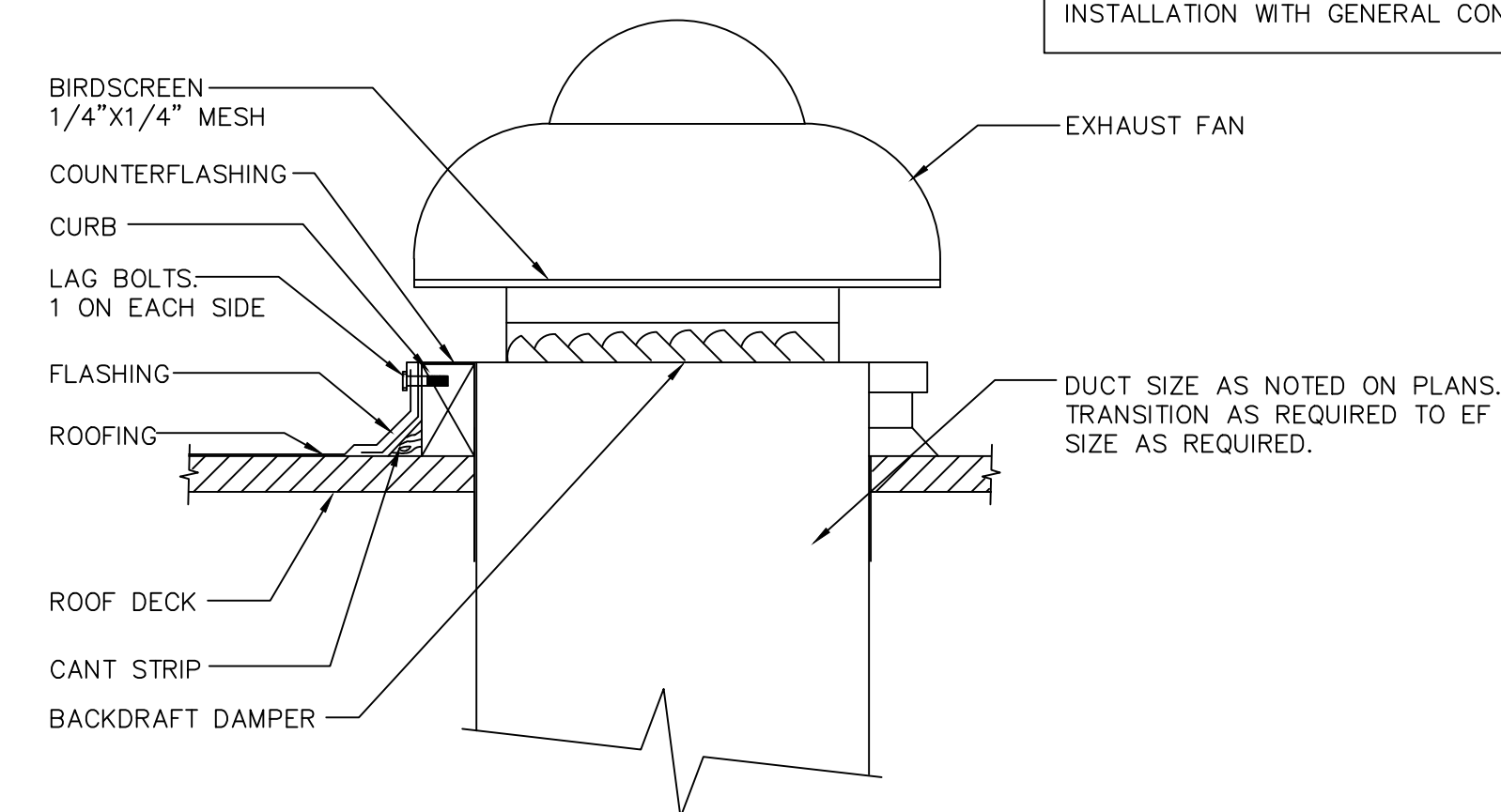


8 VAV BOX - NEC CLEARANCES

NO SCALE

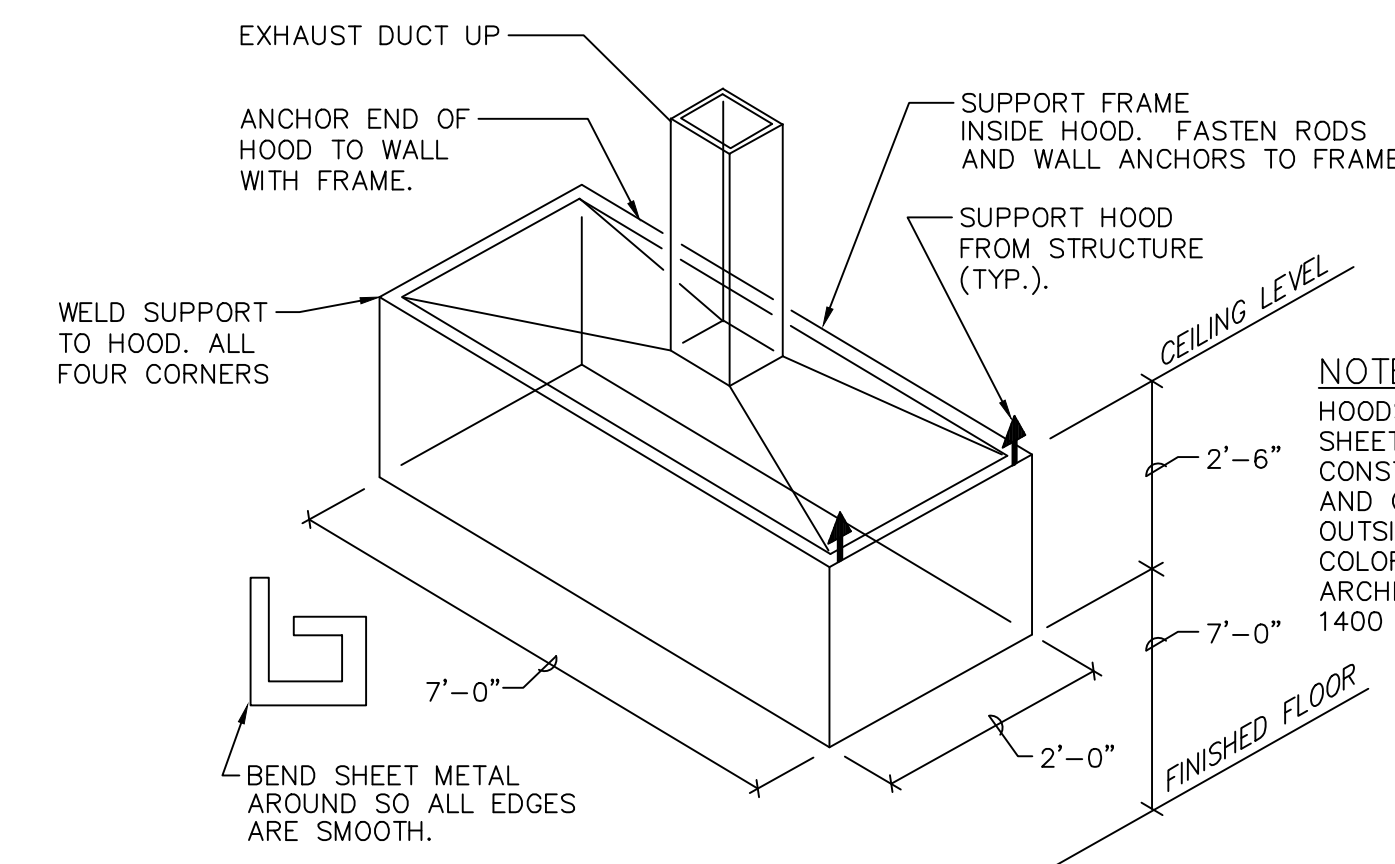
NOTES

- CLEARANCES ARE BASED ON TRANE VAV BOXES. VERIFY ALL PANEL LOCATIONS AND CLEARANCES WITH MANUFACTURER, LOCAL ELECTRICAL INSPECTOR AND DATA/COMMUNICATIONS CONTRACTOR.
- PROVIDE 42" MINIMUM CLEARANCE FOR 460V, 277V AND 208V SERVICES TO ELECTRIC HEATER PANEL. THERE SHALL BE NO PIPES, CEILING TIE WIRES, LIGHTS, DRAIN PIPES, DUCTWORK OR STRUCTURAL ELEMENTS WITHIN ACCESS AREA. MINIMUM CLEARANCE OF 6-1/2 FEET OR TO BOTTOM OF STRUCTURE IS REQUIRED.
- ACCESS TO ELECTRICAL PANEL SHALL BE THROUGH CEILING TILE OR ACCESS PANEL. ACCESS THROUGH CEILING LIGHTS IS NOT ACCEPTABLE.



