

DAS PROJECT #9358.00

LUCAS BUILDING ICN DAS CRAC UNIT REPLACEMENT

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MAY 17, 2024

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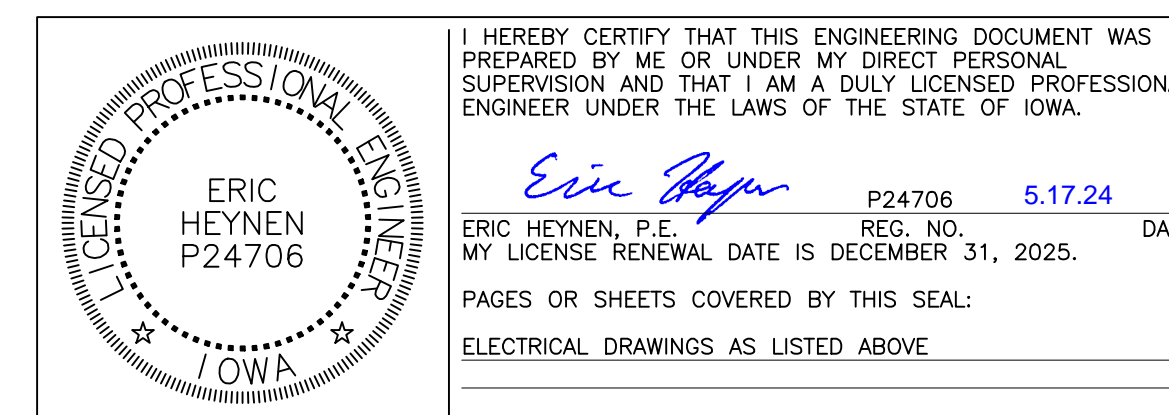
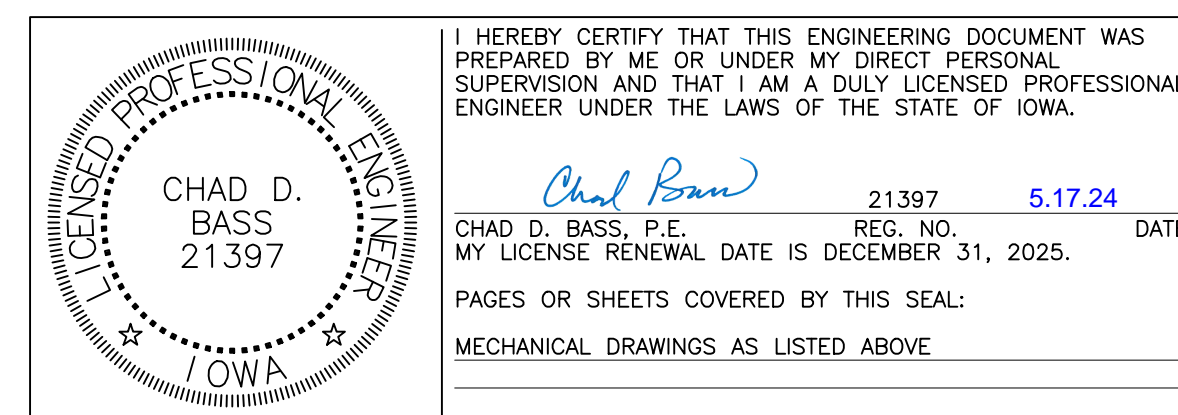
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MECHANICAL SYMBOLS

	LOCATION OF THERMOSTAT/ROOM TEMPERATURE SENSOR +56" OR AS NOTED
	HUMIDISTAT/ROOM HUMIDITY SENSOR +56" OR AS NOTED
	EQUIPMENT TAG
	NOTE REFERENCE

NOTE: NOT ALL SYMBOLS APPLY TO THIS PROJECT.

MECHANICAL DEMOLITION NOTES

MECHANICAL DEMOLITION DRAWINGS SHOWING EXISTING CONDITIONS HAVE BEEN PREPARED BASED ONLY ON FIELD OBSERVATIONS AS NO ORIGINAL DRAWINGS EXIST. ADDITIONAL COMPONENTS MAY EXIST WHICH DO NOT SHOW, AND SUCH ITEMS SHALL BE DEALT WITH IN A MANNER SIMILAR TO THOSE ITEMS WHICH DO SHOW. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS.

CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH EXISTING MECHANICAL SYSTEMS WHICH WILL BE AFFECTED BY THE DEMOLITION WORK. CONTRACTOR SHALL OBTAIN PERMISSION FROM OWNER'S REPRESENTATIVE TO SHUT OFF SERVICES OR SYSTEMS WHICH MAY AFFECT OTHER AREAS BEYOND THE LIMITS OF THE IMMEDIATE DEMOLITION AREA. SUCH PERMISSION WILL BE GRANTED ONLY AFTER OWNER'S REPRESENTATIVE IS INFORMED OF THE REASON FOR AND DURATION OF THE SHUTDOWN AND IS SATISFIED THAT THE SHUTDOWN CAN BE MADE WITH AS LITTLE INCONVENIENCE TO OTHER AREAS AS POSSIBLE.

PIPING, HANGERS, DUCTWORK, GRILLES, REGISTERS, DIFFUSERS, ETC., SHOWN TO REMAIN ON PLANS SHALL REMAIN UNLESS NOTED OTHERWISE. SUPPORTS AND ALL APPURTENANCES OF EXISTING EQUIPMENT SHALL BE REMOVED UNLESS NOTED OTHERWISE. DISPOSAL SHALL BE DONE IN A TIMELY MANNER IN ACCORDANCE WITH THE GENERAL DEMOLITION WORK. COORDINATE WITH THE OWNER AND OTHER CONTRACTORS.

EQUIPMENT AND/OR MATERIALS SCHEDULED FOR ABANDONMENT AND REMOVAL ARE TO BECOME CONTRACTOR'S SALVAGE AND SHALL BE HAULED AWAY FROM THE SITE PROMPTLY.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH REPAIR OR REPLACEMENT OF EQUIPMENT FOUND TO BE DAMAGED OR NON-FUNCTIONAL DUE TO CONSTRUCTION PROCESS AFTER SUBSTANTIAL COMPLETION.

PROTECT ALL EXISTING CEILING TILES FROM DAMAGE DURING MOVEMENT AND CONSTRUCTION.

MECHANICAL PATCHING NOTES

CONTRACTOR SHALL PROTECT AND REPAIR EXISTING BUILDING FINISHES FROM WORK PERFORMED. CONTRACTOR SHALL REPAIR ANY DAMAGE THAT OCCURS DURING CONSTRUCTION TO MATCH ORIGINAL FINISHES.

MECHANICAL ABBREVIATIONS

ABSOR	ABSORPTION	EQUIP	EQUIPMENT	LDBT	LEAVING DRY BULB TEMPERATURE
ACU	AIR CONDITIONING UNIT	EST	EXTERNAL STATIC PRESSURE	LWT	LEAVING WATER TEMPERATURE
AD	ACCESS DOOR OR AREA DRAIN	EWBT	ENTERING WET BULB TEMPERATURE	LWBT	LEAVING WET BULB TEMPERATURE
AFB	ABOVE FINISHED FLOOR	EWC	ELECTRIC WATER COOLER	MB	MOP BASIN
AFG	ABOVE FINISHED GRADE	EWI	ENTERING WATER TEMPERATURE	MBH	1000 BTUH
AHU	AIR HANDLING UNIT	EX	EXISTING	MC	MECHANICAL CONTRACTOR
AV	AIR VENT	EXH	EXHAUST	MECH	MECHANICAL
BOT	BOTTOM	EXP	EXPANSION	MH	MANHOLE
BTU	BRITISH THERMAL UNIT	FAI	FRESH AIR INTAKE	NTS	NOT TO SCALE
BTUH	BTU PER HOUR	FCU	FAI COIL UNIT	OA	OUTSIDE AIR
CA	COMPRESSED AIR	FD	FLOOR DRAIN	OD	OVERFLOW ROOF DRAIN
CB	CATCH BASIN	FLEX	FLEXIBLE	PSI	POUNDS PER SQUARE INCH
CENT	CENTRIFUGAL	FLR	FLOOR	PRV	POWER ROOF VENTILATOR
CFM	CUBIC FEET PER MINUTE	PFM	FEET PER MINUTE	PRV	PRESSURE REDUCING VALVE
CI	CAST IRON	PPS	FEET PER SECOND	PV	PRESSURE VENT
CL	CENTER LINE	FS	FLOOR SINK	PVC	POLYVINYL CHLORIDE
COND	CONDENSATE	FT	FINTUBE	RA	RETURN AIR
CO	CLEAN OUT	FTG	FOOTING	RD	ROOF DRAIN
CONC	CONCRETE	GA	GAGE	RH	RELATIVE HUMIDITY
CONTR	CONTRACTOR	GAL	GALLON	RV	ROOF TOP UNIT
CP	CONDENSATE PUMP	GALV	GALVANIZED	RY	RELIEF VALVE
CRAC	COMPUTER ROOM AIR CONDITIONER	GC	GENERAL CONTRACTOR	SK	SINK
CJ	COPPER	GFH	GALLONS PER HOUR	SA	SUPPLY AIR
CWP	CIRCULATING WATER PUMP	GFPM	GALLONS PER MINUTE	SH	SHOWER
DDC	DIRECT DIGITAL CONTROLS	H	WALL HYDRANT	SP	STATIC PRESSURE
DN	DOWN	HR	HOUR	TCC	TEMPERATURE CONTROL CONTRACTOR
DR	DRAIN	HTC	HEATING	TYP	TYPICAL
DS	DOWNSPOUT	HB	HOSE BIBB	UC	UNDER CUT
EA	EXHAUST AIR	ISP	INTERNAL STATIC PRESSURE	UH	UNIT HEATER
EAT	ENTERING AIR TEMPERATURE	JR	JANITOR RECEPTOR	UR	URNAL
EC	ELECTRICAL CONTRACTOR	LAV	LAVATORY	UV	UNIT VENTILATOR
EDBT	ENTERING DRY BULB TEMPERATURE			VTR	VENT THROUGH ROOF
EJ	EXHAUST FAN			WC	WATER CLOSET
EF	EXPANSION JOINT			WH	WATER HEATER

NOTE: NOT ALL ABBREVIATIONS ARE USED ON THIS PROJECT.

ELECTRICAL SYMBOLS

	DUPLEX TAMPER- AND WEATHER-RESISTANT GFCI RECEPTACLE WITH WEATHERPROOF IN-USE COVER, +24" OR AS NOTED
	SAFETY DISCONNECT SWITCH, SEE EQUIPMENT SCHEDULE
	EQUIPMENT CONNECTION AS NOTED
	LIGHTING AND POWER PANEL - SURFACE MOUNTED
	EQUIPMENT IDENTIFICATION EQUIPMENT NUMBER
	NOTE REFERENCE

NOTE: NOT ALL SYMBOLS APPLY TO THIS PROJECT.

GENERAL NOTES - ELECTRICAL

- COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. BEGIN INSTALLATION AND ROUGH-IN ONLY AFTER PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION IS COMPLETE. COORDINATE WITH BUILDING STRUCTURE, ARCHITECTURE, MECHANICAL SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, EQUIPMENT ACCESS/CLEARANCE, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR REWORK OF INSTALLED EQUIPMENT RESULTING FROM INSUFFICIENT COORDINATION.
- ELECTRICAL DRAWINGS ARE ONLY A PORTION OF THE COMPLETE SET OF PLANS AND CONTRACT DOCUMENTS. THE ELECTRICAL SCOPE OF WORK IS DEFINED BY THE COMPLETE SET OF CONTRACT DOCUMENTS. THIS INCLUDES BUT IS NOT LIMITED TO REFERENCING ARCHITECTURAL PLANS FOR DIMENSIONS AND DETAILS; EQUIPMENT PLANS FOR ROUGH-IN REQUIREMENTS, MECHANICAL PLANS FOR EQUIPMENT SIZES AND LOCATIONS.

CODE NOTES - ELECTRICAL

- PROVIDE ELECTRICAL INSTALLATION IN ACCORDANCE WITH ALL STATE CODES.
- THE CURRENT ADOPTED EDITION OF THE ELECTRICAL CODE IS THE STANDARD FOR THE ELECTRICAL INSTALLATION. VERIFY WITH LOCAL OFFICIALS WHEN PERMITS ARE OBTAINED. NOTIFY DESIGN TEAM OF ANY DISCREPANCIES BETWEEN THE PROJECT MANUAL OR DRAWINGS AND THE GOVERNING CODE.

DEVICE INSTALLATION AND MATERIALS - ELECTRICAL

- PROVIDE NORMAL WIRING DEVICES AS GRAY UNLESS OTHERWISE NOTED.
- PROVIDE DEVICES COVER PLATES AS STAINLESS STEEL. MATCH WIRING DEVICES COLOR.
- PROVIDE GFCI TYPE RECEPTACLES AT ALL LOCATIONS REQUIRED BY THE NEC.
- INSTALL WALL MOUNTED RECEPTACLES AT +18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.

	CONDENSATE DRAIN
	POINT OF CONNECTION OF NEW WORK TO EXISTING OR POINT OF DISCONNECTION OF DEMOLITION WORK
	RISER DOWN (ELBOW)
	RISER DOWN (TEE)
	RISER UP (ELBOW)
	NEW PIPING
	EXISTING PIPING TO REMAIN
	EXISTING PIPING TO BE REMOVED
	SHUT OFF VALVE (BALL, BUTTERFLY, ETC. REFER TO SPECS)

HVAC GENERAL NOTES

MECHANICAL CONTRACTOR TO PROVIDE A COMPLETE HVAC SYSTEM, INCLUDING MECHANICAL EQUIPMENT, SUPPORTS, HANGERS AND ALL APPURTENANCES. INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. INSTALL SYSTEM TO MEET ALL CITY AND STATE CODES AND REQUIREMENTS.

MECHANICAL GENERAL NOTES

COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATED SHALL INCLUDE BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

INCORPORATE INTO INSTALLATION MECHANICAL SPECIFICATIONS, DRAWINGS, STATE AND LOCAL CODES, AND OTHER APPLICABLE REQUIREMENTS.

ON COMPLETION OF THE INSTALLATION, MECHANICAL CONTRACTOR SHALL COOPERATE WITH THE OWNER TO PROVIDE ANY NECESSARY ADJUSTING AND BALANCING TO OBTAIN PROPER OPERATION OF ALL EQUIPMENT AND SYSTEMS. CONTRACTOR SHALL PROVIDE ALL FACILITIES AND EQUIPMENT, AND MAKE ALL TESTS, REQUIRED FOR ADJUSTMENTS AND BALANCING TO ESTABLISH THE PROPER PERFORMANCE OF ANY PIECE OF EQUIPMENT.

