ROCKFORD
PUBLIC SCHOOLS

HILLMAN ELEMENTARY SCHOOL - HVAC IMPROVEMENTS

RPS DISTRICT 205 PROJ. #2301

3701 GREEN DALE DRIVE, ROCKFORD IL 61109

IFB23-15

Larson & Darby Group
Architecture Engineering Interiors

BIDDING & CONSTRUCTION

Issued For
10-11-22

Larson & Darby Group
Architecture Engineering Interiors

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RPS DISTRICT 205 PROJ. #2301
3701 GREEN DALE DRIVE, ROCKFORD IL 61109

ISSUED FOR:	DATE

DATE: 10-11-22
PROJECT NUMBER
32103
SHEET NUMBER
G0.0

PROJECT TEAM

CIVIL

ALL CIVIL DOCUMENTS ARE
UNDER A SEPARATE COVER

LANDSCAPE

ALL LANDSCAPE DOCUMENTS
ARE UNDER A SEPAREATE COVER

ARCHITECTURAL

LARSON & DARBY GROUP
4949 HARRISON AVE, SUITE 100 **815.484.0739**
ROCKFORD ILLINOIS
IL. DESIGN FIRM NO.: 184.000280-0007

STRUCTURAL

LARSON & DARBY GROUP
4949 HARRISON AVE, SUITE 100 **815.484.0739**
ROCKFORD ILLINOIS

PLUMBING

CS2 DESIGN GROUP
837 OAKTON STREET, ELK GROVE, **847.981.1800**
ILLINOIS

FIRE PROTECTION

FIRE PROTECTION DOCUMENTS
ARE SEALED BY THE FIRE
PROTECTION CONTRACTOR AS
THE DESIGNER OF RECORD

HEATING, VENTILATING AND AIR CONDITIONING

CS2 DESIGN GROUP
837 OAKTON STREET, ELK GROVE, **847.981.1800**
ILLINOIS

ELECTRICAL

CS2 DESIGN GROUP
837 OAKTON STREET, ELK GROVE, **847.981.1800**
ILLINOIS

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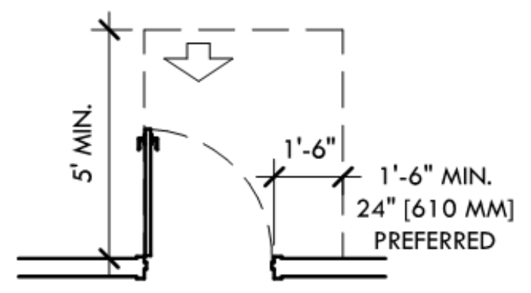
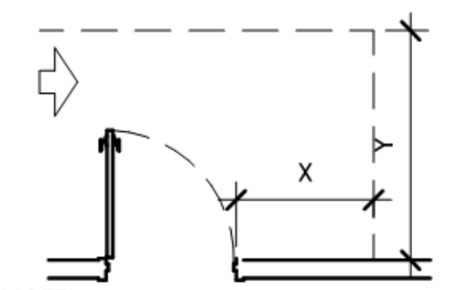
ABBREVIATIONS

A	
AB	ANCHOR BOLT
ACCU	AIR COOLED CONDENSING UNIT
ACP	ACOUSTICAL CEILING PANEL
ACT	ACOUSTICAL CEILING TILE
ADJ	ADJUSTABLE, ADJACENT
A/E	ARCHITECT/ENGINEER
AFF	ABOVE FINISHED FLOOR
AGGR	AGGREGATE
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AL, ALUM	ALUMINUM
ALR	ARCHITECTURAL LOUVER
ALT	ALTERNATE
AMP	AMPERE
ANOD	ANODIZE, ANODIZED
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APA	AMERICAN PLYWOOD ASSOCIATION
APPROX	APPROXIMATE, APPROXIMATELY
ARCH	ARCHITECT
ASC	ABOVE SUSPENDED CEILING
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AUTO	AUTOMATIC
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAUGE
AWI	ARCHITECTURAL WOODWORKING INSTITUTE
AWP	ACOUSTIC WALL PANEL
AWS	AMERICAN WELDING SOCIETY
B	
B&B	BALLED & BURLAPPED
BB	BALL BEARING
BFF	BELOW FINISHED FLOOR
BIT	BITUMINOUS
BLDG	BUILDING
BM	BEAM, BENCHMARK
BP	BASE PLATE, BEARING PLATE
BRG	BEARING
BSMT	BASEMENT
BTR	BETTER
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNITS PER HOUR
BTWN	BETWEEN
C	
CB	CATCH BASIN, CERAMIC BASE, CHALKBOARD
CBB	CEMENTITIOUS BACKER BOARD
CC	CUBICLE CURTAIN
CD	COILING DOOR
CFM	CUBIC FEET PER MINUTE
CG	CORNER GUARD
CI	CAST IRON, CURB INLET
CIP	CAST IRON PIPE, CAST-IN-PLACE
CJ	CONSTRUCTION JOINT, CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLG HT	CEILING HEIGHT
CLL	CONTRACT LIMIT LINE
CLR	CLEAR
COMP	COMPOSITE, COMPUTER
CM	CASEWORK/MILLWORK
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT, CARBON MONOXIDE, CASED OPENING
COL	COLUMN
CONC	CONCRETE
COND	CONDENSER, CONDITION
CONF	CONFERENCE
CONN	CONNECT, CONNECTION
CONT	CONTINUE, CONTINUOUS
COORD	COORDINATE
CORR	CORRIDOR
CP	CONCRETE PIPE, CONTROL PANEL
CPT	CARPET
CPTT	CARPET TILE
CPVC	CHLORINATED POLYVINYL CHLORIDE
CSI	CONSTRUCTION SPECIFICATIONS INSTITUTE
CSR	CLOSET SHELF & ROD
CT	CERAMIC TILE, CURRENT TRANSFORMER
CTR	CENTER
CTRL	CONTROL
CU FT	CUBIC FEET
CU IN	CUBIC INCH
CU YD	CUBIC YARD
CUH	CABINET UNIT HEATER
CUV	CABINET UNIT VENTILATOR
CW	COLD WATER, CLOCKWISE
CYL	CYLINDER
D	
D	DEEP, DEPTH, PENNY (NAIL)
DAT	DATUM
dB	DECIBEL
D-B	DESIGN-BUILD
DBL	DOUBLE
DC	DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREE
DEG C	DEGREES CELSIUS
DEG F	DEGREES FAHRENHEIT
DEMO	DEMOLISH, DEMOLITION, DEMONSTRATION
DET	DETAIL
DFT	DRY FILM THICKNESS
DHI	DOOR HARDWARE INSTITUTE
DIA	DIAMETER
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DL	DEAD LOAD
DR	DOOR, DRAIN
DS	DOWNSPOUT
DT	DRAIN TILE
DW	DOMESTIC WATER, DISHWASHER
DWG	DRAWING
DWV	DRAIN, WASTE, & VENT
E	
E	EAST
EA	EACH
EB	EXPANSION BOLT
EF	EACH FACE, EXHAUST FAN
EHD	ELECTRIC HAND DRYER
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELAST	ELASTOMER, ELASTOMERIC
ELEC	ELECTRIC, ELECTRICAL
EM	ENTRANCE MAT
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENAM	ENAMEL
EP	EPOXY
EPL	ELECTRICAL PANEL
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPS	EPANDED POLYSTYRENE BOARD (INSULATION)
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWH	EXHAUST
EXIST	EXISTING
EXP	EXPAND, EXPANSION, EXPOSED
EXT	EXTERIOR
EXV	EXHAUST VENT
F	
F	FAHRENHEIT
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FiD	FIRE DAMPER
FE	FIRE EXTINGUISHER
FEB	FIRE EXTINGUISHER & BRACKET
FEC	FIRE EXTINGUISHER & CABINET
FF&E	FURNITURE, FURNISHINGS, & EQUIPMENT
FFA	FROM FLOOR ABOVE
FFB	FROM FLOOR BELOW
FIN	FINISH, FINISHED
FIN FLR	FINISHED FLOOR
FL	FLUSH
FLA	FULL LOAD AMPS
FLR	FLOOR
FLUOR	FLUORESCENT
FM	FACTORY MUTUAL
FR	FRAME
FRP	FIBERGLASS REINFORCED PLASTIC
FRG	FIBER REINFORCED GYPSUM
FRTW	FIRE RETARDANT TREATED WOOD
FT	FOOT, FEET
FTG	FOOTING
FTR	FIN TUBE REGISTER
FURN	FURNISH, FURNITURE
FV	FLUSH VALVE
FWC	FABRIC WALLCOVERING
G	
G	GUTTER, NATURAL GAS
GA	GAGE
GAL	GALLON
GALV	GALVANIC, GALVANIZE, GALVANIZED
GALV STL	GALVANIZED STEEL
GB##	GRAB BAR (LENGTH IN INCHES)
GC	GENERAL CONTRACTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFRC	GLASS FIBER-REINFORCED CONCRETE
GFRG	GLASS FIBER-REINFORCED GYPSUM
G/DS	GUTTER / DOWNSPOUT
GI	GALVANIZED IRON
GL	GLASS, GLAZING
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GUT	GUTTER
GWH	GAS-FIRED WATER HEATER
GWB	GYPSUM WALLBOARD
GYP	GYPSUM
H	
H	HIGH
HB	HOSE BIBB
HC	HANDICAP, HANDICAPPED
HD JT	HEAD JOINT
HDWR	HARDWARE
HDWD	HARDWOOD
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HORSEPOWER
HR	HOUR, HANDRAIL
HS	HIGH STRENGTH, HEAT-STRENGTHENED (GLASS)
HT	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HW	HOT WATER
I	
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER, INSIDE DIMENSION
INCAND	INCANDESCENT
INFO	INFORMATION
INSUL	INSULATE, INSULATION
INT	INTERIOR
INV	INVERT
INV EL	INVERT ELEVATION
J	
JAN	JANITOR
JAN CLO	JANITOR CLOSET
J-BOX	JUNCTION BOX
K	
KD	KILN DRIED, KNOCKED DOWN
KIP	THOUSAND POUNDS
KIP FT	THOUSAND POUND - FEET
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
kV	KILOVOLT
kVA	KILOVOLT AMPERE
kW	KILOWATT
kWh	KILOWATT HOUR
L	
L	ANGLE
LAM	LAMINATE
LAV	LAVATORY
LBS	POUNDS
LED	LIGHT EMITTING DIODE
LF	LINEAL FEET (FOOT)
LKR/#	LOCKER/QUANTITY
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LT	LAUNDRY TRAY
LTG	LIGHTING
LVT	LUXURY VINYL TILE
M	
M	MINUTE, MINUTES
MATL	MATERIAL
MAU	MAKE UP AIR UNIT
MAX	MAXIMUM
MB	MOP BASIN
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLR	MECHANICAL LOUVER
MO	MASONRY OPENING, MECHANICAL OPENING
MR	MOISTURE RESISTANT
MTD	MOUNTED
MTL	METAL
MULL	MULLION
MWP	METAL WALL PANEL
N	
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NM	NON METALLIC
NO	NUMBER
NOM	NOMINAL
NRP	NON-REMOVABLE PIN (HINGES)
NTS	NOT TO SCALE
O	
OC	ON CENTER
OD	OUTSIDE DIAMETER, OUTSIDE DIMENSION
OH DR	OVERHEAD DOOR
OPNG	OPENING
OPH	OPPOSITE HAND
OPP	OPPOSITE
OS	OVERFLOW SCUPPER
P	
P	PAINT
PC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PCI	PRECAST/PRESTRESSED CONCRETE INSTITUTE
PCP	PORTLAND CEMENT PLASTER
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE, PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER, PLASTIC
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
PLY	PLYWOOD
PNL	PANEL
POLY	POLYETHYLENE
PORC	PORCELAIN
POS	POSITIVE
PP	PUSH/PULL
PP PL	PUSH/PULL PLATE
PPM	PARTS PER MILLION
PPT	PRESERVATIVE PRESSURE TREATED
PR	PAIR
PRE	POWER ROOF EXHAUSTER, PREFINISHED
PREFAB	PREFABICATE, PREFABRICATED
PREP	PREPARE, PREPARATION
PREV	PREVIOUS
PROD	PRODUCT, PRODUCTION
PROJ	PROJECT
PRV	POWER ROOF VENTILATOR, PRESSURE REDUCING VALVE, PRESSURE REGULATOR VALVE, PRESSURE RELIEF VALVE
PS	PULL STATION
PSC	PROJECTION SCREEN, CEILING MOUNTED
PSW	PROJECTION SCREEN, WALL MOUNTED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PAINT
PTD	PAPER TOWEL DISPENSER
PTD/W	PAPER TOWEL DISPENSER WITH WASTE RECEPTACLE
PTN	PARTITION
PV	PLUMBING VENT
PVC	POLYVINYL CHLORIDE
PWR	POWER
Q	
QRTZ	QUARTZ
QRY	QUARRY
QT	QUARRY TILE
R	
R	RADIUS, RISER, THERMAL RESISTANCE
RA	RETURN AIR
RB	RUBBER BASE
RBR	RUBBER
RC	REINFORCED CONCRETE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REBAR	REINFORCING STEEL BARS
RECPT	RECEPTACLE
REF	REFERENCE, REFRIGERATOR
REFL	REFLECT, REFLECTED
REINF	REINFORCE, REINFORCED, REINFORCING
REM	REMOVABLE
REQD	REQUIRED
REV	REVISE, REVISED, REVISION
RFM	RECESSED FLOOR MAT
RM	ROOM
RO	ROUGH OPENING
RT	RUBBER TILE
RTG	RATING
RTU	ROOFTOP UNIT
RWP	ROOF WALKWAY PADS/PAVERS
S	
S	SOUTH
SA	SUPPLY AIR
SAD	SUPPLY AIR DIFFUSER
SALV	SALVAGE
SAN	SANITARY
SC	SOLID CORE
SCONC	SEALED CONCRETE
SCHED	SCHEDULE
SCMU	SOLID CONCRETE MASONRY UNIT
SD	SOAP DISPENSER
SDI	STEEL DECK INSTITUTE
SE	STRUCTURAL ENGINEER
SECT	SECTION
SF	SQUARE FOOT (FEET)
SHT	SHEET
SJI	STEEL JOIST INSTITUTE
SKY	SKYLIGHT
SND	SANITARY NAPKIN DISPENSER
SNDL	SANITARY NAPKIN DISPOSAL
SPEC	SPECIFICATION
SPF	SPRUCE-PINE-FIR
SQ	SQUARE
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SRD	SECONDARY ROOF DRAIN
SS	SOLID SURFACE MATERIAL
SSTL	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STL JST	STEEL JOIST
STL PL	STEEL PLATE
STRUCT	STRUCTURAL
SUH	SUSPENDED UNIT HEATER
SUSP	SUSPENDED
SV	SHEET VINYL
SWS	SHELVING WITH STANDARDS
SYM	SYMBOL
SYMM	SYMMETRICAL
T	
T	TREAD
TB	TACK BOARD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TD	TRENCH DRAIN
TEMP	TEMPERATURE
TERR	TERRAZZO
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
THK	THICK, THICKNESS
THRES	THRESHOLD
THRU	THROUGH
TI	TAPERED INSULATION
TLP	TOILET PARTITION
TLT	TOILET
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE, TOP OF CURB
TOF	TOP OF FLOOR
TOJ	TOP OF JOIST
TOS	TOP OF SLAB
TOW	TOP OF WALL
TS	TUBE STEEL
TSTAT	THERMOSTAT
TTB	TELEPHONE TERMINAL BOARD
TTD	TOILET TISSUE DISPENSER
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
U	
UC	UNDERCUT
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
UV	ULTRAVIOLET
V	
V	VOLT
VA	VOLT AMPERE
VAV	VARIABLE AIR VOLUME
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VET	VINYL ENHANCED TILE
VFD	VARIABLE FREQUENCY DRIVE
VG	VERTICAL GRAIN
VIF	VERIFY IN FIELD
VOC	VOLATILE ORGANIC COMPOUND
VOL	VOLUME
VR	VAPOR RETARDER
VS	VENT STACK
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
W	
W	WEST, WASTE, WATT, WIDE
W/	WITH
W/O	WITHOUT
WB	WHITEBOARD
WC	WATER CLOSET, WATER COLUMN
WCO	WALL CLEANOUT
WD	WOOD
WG	WALL GUARD
WH	WALL HUNG, WALL HYDRANT, WATER HEATER
WI	WROUGHT IRON
WM	WATER METER
WO	WALK OFF CARPET TILE
WP	WATERPROOFING, WEATHERPROOF, WORKING POINT
WR	WATER REPELLANT, WEATHER RESISTANT
WV	WOOD VENEER
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH
WWR	WELDED WIRE REINFORCING
X	
XFER	TRANSFER
XFMR	TRANSFORMER
XPS	EXTRUDED POLYSTYRENE BOARD (INSULATION)
Y	
YCO	YARD CLEANOUT
YD	YARD
YR	YEAR
SYMBOLS	
±	PLUS OR MINUS
Ø	ROUND, DIAMETER
⌀	SQUARE
℄	CENTERLINE
⅊	PLATE

ACCESSIBILITY CLEARANCES

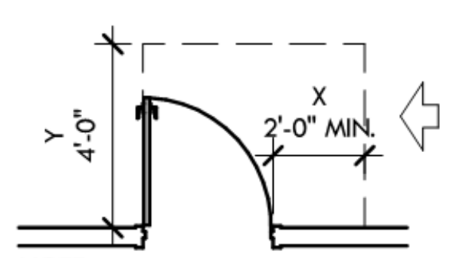


PULL SIDE
FRONT APPROACH



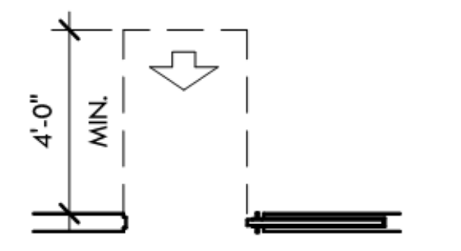
NOTE
X=36" (915 mm) minimun if Y=60 in. (1525 mm) X=42" (1065 mm) minimun if Y=54 in. (1370 mm)

PULL SIDE

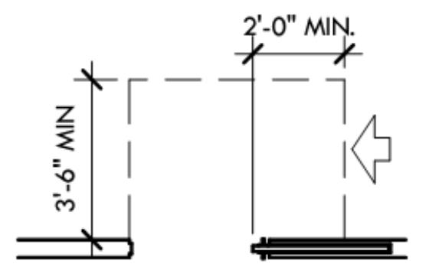


NOTE
Y= 54 in. (1370 mm) minimum if door has closer.

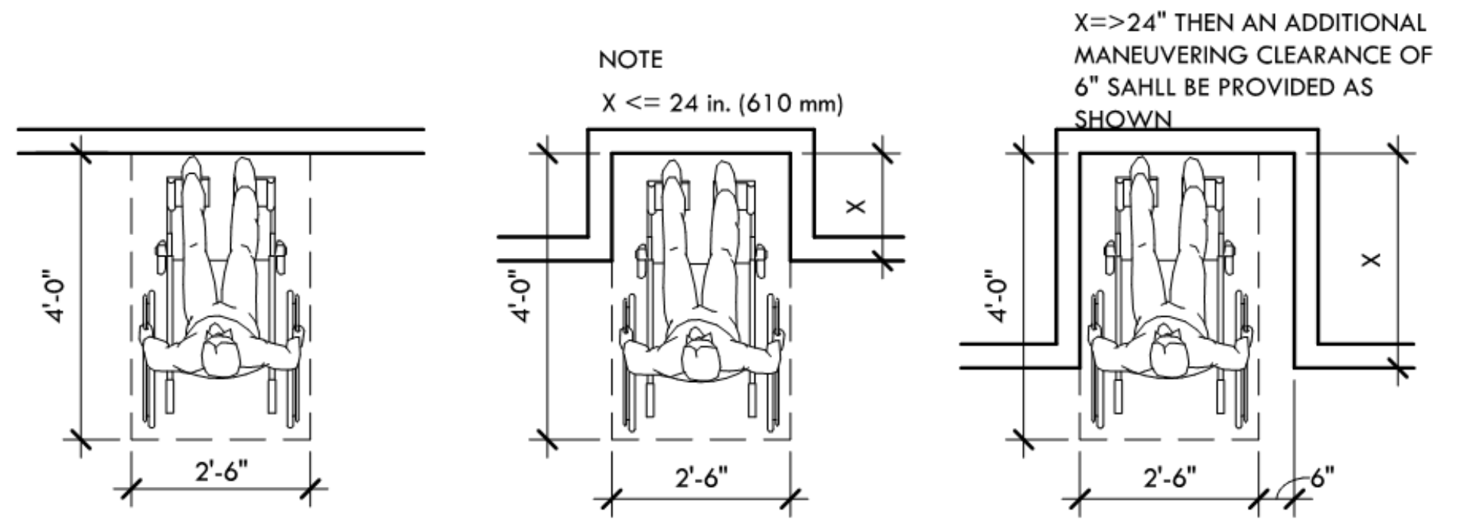
PULL SIDE



FRONT APPROACH -- SLIDING AND FOLDING DOORS



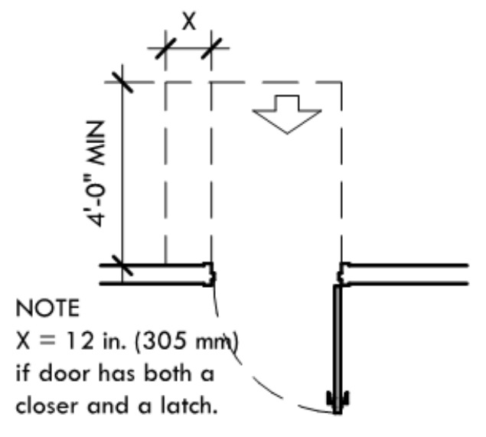
LATCH SIDE APPROACH SLIDING AND FOLDING DOORS



NOTE
X <= 24 in. (610 mm)

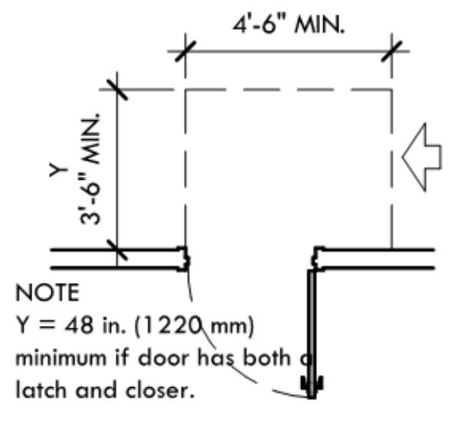
NOTE
X=>24" THEN AN ADDITIONAL MANEUVERING CLEARANCE OF 6" SAHLL BE PROVIDED AS SHOWN

FORWARD APPROACH



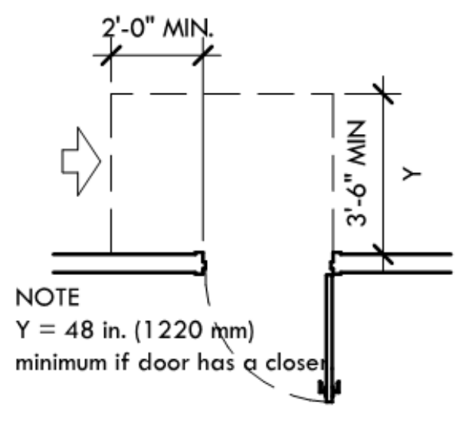
NOTE
X = 12 in. (305 mm) if door has both a closer and a latch.