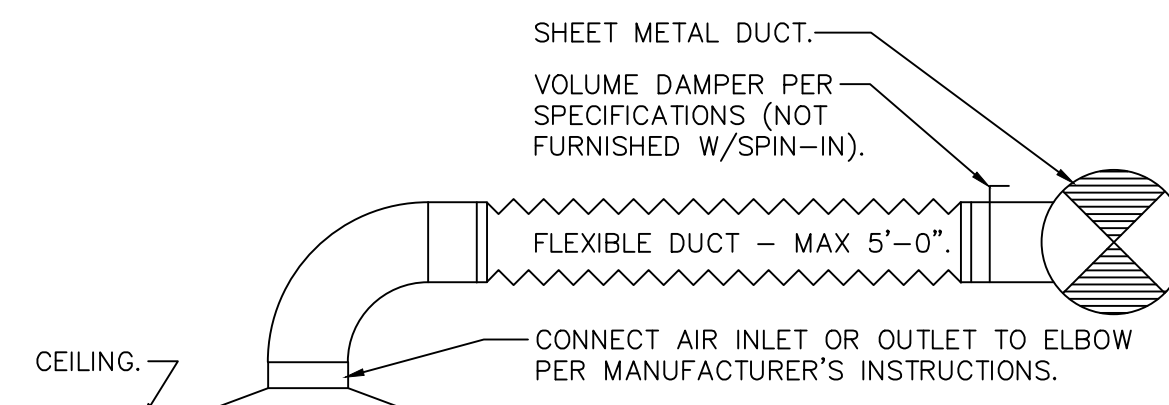
9 ROOF EXHAUST FAN DETAIL

NO SCALE



10 PRINTER/COPIER EXHAUST HOOD

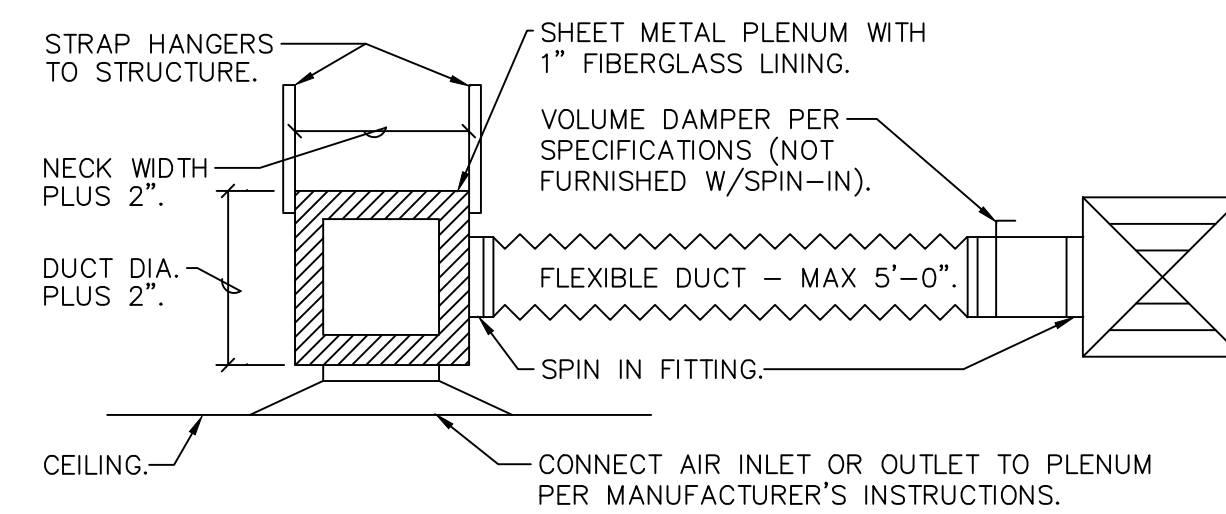
NO SCALE



11 AIR INLET OR OUTLET ROUND NECK

NO SCALE

MHVDU08B.dwg



12 AIR INLET OR OUTLET SQUARE NECK

NO SCALE

MHVDU08A.dwg

Client

Project

WILSONVILLE
CITY
HALL

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REVISIONS:

REVISION	DATE	REVISION	DELTA	CLOSING DATE

SHEET TITLE:

DETAILS -
HVAC

DRAWN BY: JEM

CHECKED BY: CM

SHEET

JOB NO. 2050030.00

GROUP

MACKENZIE

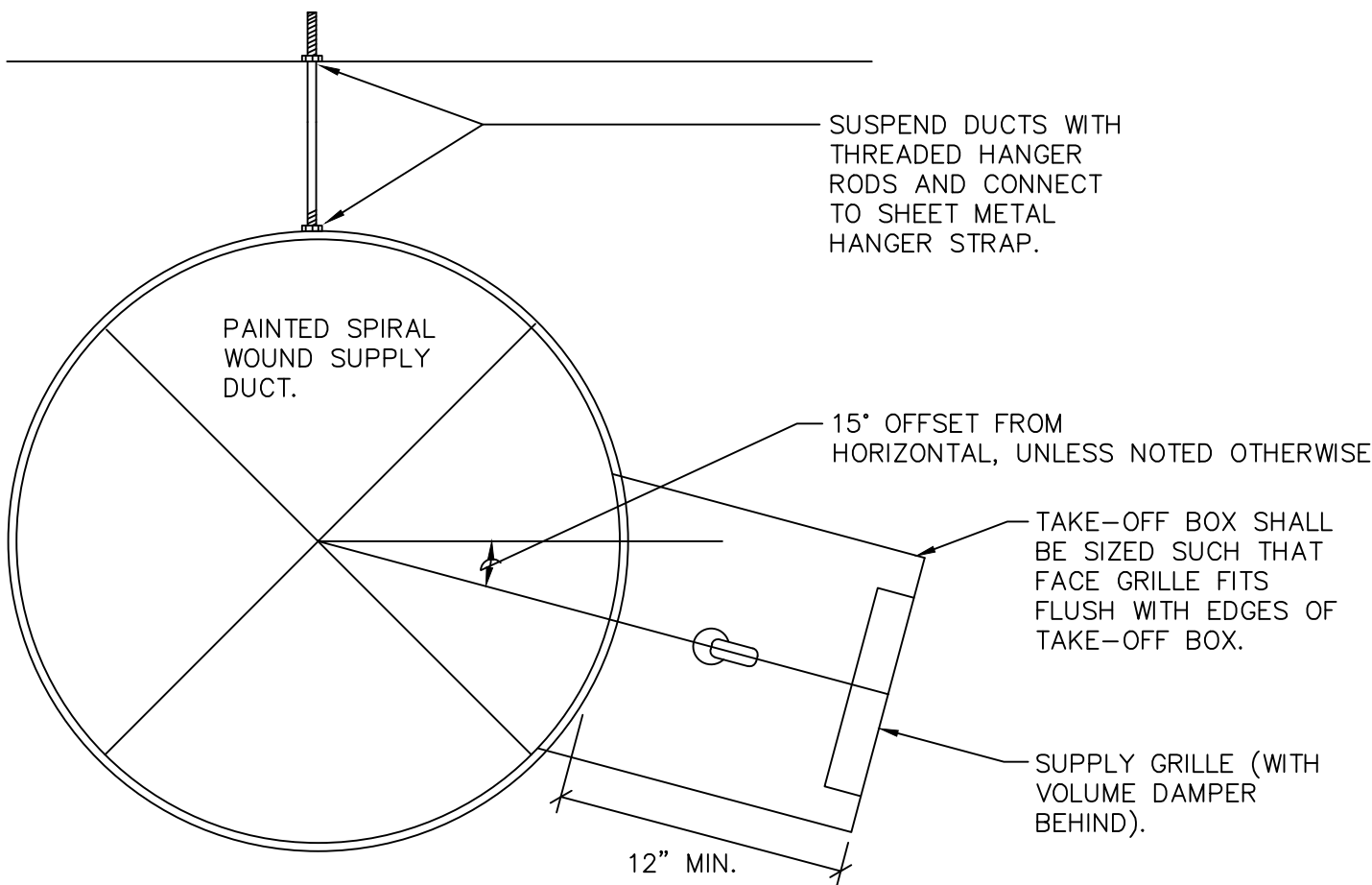
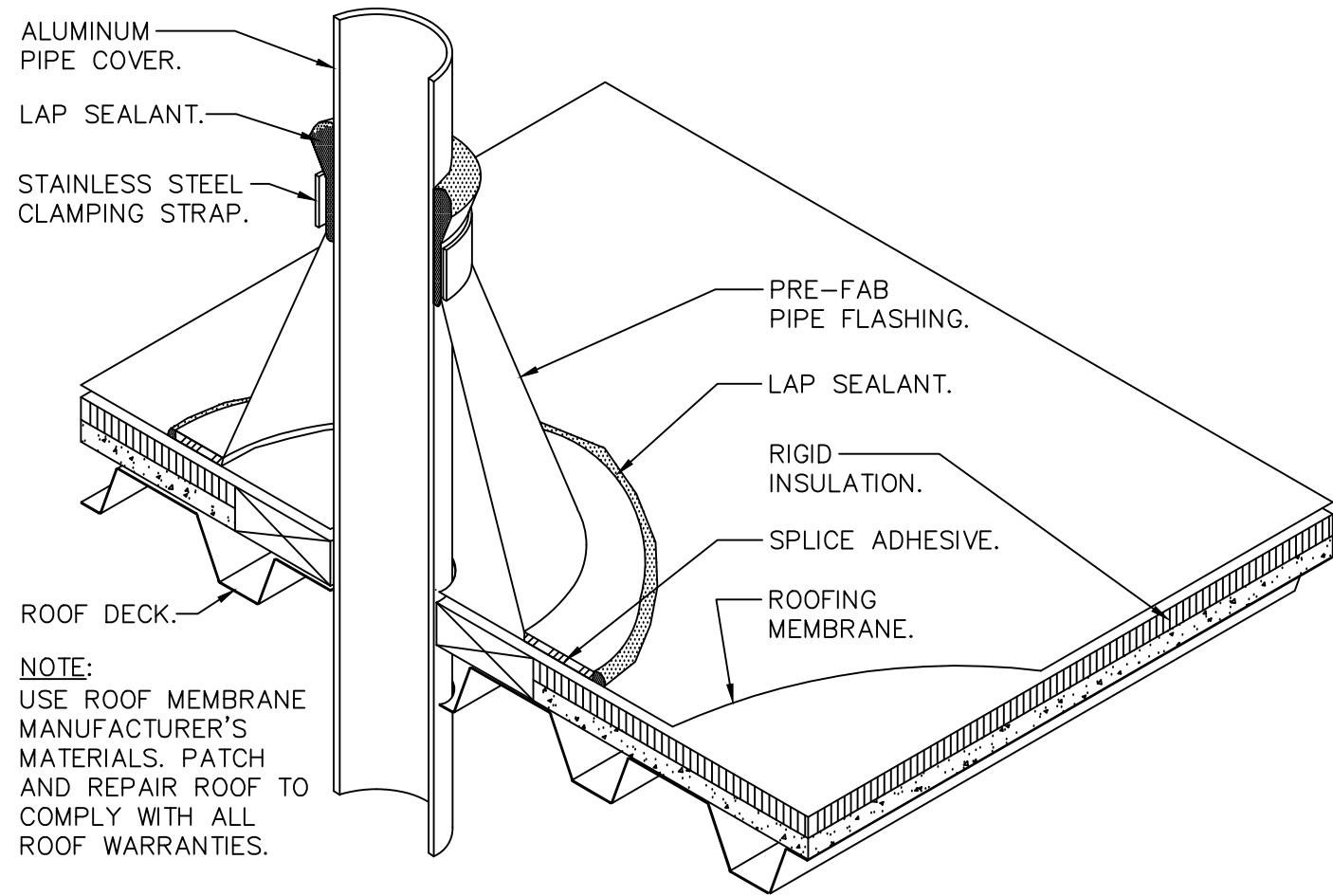
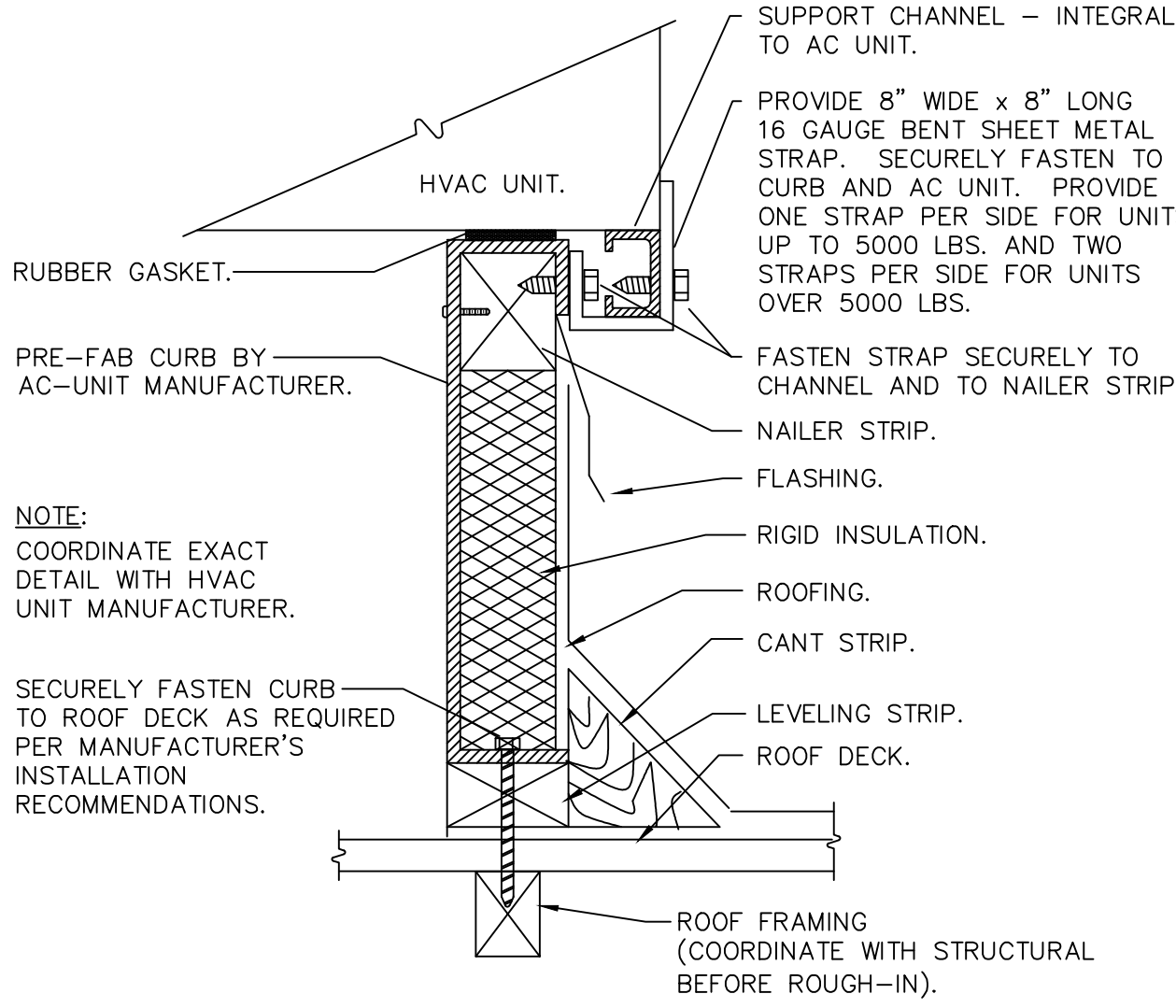