MECHANICAL WARRANTY NOTES

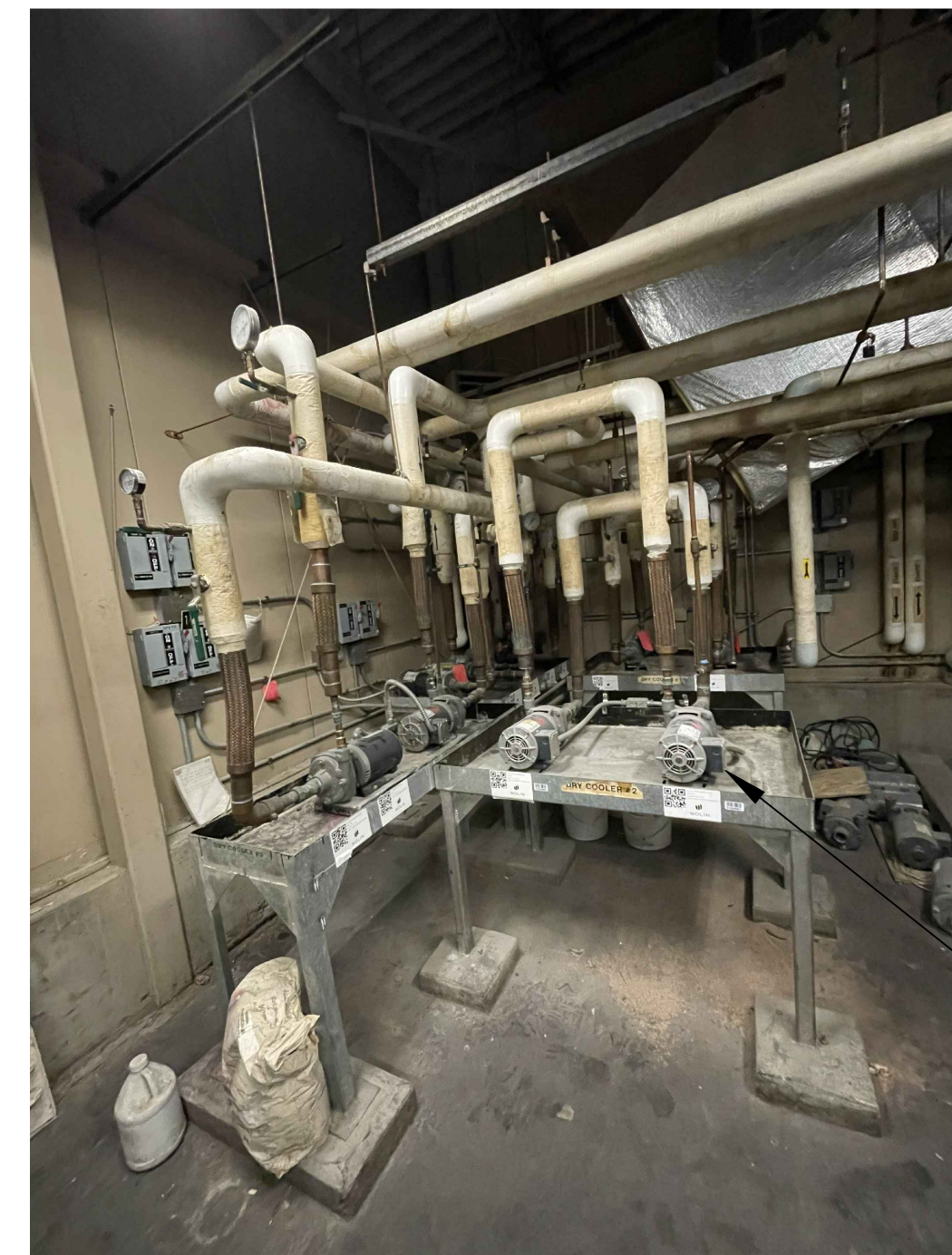
MECHANICAL CONTRACTOR SHALL WARRANT ALL EQUIPMENT AND INSTALLATION FOR A MINIMUM OF 1 YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. AIR CONDITIONING REFRIGERATION SYSTEMS SHALL BE WARRANTED FOR A MINIMUM OF 5 YEARS FOR PARTS ONLY, NON-PRORATED, FROM THE DATE OF SUBSTANTIAL COMPLETION. THE WARRANTY SHALL APPLY TO COMPRESSORS, EVAPORATORS, AND CONDENSER COILS, HIGH AND LOW SIDE PIPING AND PIPING SPECIALTIES WHICH SHALL INCLUDE EXPANSION AND SOLENOID VALVES, RELIEF VALVES, FILTER-DRYER, AND SIGHT GLASSES. PRESSURE GAUGES AND PRESSURE SWITCHES ARE NOT UNDER THE EXTENDED WARRANTY EXCEPT FOR LOSS OF REFRIGERANT AND CONSEQUENTIAL DAMAGE TO THE SYSTEM WHICH WILL BE AN EXTENDED WARRANTY OBLIGATION. ALL DEFECTS THAT BECOME APPARENT WITHIN THE WARRANTY PERIOD SHALL BE REPAIRED BY THE MECHANICAL CONTRACTOR AS DIRECTED BY THE ENGINEER THROUGH THE OWNER'S REPRESENTATIVE. WARRANTY WILL NOT OBLIGATE THE MECHANICAL CONTRACTOR TO REPAIR DAMAGE RESULTING FROM ACCIDENT OR IMPROPER OPERATION OF CARE ON THE PART OF THE OWNER. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND OTHER WARRANTY INFORMATION.

DEMOLITION AND RENOVATION NOTES - ELECTRICAL

- ELECTRICAL DEMOLITION DRAWINGS SHOWING EXISTING CONDITIONS HAVE BEEN PREPARED BASED ON FIELD OBSERVATION AND ORIGINAL DRAWINGS. FIELD VERIFY EXISTING CONDITIONS BEFORE WORK BEGINS. ADDITIONAL COMPONENTS MAY EXIST WHICH ARE NOT SHOWN. BECOME FAMILIAR WITH EXISTING ELECTRICAL SYSTEM WHICH WILL BE AFFECTED BY THE DEMOLITION WORK.
- PROVIDE EQUIPMENT, LABOR, AND MATERIALS TO REMOVE ELECTRICAL FACILITIES AND CLEAR THE AREA TO RECEIVE THE NEW WORK PROVIDED UNDER THIS CONTRACT.
- IN OCCUPIED AREAS BEYOND THE DEMOLITION SCOPE, KEEP EXISTING SYSTEMS NOT AFFECTED BY PROJECT SCOPE OPERATIONAL THROUGH THE DURATION OF THE PROJECT. OBTAIN PERMISSION FROM OWNER'S REPRESENTATIVE TO SHUT OFF SERVICES OR SYSTEMS WHICH MAY AFFECT OTHER AREAS BEYOND THE LIMITS OF THE DEMOLITION AREA. INFORM OWNER'S REPRESENTATIVE OF THE REASON FOR AND DURATION OF THE SHUTDOWN AND ENSURE THAT THE SHUTDOWN IS MADE WITH AS LITTLE INCONVENIENCE TO OTHER AREAS AS POSSIBLE.
- IDENTIFY DISCONNECTED BRANCH CIRCUIT LOCATION OR ITEM SERVED BEFORE DISCONNECTION. UPDATE PANEL/EQUIPMENT DIRECTORY ACCORDINGLY.
- KEEP EXISTING SYSTEMS OPERATIONAL DURING ALL PHASES OF CONSTRUCTION. DO NOT CUT EXISTING TELECOMMUNICATION WIRING, CABLES OR CONDUIT. CONTRACTORS WHO CUT IN-SERVICE CABLES ARE RESPONSIBLE FOR ALL DOWNTIME AND COSTS TO REPAIR.
- PROVIDE CUTTING AND PATCHING OF EXISTING MATERIALS AS REQUIRED FOR THE PROPER COMPLETION OF THE DEMOLITION WORK AND THE INSTALLATION OF THE NEW WORK.
- MAINTAIN FULL FUNCTIONAL AND AESTHETIC INTEGRITY OF DEVICES IDENTIFIED TO BE REMOVED AND RELOCATED, AND HANDLE WITH APPROPRIATE CARE TO ALLOW FOR REINSTALLATION. REPLACE DEVICES DAMAGED DURING DEMOLITION WITH NEW AT CONTRACTOR'S EXPENSE.
- EQUIPMENT AND SYSTEM THAT ARE REMOVED REMAIN THE PROPERTY OF THE OWNER UNLESS OTHERWISE NOTED. DISPOSE OF ALL MATERIALS NOT SALVAGED BY THE OWNER.
- REMOVE AND REINSTALL CEILING TILES REQUIRED FOR THE WORK BEING DONE UNDER THIS CONTRACT. REPLACE CEILING TILES DAMAGED DURING CONSTRUCTION TO MATCH EXISTING.

ELECTRICAL ABBREVIATIONS

AAC	ABOVE ACCESSIBLE CEILING	N	NEW DEVICE IN EXISTING LOCATION
ACT	DEVICE MOUNTED +8" ABOVE COUNTER TOP (VERIFY LOCATION)	NIC	NOT IN CONTRACT
AFB	ABOVE FINISHED FLOOR	NM	NONMETALLIC
AFG	ABOVE FINISHED GRADE	NTS	NOT TO SCALE
AIC	AMPS INTERRUPTING CAPACITY	OC	ON CENTER
ATS	AUTOMATIC TRANSFER SWITCH	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
BKR	BREAKER	OFOI	OWNER FURNISHED, OWNER INSTALLED
C	CONDUIT	PC	PHOTOCELL
CAV	CABLE TELEVISION	R	EXISTING ITEM TO BE REMOVED
CB	CIRCUIT BREAKER	RN	EXISTING ITEM TO BE REMOVED AND NEW ITEM REINSTALLED
CKT	CIRCUIT	RR	EXISTING ITEM TO BE REMOVED AND RELOCATED
CSB	CENTRAL SWITCH BANK	RRG	ROOM REFERENCE GROUNDING POINT
DPST	DOUBLE POLE SINGLE THROW	SES	SERVICE ENTRANCE SWITCHBOARD
E	EXISTING ITEM TO REMAIN	SIB	SOUND JUNCTION BOX
EC	ELECTRICAL CONTRACTOR	SN	SOLID NEUTRAL
EM	EMERGENCY LIGHT FIXTURE	SPDT	SINGLE POLE DOUBLE THROW
EPG	EQUIPOTENTIAL GROUNDING BUS	SPST	SINGLE POLE SINGLE THROW
ER	NEW LOCATION OF EXISTING ITEM	TB	TERMINAL BOARD
F	ROUGH IN FOR FUTURE DEVICE	TCP	TEMPERATURE CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL	TFA	TO FLOOR ABOVE
FACP	FIRE ALARM CONTROL PANEL	TL	TWIST LOCK RECEPTACLE
FBO	FURNISHED BY OTHERS	TP	TAMPER PROOF
FFB	FROM FLOOR BELOW	TTB	TELEPHONE TERMINAL BOARD
GF	GROUND FAULT CIRCUIT INTERRUPTER	TV	TELEVISION
GP	GROUND FAULT PROTECTED	TYP	TYPICAL
GND	GROUND	UC	UNDERCOUNTER
HOA	HAND OFF AUTOMATIC	UF	DEVICE UNDER RAISED FLOOR
JB	JUNCTION BOX	UPS	UNINTERRUPTIBLE POWER SUPPLY
K	KEYED	VG	VANDAL GUARD COVER
LC	LIGHTING CONTRACTOR	VF	VERIFY IN FIELD
MC	MECHANICAL CONTRACTOR	VL	VERIFY LOCATION
MCB	MAIN CIRCUIT BREAKER	VP	VANDAL PROOF
MCP	MAIN DISTRIBUTION PANEL	VR	VANDAL RESISTANT
MH-P	MANHOLE - POWER	WC	WIREGUARD COVER
MH-S	MANHOLE - SIGNAL	WP	WEATHERPROOF DEVICE
MLO	MAIN LUGS ONLY	WR	WEATHER RESISTANT DEVICE
MSS	MOTOR STARTER SWITCH	XFMR	TRANSFORMER
		+24"	INDICATES MOUNTING HEIGHT CENTER LINE OF DEVICE TO FINISHED FLOOR



2 PICTURE OF EXISTING PUMPS AND PIPING

REMOVE ALL PIPING AND ACCESSORIES FOR DRYCOOLERS TO BE REMOVED.

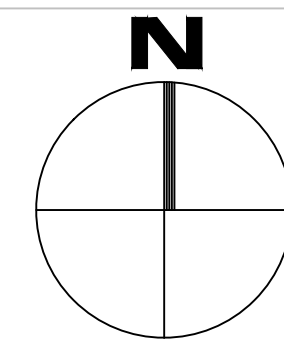
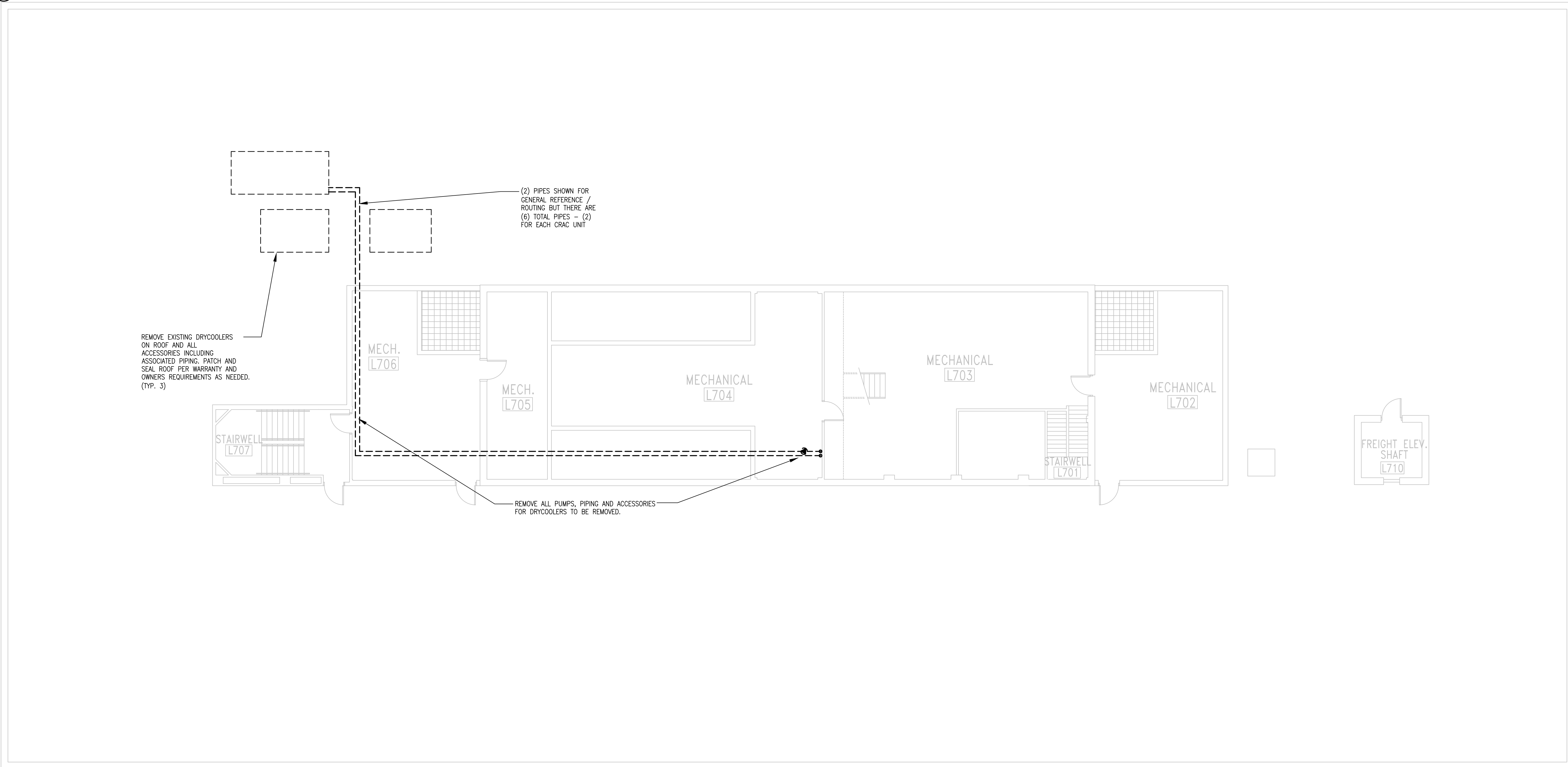


3 PICTURE OF EXISTING DRYCOOLERS

REMOVE ALL PIPING AND ACCESSORIES FOR DRYCOOLERS TO BE REMOVED.

GENERAL NOTES

- REFER TO GENERAL NOTES ON M0.
- COORDINATE ALL HVAC SYSTEM DOWNTIME WITH OWNER AT LEAST ONE WEEK IN ADVANCE.
- REMOVE ALL HANGERS AND SUPPORTS ASSOCIATED WITH EQUIPMENT TO BE REMOVED.