PUSH SIDE
FRONT APPROACHES
SWINGING DOORS



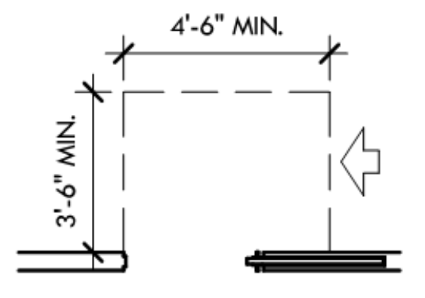
NOTE
Y = 48 in. (1220 mm) minimum if door has both a latch and closer.

PUSH SIDE
HINGE SIDE APPROACHES
SWINGING DOORS

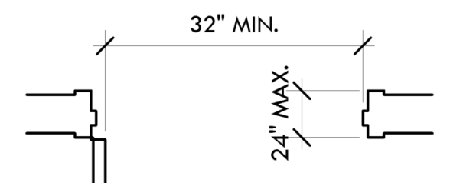


NOTE
Y = 48 in. (1220 mm) minimum if door has a closer

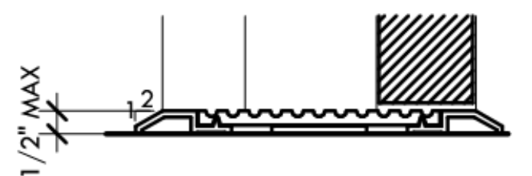
PUSH SIDE
LATCH SIDE APPROACHES
SWINGING DOORS



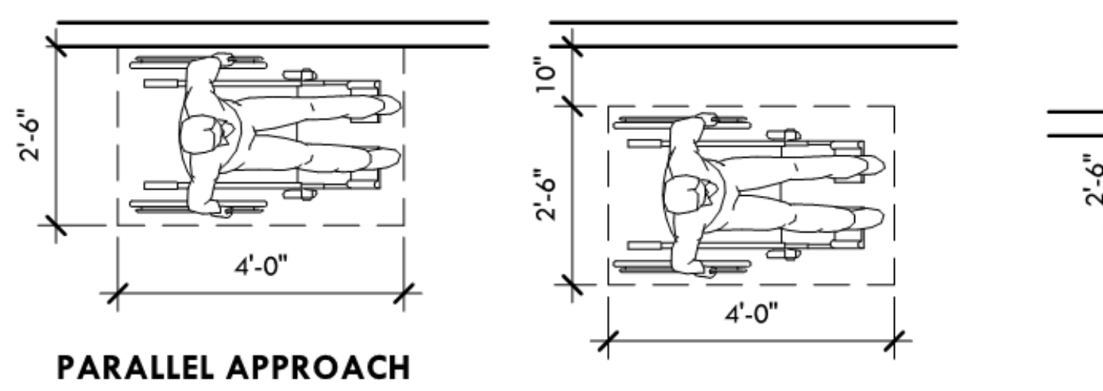
SLIDE SIDE APPROACH
SLIDING AND FOLDING
DOORS



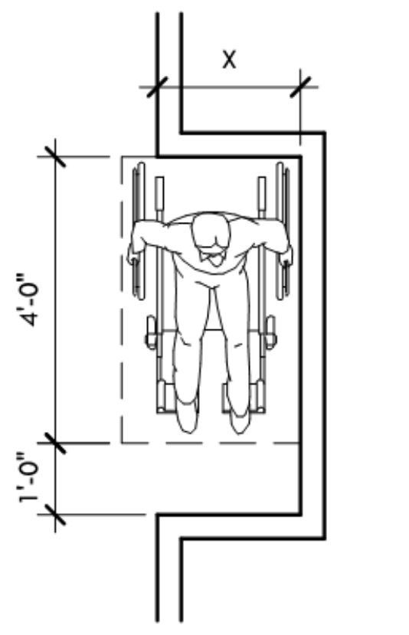
DOOR WIDTH



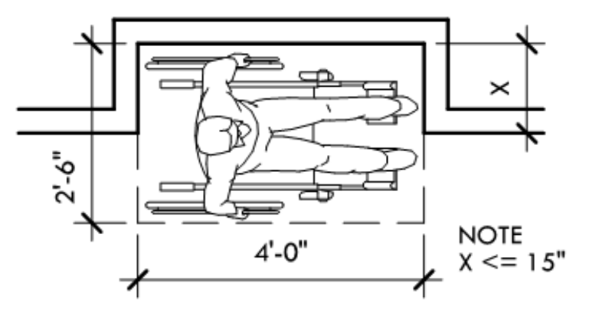
DOOR THRESHOLD



PARALLEL APPROACH

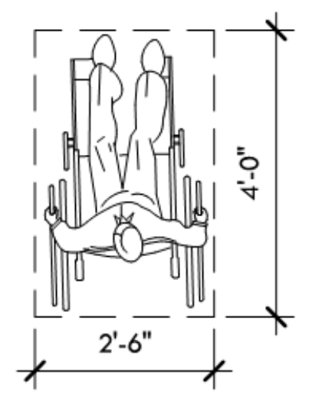


NOTE
X => 15" THEN AN ADDITIONAL MANEUVERING CLEARANCE OF 12" SHALL BE PROVIDED AS SHOWN

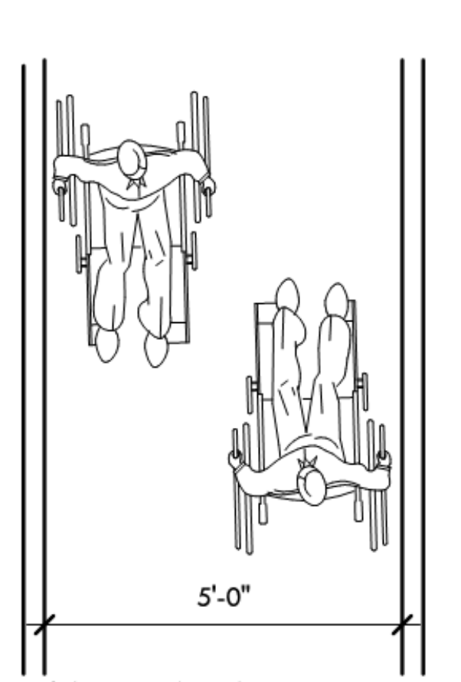


NOTE
X <= 15"

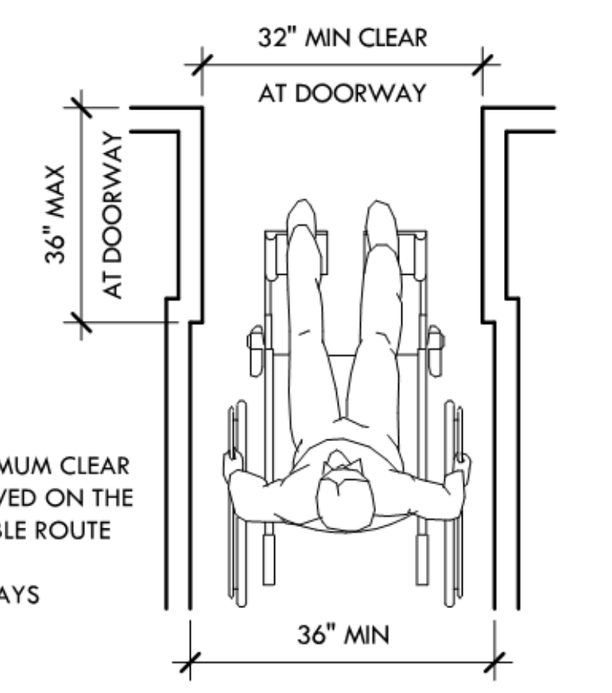
CLEAR FLOOR SPACE PARALLEL APPROACH



STANDARD FLOOR SPACE WHEELCHAIR

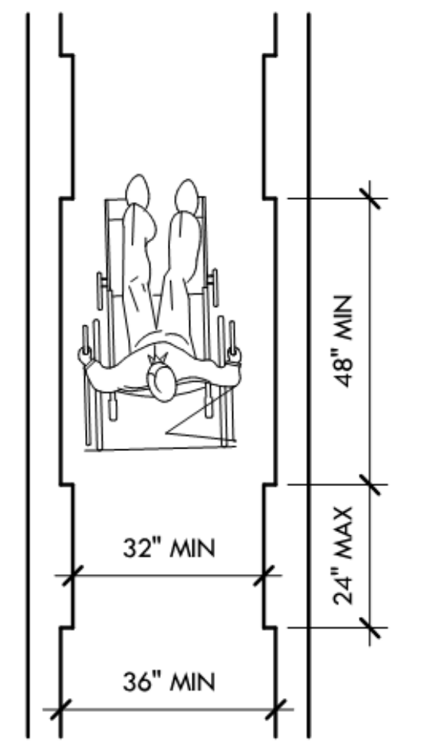


CORRIDOR OVER 200 FT.

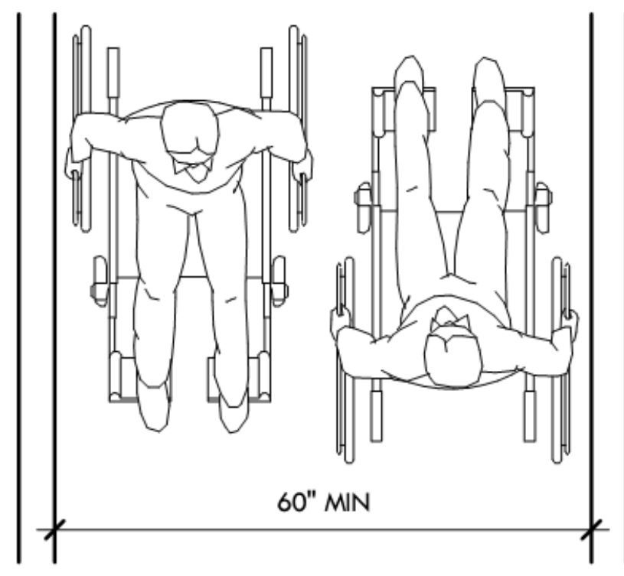


NOTE:
32" MINIMUM CLEAR IS ALLOWED ON THE ACCESSIBLE ROUTE ONLY AT DOORWAYS

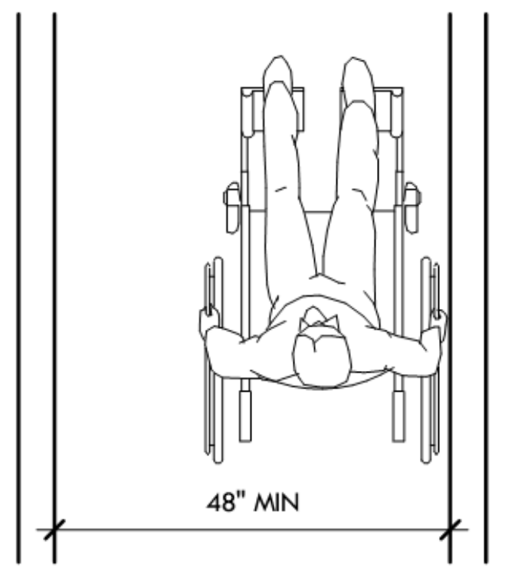
MIN. CLEAR WIDTH
FOR SINGLE WHEELCHAIR



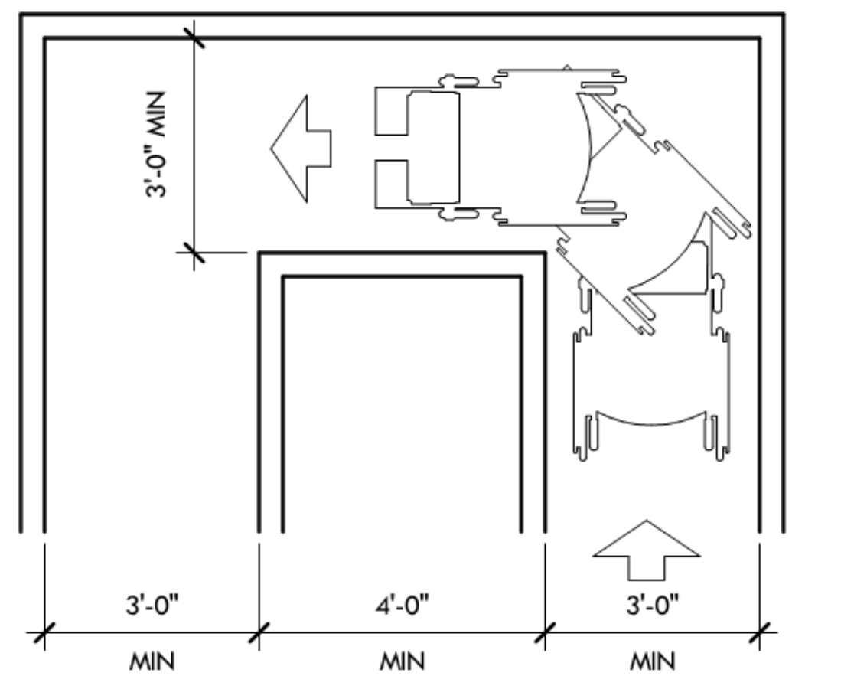
MINIMUM CLEAR WIDTH
FIG. 403.5 (ANSI 1998)