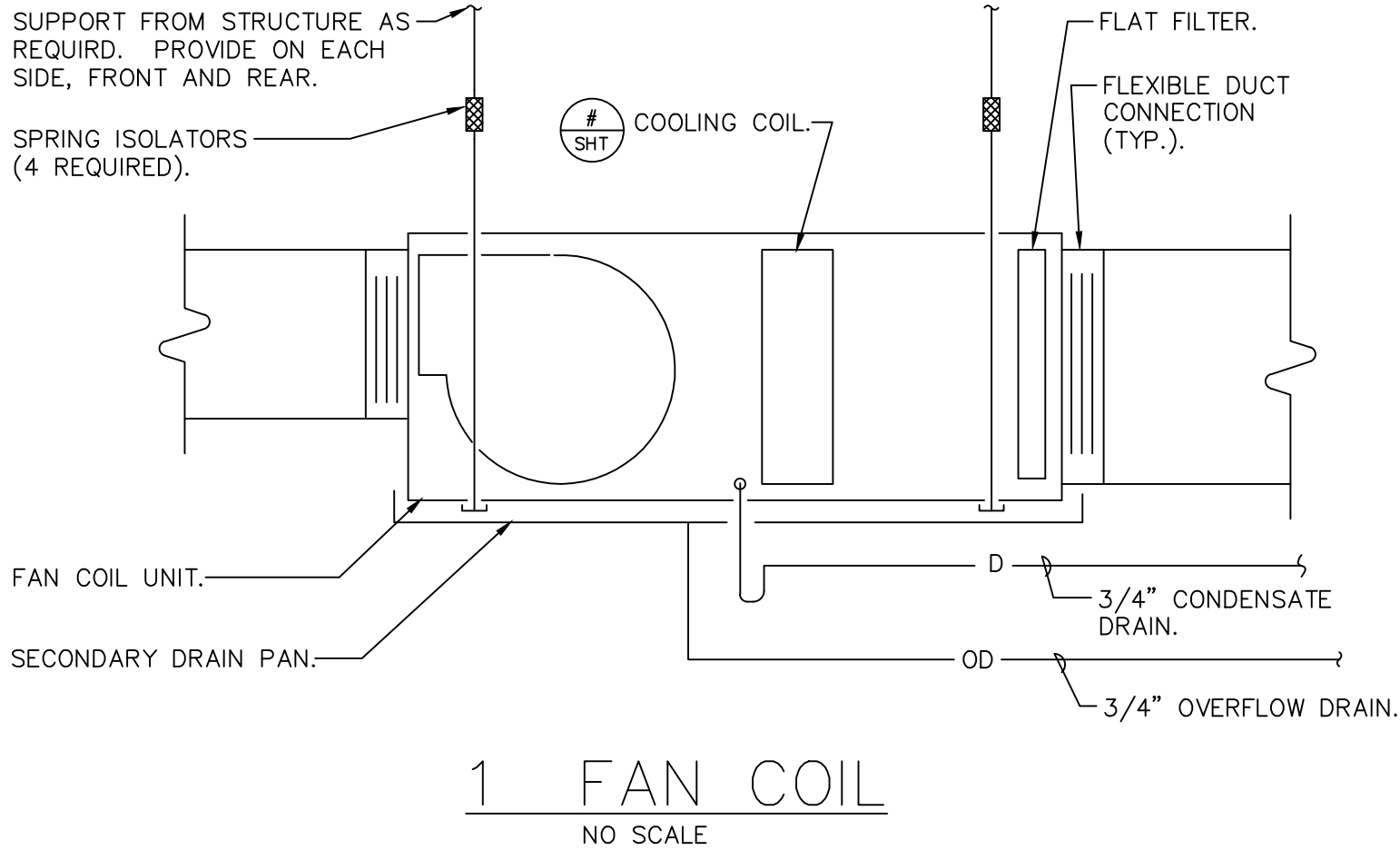
Civil Engineering
Structural Engineering
Transportation Planning