PENTHOUSE AND ROOF - HVAC - DEMO

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

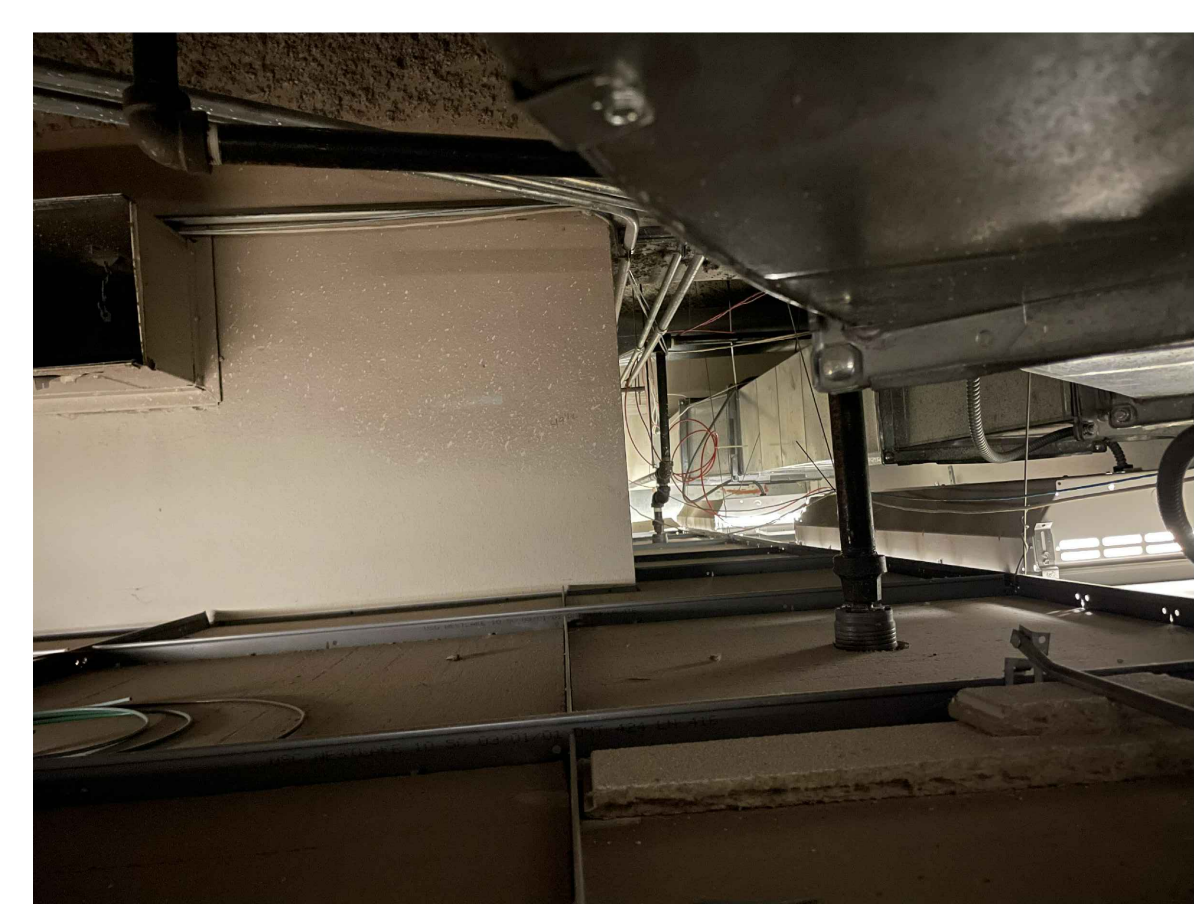
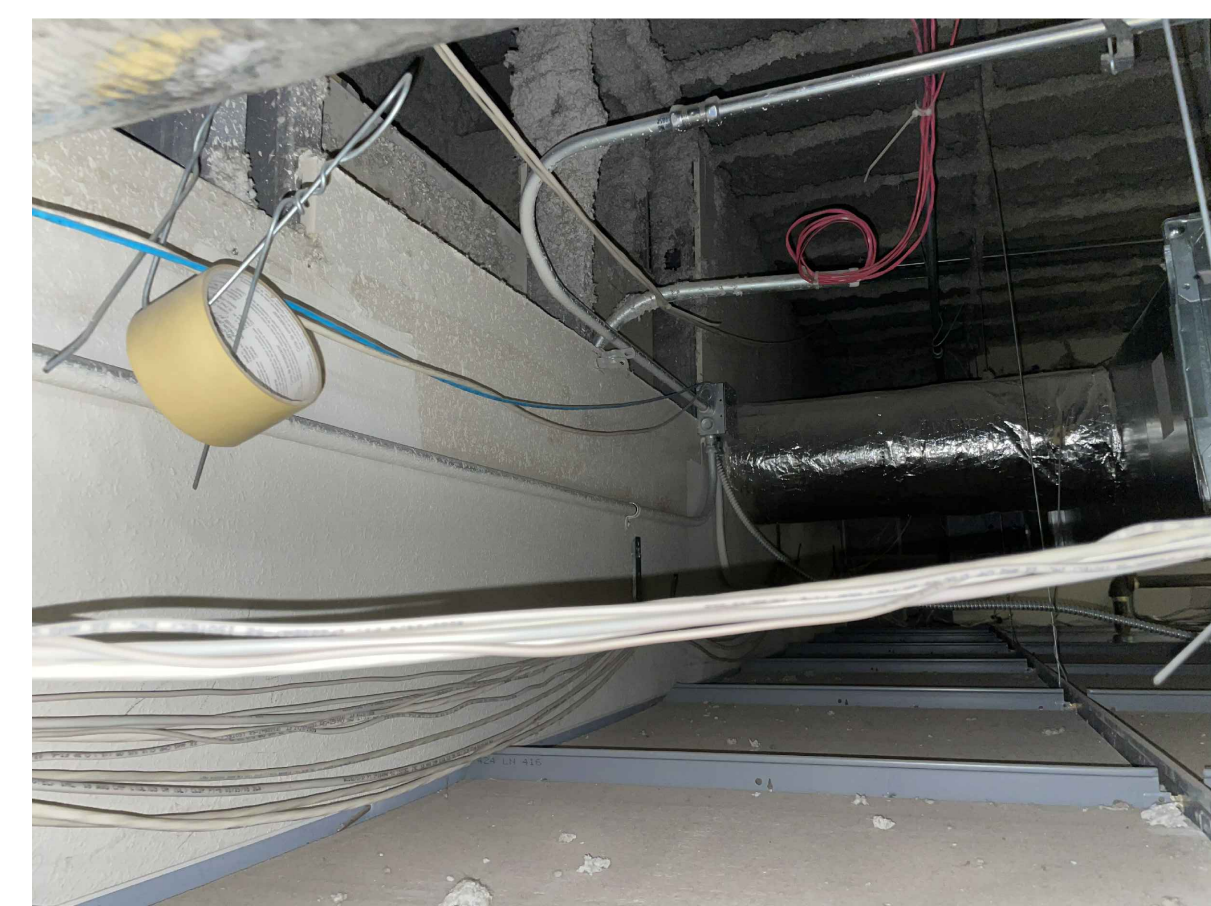
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Sheet Name:
PENTHOUSE AND ROOF - HVAC - DEMO

Scale:
1/8" = 1'-0"

Sheet:
MD2



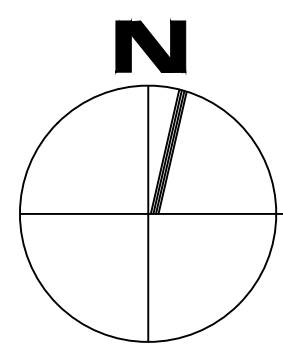
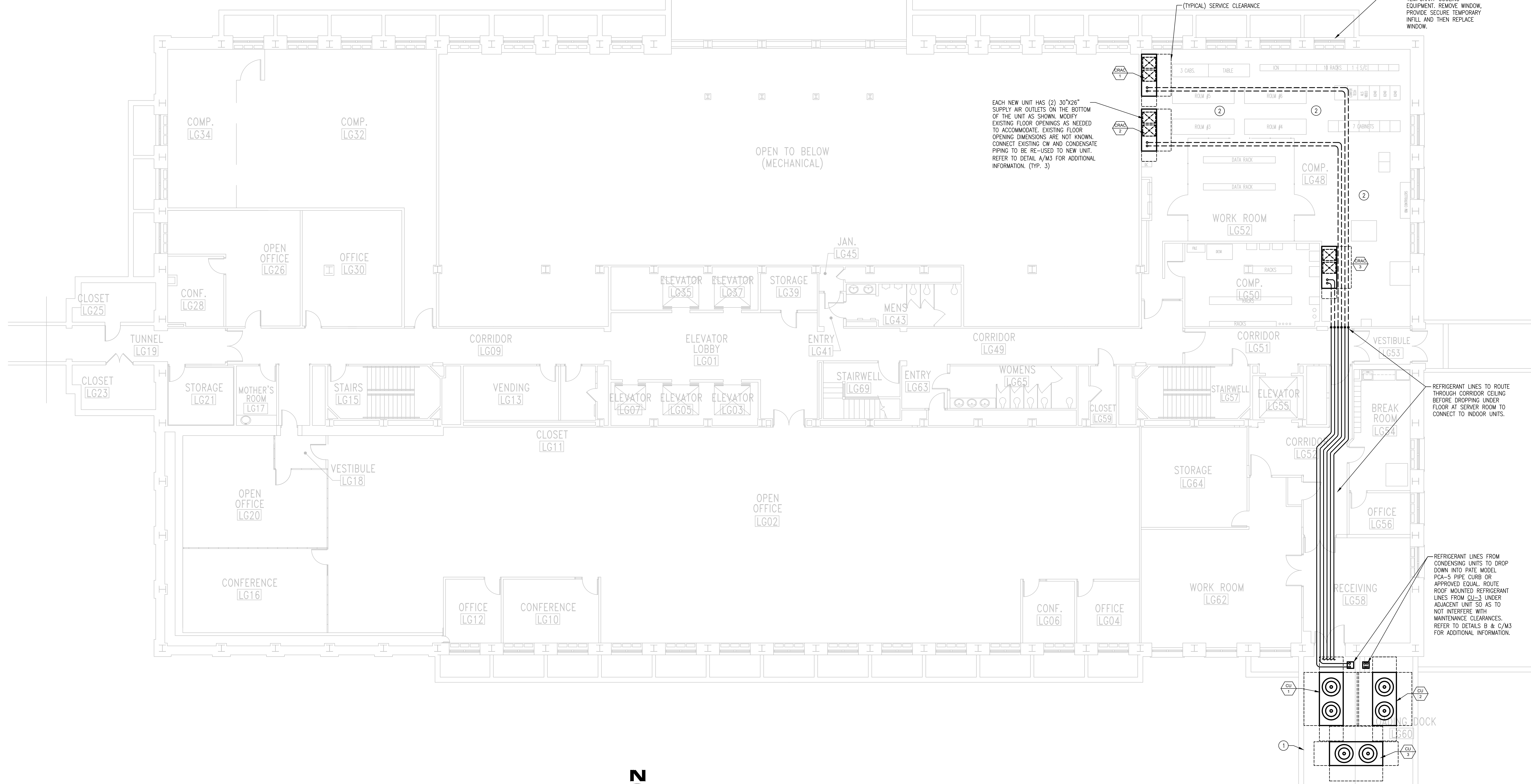
2 PICTURES OF ABOVE CEILING CONDITIONS IN CORRIDOR

GENERAL NOTES

1. REFER TO GENERAL NOTES ON M0.
2. REMOVE AND REPLACE CEILING AND FLOOR TILES AS REQUIRED FOR WORK INDICATED. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGED TILES/GRID TO BE REPLACED.
3. REFER TO SPECIFICATIONS FOR THERMOSTAT DETAILS. MATCH EXISTING CONTROL SCHEMES. REFER TO DEMO DRAWINGS FOR INDICATION OF ASSUMED CONTROL WIRING FOR MULTIPLE PIECES OF EQUIPMENT TIED TO A SINGLE THERMOSTAT. FIELD VERIFY CONTROL OF MULTIPLE PIECES OF EQUIPMENT PRIOR TO DEMO AND INSTALLATION OF NEW CONTROLS.
4. CRAC UNITS WILL NEED TO BE REPLACED ONE AT A TIME INSTEAD OF ALL AT ONE TIME DUE TO CONTINUOUS USE OF THE SPACE. PROVIDE TEMPORARY COOLING AS REQUIRED FOR DURATION OF PROJECT.

KEYED NOTES

- 1 48" TALL LOUVERED SCREEN WALL TO SURROUND CONDENSING UNITS ON LOADING DOCK ROOF. FACTORY FINISH TO MATCH EXISTING BUILDING AS CLOSELY AS POSSIBLE. VERIFY FINAL COLOR AND FINISH WITH OWNER PRIOR TO ORDER AND INSTALLATION. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- 2 PROVIDE EACH NEW CRAC UNIT WITH (3) REMOTE TEMPERATURE SENSORS TO BE POSITIONED BY OWNER IN VARIOUS LOCATIONS IN THE SERVER RACKS. INSTALL REMOTE SENSORS PER MANUFACTURER'S RECOMMENDATIONS.



GROUND FLOOR PLAN - HVAC

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

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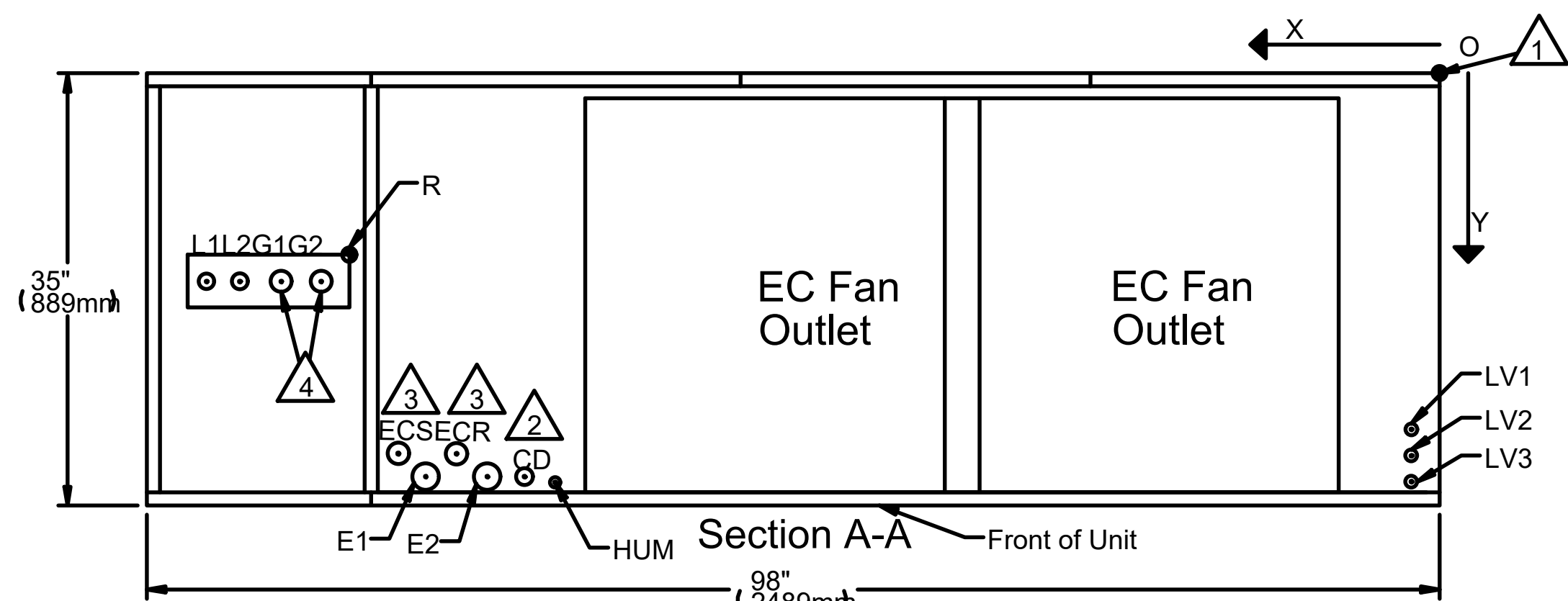
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GROUND FLOOR PLAN - HVAC

Scale:
1/8" = 1'-0"