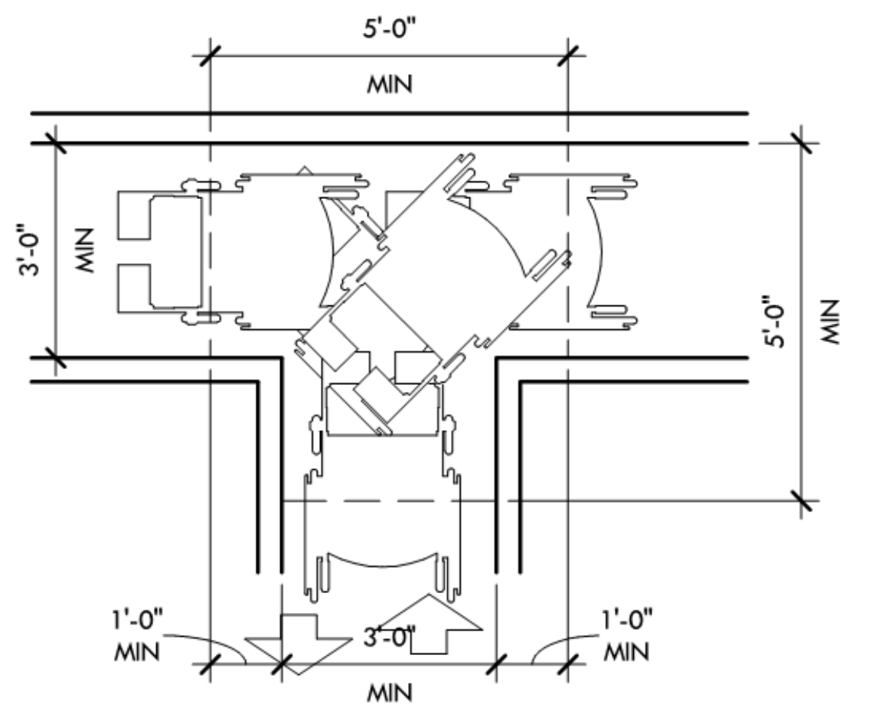
MIN. CLEAR WIDTH
FOR TWO WHEELCHAIRS



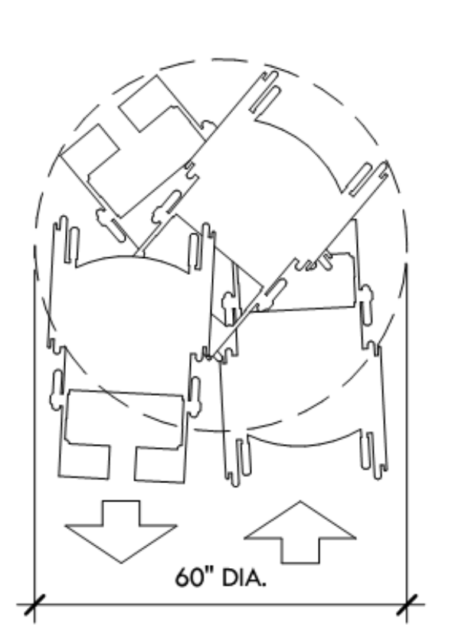
MIN. CLEAR WIDTH FOR
ONE WHEELCHAIR AND
ONE AMBULATORY PERSON



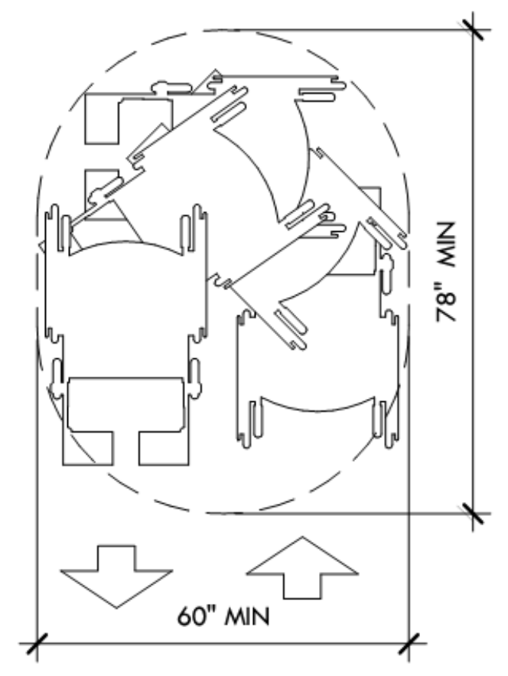
90° TURN



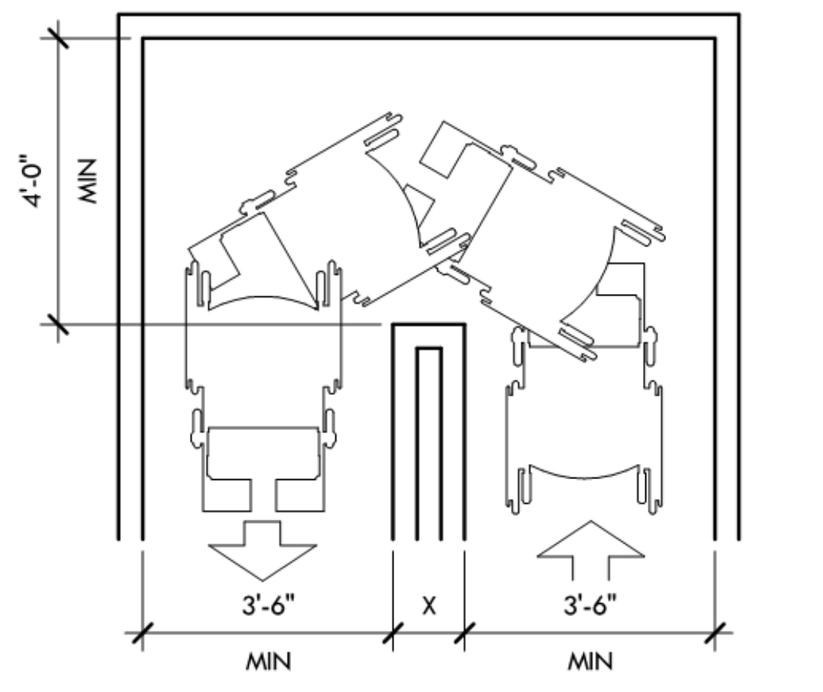
T-SHAPED SPACE FOR 180° TURN



MINIMUM SPACE NEEDED TO
TURN A WHEELCHAIR



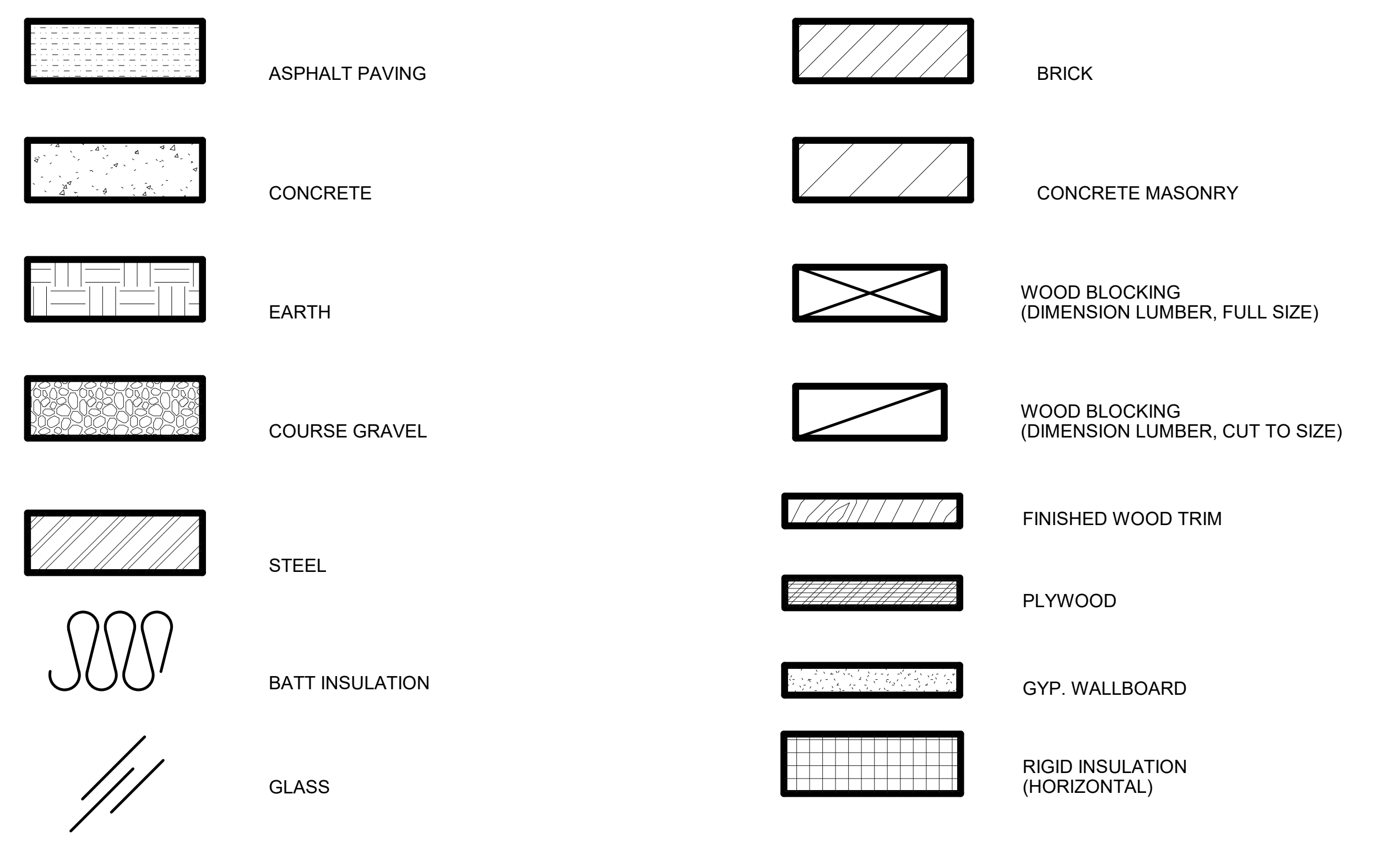
PREFERED SPACE NEEDED FOR
SMOOTH U-TURN



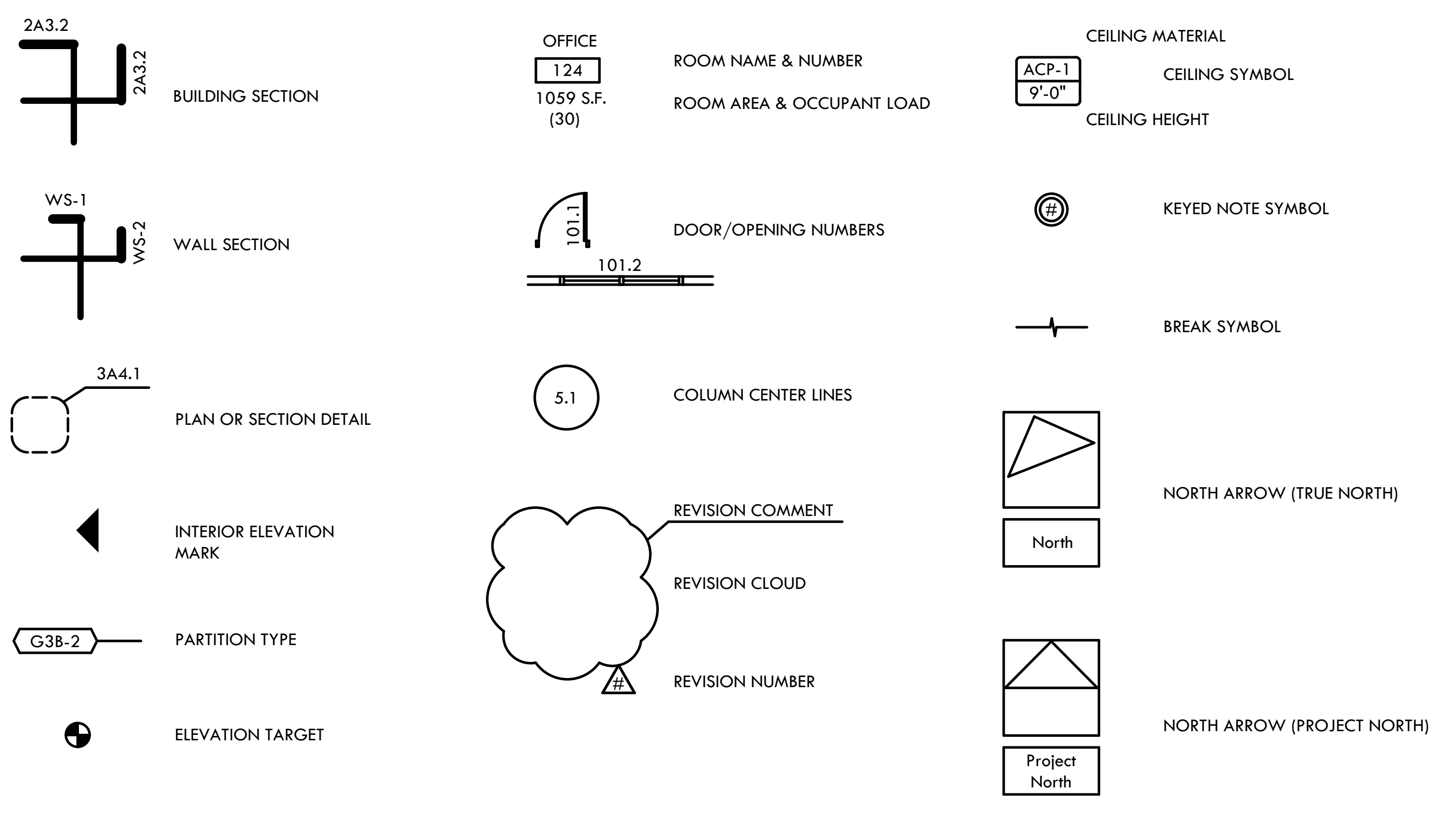
NOTE: DIMENSIONS SHOWN APPLY WHEN X < 48 IN. (1220 MM).

U-TURN AROUND AN OBSTRUCTION

MATERIAL SYMBOLS



SHEET SYMBOLS



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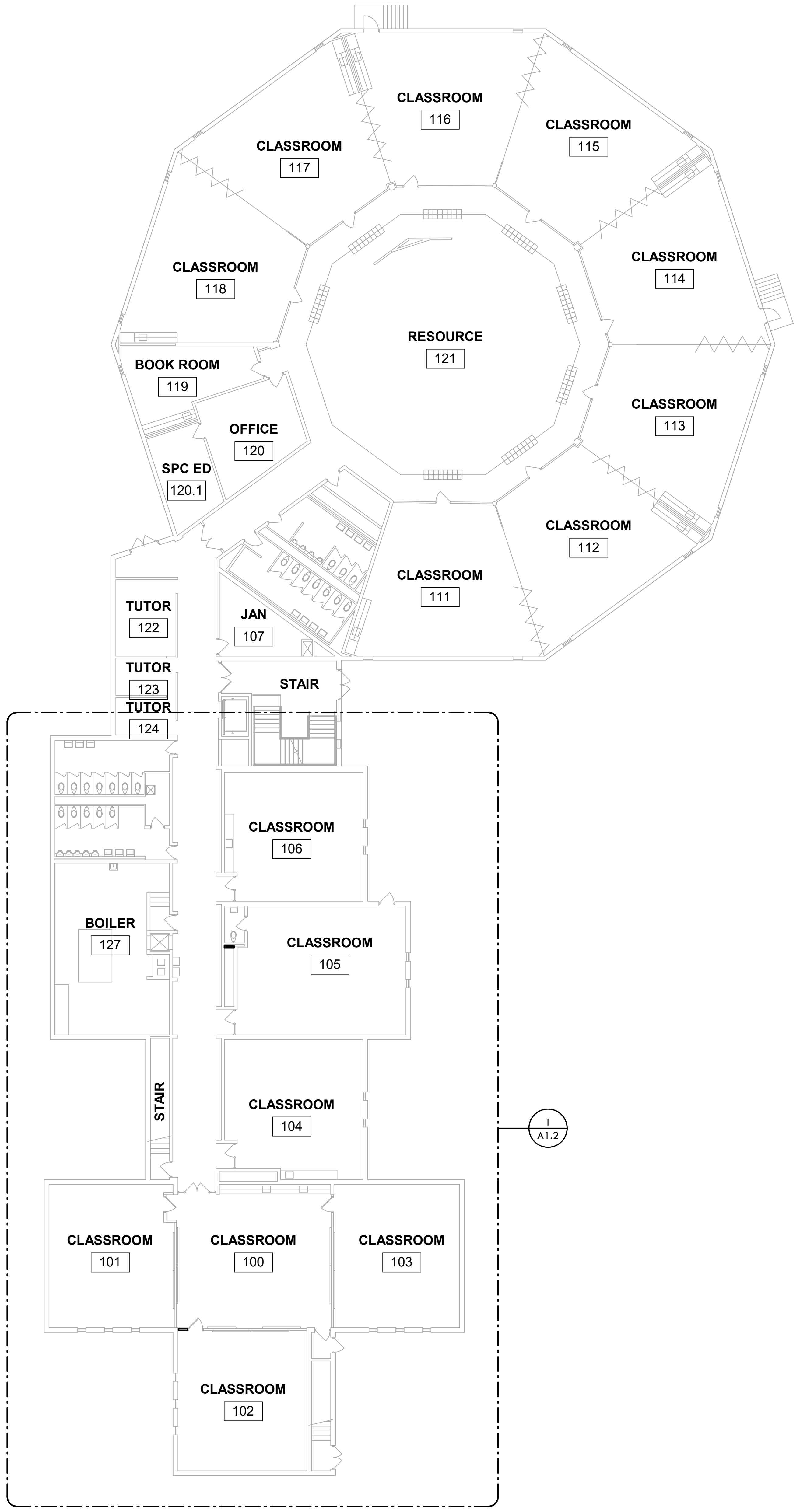
HILLMAN ELEMENTARY SCHOOL - HVAC IMPROVEMENTS
RPS DISTRICT 205 PROJ. #2301
3701 GREEN DALE DRIVE, ROCKFORD IL 61109

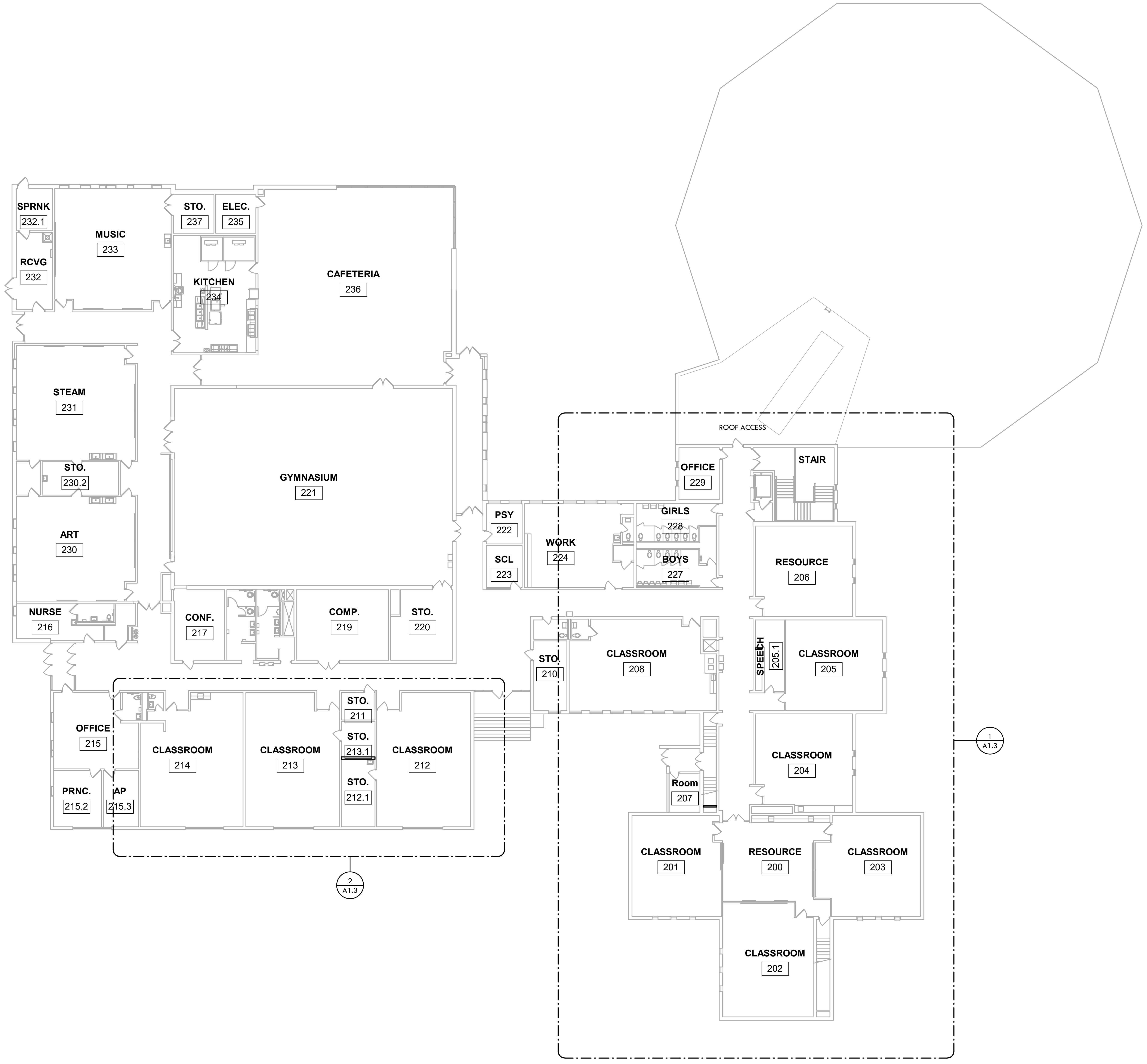
ISSUED FOR:	DATE

DATE: 10-11-22
PROJECT NUMBER
32103
SHEET NUMBER
G0.2



① **LOWER LEVEL FLOOR PLAN**
SCALE: 1/16" = 1'-0"

NORTH



② **UPPER LEVEL FLOOR PLAN**
SCALE: 1/16" = 1'-0"

NORTH

GENERAL NOTES - FLOOR PLAN

1. DIMENSIONS ON FLOOR PLAN ARE BASED ON FACE OF FINISHED WALL TO FACE OF FINISHED WALL (NOMINAL).
2. VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE. PORTIONS OF EXISTING CONSTRUCTION MAY HAVE BEEN REMOVED BY OWNER.
3. MAINTAIN CONTINUOUS UTILITY SERVICE TO ALL SPACES IN THE BUILDING NOT AFFECTED BY THIS WORK. COORDINATE WITH OWNER ANY DISRUPTION IN SERVICES REQUIRED TO PERFORM WORK OR TO MODIFY EXISTING PIPING, DUCTWORK OR ANY ASSOCIATED EQUIPMENT.

LEGEND - FLOOR PLAN

2 / A3.2	BUILDING SECTIONS
2 / A4.1	WALL SECTIONS
3 / A5.1	PLAN OR SECTION DETAIL
2 A5.20	ELEVATION SHEET ELEVATION DETAIL
2	REVISION CLOUD REVISION TAG
ROOM 124	ROOM NAME ROOM NUMBER
⊕	ELEVATION TARGET
6	WALL TYPE TAG (SEE A2.1)
K10	KEY NOTE
101.1 101.2	DOOR / OPENING NUMBERS
FD	FLOOR DRAIN
5.1	COLUMN CENTER LINES

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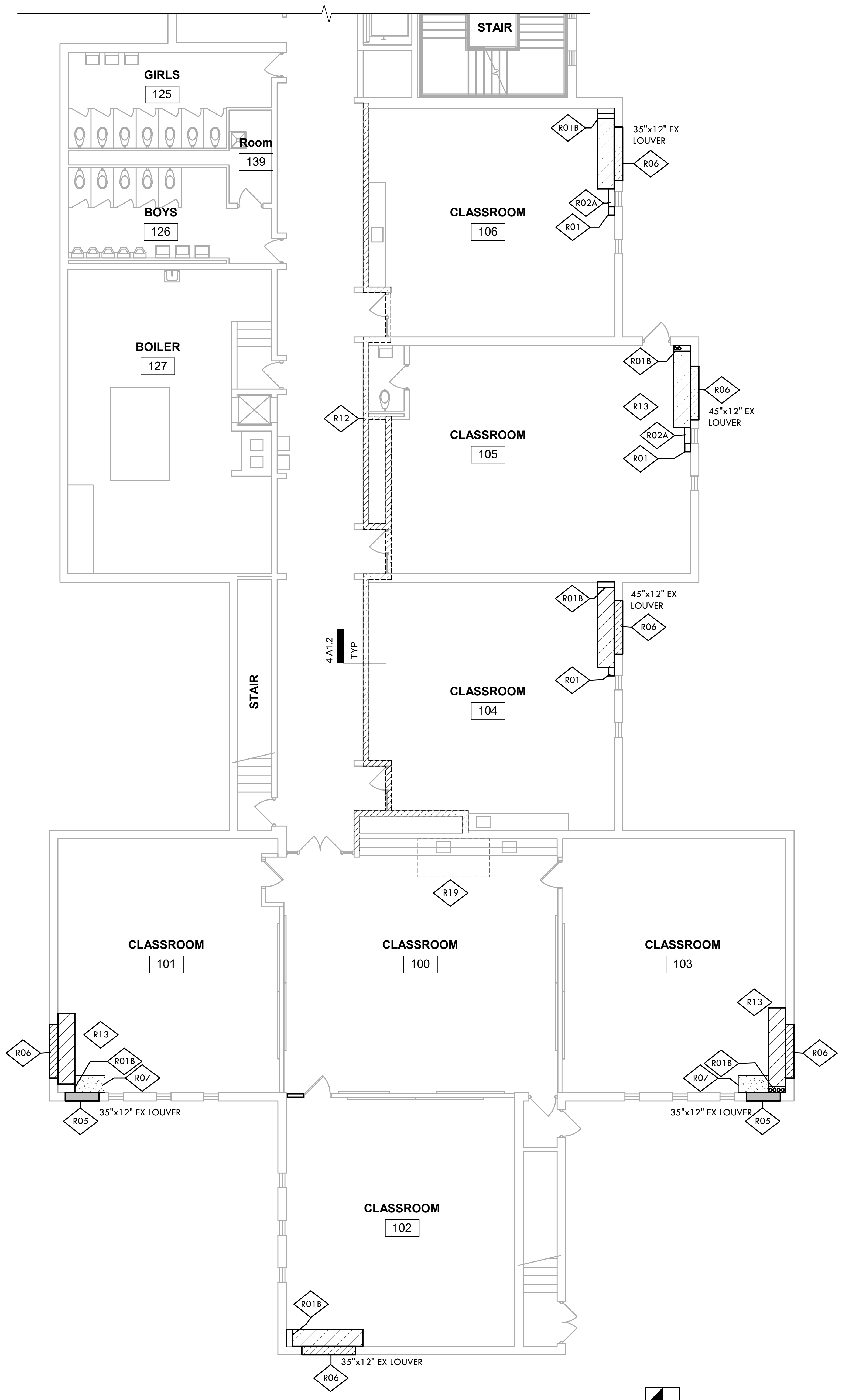
A1.1



1 LOWER LEVEL FLOOR PLAN - WEST WING

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

NORTH

GENERAL NOTES - FLOOR PLAN

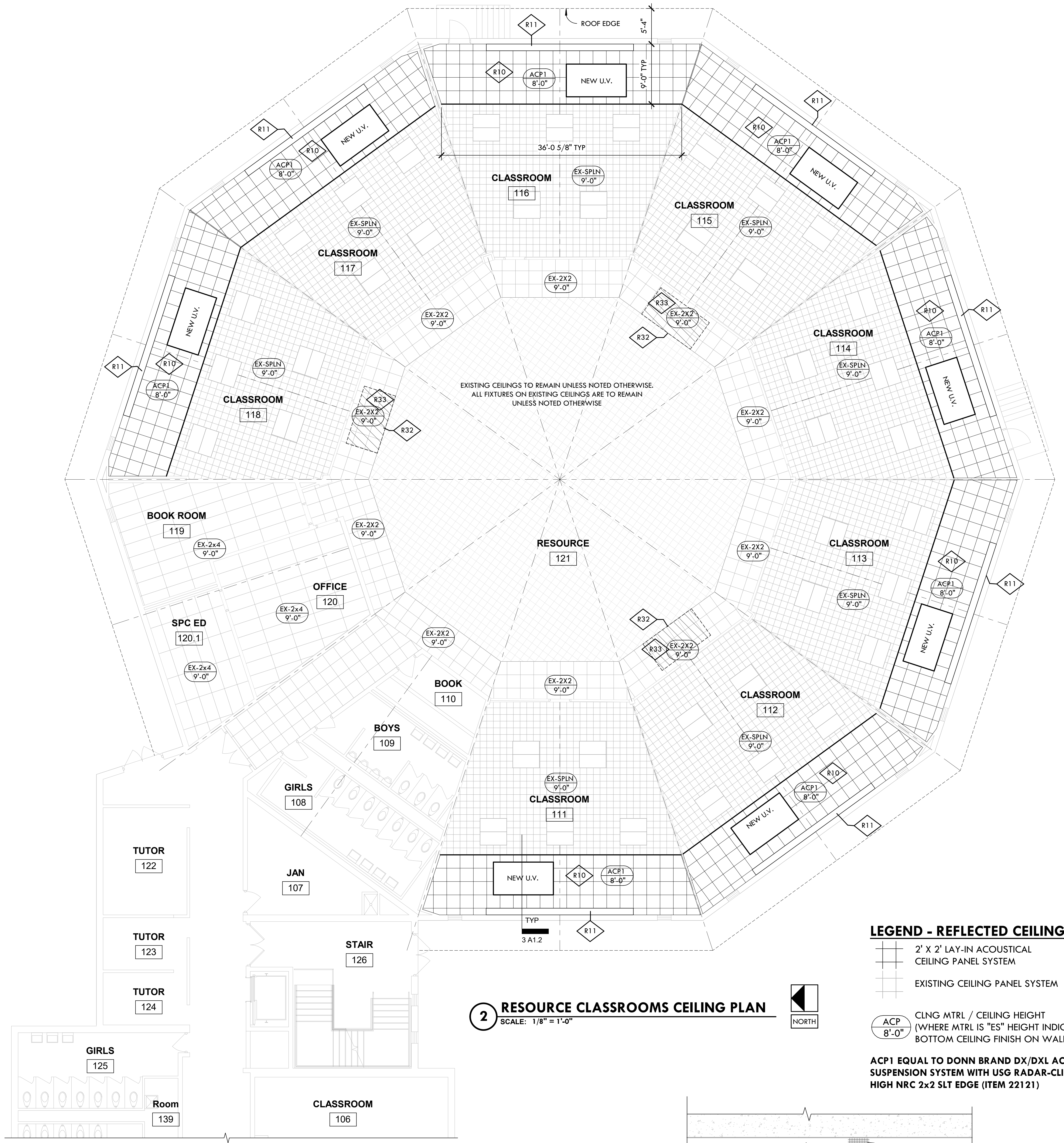
1. DIMENSIONS ON FLOOR PLAN ARE BASED ON FACE OF FINISHED WALL TO FACE OF FINISHED WALL (NOMINAL).
2. VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE. PORTIONS OF EXISTING CONSTRUCTION MAY HAVE BEEN REMOVED BY OWNER.
3. MAINTAIN CONTINUOUS UTILITY SERVICE TO ALL SPACES IN THE BUILDING NOT AFFECTED BY THIS WORK. COORDINATE WITH OWNER ANY DISRUPTION IN SERVICES REQUIRED TO PERFORM WORK OR TO MODIFY EXISTING PIPING, DUCTWORK OR ANY ASSOCIATED EQUIPMENT.