Architecture
Interior Design
Land Use Planning

Portland OR
Vancouver WA
Seattle WA

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360.695.7879
206.749.9993

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Project

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**DETAILS -
HVAC**

DRAWN BY: JEM

CHECKED BY: CM

SHEET

M3.2

JOB NO. 2050030.00

RECORD DRAWINGS * 12 DECEMBER 2006

SUBSTITUTION REQUEST FORM

For Substitution Requests Prior to Bidding

Advancement of Construction Technology
The Construction Specifications Institute
Northwest Region

TO: Woofter Architecture: Miles Woofter, Woofter Architecture. miles@woofterarchitecture.com

PROJECT: Wilsonville City Hall Renovation

SPECIFIED ITEM:

Section	Page	Paragraph	Description
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The undersigned requests consideration of the following:

PROPOSED SUBSTITUTION: _____

Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes description of changes to Contract Documents which proposed substitution will require for its proper installation.

The undersigned states that the following paragraphs, unless modified on attachments, are correct:

1. The proposed substitution does not affect dimensions shown on Drawings.
2. The undersigned will pay for changes to the building design, including engineering design, detailing and construction costs caused by the requested substitution.
3. The proposed substitution will have no adverse effect on other trades, the construction schedule, or specified warranty requirements.
4. Maintenance and service parts will be locally available for the proposed substitution.

The undersigned further states that the function, appearance and quality of the Proposed Substitution are equivalent or superior to the Specified Item.

Submitted by:

Signature _____

Firm _____

Address: _____

Date: _____

Telephone: _____

Attachments: _____

For use by Design Consultant:

___ Accepted ___ Accepted as noted

___ Not Accepted ___ Received too late

By: _____

Date: _____

Remarks: _____