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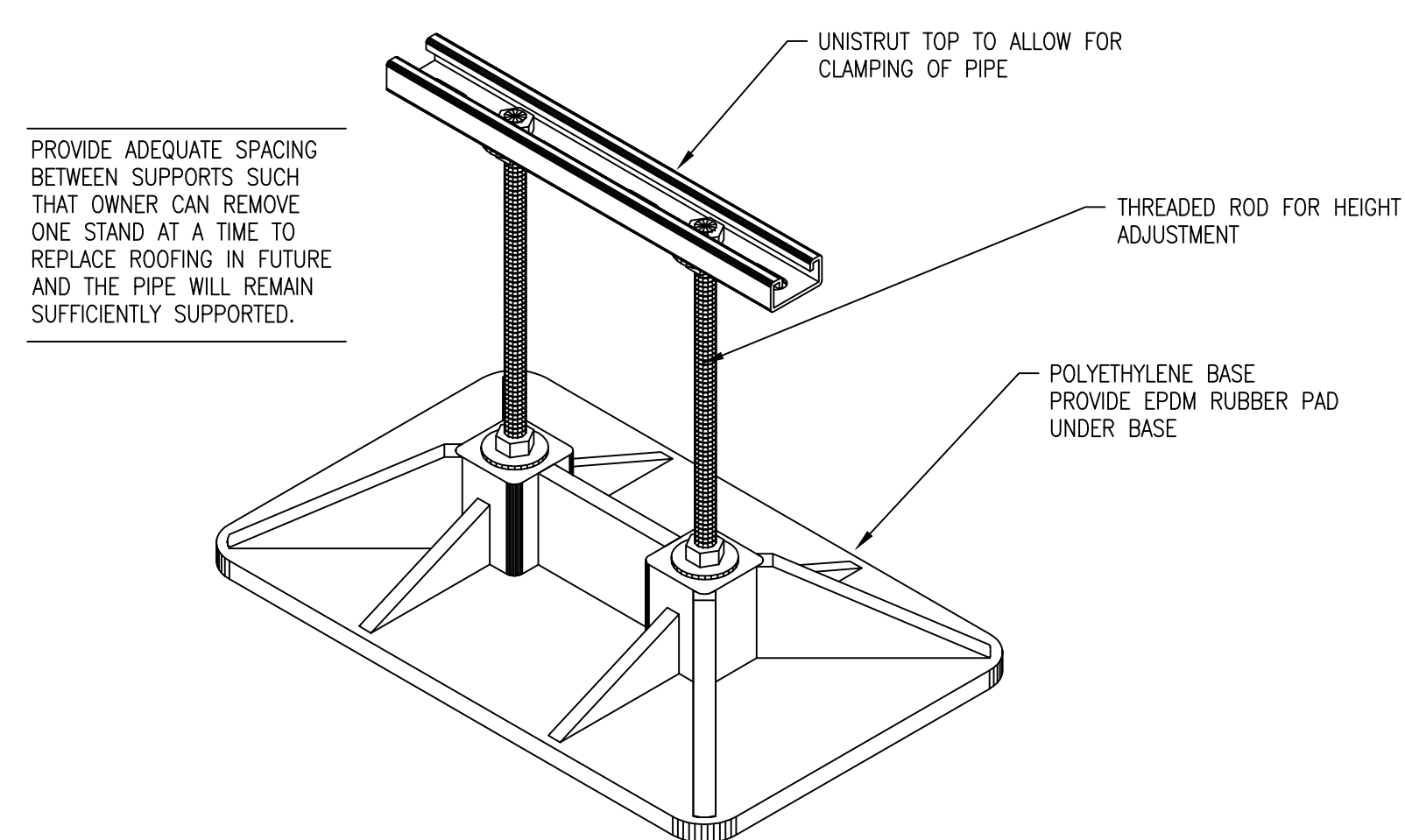
M1



POINT	DESCRIPTION	X in. (mm)	Y in. (mm)	CONNECTION SIZE / OPENING
R	REFRIGERANT ACCESS	81-3/4 (2076)	14-3/4 (375)	12-3/16" (310mm) X 4" (102mm)
				53kW (15 TONS) 70 & 77kW (20 & 22 TONS)
L1	LIQUID LINE SYSTEM 1	94-11/16 (2405)	16-3/4 (425)	1/2" O.D. Cu 5/8" O.D. Cu
L2	LIQUID LINE SYSTEM 2	91-7/8 (2334)		
G1	HOT GAS DISCHARGE 1	88-3/4 (2254)	16-3/8 (416)	7/8" O.D. Cu 1-1/8" O.D. Cu
G2	HOT GAS DISCHARGE 2	85-9/16 (2173)		
CD	CONDENSATE DRAIN (infrared humidifier or no humidifier) W/ OPTIONAL PUMP	68-3/8 (1737)	31-3/8 (797)	3/4" NPT FEMALE
HUM	HUMIDIFIER SUPPLY LINE	76-1/2 (1943)	29 (737)	1/2" O.D. Cu 1/4" O.D. Cu
ECS	LIEBERT® ECON-O-COIL SUPPLY	78-5/8 (1997)	22-1/4 (565)	
ECR	LIEBERT® ECON-O-COIL RETURN	73-15/16 (1878)	26-9/16 (675)	2-1/8" O.D. Cu
E1	ELECTRICAL CONN. (HIGH VOLT)	78-1/2 (1994)	31-1/8 (791)	2-1/2"
E2	ELECTRICAL CONN. (HIGH VOLT)	75-3/8 (1915)		
LV1	ELECTRICAL CONN. (LOW VOLT)		29 (737)	
LV2	ELECTRICAL CONN. (LOW VOLT)	2 (51)	30-7/8 (784)	7/8"
LV3	ELECTRICAL CONN. (LOW VOLT)		32 (813)	

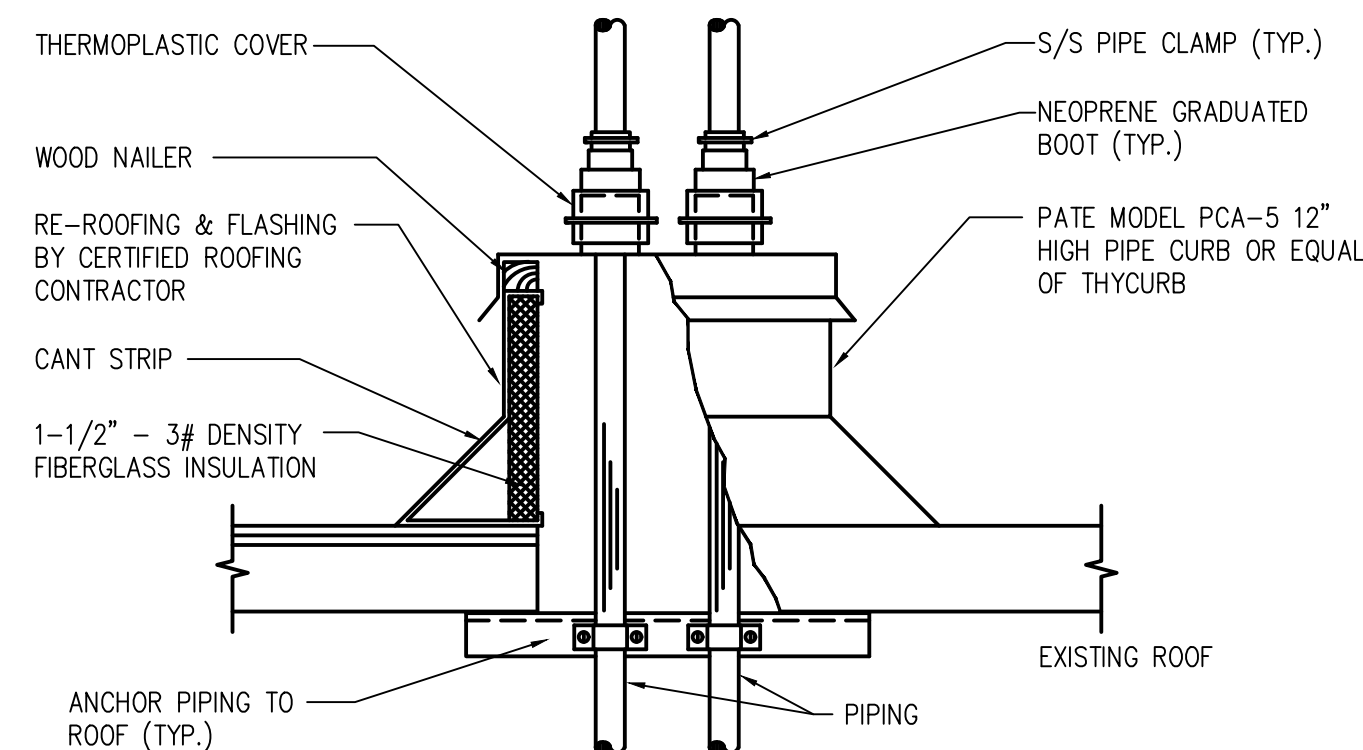
A INDOOR UNIT CONNECTION DETAILS

NOT TO SCALE



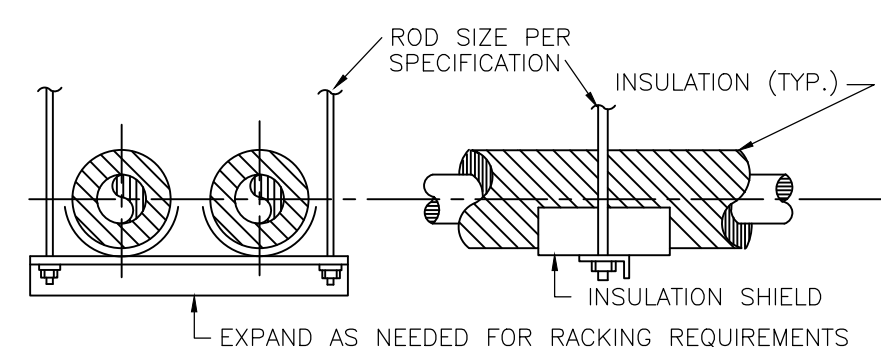
B PIPING ROOF SUPPORT

NOT TO SCALE



C PIPE SLEEVE THROUGH ROOF

NOT TO SCALE



D PIPE HANGER DETAIL

NOT TO SCALE

COMPUTER ROOM AC UNIT SCHEDULE

REFERENCE	CRAC-1	CRAC-2	CRAC-3
MANUFACTURER	LIEBERT	LIEBERT	LIEBERT
MODEL #	DS-070	DS-070	DS-070
TYPE	AIR COOLED	AIR COOLED	AIR COOLED
SERVES	COMP. ROOM LG48	COMP. ROOM LG48	COMP. ROOM LG48
CONFIGURATION	DOWNFLOW	DOWNFLOW	DOWNFLOW
WEIGHT (LBS)	1970	1970	1970
DIMENSIONS - L x W x D (INCHES)	98 x 35 x 76	98 x 35 x 76	98 x 35 x 76
NOMINAL TONS	20	20	20
AIRFLOW (CFM)	9600	9600	9600
EAT (DBWB) °F	75 / 62	75 / 62	75 / 62
TOTAL COOLING CAPACITY	232	232	232
SENSIBLE COOLING CAPACITY	205	205	205
COMPRESSOR # / TYPE	2 / DIGITAL SCROLL	2 / DIGITAL SCROLL	2 / DIGITAL SCROLL
ELECTRIC REHEAT	15 KW (3 STAGES)	15 KW (3 STAGES)	15 KW (3 STAGES)
HUMIDIFIER (TYPE / LBS/HR)	INFRARED / 22	INFRARED / 22	INFRARED / 22
ELECTRICAL DATA			
VOLTAGE - PH	208/3	208/3	208/3
FLA	129.2	129.2	129.2
MOCP	175	175	175
NOTES	1 THROUGH 8	1 THROUGH 8	1 THROUGH 8

NOTES:

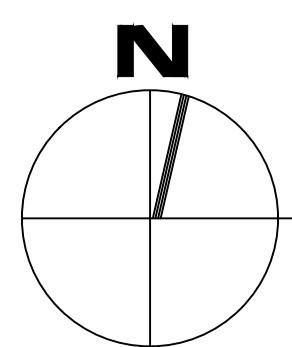
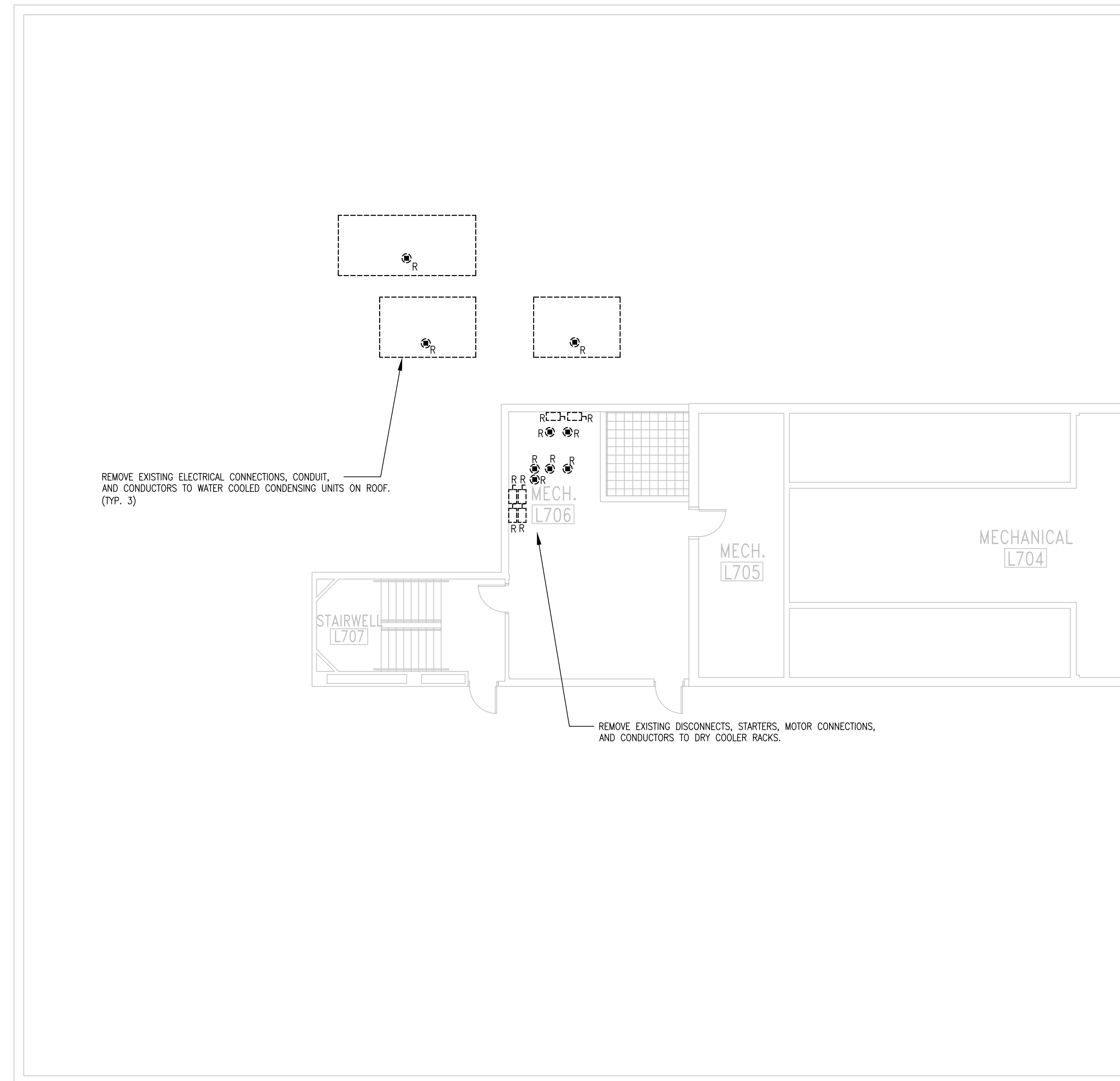
- PROVIDE WITH HOT GAS REHEAT AND BYPASS.
- PROVIDE WITH CONDENSATE PUMP. CONNECT TO EXISTING PIPING.
- PROVIDE WITH SMOKE DETECTOR AND HIGH TEMPERATURE SENSOR.
- PROVIDE UNIT WITH SINGLE POINT POWER CONNECTION AND DISCONNECT.
- PROVIDE WITH MICROPROCESSOR CONTROLS AND GRAPHIC CONTROL PANEL.
- INSTALL PER MFR'S RECOMMENDATIONS.
- PROVIDE WITH 5 YEAR COMPRESSOR WARRANTY AND 1 YEAR ENTIRE UNIT PARTS WARRANTY.
- PROVIDE REMOTE MONITORING AND TEMPERATURE ADJUSTMENT CAPABILITIES. (SNMP, RADIUS PREFERRED).