LEGEND - FLOOR PLAN

2 / A3.2	BUILDING SECTIONS
2 / A4.1	WALL SECTIONS
3 / A5.1	PLAN OR SECTION DETAIL
2 A5.20	ELEVATION SHEET ELEVATION DETAIL
2	REVISION CLOUD REVISION TAG
ROOM / 124	ROOM NAME ROOM NUMBER
⌖	ELEVATION TARGET
6	WALL TYPE TAG (SEE A2.1)
K10	KEY NOTE
101.1 101.2	DOOR / OPENING NUMBERS
FD	FLOOR DRAIN
5.1	COLUMN CENTER LINES

LEGEND - RENOVATION KEYNOTE

KEY VALUE	KEYNOTE TEXT
R01	PROVIDE NEW METAL PIPE ENCLOSURE FROM FLOOR TO CEILING.
R01B	PROVIDE NEW METAL PIPE ENCLOSURE FROM FLOOR TO CEILING (PIPE COVER B).
R02A	HORIZONTAL PIPE ENCLOSURE, RUN UNDER EXISTING WINDOW SILL.
R05	INFILL EQUIPMENT OPENING WITH MASONRY TO MATCH EXISTING MASONRY.
R06	CUT OPENING FOR NEW LOUVER, REMOVE MASONRY AND PROVIDE NEW LINTEL FOR NEW EQUIPMENT LOUVER. COORDINATE SIZE WITH MECHANICAL SPECIFICATIONS. BRICK REMOVED SAHLL BE CLEANED AND PREPARED FOR USE AT LOCATIONS WHERE OPENINGS ARE INFILLED.
R07	MODIFY EXISTING FINISHES AND PROVIDE NEW FINISHES TO MATCH ADJACENT EXISTING FINISHES WHERE EQUIPMENT IS REMOVED. WHERE PAINTING IS REQUIRED, PAINT ENTIRE WALL.
R10	REMOVE EXISTING SLOPED SPLINE CEILING AND REPLACE WITH NEW 2x2 TEGULAR EDGE CEILING TILE. NEW CEILING TO BE INSTALLED AT TOP OF EXISTING VALANCE. FIELD VERIFY HEIGHT.
R11	EXISTING LIGHTING VALANCE TO REMAIN.
R12	CONSTRUCT NEW 1HR RATED SHAFT WALL ABOVE CEILING FROM TOP OF EXISTING WALL TO BOTTOM OF EXISTING DECK. COORDINATE WITH MECHANICAL FOR FIRE DAMPERS AND TRANSFERS. REMOVE, PROTECT, STORE, AND REINSTALL CEILING AS REQUIRED FOR WALL CONSTRUCTION.
R13	MODIFY TACKBOARD, WHITEBOARD, OR WALL BRACKETS AS REQURIED FOR NEW EQUIPMENT INSTALLATION.
R19	MODIFY CEILING AND EXISTING SOFFIT AS REQUIRED FOR NEW UNIT.
R32	MODIFY OPENING IN METAL STUD FRAMED GYPSUM SOFFIT WALL AND INSTALL NEW DIFFUSER LOUVER.
R33	REMOVE AND REPLACE EXISTING CEILING AND CEILING FIXTURES AS REQUIRED FOR INSTALLATION OF NEW HVAC UNITS.



2 RESOURCE CLASSROOMS CEILING PLAN

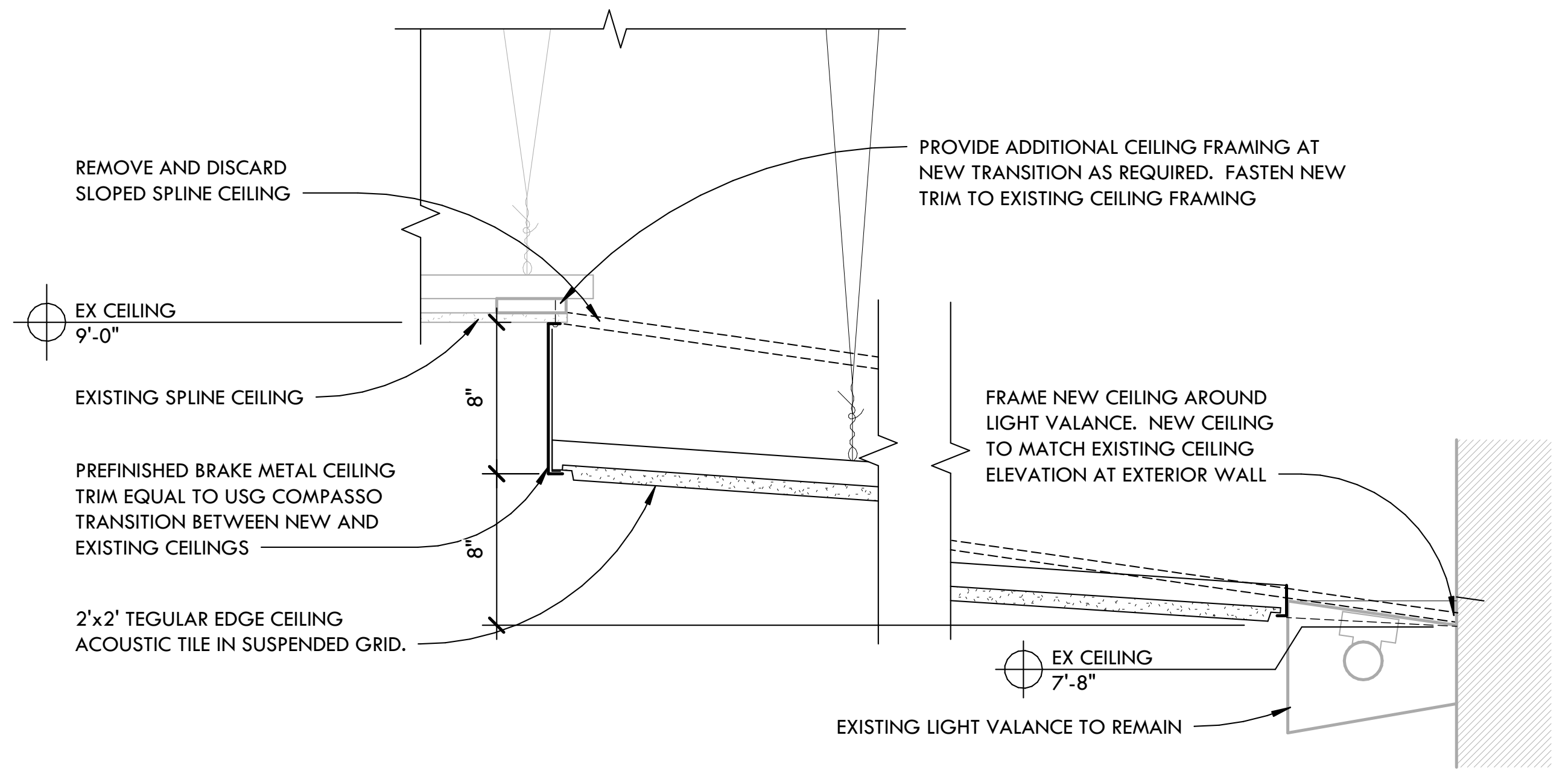
SCALE: 1/8" = 1'-0"

NORTH

LEGEND - REFLECTED CEILING

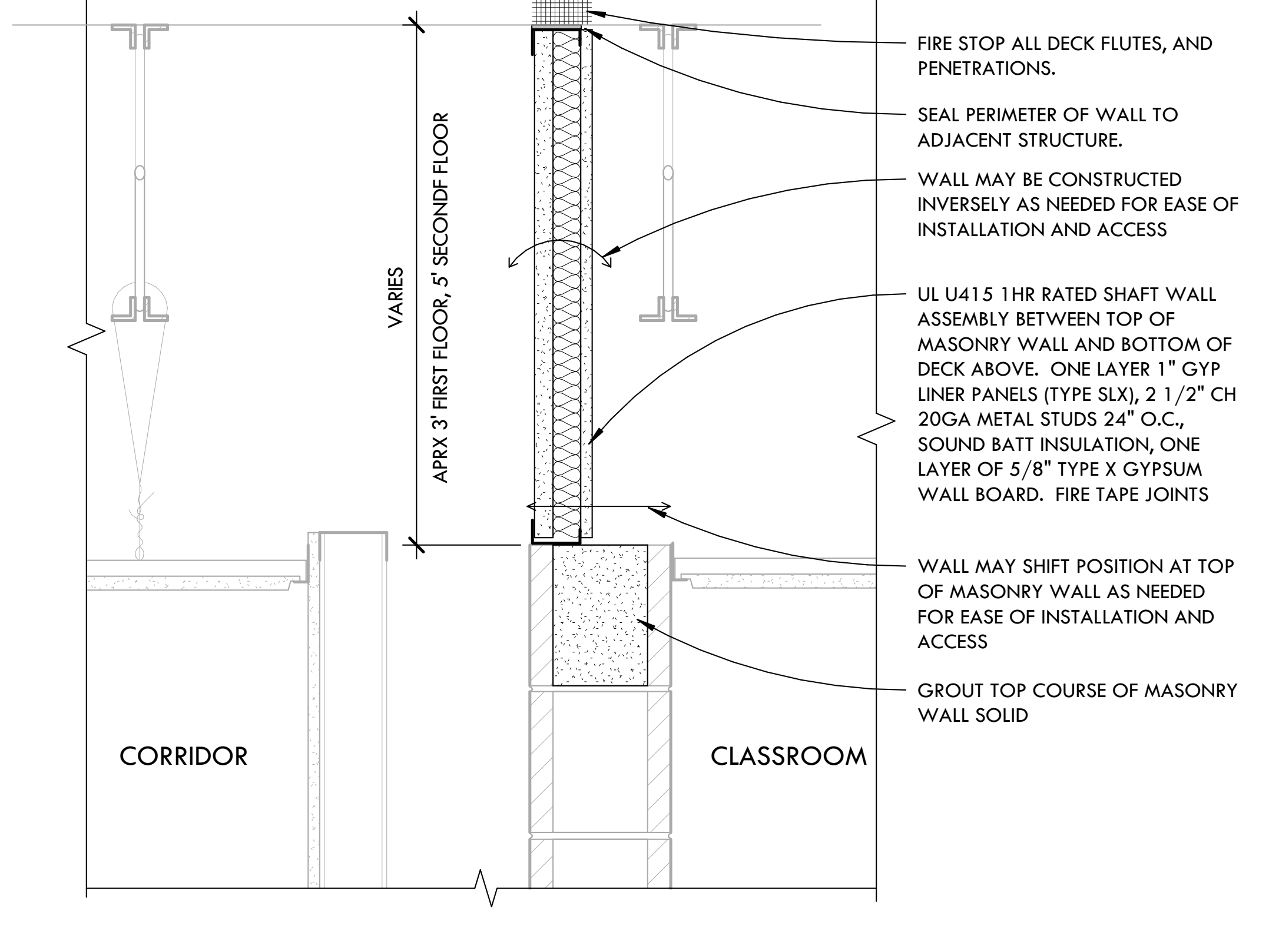
┼	2' X 2' LAY-IN ACOUSTICAL CEILING PANEL SYSTEM
┼	EXISTING CEILING PANEL SYSTEM
ACP / 8'-0"	CLNG MTRL / CEILING HEIGHT (WHERE MTRL IS "ES" HEIGHT INDICATES BOTTOM CEILING FINISH ON WALLS)

ACP1 EQUAL TO DONN BRAND DX/DXL ACOUSTIC SUSPENSION SYSTEM WITH USG RADAR-CLIMAPLUS, HIGH NRC 2x2 SLT EDGE (ITEM 22121)


REMOVE AND DISCARD SLOPED SPLINE CEILING
PROVIDE ADDITIONAL CEILING FRAMING AT NEW TRANSITION AS REQUIRED. FASTEN NEW TRIM TO EXISTING CEILING FRAMING
EX CEILING 9'-0"
EXISTING SPLINE CEILING
8"
8"
PREFINISHED BRAKE METAL CEILING TRIM EQUAL TO USG COMPASSO TRANSITION BETWEEN NEW AND EXISTING CEILINGS
FRAME NEW CEILING AROUND LIGHT VALANCE. NEW CEILING TO MATCH EXISTING CEILING ELEVATION AT EXTERIOR WALL
2'x2' TEGULAR EDGE CEILING ACOUSTIC TILE IN SUSPENDED GRID.
EX CEILING 7'-8"
EXISTING LIGHT VALANCE TO REMAIN

3 TYPICAL CEILING TRANSITION DETAIL

SCALE: 1 1/2" = 1'-0"


FIRE STOP ALL DECK FLUTES, AND PENETRATIONS.
SEAL PERIMETER OF WALL TO ADJACENT STRUCTURE.
WALL MAY BE CONSTRUCTED INVERSELY AS NEEDED FOR EASE OF INSTALLATION AND ACCESS
VARIES
APRX 3' FIRST FLOOR, 5' SECONDF FLOOR
UL U415 1HR RATED SHAFT WALL ASSEMBLY BETWEEN TOP OF MASONRY WALL AND BOTTOM OF DECK ABOVE. ONE LAYER 1" GYP LINER PANELS (TYPE SLX), 2 1/2" CH 20GA METAL STUDS 24" O.C., SOUND BATT INSULATION, ONE LAYER OF 5/8" TYPE X GYPSUM WALL BOARD. FIRE TAPE JOINTS
WALL MAY SHIFT POSITION AT TOP OF MASONRY WALL AS NEEDED FOR EASE OF INSTALLATION AND ACCESS
GROUT TOP COURSE OF MASONRY WALL SOLID
CORRIDOR
CLASSROOM

4 ABOVE CEILING WALL CONSTRUCTION

SCALE: 1 1/2" = 1'-0"

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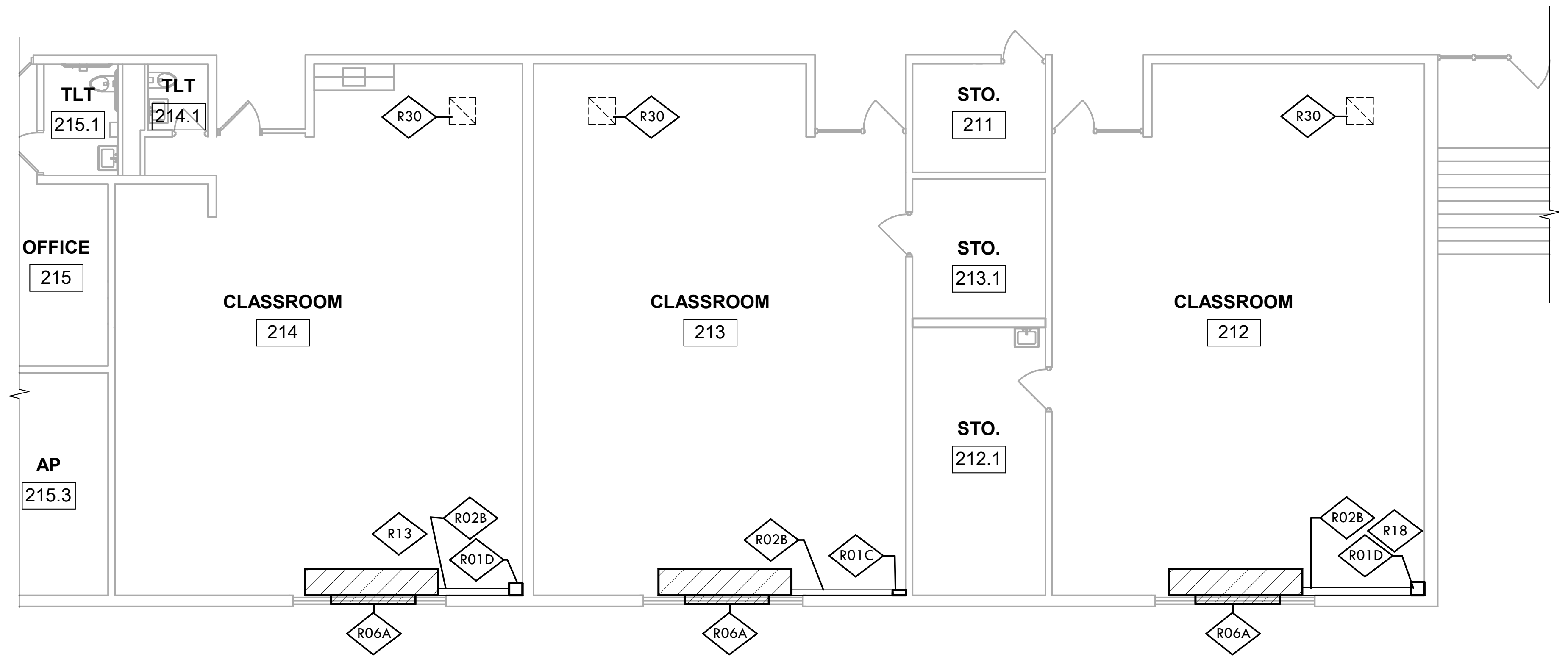
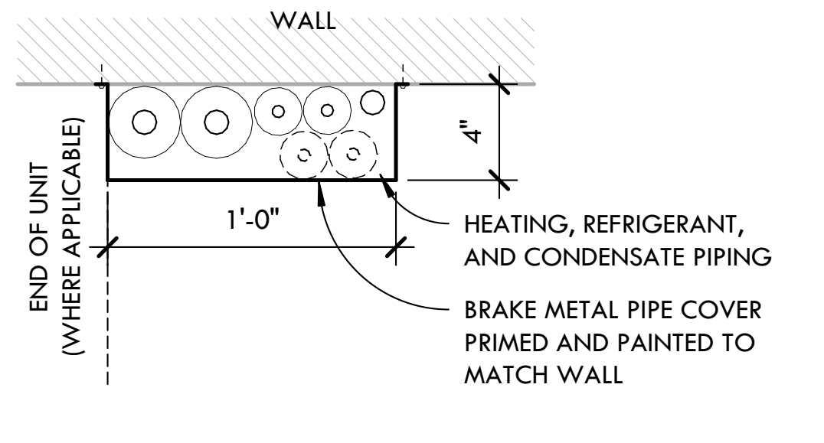


2 UPPER LEVEL FLOOR PLAN - KINDERGARTEN CLASSROOMS

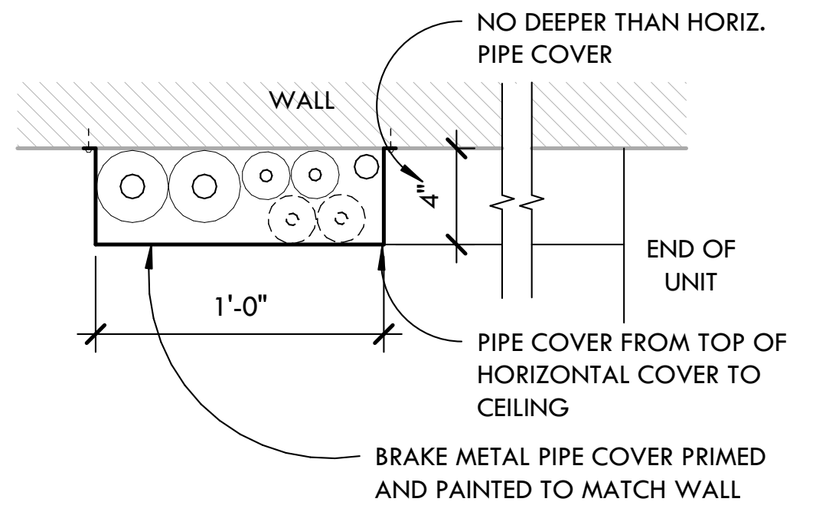
SCALE: 1/8" = 1'-0"

NORTH


WALL
END OF UNIT
(WHERE APPLICABLE)
4"
1'-0"
HEATING, REFRIGERANT, AND CONDENSATE PIPING
BRAKE METAL PIPE COVER PRIMED AND PAINTED TO MATCH WALL

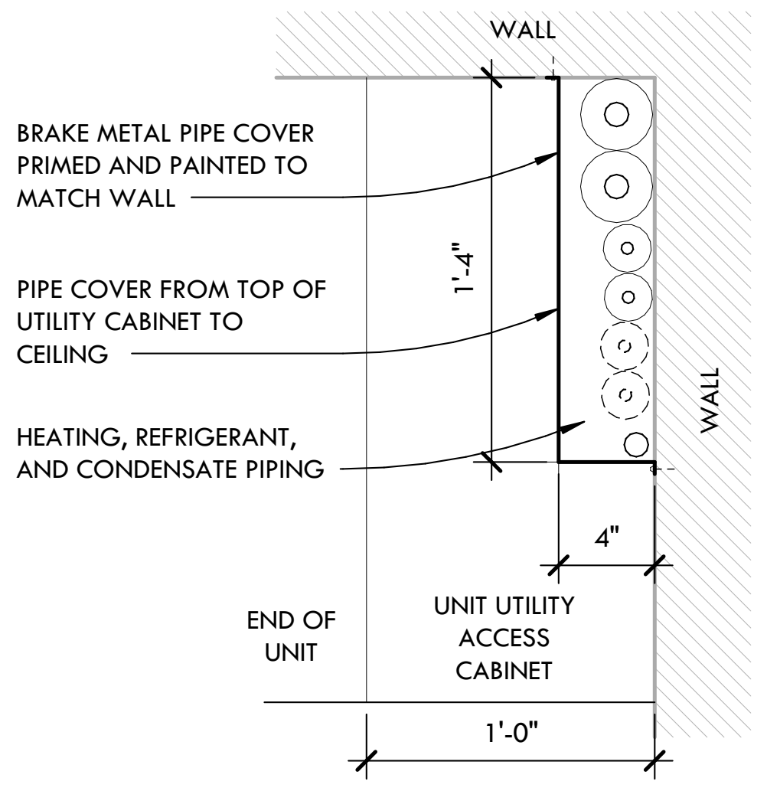
A PIPE COVER A

SCALE: 1 1/2" = 1'-0"


NO DEEPER THAN HORIZ. PIPE COVER
WALL
4"
1'-0"
END OF UNIT
PIPE COVER FROM TOP OF HORIZONTAL COVER TO CEILING
BRAKE METAL PIPE COVER PRIMED AND PAINTED TO MATCH WALL

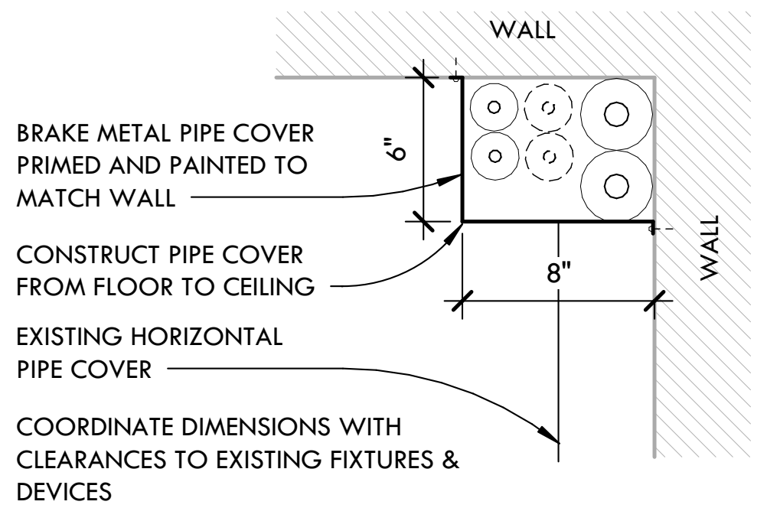
C PIPE COVER C

SCALE: 1 1/2" = 1'-0"


WALL
BRAKE METAL PIPE COVER PRIMED AND PAINTED TO MATCH WALL
PIPE COVER FROM TOP OF UTILITY CABINET TO CEILING
HEATING, REFRIGERANT, AND CONDENSATE PIPING
1'-4"
WALL
4"
END OF UNIT
UNIT UTILITY ACCESS CABINET
1'-0"

B PIPE COVER B

SCALE: 1 1/2" = 1'-0"


WALL
BRAKE METAL PIPE COVER PRIMED AND PAINTED TO MATCH WALL
6"
CONSTRUCT PIPE COVER FROM FLOOR TO CEILING
8"
WALL
EXISTING HORIZONTAL PIPE COVER
COORDINATE DIMENSIONS WITH CLEARANCES TO EXISTING FIXTURES & DEVICES