CRAC OUTDOOR CONDENSING UNIT SCHEDULE

SYSTEM REFERENCE	CU-1	CU-2	CU-3
MANUFACTURER	LIEBERT	LIEBERT	LIEBERT
MODEL TYPE	LEE-TEMP CONTROL	LEE-TEMP CONTROL	LEE-TEMP CONTROL
MODEL #	MCL110	MCL110	MCL110
TYPE	AIR COOLED	AIR COOLED	AIR COOLED
CONFIGURATION (REFRIGERANT CIRCUITS / FANS)	2 / 2	2 / 2	2 / 2
WEIGHT (LBS)	722	722	722
DIMENSIONS - H x W x L (INCHES)	44 x 56 x 124	44 x 56 x 124	44x 56 x 124
NOMINAL TONS	30	30	30
VOLTAGE - PHASE	208/3	208/3	208/3
FLA	11.4	11.4	11.4
MOCP	15	15	15
NOTES	1 THROUGH 7	1 THROUGH 7	1 THROUGH 7

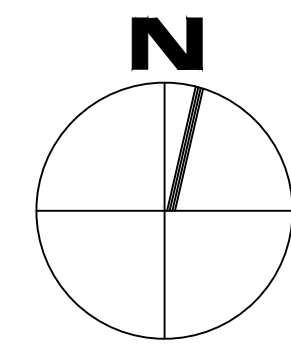
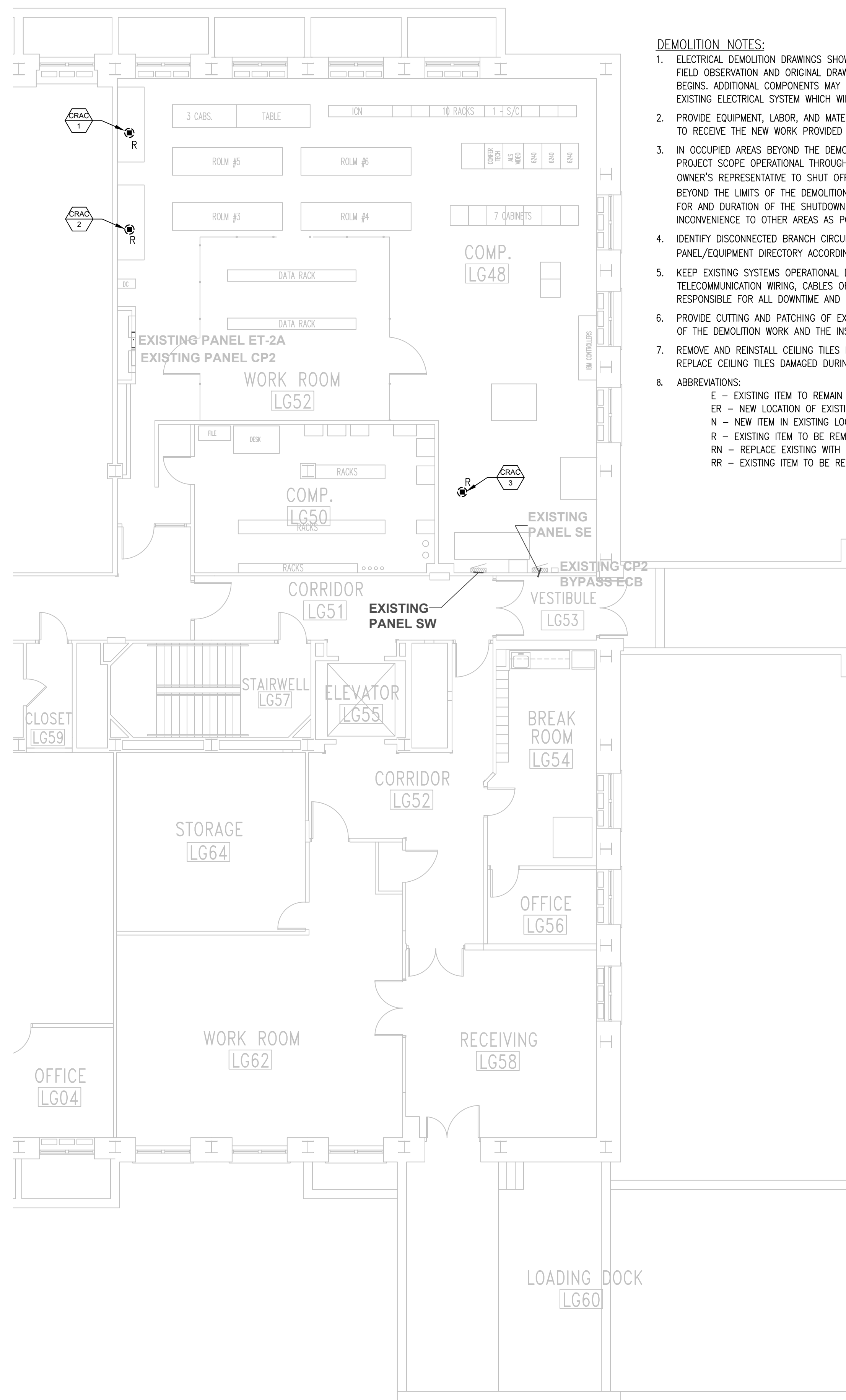
NOTES:

- INSTALL PER MFR RECOMMENDATIONS.
- PROVIDE UNIT WITH SNOW AND HAIL GUARDS.
- UNIT SIZED FOR -30°F AND UP TO 100°F AMBIENT CONDITIONS.
- LEE TEMP RECEIVER REQUIRES SEPARATE 120V CONNECTION BY E.C. (FLA - 1.4, MOCP - 15)
- UNIT SHALL HAVE BASIN PAN HEATER TO PREVENT ICE IN DRAIN PAN.
- PROVIDE WITH FACTORY DISCONNECT SWITCH.
- PROVIDE COMPRESSOR TIME LAG CAPABILITIES TO AVOID HIGH HEAD PRESSURE.



PENTHOUSE DEMO PLAN - ELECTRICAL

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



FIRST FLOOR DEMO PLAN - ELECTRICAL

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

DEMOLITION NOTES:

- ELECTRICAL DEMOLITION DRAWINGS SHOWING EXISTING CONDITIONS HAVE BEEN PREPARED BASED ON FIELD OBSERVATION AND ORIGINAL DRAWINGS. FIELD VERIFY EXISTING CONDITIONS BEFORE WORK BEGINS. ADDITIONAL COMPONENTS MAY EXIST WHICH ARE NOT SHOWN. BECOME FAMILIAR WITH EXISTING ELECTRICAL SYSTEM WHICH WILL BE AFFECTED BY THE DEMOLITION WORK.
- PROVIDE EQUIPMENT, LABOR, AND MATERIALS TO REMOVE ELECTRICAL FACILITIES AND CLEAR THE AREA TO RECEIVE THE NEW WORK PROVIDED UNDER THIS CONTRACT.
- IN OCCUPIED AREAS BEYOND THE DEMOLITION SCOPE, KEEP EXISTING SYSTEMS NOT AFFECTED BY PROJECT SCOPE OPERATIONAL THROUGH THE DURATION OF THE PROJECT. OBTAIN PERMISSION FROM OWNER'S REPRESENTATIVE TO SHUT OFF SERVICES OR SYSTEMS WHICH MAY AFFECT OTHER AREAS BEYOND THE LIMITS OF THE DEMOLITION AREA. INFORM OWNER'S REPRESENTATIVE OF THE REASON FOR AND DURATION OF THE SHUTDOWN AND ENSURE THAT THE SHUTDOWN IS MADE WITH AS LITTLE INCONVENIENCE TO OTHER AREAS AS POSSIBLE.
- IDENTIFY DISCONNECTED BRANCH CIRCUIT LOCATION OR ITEM SERVED BEFORE DISCONNECTION. UPDATE PANEL/EQUIPMENT DIRECTORY ACCORDINGLY.
- KEEP EXISTING SYSTEMS OPERATIONAL DURING ALL PHASES OF CONSTRUCTION. DO NOT CUT EXISTING TELECOMMUNICATION WIRING, CABLES OR CONDUIT. CONTRACTORS WHO CUT IN-SERVICE CABLES ARE RESPONSIBLE FOR ALL DOWNTIME AND COSTS TO REPAIR.
- PROVIDE CUTTING AND PATCHING OF EXISTING MATERIALS AS REQUIRED FOR THE PROPER COMPLETION OF THE DEMOLITION WORK AND THE INSTALLATION OF THE NEW WORK.
- REMOVE AND REINSTALL CEILING TILES REQUIRED FOR THE WORK BEING DONE UNDER THIS CONTRACT. REPLACE CEILING TILES DAMAGED DURING CONSTRUCTION TO MATCH EXISTING.
- ABBREVIATIONS:
 E - EXISTING ITEM TO REMAIN
 ER - NEW LOCATION OF EXISTING ITEM
 N - NEW ITEM IN EXISTING LOCATION
 R - EXISTING ITEM TO BE REMOVED, PATCH AND/OR COVER
 RN - REPLACE EXISTING WITH NEW
 RR - EXISTING ITEM TO BE REMOVED AND RELOCATED

DESIGN CRITERIA

D1) Codes:
 International Building Code, 2015
 American Institute of Steel Construction
 Specification for Structural Steel Buildings 260-10
 American Society of Civil Engineers / Structural Engineering
 Institute ASCE/SEI 7-10

D2) Lateral loads:
 Wind: Ultimate design wind speed: 110 mph
 Nominal design wind speed: 85 mph
 Risk category: II
 Wind exposure: B
 Wall component wind pressure: 54 psf (Ultimate Load)

D3) Live loads:
 Snow load:
 Ground snow load: 30 psf
 Flat-roof snow load (minimum): $P_f=24$ psf
 Snow exposure factor: $C_e=1.0$
 Thermal factor: $C_t=1.0$
 Snow importance factor: $I_s=1.10$
 Snow drift load: ASCE/SEI 7-10
 Roof load (minimum): 20 psf

D4) Dead loads:
 Roof dead load: 20 psf

D5) Concrete strengths - Minimum 28 day f'c (145 pct density unless noted otherwise)
 Typical-unless noted otherwise: 4000 psi

D6) Reinforcing steel shall be high strength new billet steel conforming to the following:
 Deformed bars: ASTM A615, Gr. 60 (unless otherwise noted)
 Welded wire reinforcing: ASTM A1064

D7) Structural steel:
 Wide Flanges: ASTM A992
 Rolled Channels and connection material: ASTM A36
 Pipe: ASTM A53, Gr. B
 Structural tubes: ASTM A500, Gr. C

SPECIAL INSPECTION REQUIREMENTS

SR1) The following types of work require special inspection based on section 1705 of the 2015 International Building Code. The owner will employ special inspectors who shall provide special inspections during:

a) Structural Steel.
 1. Fit-up of fillet welds.
 2. Welds cleaned.
 3. Size, length and location of welds.
 4. Welds meet visual acceptance criteria.
 5. Post-installed anchors into concrete.

GENERAL NOTES

G1) Establish and verify all openings and inserts for mechanical, electrical, and plumbing with appropriate trade contractors. Opening sizes and locations shown for ducts, pipes, inserts, etc., when shown are for general information only and shall be verified prior to forming.

G2) Field verify all existing dimensions, member sizes, and elevations shown on the drawings. All discrepancies shall be immediately brought to the attention of the design professional.

G3) Before submitting a proposal for this work, each bidder shall visit the premises and acquaint themselves fully with the existing conditions, temporary construction required, quantities and types of equipment, etc. The bid shall include all sums required to do the work within the existing conditions. Disruption of normal activities in the work area must be kept to a minimum.

G4) Shop drawings prepared by suppliers, subcontractors, etc. shall be reviewed and coordinated prior to submitting to the design professional. Each shop drawing submitted shall be stamped, initialed, and dated as being reviewed by the construction manager/general contractor.

G5) Shop drawings prepared by the subcontractors, suppliers, etc. shall be reviewed by the design professional for conformance with design concept only. Review by the design professional shall not begin without the prior coordination and review by the construction manager/general contractor. Work shall not begin without the review by the design professional.

G6) Details and notes on the structural drawings are intended to be typical for similar situations elsewhere. Verify all dimensions with the mechanical drawings. Do not scale drawings; use dimensions provided only.

G7) Options are for the contractor's convenience. The contractor shall be responsible for all changes necessary if they choose an option and shall coordinate all details. The cost of additional design work necessitated by selection of an option shall be borne by the contractor.

G8) The cost of additional design work due to errors or omissions in construction shall be borne by the contractor.

G9) Any engineering design provided by others and submitted for review or record shall bear the stamp and signature of a professional structural engineer licensed in the state of Iowa.

CONSTRUCTION PROCEDURES AND SAFETY REQUIREMENTS

P1) Comply with all applicable city, county, state, and federal laws, including the Occupational Safety and Health Act (OSHA) and regulations adopted pursuant thereto.

P2) The contract structural drawings and specifications represent the finished structure. Unless otherwise indicated, they do not indicate the means or methods of construction.

P3) Provide all measures necessary to protect the workers and other persons during construction. Provide all necessary measures to avoid excessive stresses and to hold the structural elements in place during construction. Such measures shall include, but not be limited to, bracing, shoring for construction equipment, shoring for earth banks forms, scaffolding, planking, safety nets, support and bracing for cranes and hoists, guying, etc.

P4) Engage properly qualified persons to determine where and how temporary precautionary measures shall be used. Observation visits to the site by structural engineer's field representatives shall not include the items noted above.

P5) Supervise and direct the work so as to maintain sole responsibility for all construction means, methods, techniques, sequences, and procedures. Retain the services of a professional structural engineer licensed in the state of Iowa to design and supervise any scaffolding for workmen, and all shoring of forms and elements of the construction.

P6) Any engineering design provided by others and submitted for review and/or record shall bear the stamp and signature of a professional structural engineer licensed in the state of Iowa.

STRUCTURAL STEEL

Submittals:
 1) Shop Drawings.

S1) Structural steel details, fabrication, and erection shall conform to the latest edition of the AISC 360 "Specification for Structural Steel Buildings" and AISC 303 "Code of Standard Practice for Steel Buildings and Bridges," unless otherwise shown or specified.

S2) All welding shall be done by AWS certified welders with experience and certification in the types of welding indicated. Certificates shall not have lapsed due to disuse for 6 months.

S3) All welds to be E70XX electrodes unless noted otherwise.

S4) Field connections shall be welded. Shop connections shall be welded unless otherwise indicated or approved. Welds indicated with a shop weld symbol may be made in the field with the approval of the structural engineer.

S5) Unless noted otherwise, all welds shall be continuous 3/16" throat. All full and/or partial penetration welds shall be fully detailed on the shop drawing.

S6) Shop paint structural steel with a standard primer, unless noted as galvanized. Clean areas where galvanizing is damaged or missing and repair galvanizing to comply with ASTM A 780.

S7) Cuts, holes, openings, etc., required in structural steel members for the work of other trades shall be shown on the shop drawings. Burning of holes and cuts in the field shall not be allowed, except by written authorization from the structural engineer.

S8) Furnish and install miscellaneous steel (curbs, hangers, expansion joint angles, struts, etc.) as called for or as necessary per mechanical/electrical drawings.

SCREEN WALL METAL PANELS

Submittals:
 1) Color Chart and Samples
 2) Shop Drawings

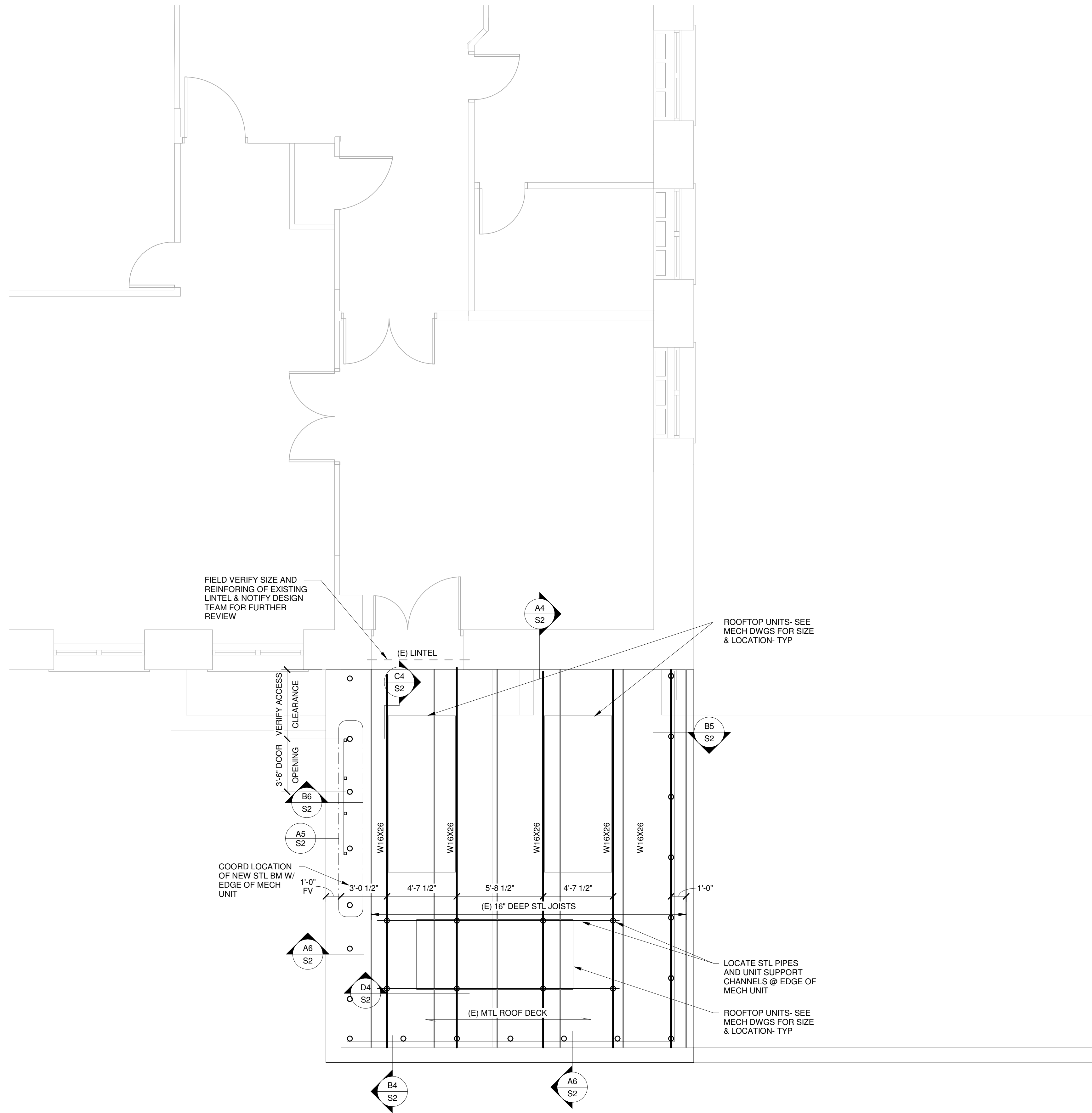
MP1) Basis of design for louver screen wall panels to be Industrial Louvers, Inc. model 250XPI. Substitutions shall be approved by the design professions and shall meet or exceed the following criteria.
 1. 34 PSF (Service Load) or 54 psf (Ultimate Load) component and cladding wind pressure.
 2. Design span (Single) of 4 feet.
 3. L/240 deflection under service wind loads.
 4. 2" Maximum depth

MP2) Panels shall span horizontally and shall be installed per manufacturer recommendations. Exposed screen fasteners shall match metal panel color.

MP3) Contractor to provide manufacturer standard deck color options to owner for selection and approval. Provide basis of design Centria Duragard Plus level of finish.

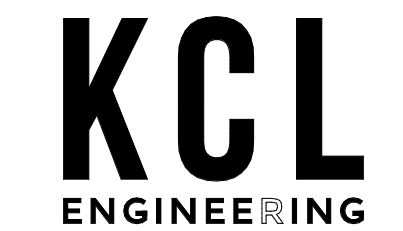
KPFF ABBREVIATIONS

ADDED	ADDITIONAL	LT GA	LIGHT GAGE
ALT	ALTERNATE	LOC	LOCATION
ALUM	ALUMINUM	LDH	LONG DIM HORIZ
ANCH	ANCHOR	LDV	LONG DIM VERT
APPROX	APPROXIMATE	LLBB	LONG LEG BACK-TO-BACK
ARCH	ARCHITECTURAL	LLH	LONG LEG HORIZ
@	AT	LLV	LONG LEG VERT
BM	BEAM	LONGIT	LONGITUDINAL
BRG	BEARING	MFR	MANUFACTURER
BTWN	BETWEEN	MAS	MASONRY
BLKG	BLOCKING	MAT	MATERIAL
BD	BOARD	MAX	MAXIMUM
BOT	BOTTOM	MECH	MECHANICAL
BLDG	BUILDING	MTL	METAL
CIP	CAST-IN-PLACE	MIN	MINIMUM
CNTR	CENTER	MISC	MISCELLANEOUS
CL	CENTERLINE	NS	NEAR SIDE
CLR	CLEAR	NOM	NOMINAL
CFMF	COLD-FORMED METAL FRAMING	NIC	NOT IN CONTRACT
COL	COLUMN	NTS	NOT TO SCALE
COMP	COMPOSITE	# or NO	NUMBER
CONC	CONCRETE	OC	ON CENTER
CMU	CONCRETE MASONRY UNIT	OPNG	OPENING
CONN	CONNECTION	OPP	OPPOSITE
CONST	CONSTRUCTION	OD	OUTSIDE DIA.
CONT	CONTINUOUS	OF	OUTSIDE FACE
CONTR	CONTRACTOR	PARL	PARALLEL
CW	CURTAIN WALL	d	PENNY
DEFL	DEFLECTION	PERP	PERPENDICULAR
°	DEGREE	PL	PLATE
DTL	DETAIL	PLYWD	PLYWOOD
DIAG	DIAGONAL	# OR LB	POUND
ø	DIAMETER	PSI	POUNDS PER SQ. INCH
DIM	DIMENSION	PSF	POUNDS PER SQ.FT.
DBL	DOUBLE	PDF	POWER DRIVEN FASTENER
DWG	DRAWING	PREFAB	PREFABRICATED
EA	EACH	PRELIM	PRELIMINARY
EF	EACH FACE	RAD or R	RADIUS
ELECT	ELECTRICAL	RXN	REACTION
EL	ELEVATION	REINF	REINFORCING
ELEV	ELEVATOR	REQD	REQUIRED
EMBED	EMBEDMENT	RTN	RETURN
EOR	ENGINEER OF RECORD	REV	REVISION
EQ	EQUAL	SCHED	SCHEDULE
ERECT	ERECTION	SECT	SECTION
(E) or EXISTG	EXISTING	SHTG	SHEATHING
EXP	EXPANSION	SHT	SHEET
EXT	EXTERIOR	SLBB	SHORT LEG BACK-TO-BACK
FS	FAR SIDE	SSLT	SHORT SLOTTED HOLE
FV	FIELD VERIFY	SIM	SIMILAR
FIN	FINISH	SPA	SPACE
FLR	FLOOR	SPECS	SPECIFICATIONS
FT	FOOT	SQ	SQUARE
FTG	FOOTING	STD	STANDARD
FDN or FOUND	FOUNDATION	STL	STEEL
FRMG	FRAMING	STIFF	STIFFENER
GA	GAGE OR GAUGE	STRUCT	STRUCTURAL
GALV	GALVANIZED	TEMP	TEMPERATURE
GYP	GYPSPUM	THRU	THROUGH
GYP BD	GYPSPUM BOARD	T & G	TONGUE & GROVE
HD	HEADED	TRANS	TRANSVERSE
HT	HEIGHT	TYP	TYPICAL
HPC	HIGH-PERFORMANCE COATING	UNO	UNLESS NOTED OTHERWISE
HORIZ	HORIZONTAL	VER	VERIFY IN FILED
IN	INCH	VERT	VERTICAL
ID	INSIDE DIAMETER	WWR	WELDED WIRE REINF
IF	INSIDE FACE	W/	WITH
INSUL	INSULATION	WD	WOOD
INT	INTERIOR	WP	WORKING POINT
JT	JOINT	X-BRACING	CROSS BRACING
JST	JOIST	X-STRONG	EXTRA STRONG
KO	KNOCK OUT	XX-STRONG	DOUBLE EXTRA STRONG
LAM	LAMINATED		



1 ROOF FRAMING PLAN
 1/4" = 1'-0"

- NOTES:
- VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION
 - INDICATES DIRECTION OF EXISTING DECK SPAN
 - ALL ROOF OPENINGS TO RECEIVE ANGLE FRAME PER TYPICAL DETAILS. SOME ROOF OPENINGS MAY NOT BE SHOWN ON STRUCTURAL DRAWINGS. VERIFY SIZE & LOCATION OF ALL OPENINGS W/ MECH CONTRACTOR
 - FOR TYPICAL SCREEN WALL CORNERS & AT EXISTING BUILDING, SEE C6/S2
 - CUT AND REPLACE EXISTING BRIDGING IN KIND FOLLOWING NEW STL BEAM ERECTION, SEE B5/S2



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KCL Project Number: 24012
 Date: 05/17/24
 Drawn By: EJS
 Checked By: NTK

Revisions	Date	No.

DAS PROJECT # 9358.00 LUCAS BUILDING ICRAC UNIT REPLACEMENT

LUCAS BUILDING
 321 E 12th St
 DES MOINES, IOWA 50319

Sheet Name:
STRUCTURAL NOTES & ROOF FRAMING PLAN
 Scale:

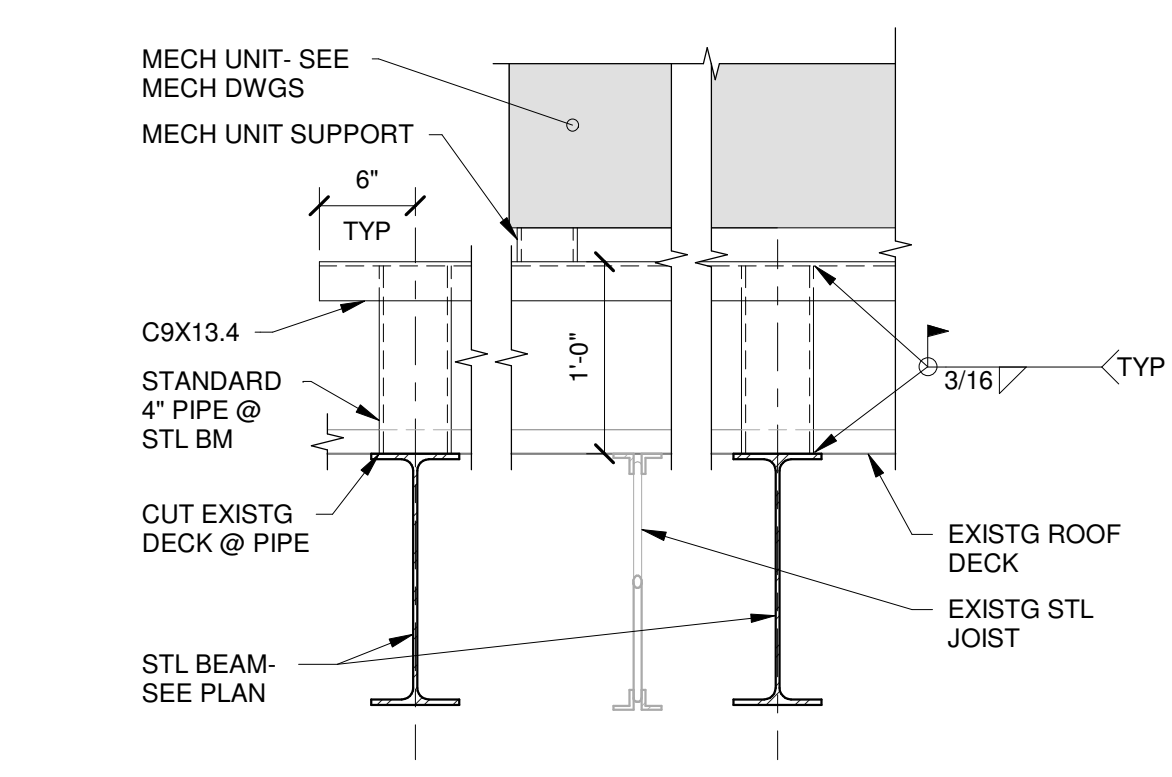
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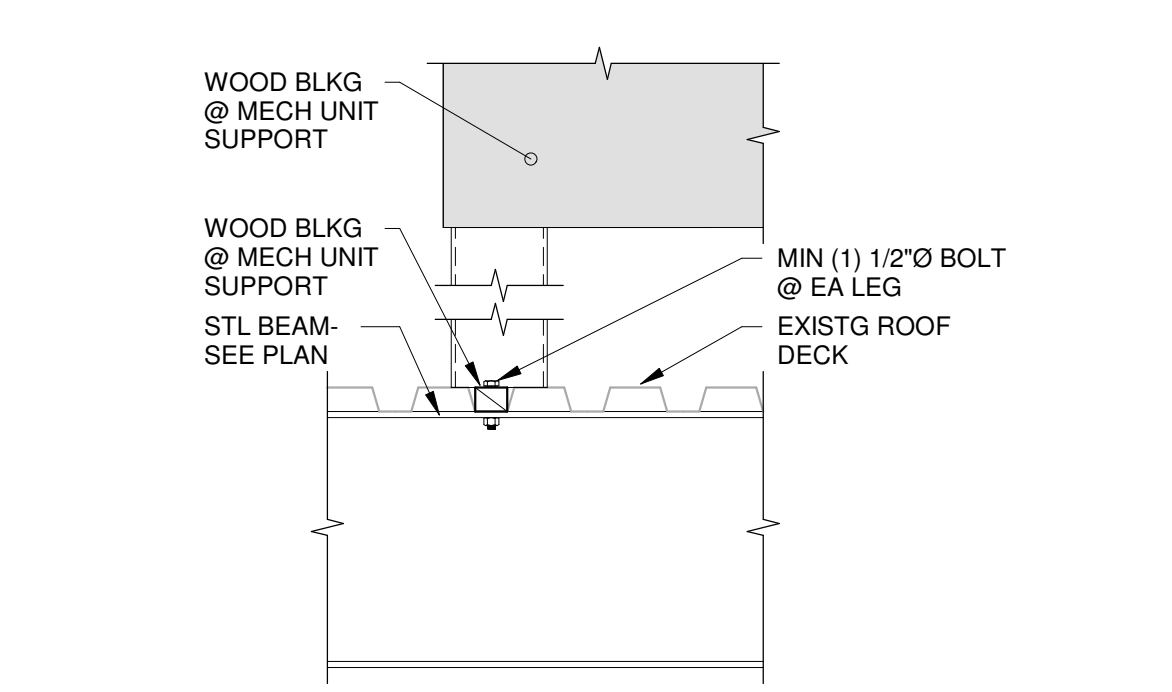
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA

Nathan T. Kress 05/17/2024 (DATE)
 NATHAN T. KRESS
 MY LICENSE RENEWAL DATE IS DECEMBER 31, 2025
 PAGES OR SHEETS COVERED BY THIS SEAL
 S1 AND S2

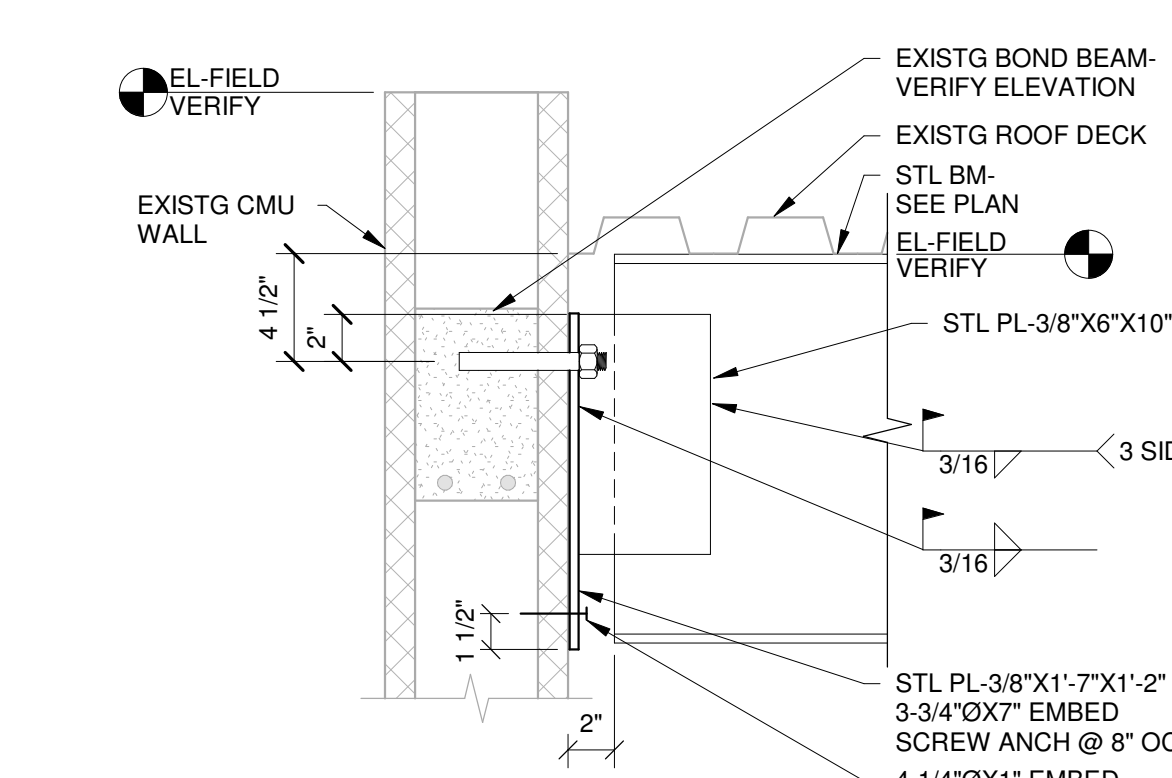
Revisions	Date	No.