D PIPE COVER D

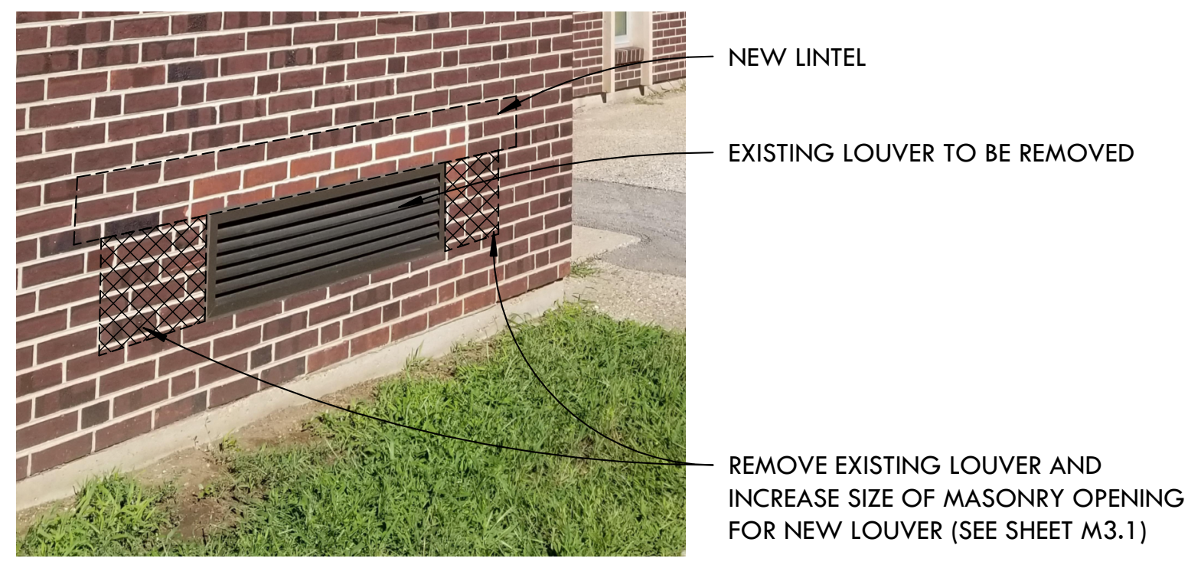
SCALE: 1 1/2" = 1'-0"

GENERAL NOTES - DEMOLITION

1. BEFORE BEGINNING WORK AT THE SITE AND THROUGHOUT THE COURSE OF WORK, INSPECT AND VERIFY THE LOCATION AND CONDITION OF EVERY ITEM AFFECTED BY THE WORK UNDER THIS CONTRACT AND REPORT DISCREPANCIES TO THE ARCHITECT BEFORE BEGINNING WORK RELATED TO THAT BEING INSPECTED.
2. BEFORE BEGINNING WORK AT THE SITE, INSPECT THE EXISTING BUILDING AND DETERMINE THE EXTENT OF EXISTING FINISHES, SPECIALTIES, EQUIPMENT, AND OTHER ITEMS WHICH MUST BE REMOVED AND REINSTALLED IN ORDER TO PERFORM THE WORK UNDER THIS CONTRACT.
3. THE ARCHITECTURAL DRAWINGS SHOW PRINCIPLE AREAS WHERE WORK MUST BE ACCOMPLISHED UNDER THIS CONTRACT. INCIDENTAL WORK MAY ALSO BE NECESSARY IN AREAS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS DUE TO CHANGES AFFECTING EXISTING MECHANICAL, ELECTRICAL, PLUMBING, AND OTHER SYSTEMS. SUCH INCIDENTAL WORK IS ALSO PART OF THIS CONTRACT. INSPECT THOSE AREAS AND ASCERTAIN WORK NEEDED AND DO THAT WORK IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS AT NO ADDITIONAL COST.
4. PROTECT EXISTING FINISHES TO REMAIN FROM DAMAGE.
5. REPAIR, PATCH, OR REFINISH AS APPLICABLE TO MATCH ADJACENT EXISTING FINISHES, THOSE FINISHES DAMAGED OR NEWLY EXPOSED DURING PERFORMANCE OF THE WORK UNDER THIS CONTRACT.
6. WHERE MATCH EXISTING IS INDICATED, NEW CONSTRUCTION OR FINISHES, SHALL MATCH THE EXISTING IN EVERY PARTICULAR.
7. WHERE PERMANENT REMOVAL OF EXISTING CASEWORK, DOORS AND FRAMES, EQUIPMENT, OR FURNISHINGS IS REQUIRED AND PREVIOUSLY CONCEALED SURFACES ARE TO REMAIN EXPOSED, PATCH PREVIOUSLY CONCEALED SURFACES TO MATCH ADJACENT EXPOSED SURFACES. WHERE SUCH SURFACES ARE SCHEDULED TO RECEIVE NEW FINISHES, PREPARE THE SURFACES TO RECEIVE THE NEW FINISHES.
8. WHERE CUTTING OF EXISTING SURFACES OR REMOVAL OF EXISTING SURFACES IS REQUIRED TO PERFORM THE WORK UNDER THIS CONTRACT, AND NEW FINISH IS NOT INDICATED, FILL RESULTING OPENINGS AND PATCH THE SURFACE AFTER DOING THE WORK AND FINISH TO MATCH ADJACENT EXISTING SURFACES.
9. REFER TO NEW WORK PLANS TO COORDINATE EXTENT OF DEMOLITION REQUIRED.
10. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR ADDITIONAL DEMOLITION REQUIRED. CONTRACTOR TO NOTIFY ARCHITECT IMMEDIATELY UPON DISCOVERY OF CONFLICT OR DISCREPANCY WITH ITEMS INDICATED TO BE REMOVED.
11. WHERE NOT SPECIFICALLY NOTED, CONTRACTOR SHALL MODIFY EXISTING FLOORING AND CEILING CONSTRUCTION TO REMAIN AS REQUIRED TO ABUT NEW CONSTRUCTION AND MATCH ADJACENT EXISTING CONDITIONS.
12. COORDINATE SLAB REMOVAL AND REPLACEMENT WITH PLUMBING AND ELECTRICAL UNDERGROUND AND IN-SLAB WORK.
13. WHERE AN ITEM IS SHOWN TO BE REMOVED OR DEMO'ED ALL MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS SHALL BE REMOVED WITH IT U.N.O. PIPING SHALL BE REMOVED TO WITHIN NEAREST WALL TO REMAIN AND CAPPED. ELECTRICAL WIRING AND CONDUIT SHALL BE REMOVED BACK TO NEAREST JUNCTION BOX TO REMAIN. DUCTS AND TERMINALS SHOULD BE REMOVED AS FAR AS NECESSARY FOR NEW DISTRIBUTION SYSTEM OR COMPONENTS TO TIE INTO, OR CAP WITHIN CONCEALED SPACE.

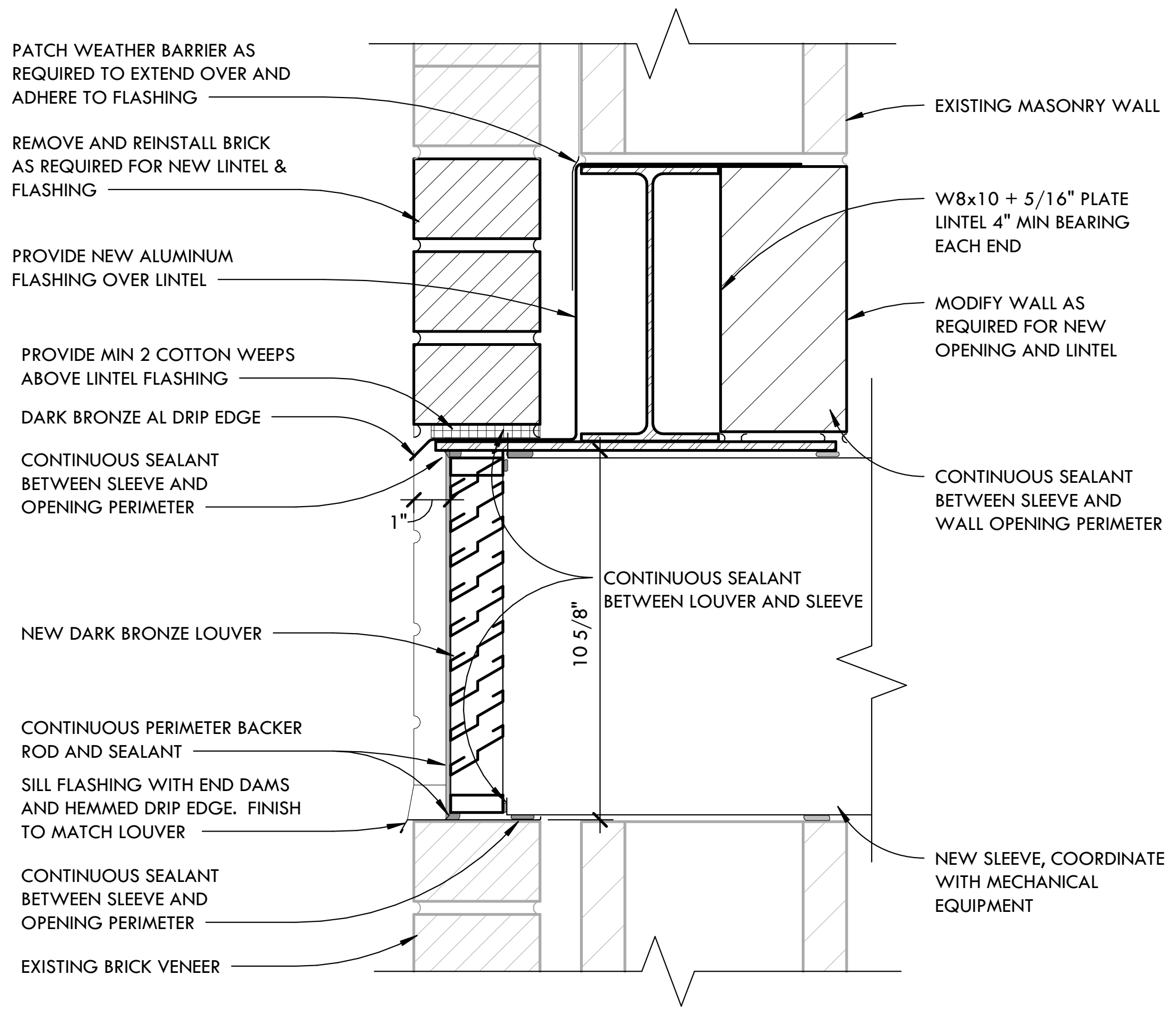
LEGEND - RENOVATION KEYNOTE

KEY VALUE	KEYNOTE TEXT
R01C	PROVIDE NEW METAL PIPE ENCLOSURE FROM FLOOR TO CEILING (PIPE COVER C).
R01D	PROVIDE NEW METAL PIPE ENCLOSURE FROM FLOOR TO CEILING (PIPE COVER D).
R02B	USE EXISTING HORIZONTAL PIPE ENCLOSURE.
R06	CUT OPENING FOR NEW LOUVER, REMOVE MASONRY AND PROVIDE NEW LINTEL FOR NEW EQUIPMENT LOUVER. COORDINATE SIZE WITH MECHANICAL SPECIFICATIONS. BRICK REMOVED SAHLL BE CLEANED AND PREPARED FOR USE AT LOCATIONS WHERE OPENINGS ARE INFILLED.
R06A	MODIFY OPENING IN METAL PANEL SYSTEM FOR NEW LOUVER. COORDINATE SIZE WITH MECHANICAL EQUIPMENT.
R09a	
R09b	
R12	CONSTRUCT NEW 1HR RATED SHAFT WALL ABOVE CEILING FROM TOP OF EXISTING WALL TO BOTTOM OF EXISTING DECK. COORDINATE WITH MECHANICAL FOR FIRE DAMPERS AND TRANSFERS. REMOVE, PROTECT, STORE, AND REINSTALL CEILING AS REQUIRED FOR WALL CONSTRUCTION.
R13	MODIFY TACKBOARD, WHITEBOARD, OR WALL BRACKETS AS REQURIED FOR NEW EQUIPMENT INSTALLATION.
R14	PATCH FLOOR OPENING UNDER MILLWORK. SEE DETAIL 5/A1.3.
R15	RELOCATE EXISTING DATA RECEPTACLE, WIRE MOLD, POWER OUTLET AS REQUIRED FOR NEW UNIT INSTALLATION.
R16	MODIFY EXISTING CEILING AS REQUIRED FOR NEW CEILING EQUIPMENT. COORDINATE WITH LOCATIONS OF EXISTING LIGHTING. INFILL LOCATION OF PREVIOUS UNIT WITH CEILING TILE AND GRID TO MATCH EXISTING.
R17	SHIFT SMART BOARD 8"-12" AWAY FROM UNIT. RELOCATE CONNECTIONS AND MOUNTING HARDWARE AS REQUIRED.
R18	AVOID CAMERA ELECTRICAL WHEN INSTALLING NEW PIPE COVER. FIELD VERIFY CLEARANCES.
R30	ADD RELIEF GRILLE TO EXISTING CEILING SYSTEM. COORDINATE LOCATION WITH EXISTING LIGHTS AND RELIEF DAMPER PENETRATION THROUGH ROOF.
R31	EXTEND EXISTING PARTIAL HEIGHT WALLS TO DECK ABOVE CEILING. PRIME AND PAINT ENTIRE WALL BOTH SIDES. FINISH TO 6" ABOVE CEILING AND INSULATE BETWEEN STUD CAVITIES.


NEW LINTEL
EXISTING LOUVER TO BE REMOVED
REMOVE EXISTING LOUVER AND INCREASE SIZE OF MASONRY OPENING FOR NEW LOUVER (SEE SHEET M3.1)

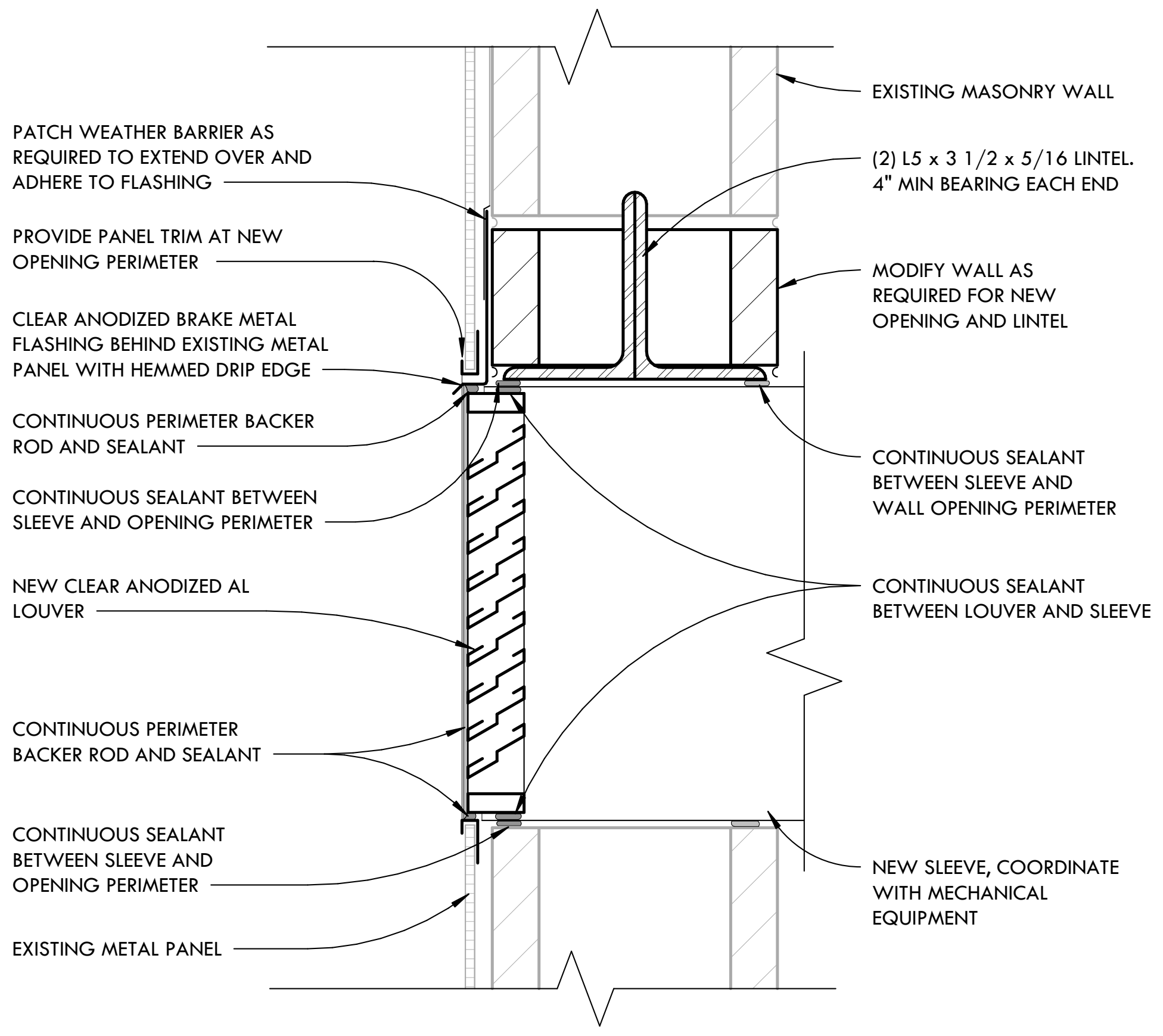
6 TYPICAL MODIFICATIONS TO EXISTING LOUVERS

SCALE: 3/4" = 1'-0"


PATCH WEATHER BARRIER AS REQUIRED TO EXTEND OVER AND ADHERE TO FLASHING
REMOVE AND REINSTALL BRICK AS REQUIRED FOR NEW LINTEL & FLASHING
PROVIDE NEW ALUMINUM FLASHING OVER LINTEL
PROVIDE MIN 2 COTTON WEEPS ABOVE LINTEL FLASHING
DARK BRONZE AL DRIP EDGE
CONTINUOUS SEALANT BETWEEN SLEEVE AND OPENING PERIMETER
1"
NEW DARK BRONZE LOUVER
CONTINUOUS PERIMETER BACKER ROD AND SEALANT
SILL FLASHING WITH END DAMS AND HEMMED DRIP EDGE. FINISH TO MATCH LOUVER
CONTINUOUS SEALANT BETWEEN SLEEVE AND OPENING PERIMETER
EXISTING BRICK VENEER
10 5/8"
CONTINUOUS SEALANT BETWEEN LOUVER AND SLEEVE
EXISTING MASONRY WALL
W8x10 + 5/16" PLATE LINTEL 4" MIN BEARING EACH END
MODIFY WALL AS REQUIRED FOR NEW OPENING AND LINTEL
CONTINUOUS SEALANT BETWEEN SLEEVE AND WALL OPENING PERIMETER
NEW SLEEVE, COORDINATE WITH MECHANICAL EQUIPMENT

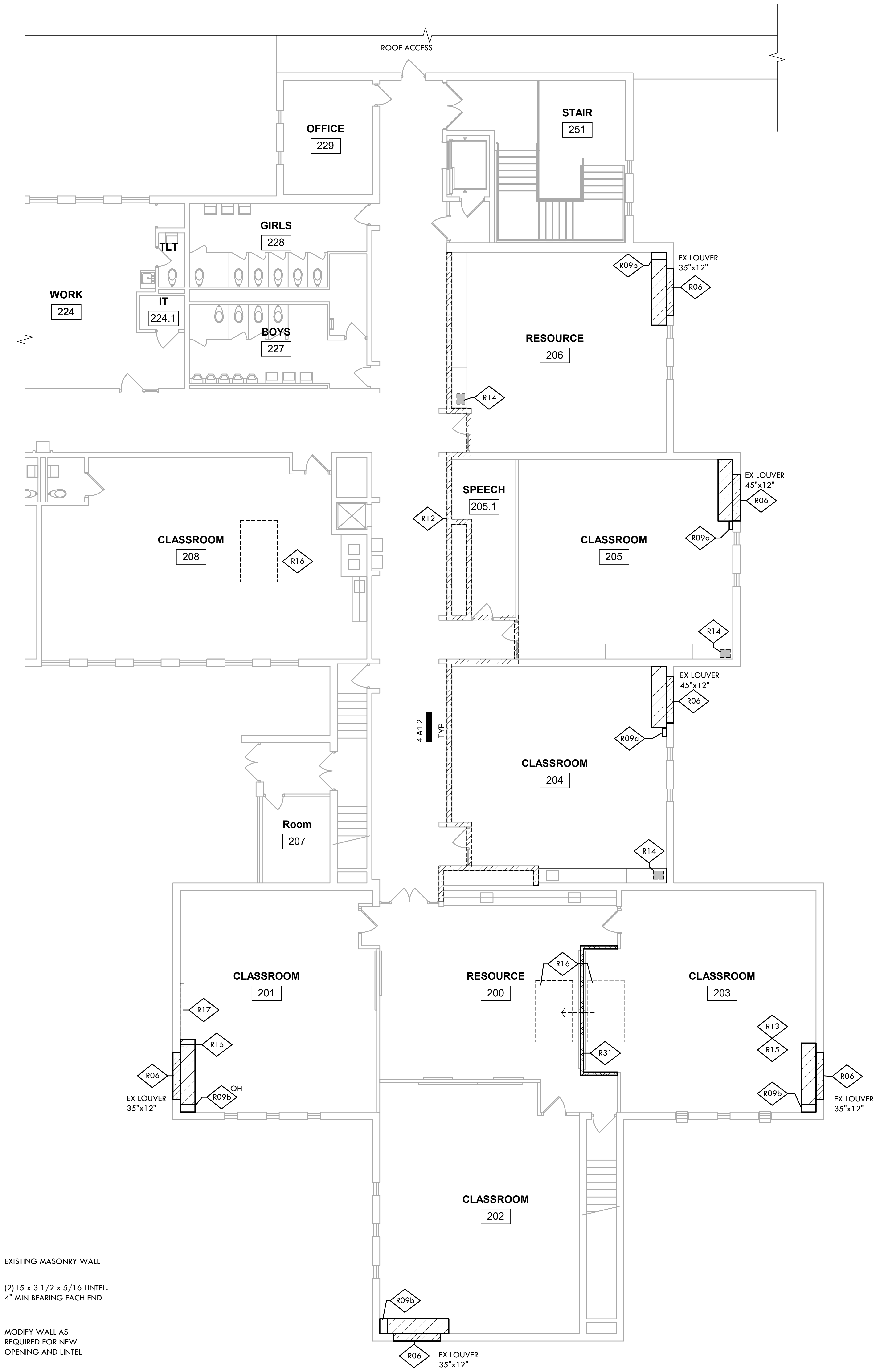
3 TYPICAL MASONRY LOUVER DETAIL

SCALE: 3" = 1'-0"


PATCH WEATHER BARRIER AS REQUIRED TO EXTEND OVER AND ADHERE TO FLASHING
PROVIDE PANEL TRIM AT NEW OPENING PERIMETER
CLEAR ANODIZED BRAKE METAL FLASHING BEHIND EXISTING METAL PANEL WITH HEMMED DRIP EDGE
CONTINUOUS PERIMETER BACKER ROD AND SEALANT
CONTINUOUS SEALANT BETWEEN SLEEVE AND OPENING PERIMETER
NEW CLEAR ANODIZED AL LOUVER
CONTINUOUS PERIMETER BACKER ROD AND SEALANT
CONTINUOUS SEALANT BETWEEN SLEEVE AND OPENING PERIMETER
EXISTING METAL PANEL
EXISTING MASONRY WALL
(2) L5 x 3 1/2 x 5/16 LINTEL. 4" MIN BEARING EACH END
MODIFY WALL AS REQUIRED FOR NEW OPENING AND LINTEL
CONTINUOUS SEALANT BETWEEN SLEEVE AND WALL OPENING PERIMETER
CONTINUOUS SEALANT BETWEEN LOUVER AND SLEEVE
NEW SLEEVE, COORDINATE WITH MECHANICAL EQUIPMENT

4 TYPICAL METAL PANEL LOUVER DETAIL

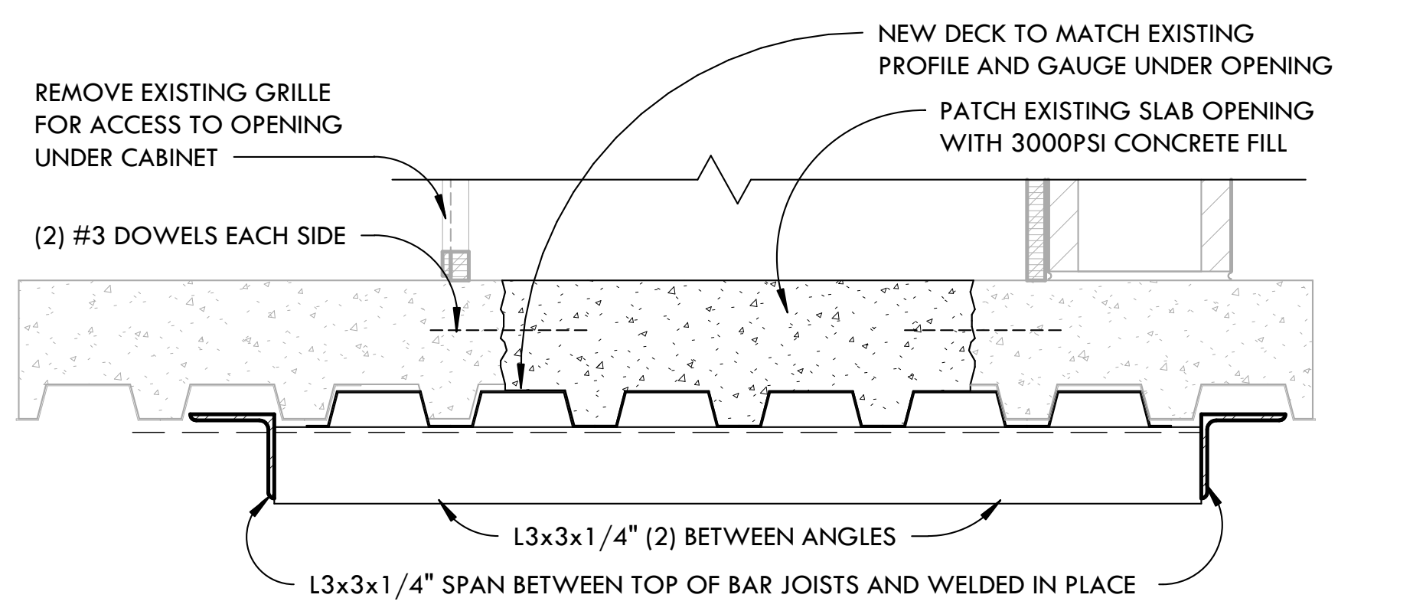
SCALE: 3" = 1'-0"



1 UPPER LEVEL FLOOR PLAN - SOUTH WEST WING

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

NORTH


REMOVE EXISTING GRILLE FOR ACCESS TO OPENING UNDER CABINET
(2) #3 DOWELS EACH SIDE
NEW DECK TO MATCH EXISTING PROFILE AND GAUGE UNDER OPENING
PATCH EXISTING SLAB OPENING WITH 3000PSI CONCRETE FILL
L3x3x1/4" (2) BETWEEN ANGLES
L3x3x1/4" SPAN BETWEEN TOP OF BAR JOISTS AND WELDED IN PLACE

5 FLOOR DECK REPAIR DETAIL

SCALE: 1 1/2" = 1'-0"

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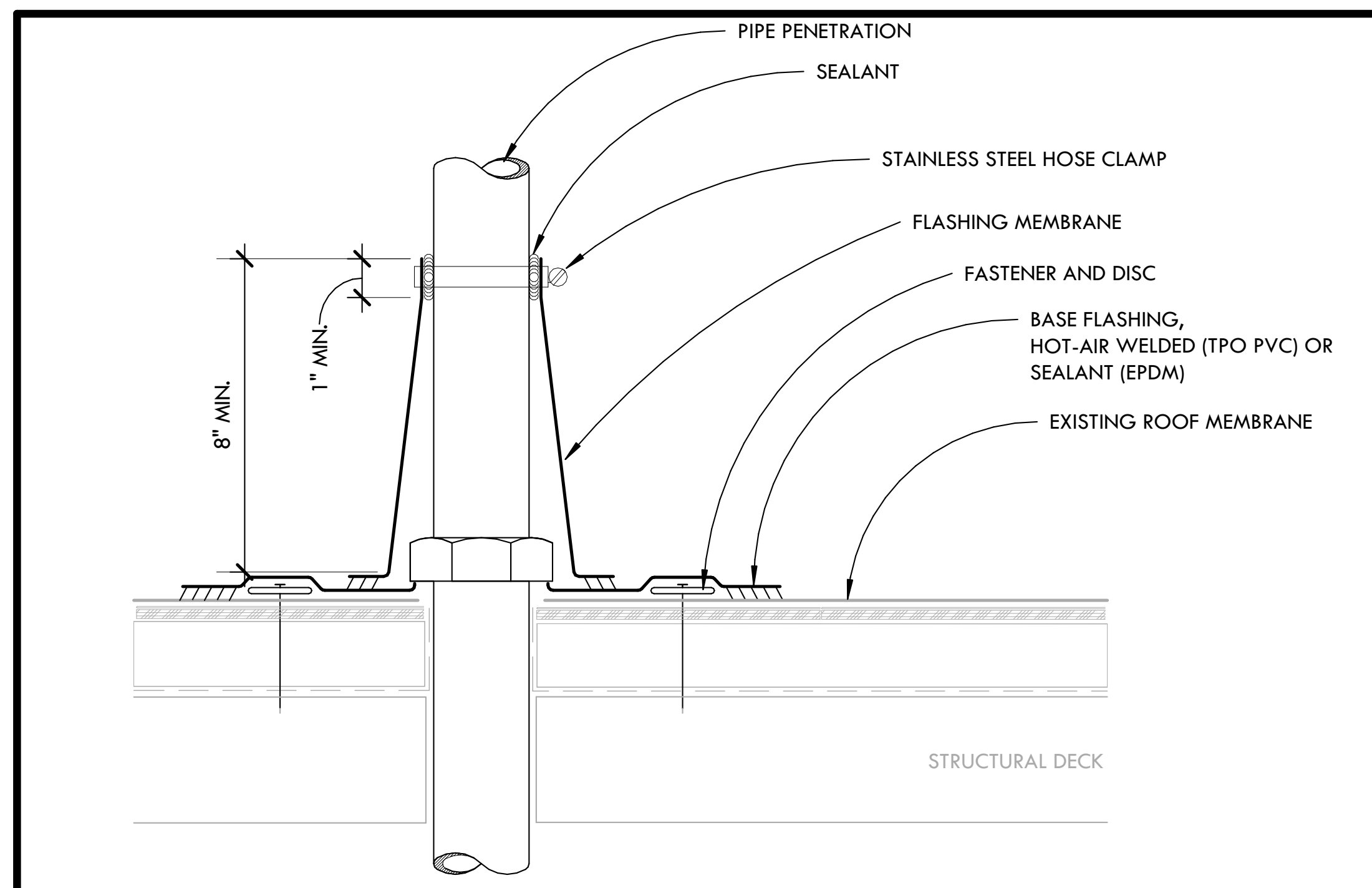
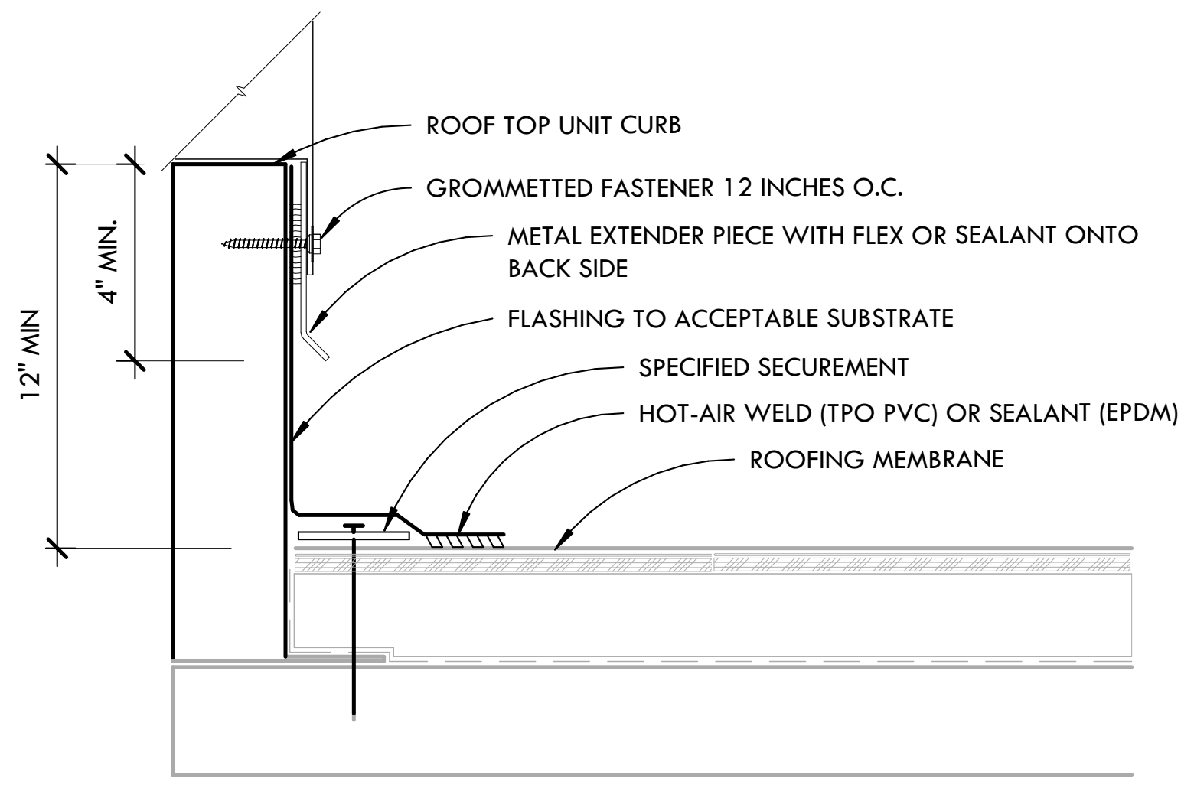
RPS DISTRICT 205 PROJ. #2301
3701 GREEN DALE DRIVE, ROCKFORD IL 61109

ISSUED FOR:	DATE

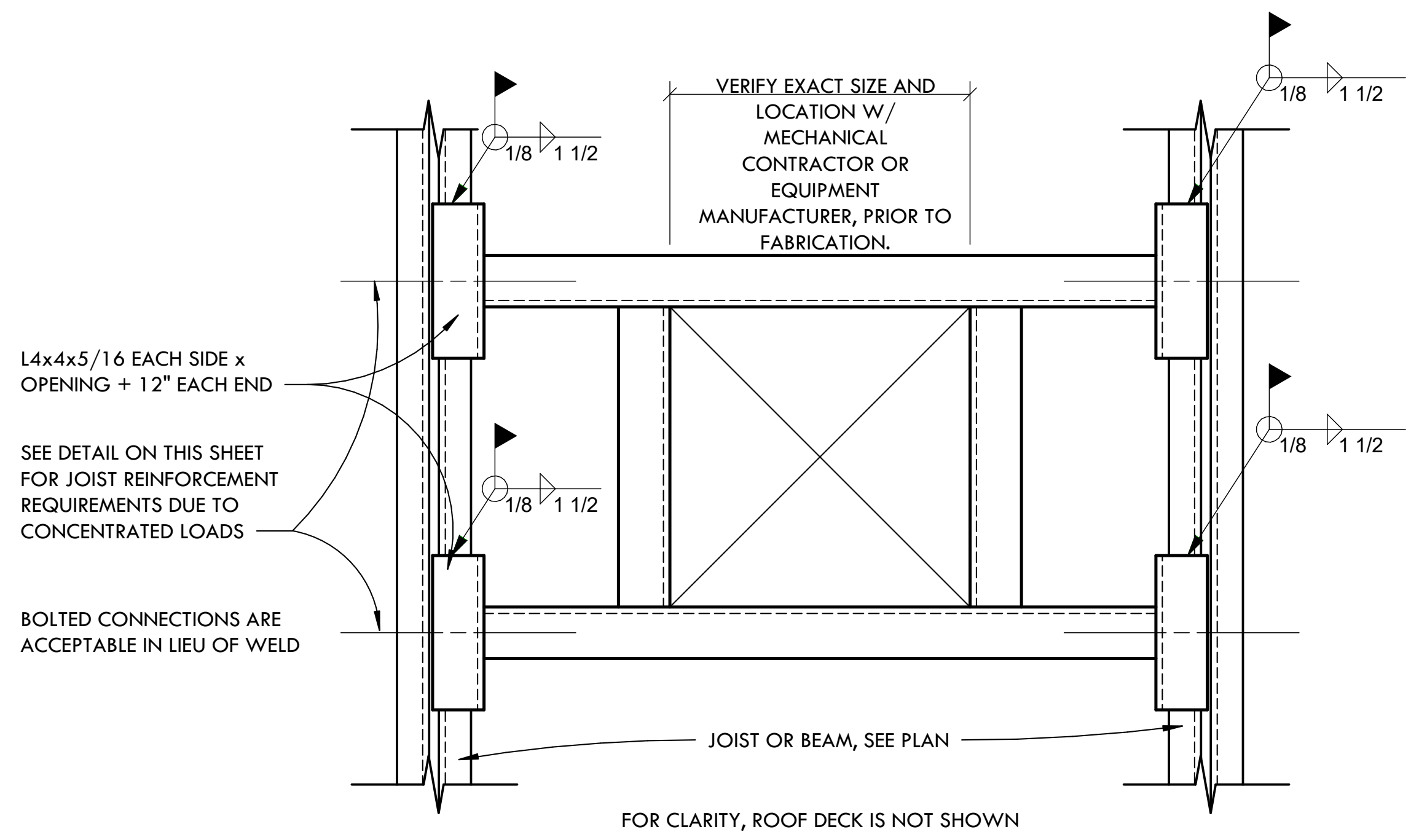
DATE: 10-11-22
PROJECT NUMBER
32103
SHEET NUMBER
A1.3



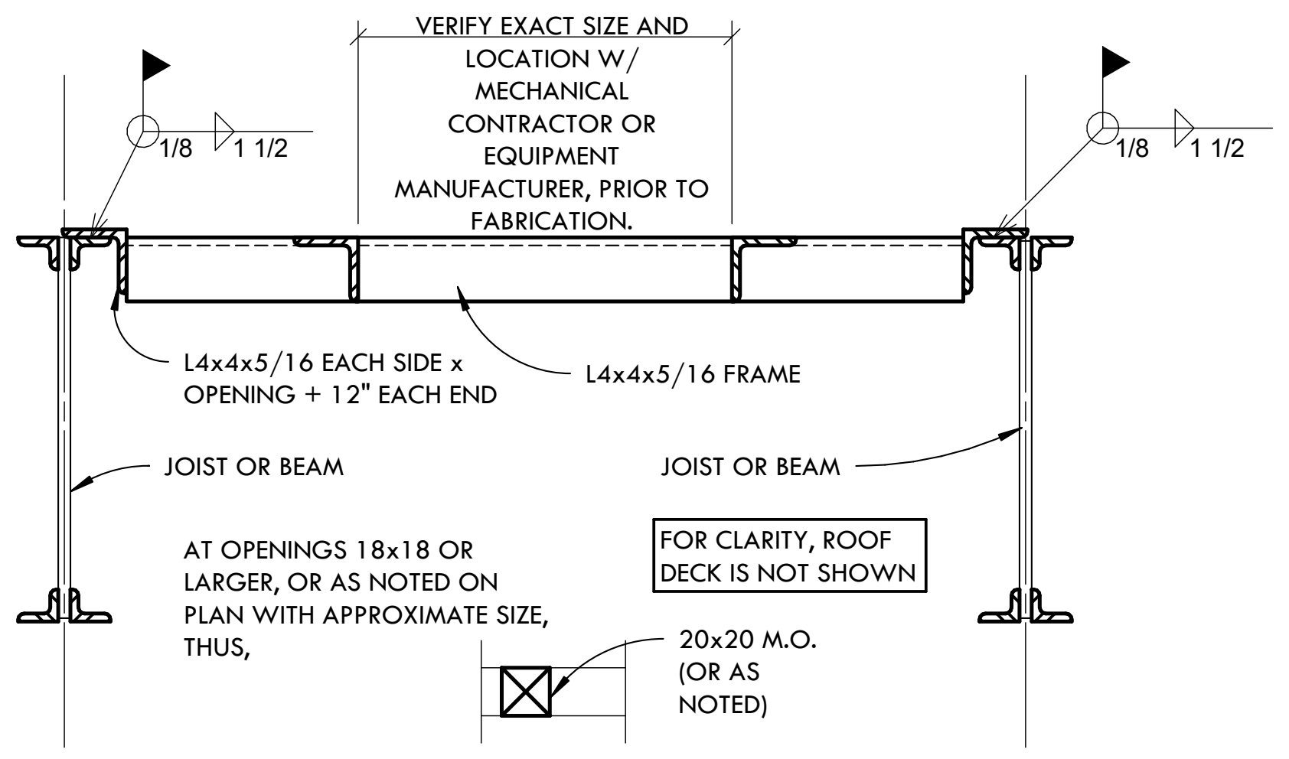
2 CONE FLASHING AT PIPE PENETRATION
SCALE: 3" = 1'-0"


ROOF TOP UNIT CURB
GROMMETTED FASTENER 12 INCHES O.C.
METAL EXTENDER PIECE WITH FLEX OR SEALANT ONTO BACK SIDE
FLASHING TO ACCEPTABLE SUBSTRATE
SPECIFIED SECUREMENT
HOT-AIR WELD (TPO PVC) OR SEALANT (EPDM)
ROOFING MEMBRANE
12" MIN
4" MIN.

3 CURB FLASHING
SCALE: 3" = 1'-0"

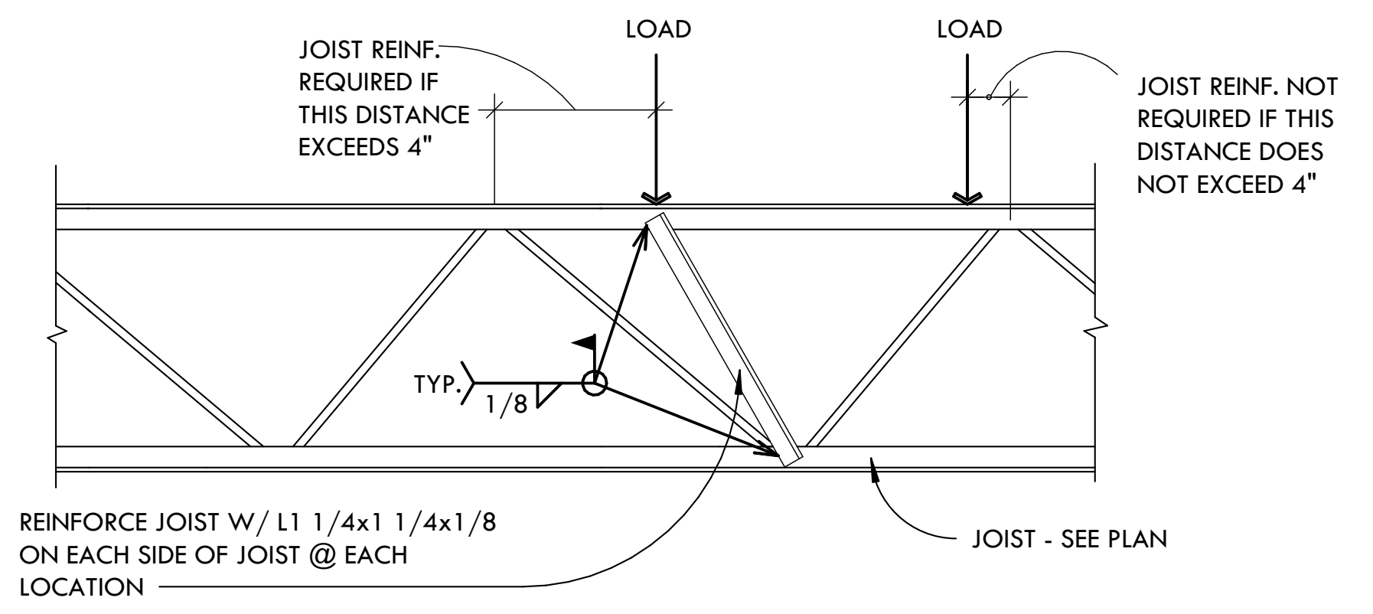

VERIFY EXACT SIZE AND LOCATION W/ MECHANICAL CONTRACTOR OR EQUIPMENT MANUFACTURER, PRIOR TO FABRICATION.
1/8
1 1/2
L4x4x5/16 EACH SIDE x OPENING + 12" EACH END
SEE DETAIL ON THIS SHEET FOR JOIST REINFORCEMENT REQUIREMENTS DUE TO CONCENTRATED LOADS
BOLTED CONNECTIONS ARE ACCEPTABLE IN LIEU OF WELD
JOIST OR BEAM, SEE PLAN
FOR CLARITY, ROOF DECK IS NOT SHOWN