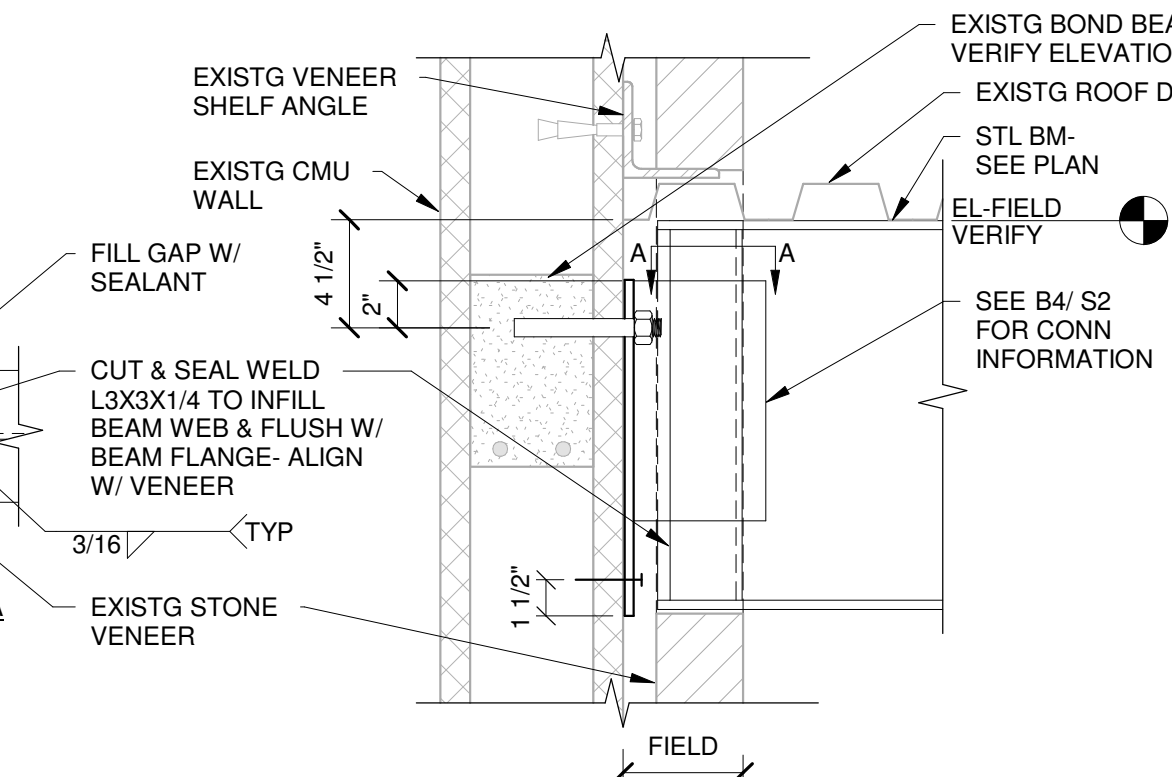
D4 CHANNEL SUPPORT @ UNIT
1" = 1'-0"



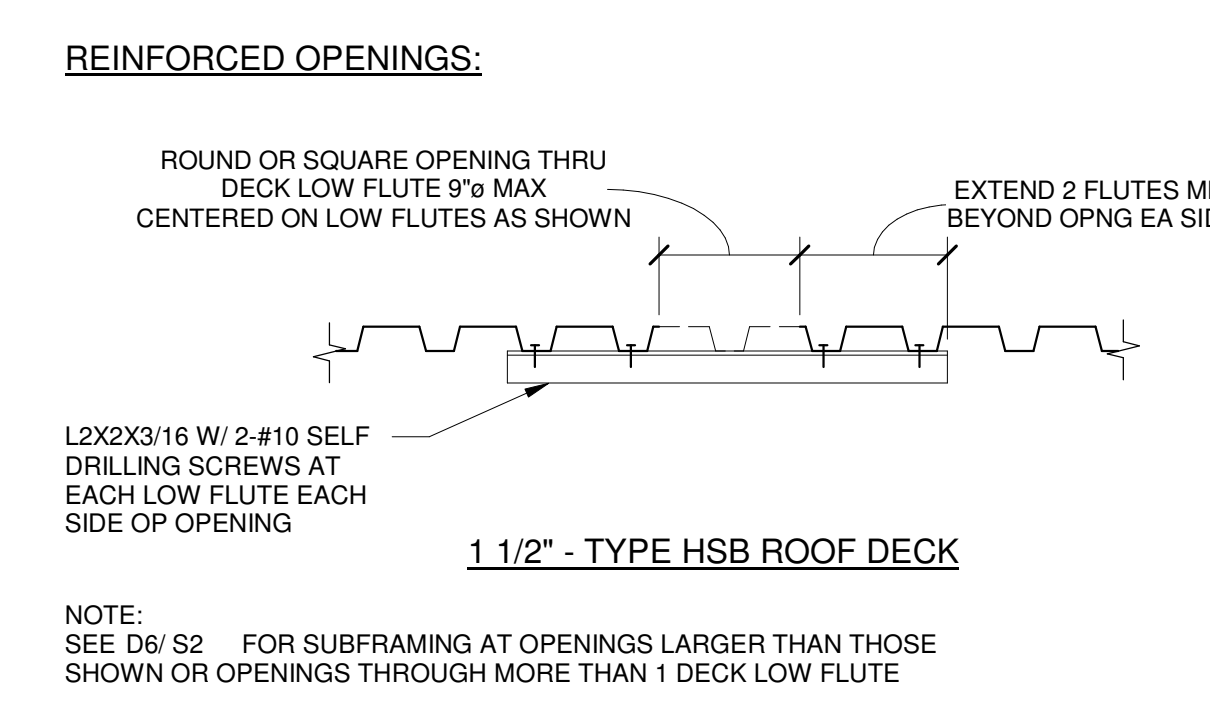
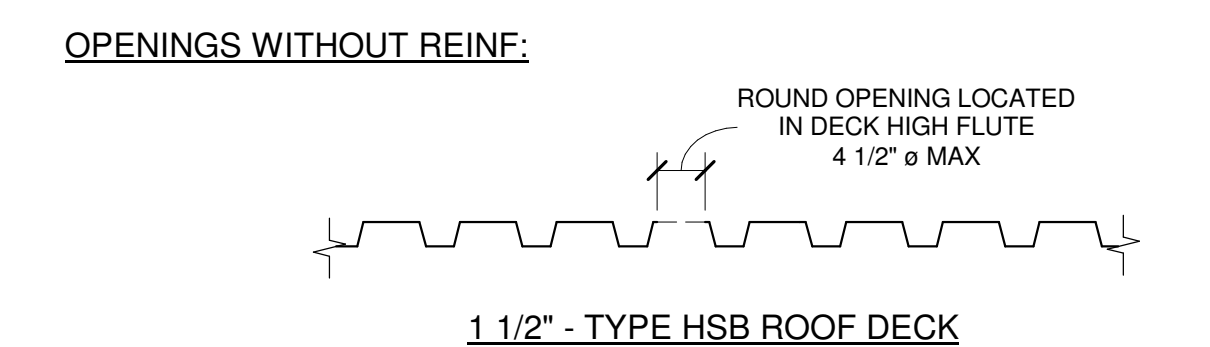
C4 MECH UNIT BRG @ BEAM
1" = 1'-0"



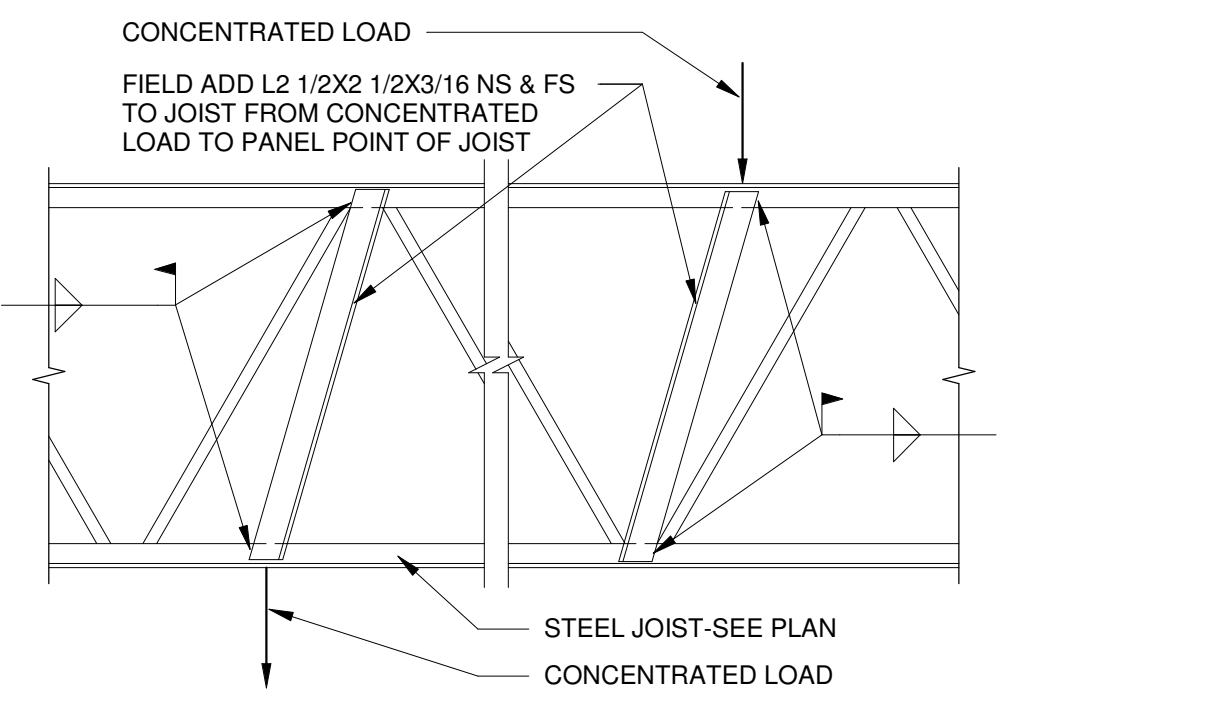
B4 NEW BM TO EXISTG CMU
1 1/2" = 1'-0"



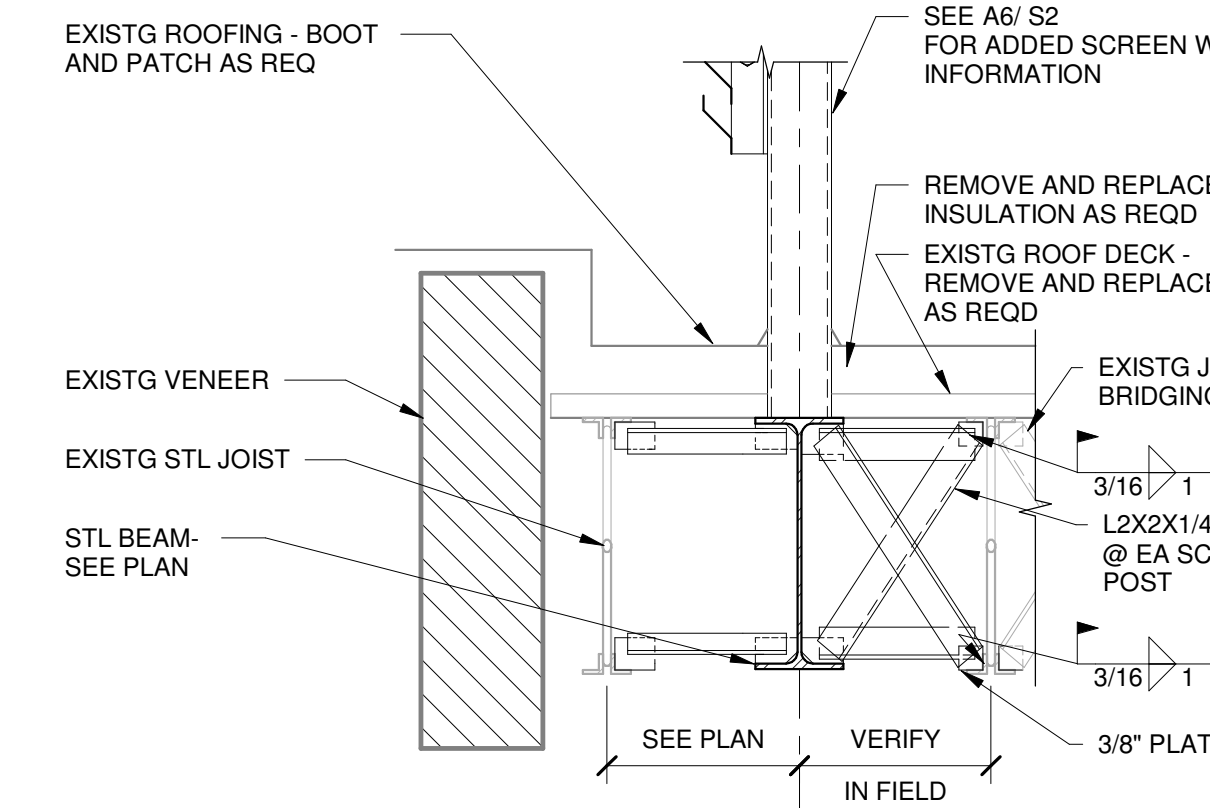
A4 NEW BM TO EXISTG CMU
1 1/2" = 1'-0"



D5 TYP ROOF DECK REINF AT HOLES
1" = 1'-0"

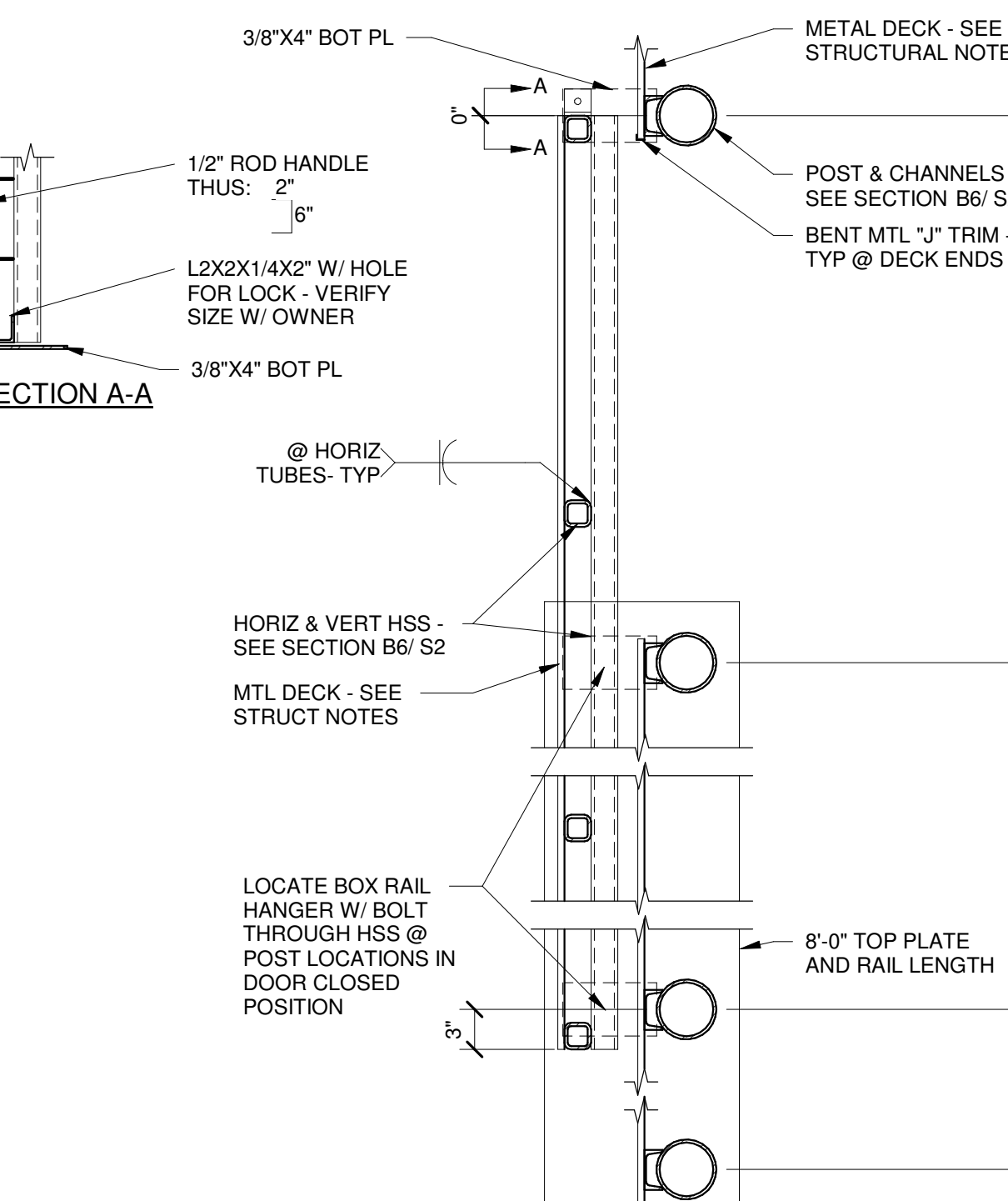


C5 TYP LOADS @ STEEL JOISTS
1" = 1'-0"