PLAN - TYPICAL ROOF OPENING
NO SCALE

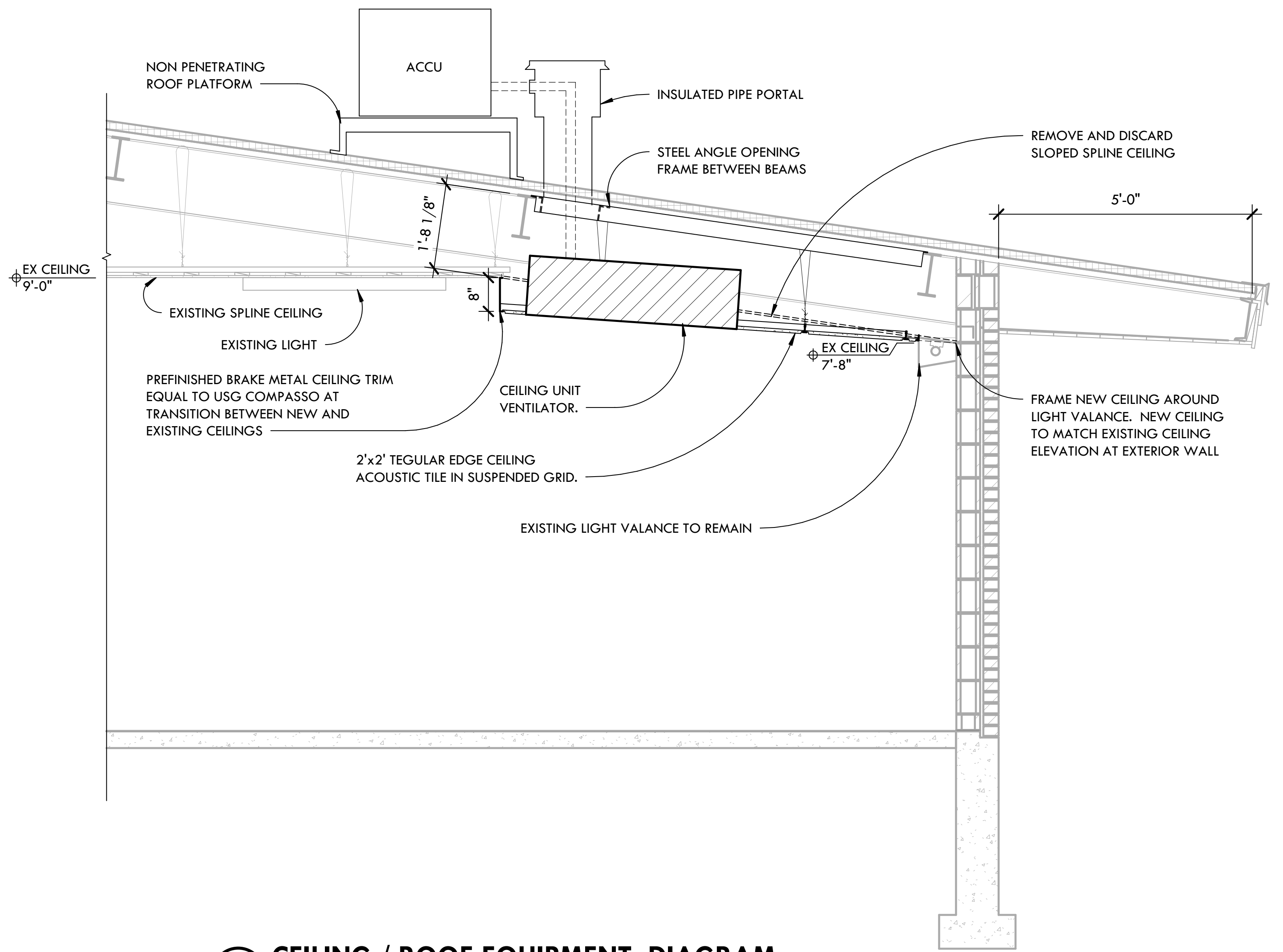

VERIFY EXACT SIZE AND LOCATION W/ MECHANICAL CONTRACTOR OR EQUIPMENT MANUFACTURER, PRIOR TO FABRICATION.
1/8
1 1/2
L4x4x5/16 EACH SIDE x OPENING + 12" EACH END
L4x4x5/16 FRAME
JOIST OR BEAM
JOIST OR BEAM
AT OPENINGS 18x18 OR LARGER, OR AS NOTED ON PLAN WITH APPROXIMATE SIZE, THUS,
FOR CLARITY, ROOF DECK IS NOT SHOWN
20x20 M.O. (OR AS NOTED)

TYPICAL ROOF OPENING DETAIL
NO SCALE

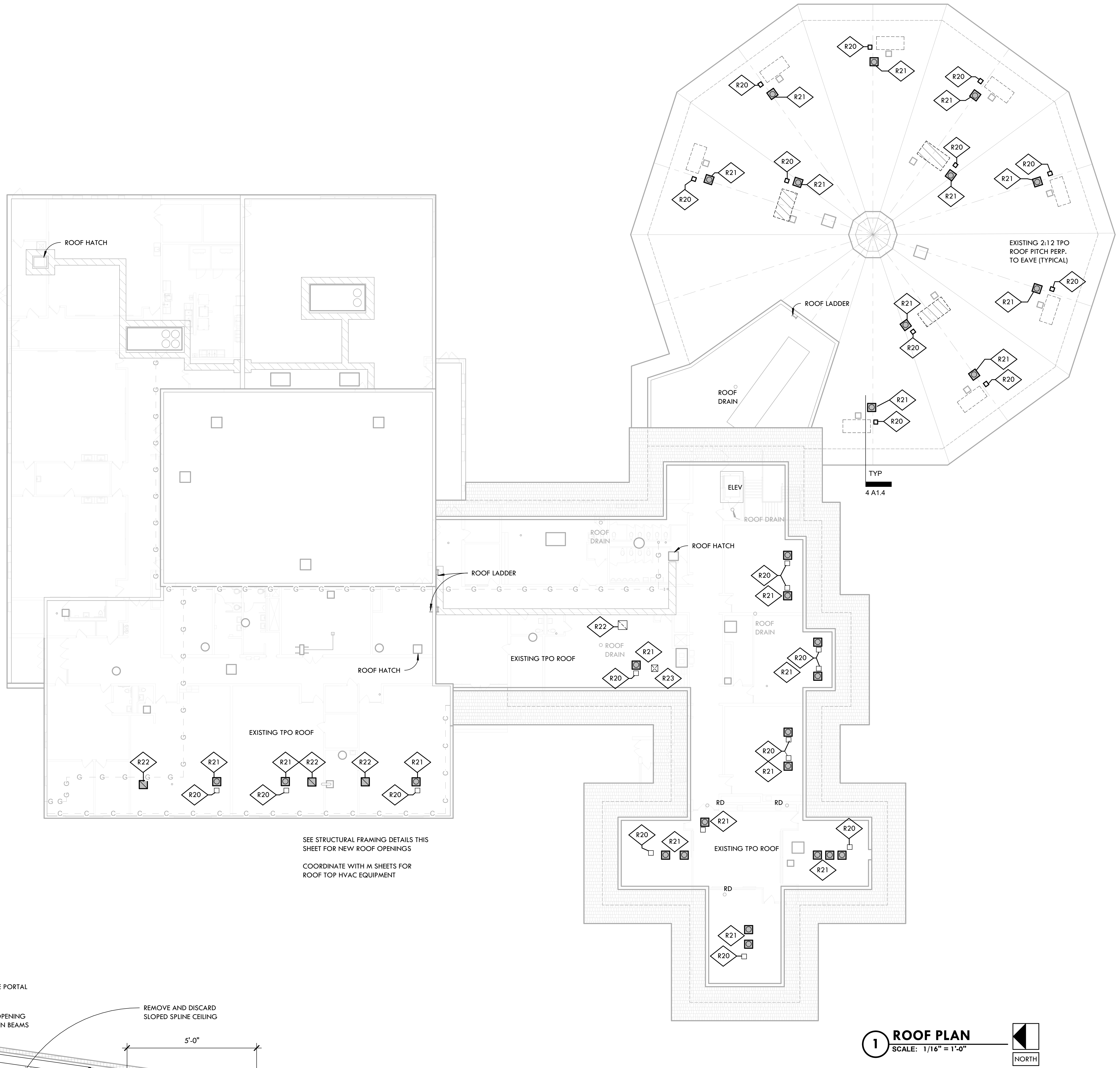
CONCENTRATED LOADS SHALL BE APPLIED TO THE JOIST TOP CHORD ONLY (NOT THE BOTTOM CHORD). PROVIDE JOIST REINFORCEMENT IF REQUIRED PER THE DETAIL BELOW.


LOAD
LOAD
JOIST REINF. REQUIRED IF THIS DISTANCE EXCEEDS 4"
JOIST REINF. NOT REQUIRED IF THIS DISTANCE DOES NOT EXCEED 4"
TYP.
1/8
REINFORCE JOIST W/ L1 1/4x1 1/4x1/8 ON EACH SIDE OF JOIST @ EACH LOCATION
JOIST - SEE PLAN

TYPICAL JOIST REINFORCEMENT
NO SCALE


NON PENETRATING ROOF PLATFORM
ACCU
INSULATED PIPE PORTAL
STEEL ANGLE OPENING FRAME BETWEEN BEAMS
REMOVE AND DISCARD SLOPED SPLINE CEILING
5'-0"
1'-8 1/8"
8"
EX CEILING 9'-0"
EX CEILING 7'-8"
EXISTING SPLINE CEILING
EXISTING LIGHT
PREFINISHED BRAKE METAL CEILING TRIM EQUAL TO USG COMPASSO AT TRANSITION BETWEEN NEW AND EXISTING CEILINGS
CEILING UNIT VENTILATOR.
2'x2' TEGULAR EDGE CEILING ACOUSTIC TILE IN SUSPENDED GRID.
FRAME NEW CEILING AROUND LIGHT VALANCE. NEW CEILING TO MATCH EXISTING CEILING ELEVATION AT EXTERIOR WALL
EXISTING LIGHT VALANCE TO REMAIN

4 CEILING / ROOF EQUIPMENT DIAGRAM
SCALE: 1/2" = 1'-0"



SEE STRUCTURAL FRAMING DETAILS THIS SHEET FOR NEW ROOF OPENINGS

COORDINATE WITH M SHEETS FOR ROOF TOP HVAC EQUIPMENT

1 ROOF PLAN
SCALE: 1/16" = 1'-0"

GENERAL NOTES - ROOF

1. COORDINATE WITH PLUMBING DRAWINGS FOR PLUMBING VENT PENETRATIONS THROUGH ROOF.
2. COORDINATE WITH ALL OTHER DRAWINGS FOR ADDITIONAL PENETRATIONS THROUGH ROOF. (STRUCTURAL, HVAC, ELECTRICAL, TECH)
3. REFER TO SPECIFICATIONS FOR DESCRIPTION OF ROOF MEMBRANE SYSTEM AND REQUIREMENTS. PROVIDE SINGLE SOURCE SYSTEM. PROVIDE SYSTEM STANDARD DETAILS FOR ALL APPLICABLE FLASHING, OPENING, PENETRATION, TERMINATION, ETC., CONDITIONS.
4. PROVIDE TAPERED INSULATION CRICKETS/SADDLES AT ALL MECHANICAL EQUIPMENT CURBS AS INDICATED ON DRAWINGS.

LEGEND - ROOF RENOVATION

KEY VALUE	KEYNOTE TEXT
R20	PIPE PORTAL AND CONDUIT BOOT PENETRATION SEE TYPICAL ROOF OPENING FRAMING AND MECHANICAL PIPE PORTAL DETAILS.
R21	CONDENSER UNIT(S) ON LEVEL NON-PENETRATING EQUIPMENT PLATFORM.
R22	RELIEF VENT THROUGH NEW ROOF OPENING FRAME. SEE TYPICAL ROOF OPENING DETAILS.
R23	INTAKE HOOD THROUGH NEW ROOF OPENING FRAME. SEE TYPICAL ROOF OPENING DETAILS.

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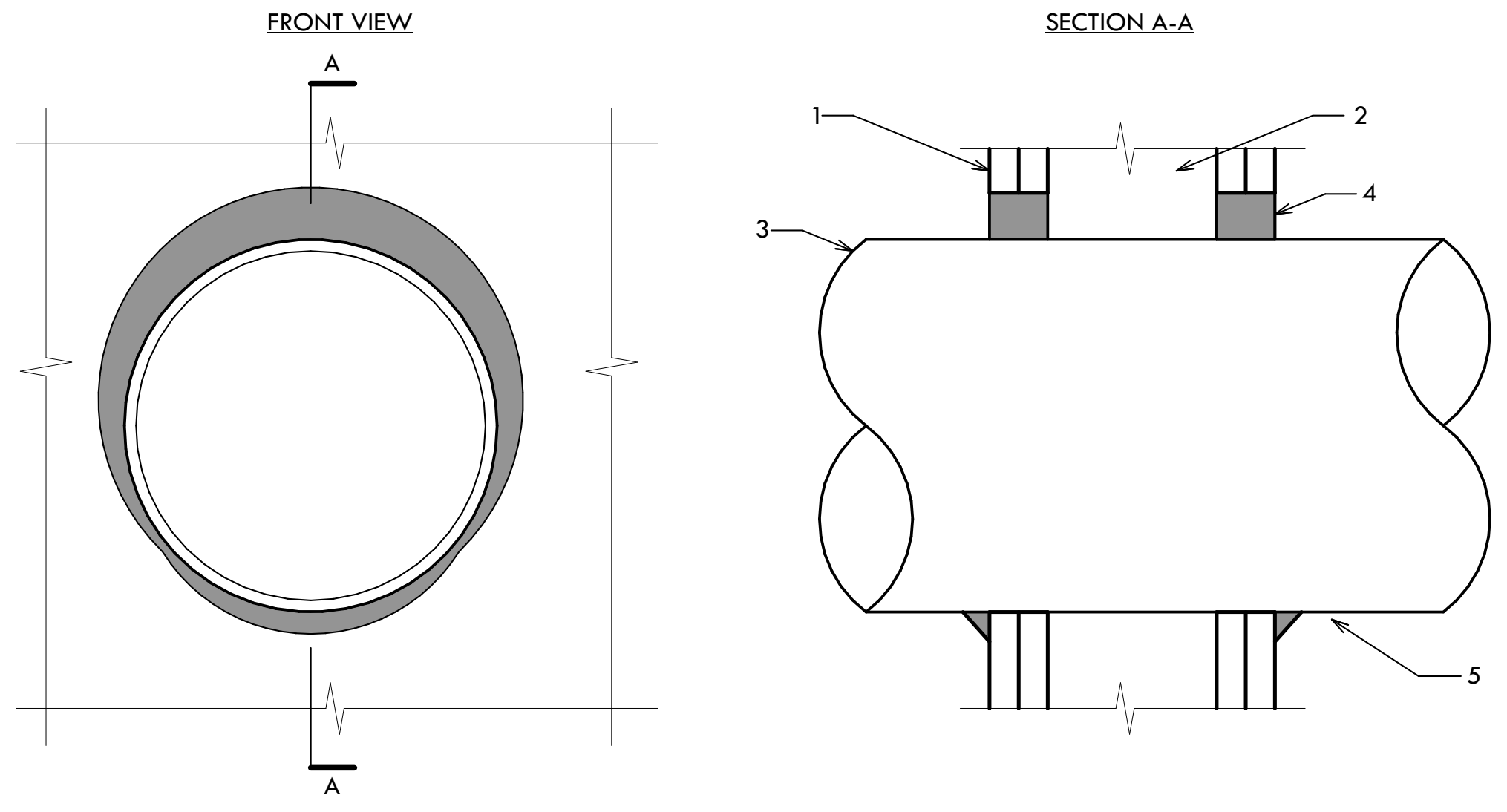
ISSUED FOR:	DATE

DATE: 10-11-22
PROJECT NUMBER
32103
SHEET NUMBER
A1.4

UL SYSTEM NO. WL1054

METAL PIPE THROUGH 1-HR OR 2-HR GYPSUM WALL ASSEMBLY

F RATING = 1-HR OR 2-HR
T RATING = 0-HR
L RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L RATING AT 400°F = 4 CFM/SQ. FT.


FRONT VIEW
SECTION A-A

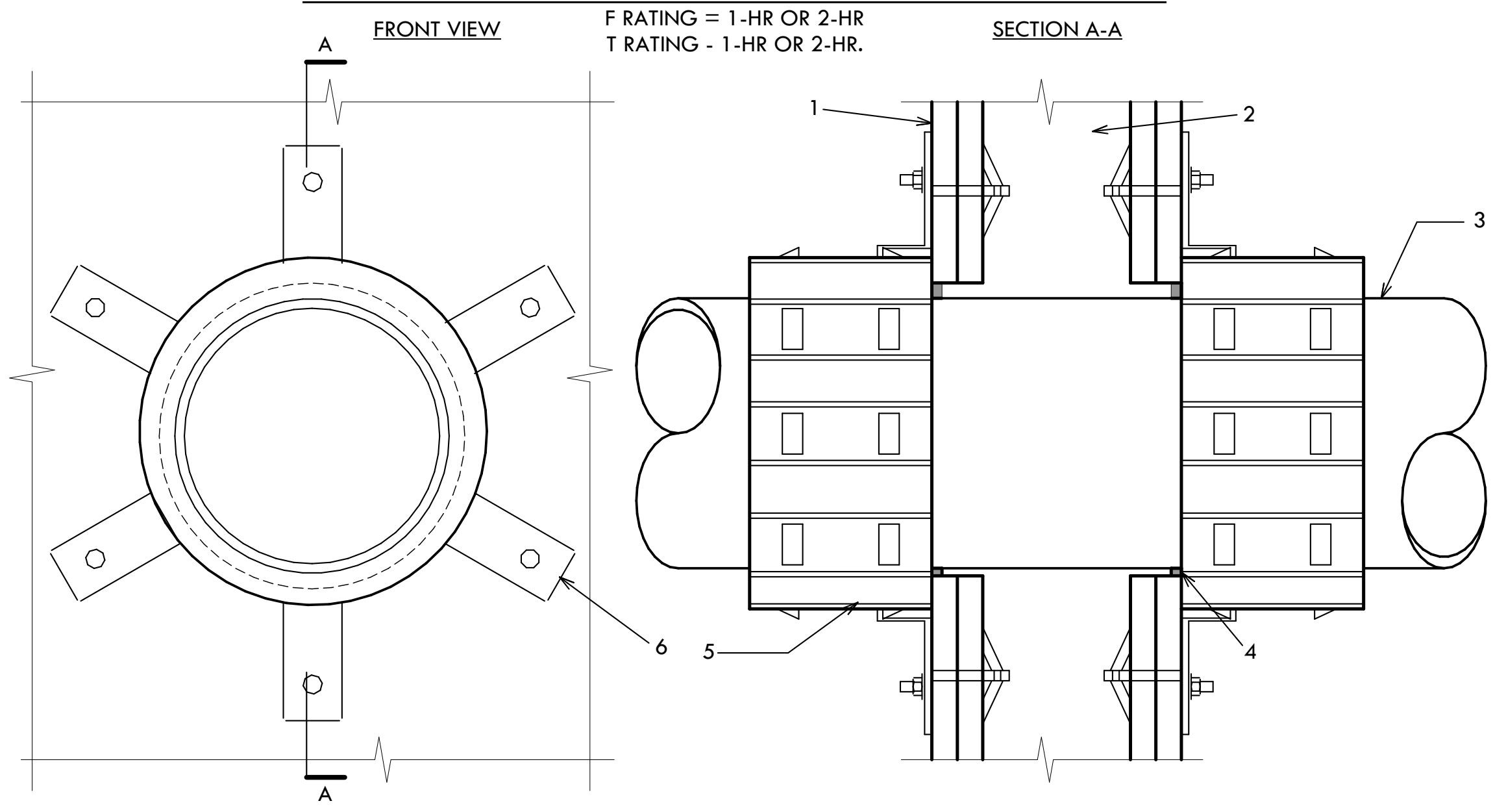
1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300 OR U400 SERIES) (1-HR OR 2-HR FIRE RATING) (2-HR SHOWN)
2. (NOT SHOWN), WOOD STUDS TO CONSIST OF NOMINAL 2x4 IN. LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   - A. MAXIMUM 30" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   - B. MAXIMUM 30" NOMINAL DIAMETER CAST IRON PIPE.
   - C. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
   - D. MAXIMUM 6" NOMINAL DIAMETER EMT.
   - E. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
4. HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT:
   - A. MINIMUM 5/8", FOR A 1-HR. FIRE RATING.
   - B. MINIMUM 1-1/4" DEPTH, FOR A 2-HR. FIRE RATING.
5. MINIMUM 1/2" BEAD HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT AT POINT OF CONTACT.

NOTES:
1. MAXIMUM DIAMETER OF OPENING:
   - A. 32-1/4" FOR STEEL STUD WALLS.
   - B. 14-1/2" FOR WOOD STUD WALLS.
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2-1/2".

UL SYSTEM NO. WL2078

PLASTIC PIPE THROUGH 1-HR. OR 2HR. GYPSUM WALL ASSEMBLY

F RATING = 1-HR OR 2-HR
T RATING - 1-HR OR 2-HR.


FRONT VIEW
SECTION A-A

1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300 OR U400 SERIES) (1-HR OR 2-HR FIRE RATING) (2-HR SHOWN)
2. (NOT SHOWN). WOOD STUDS TO CONSIST OF NOMINAL 2x4 IN. LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   - A. MAXIMUM 6" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
   - B. MAXIMUM 6" NOMINAL DIAMETER ABS PLASTIC PIPE (CELLULAR OR SOLID CORE).
   - C. MAXIMUM 6" NOMINAL DIAMETER FRPP PLASTIC PIPE.
   - D. MAXIMUM 6" NOMINAL DIAMETER CPVC PLASTIC PIPE.
4. SEE NOTE NO. 1 BELOW.
5. HILTI CP 642 OR HILTI CP 643 FIRESTOP COLLAR (SEE TABLE BELOW).
6. FASTEN EACH MOUNTING TAB TO WALL ASSEMBLY WITH APPROIPRIATE HILTI ANCORS.

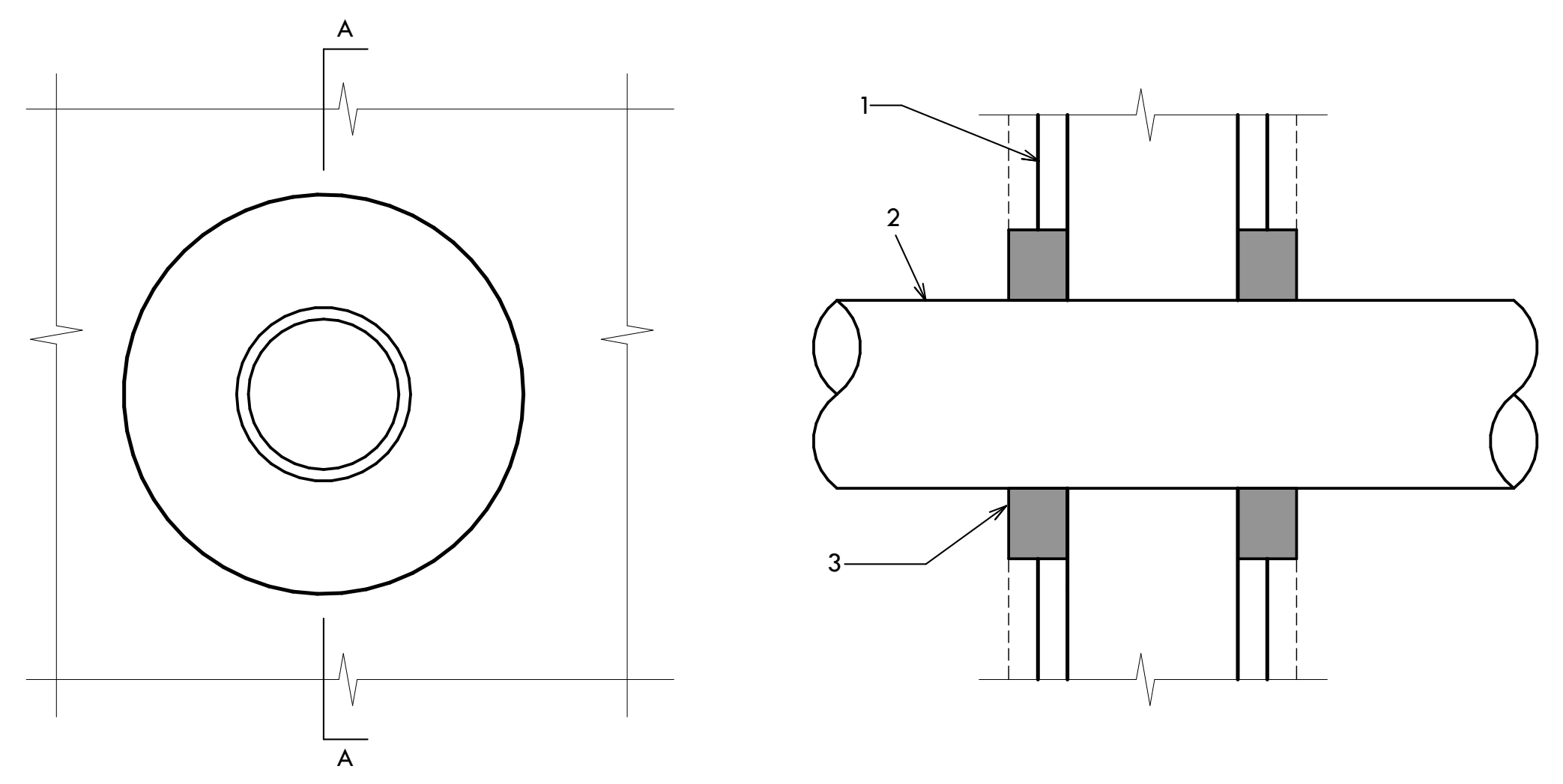
NOM. PIPE DIA.	PRODUCT DESCRIPTION	NO. OF MOUNTING TABS	MAX. HOLE SIZE
1-1/2"	CP 643 50/1.5"	2	2-1/8"
2"	CP643 63/2"	2	2-5/8"
3"	CP643 90/3"	3	4"
4"	CP643 110/4"	3	5"
6"	CP 642 160/6"	6	7"

NOTES:
1. TO IMPEDE COLD SMOKE, PROVIDE 1/4" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT IN ANNULAR SPACE AROUND PLASTIC PIPE.
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1/2"
3. CLOSED OR VENTED PIPING SYSTEMS. (PVC, ABS, FRPP - SCH. 40, CPVC = SDR 17).