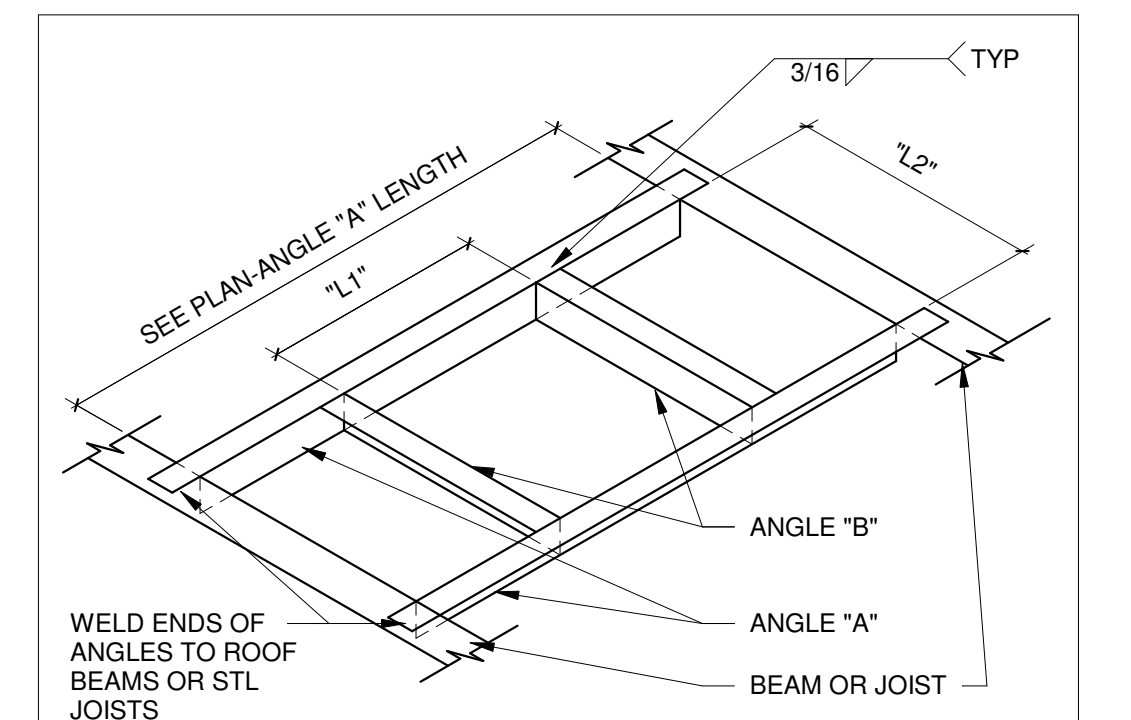


- CUT AND REPLACE EXISTING BRIDGING IN KIND FOLLOWING NEW STL BEAM ERECTION
- NEW DIAGONAL BRIDGING SHALL BE INSTALLED AT LOCATIONS WHERE DISTANCE FROM NEW BEAM TO ADJACENT EXISTG JOIST IS GREATER THAN 18"
- NEW HORIZONTAL BRIDGING SHALL BE INSTALLED AT LOCATIONS WHERE DISTANCE FROM NEW BEAM TO ADJACENT EXISTG JOIST IS LESS THAN 18"

B5 SCREEN WALL POST @ STL BEAM
1" = 1'-0"



A5 PLAN @ SLIDING DOOR
1" = 1'-0"

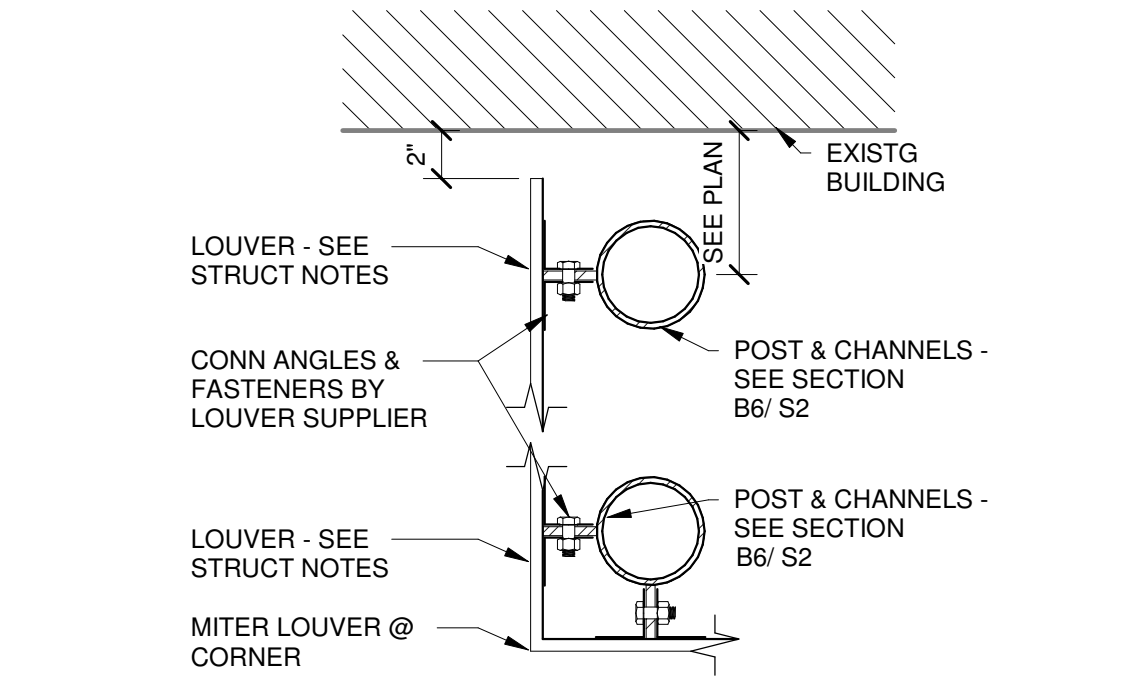


WELD ENDS OF ANGLES TO ROOF BEAMS OR STL JOISTS

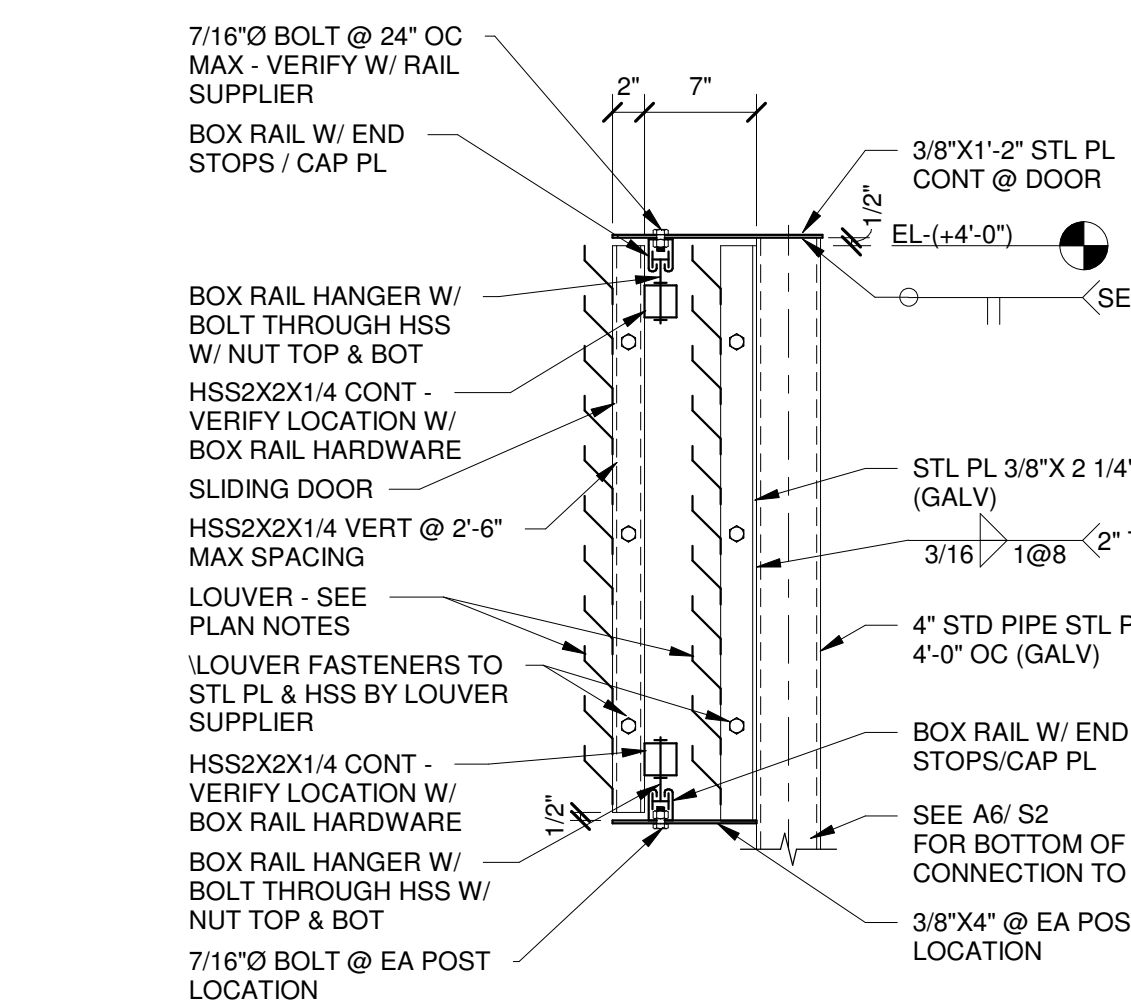
L1" OR L2 USE LARGER VALUE	ANGLE "A"	ANGLE "B"
UP TO 1'-0"	NONE REQUIRED	NONE REQUIRED
UP TO 2'-0"	L3X3X3/16	L2X2X3/16
UP TO 3'-0"	L3 1/2X3X1/4 LLV	L3X3X3/16
UP TO 4'-0"	L4X3X1/4 LLV	L3X3X1/4
UP TO 5'-0"	L5X3X1/4 LLV	L3 1/2X3 1/2X1/4
UP TO 7'-0"	L6X4X5/16 LLV	L4X4X1/4

• USE ABOVE FRAMING AT ALL ROOF OPENINGS WHERE EITHER "L1" OR "L2" EXCEEDS 1'-0" UNLESS NOTED OTHERWISE
• SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SIZE & LOCATION OF ALL OPENINGS
• LLV - INDICATES LONG LEG VERTICAL

D6 TYP FRAMING AROUND ROOF OPNGS
SCHEMATIC

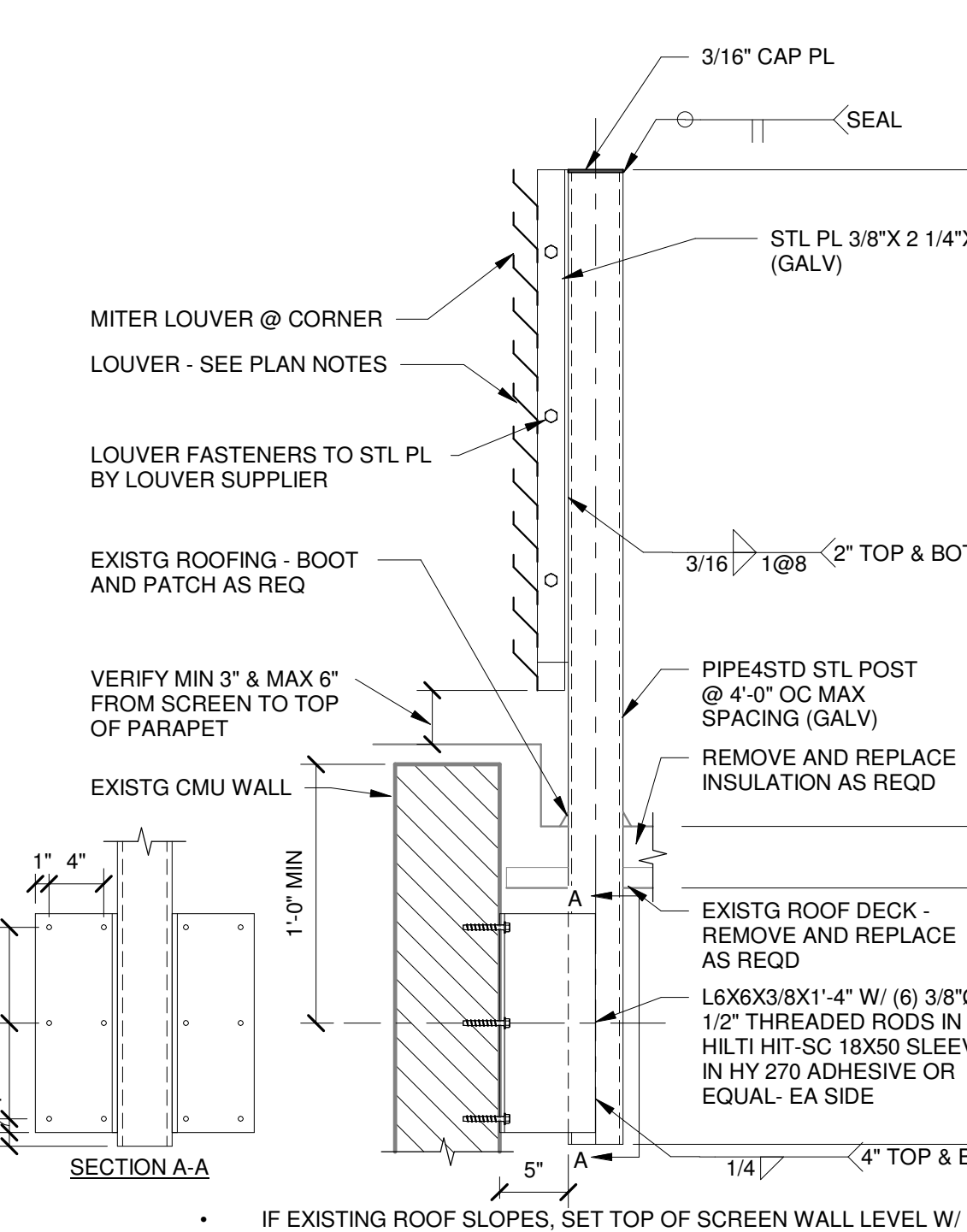


C6 PLAN @ TYP SCREEN WALL POST
1 1/2" = 1'-0"



- GALVANIZE ALL STEEL FRAMING - PAINT DOOR FRAMING AND STEEL ELEMENTS VISIBLE FROM GRADE SIDE TO MATCH SCREEN WALL COLOR
- TOP CONNECTION IS VERTICAL SUPPORT AND OUT-OF-PLANE RESISTANCE FOR DOOR
- BOTTOM CONNECTION IS OUT-OF-PLANE RESISTANCE FOR BOTTOM OF DOOR

B6 SCREEN WALL AT SLIDING DOOR
1" = 1'-0"



A6 SCREEN WALL POST @ EXISTG CMU
1" = 1'-0"

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