UL SYSTEM NO. WL2098

CLOSED PVC/CPVC PLASTIC PIPE THROUGH 1-HR. OR 2HR. GYPSUM WALL ASSEMBLY

F RATING = 1-HR OR 2-HR
T RATING - 1-HR OR 2-HR.
L RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L RATING AT 400°F = 4 CFM/SQ. FT.


FRONT VIEW
SECTION A-A

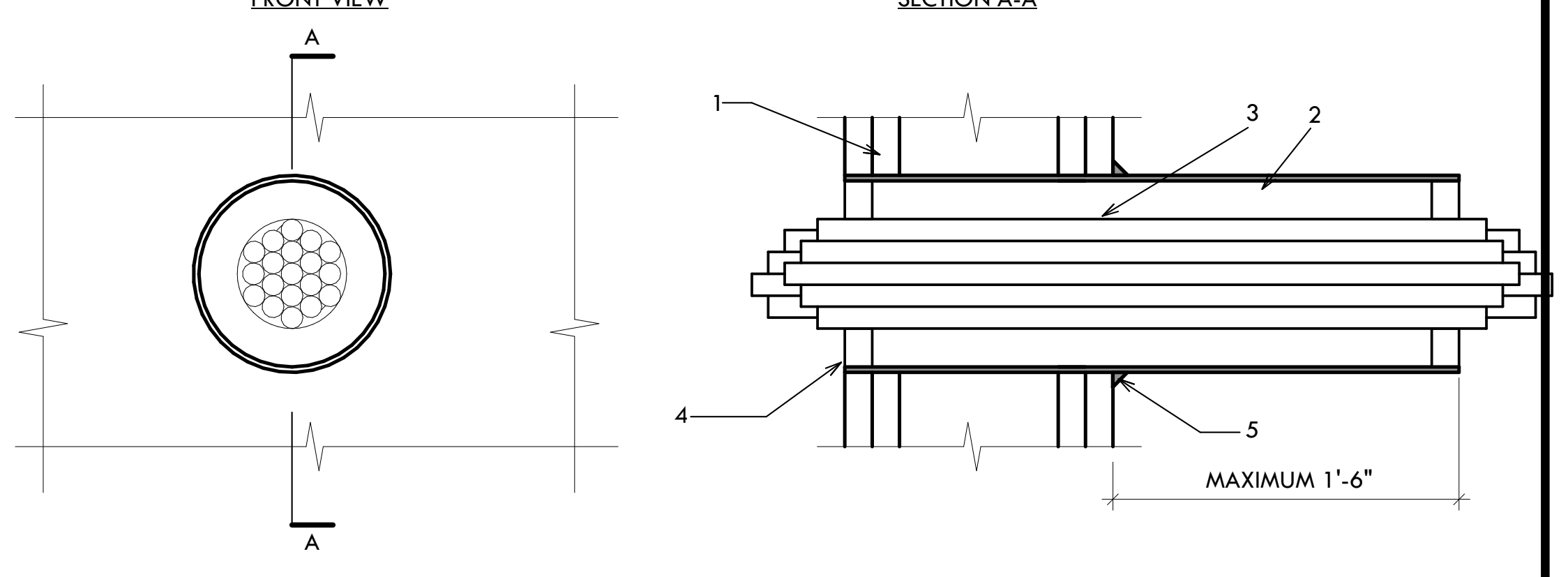
1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300 OR U400 SERIES) (1-HR OR 2-HR FIRE RATING) (2-HR SHOWN)
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   - A. MAXIMUM 2" NOMINAL DIAMETER PVC PLASTIC PIPE (CLOSED PIPING SYSTEM).
   - B. MAXIMUM 2" NOMINAL DIAMETER CPVC PLASTIC PIPE (CLOSED PIPING SYSTEM).
3. HILTI FS-0NE INTUMESCENT FIRESTOP SEALANT FORCED INTO ANNULAR SPACE TO MAXIMUM EXTENT POSSIBLE.
   - A. MINIMUM 5/8" DEPTH, FOR A 1-HR FIRE-RATING.
   - B. MINIMUM 1-1/4" DEPTH, FOR A 2-HR FIRE-RATING.

NOTES:
1. MAXIMUM DIAMETER OF OPENING = 4-3/8"
2. ANNULAR SPACE = MINIMUM 3/4".. MAXIMUM 1-1/4"

UL SYSTEM NO. WL3065

CABLE BUNDLE THROUGH 1-HR OR 2-HR GYPSUM WALL ASSEMBLY

F RATING = 1-HR OR 2-HR
T RATING - 0-HR
L RATING AT AMBIENT = LESS THAN 5 CFM/SQ. FT.
L RATING AT 400°F = 2 CFM/SQ. FT.


FRONT VIEW
SECTION A-A

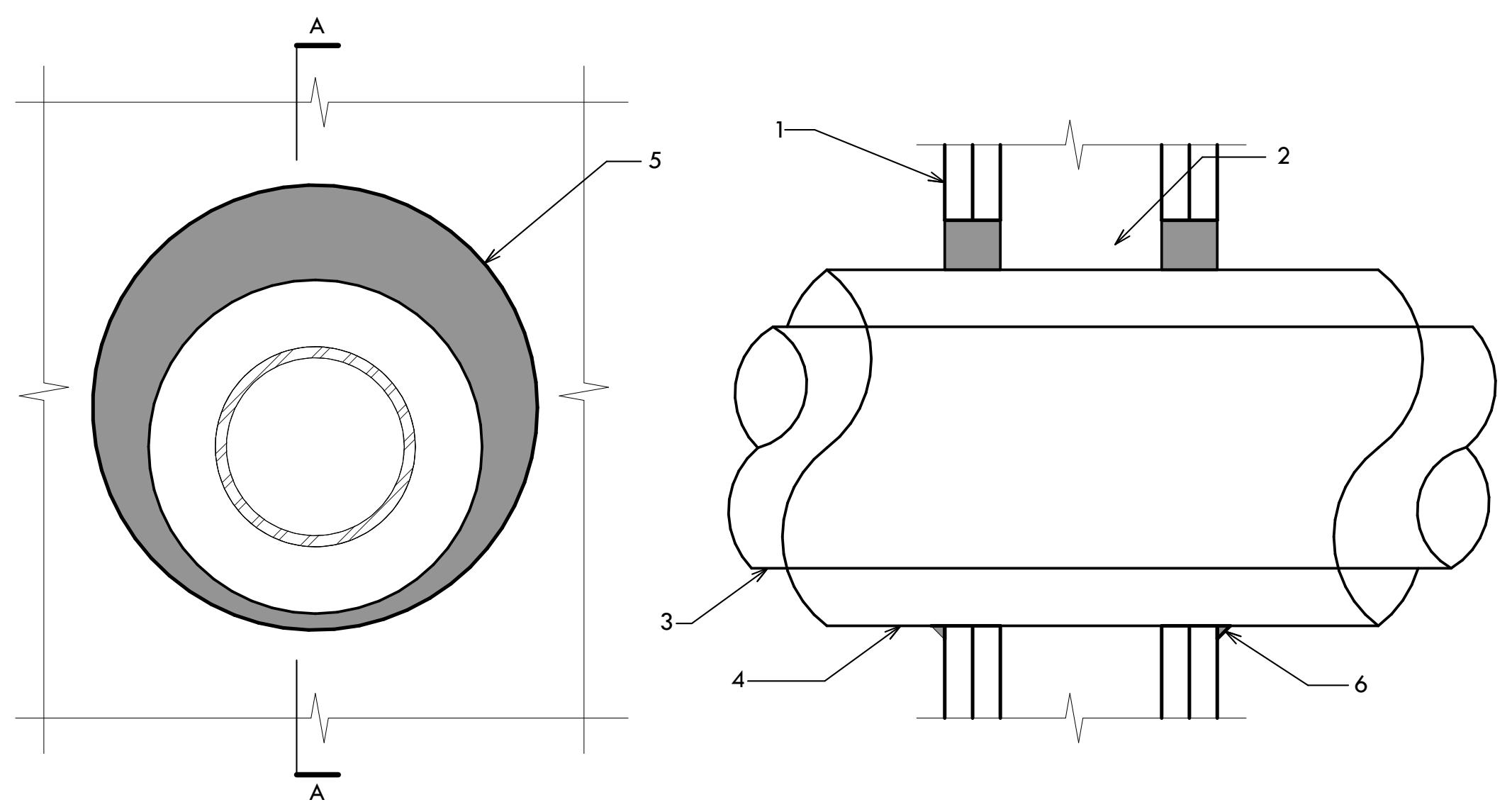
1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300 OR U400 SERIES) (1-HR OR 2-HR FIRE RATING) (2-HR SHOWN)
2. (NOT SHOWN). WOOD STUDS TO CONSIST OF NOMINAL 2x4 IN. LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. OPTIONAL: MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 40 OR HEAVIER) (SEE NOTE NO. 4 BELOW).
4. CABLE BUNDLE TO CONSIST OF ANY OF THE FOLLOWING:
   - A. MAXIMUM 7/C NO. 12 AWG CABLE.
   - B. MAXIMUM 25 PAIR NO. 24 TELEPHONE CABLE.
   - C. RG 59 COAXIAL CABLE.
   - D. 3/C NO. 14 AWG METAL-CLAD CABLE.
   - E. 2/C NO. 8 AWG METAL-CLAD CABLE.
   - F. MAXIMUM 5/8" DIAMETER FIBER-OPTIC CABLE.
5. MINIMUM 5/8" DEPTH HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT.
6. SEE NOTE NO. 4 BELOW.

NOTES:
1. MAXIMUM SIZE OF OPENING = 4-1/2".
2. ANNULAR SPACE = MINIMUM 1/4", MAXIMUM 3/4".
3. CABLES TO FILL MAXIMUM 45% OF CROSS-SECTIONAL AREA OF OPENING.
4. STEEL SLEEVE MAY BE FLUSH WITH WALL SURFACE OR EXTEND UP TO 1'-6" BEYOND WALL SURFACE. WHEN SLEEVE IS EXTENDED BEYONE ONE OR BOTH SIDES OF WALL, APPLY MINIMUM 1/2" BEAD HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT TO WALL/SLEEVE INTERFACE.

UL SYSTEM NO. WL5029

INSULATED METAL PIPE THROUGH 1-HR OR 2-HR GYPSUM WALL ASSEMBLY

F RATING = 1-HR OR 2-HR
T RATING = 1/2-HR., 3/4-HR. 1-HR., OR 1-3/4 HR. (SEE U.L. FIRE RESISTANCE DIRECTORY)
L RATING AT AMBIENT = 4 CFM/SQ. FT.
L RATING AT 400°F = LESS THAN 1 CFM/SQ. FT.


FRONT VIEW
SECTION A-A

1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300 OR U400 SERIES) (1-HR OR 2-HR FIRE RATING) (2-HR SHOWN).
2. (NOT SHOWN). WOOD STUDS TO CONSIST OF NOMINAL 2x4 IN. LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   - A. MAXIMUM 12" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 20 OR HEAVIER).
   - B. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
   - C. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
   - D. MAXIMUM 4" NOMINAL DIAMETER EMT.
4. MAXIMUM 2" THICK GLASS FIBER PIPE INSULATION.
5. MINIMUM 5/8" DEPTH HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT.
6. MINIMUM 1/2" BEAD HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT AT POINT OF CONTACT.

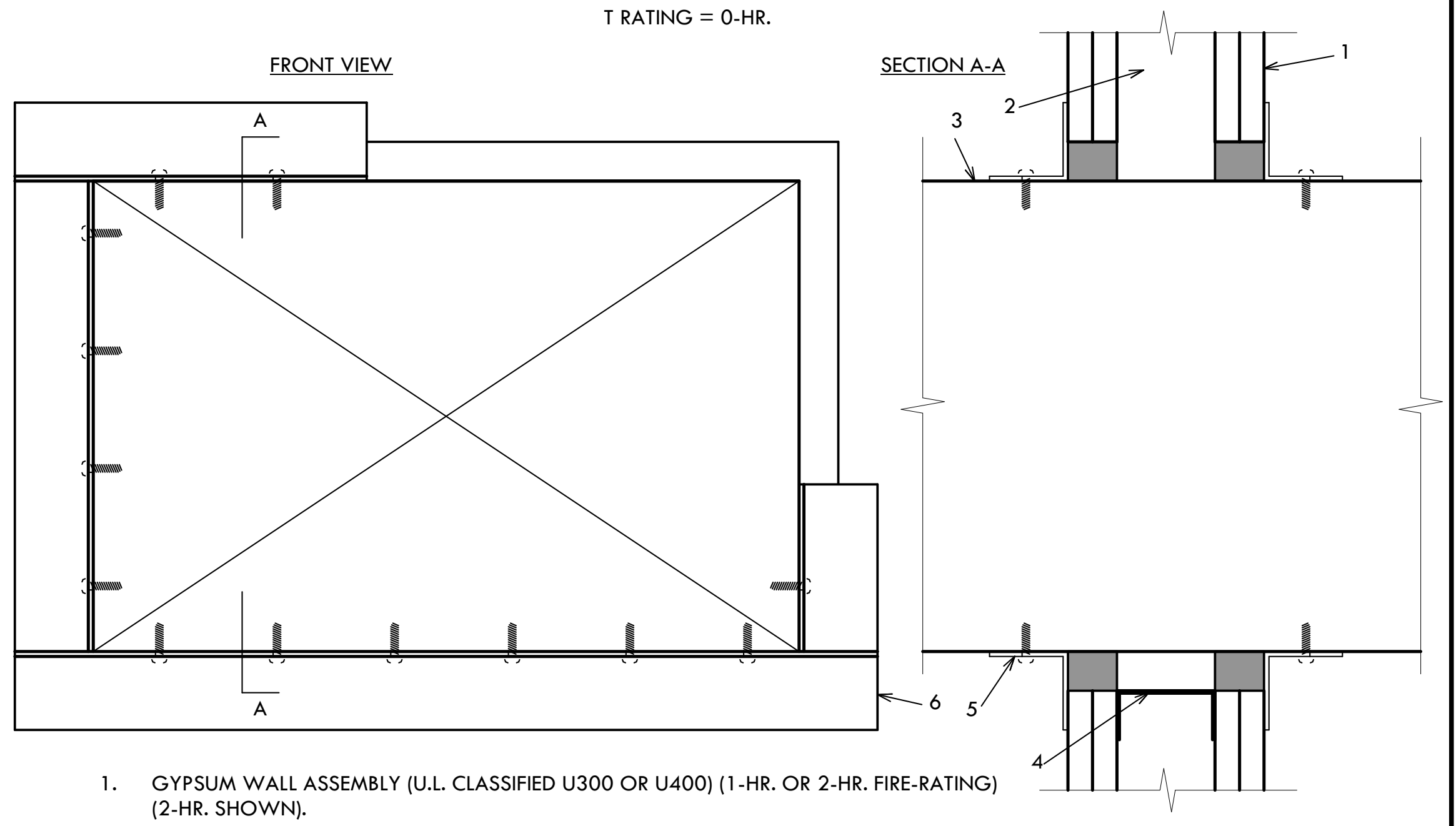
NOTES:
1. MAXIMUM DIAMETER OF OPENING = 18"
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM = 1-7/8"

UL SYSTEM NO. WL7040

METAL DUCT (WITHOUT DAMPER) THROUGH 1-HR. OR 2-HR.

GYPSUM WALL ASSEMBLY

F RATING = 1-HR. OR 2-HR.
T RATING = 0-HR.


FRONT VIEW
SECTION A-A

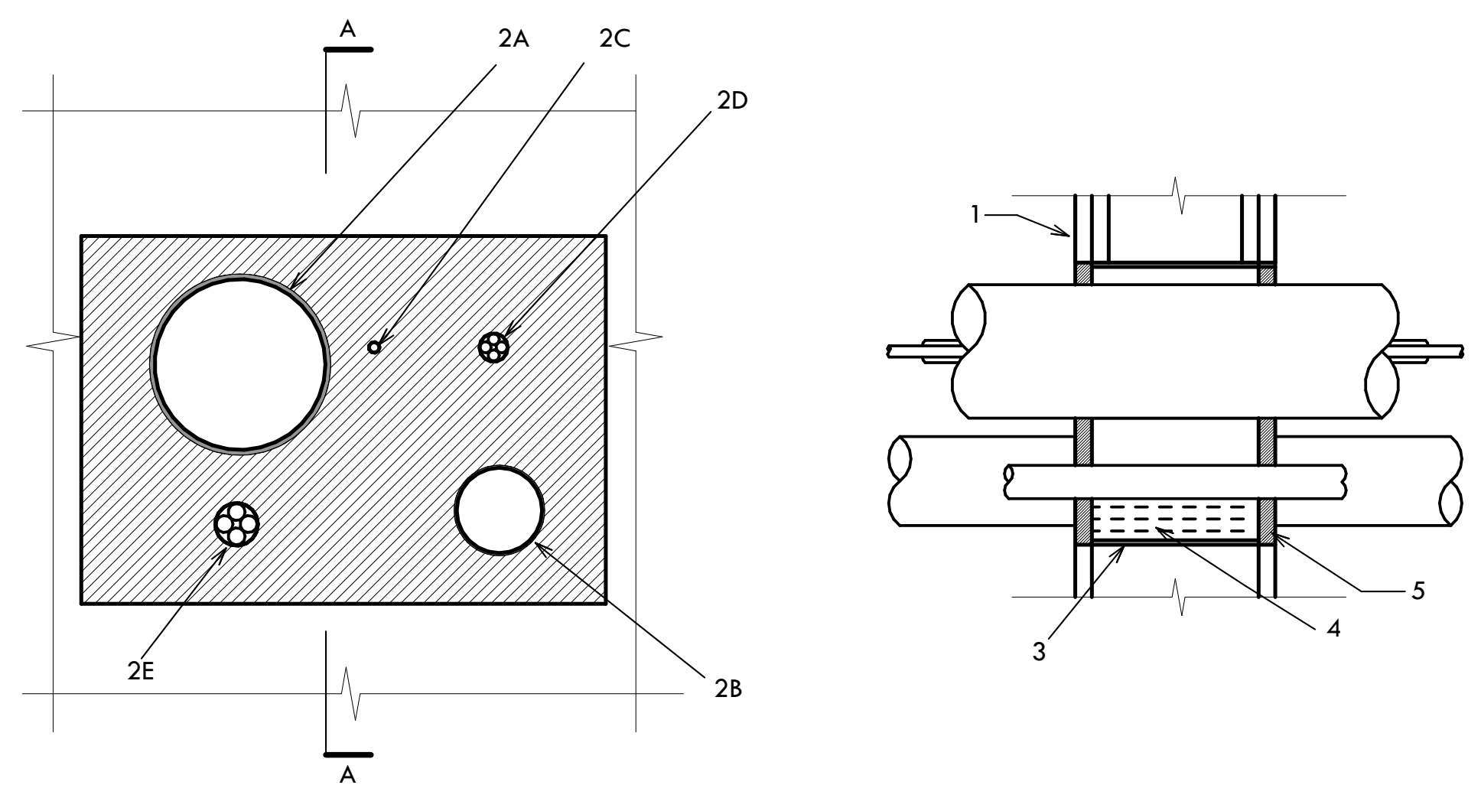
1. GYPSUM WALL ASSEMBLY (U.L. CLASSIFIED U300 OR U400) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. (NOT SHOWN). WOOD STUDS TO CONSIST OF NOMINAL 2x4 IN. LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. RECTANGULAR SHEET METAL DUCT (MAXIMUM SIZE: 24" x 48", MINIMUM 24 GA. THICKNESS). (NOTE: NOT FOR USE IN DUCT SYSTEMS CONTAINING A FIRE DAMPER).
4. OPENING TO BE "FRAMED OUT" WIHT LIGHT GAGE METAL FRAMING STUDS.
5. HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT, HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, OR HILTI CP 606 FLEXIBLE FIRESTOP SEALANT:
   - A. MINIMUM 5/8" DEPTH OF SEALANT FOR A 1-HR. FIRE-RATING.
   - B. MINIMUM 1-1/4" DEPTH OF SEALANT FOR A 2-HR. FIRE-RATING.
6. SEE NOTE NO. 3 BELOW.

NOTES:
1. MAXIMUM AREA OF OPENING = 1244 SQUARE INCHES WITH A MAXIMUM DIMENSION OF 49-1/4 IN.
2. ANNULAR SPACE = MINIMUM 1/4", MAXIMUM 1".
3. AFTER SEALING SPACE BETWEEN DUCT AND GYPSUM WALL ASSEMBLY WITH HILTI FIRESTOP SEALANT, FASTEN STEEL ANGLE (MINIMUM 1-1/2" x 1-1/2" x 16 GA.) TO DUCT WITH MINIMUM NO. 8 x 3/4" LONG SHEET METAL SCREWS. ANGLE DOES NOT HAVE TO BE FASTENED TO THE WALL ASSEMBLY.

UL SYSTEM NO. WL8004

MULTIPLE PENETRATIONS THROUGH 2-HR. GYPSUM WALL ASSEMBLY

F RATING = 2-HR.
T RATING = 1/4-HR.


FRONT VIEW
SECTION A-A

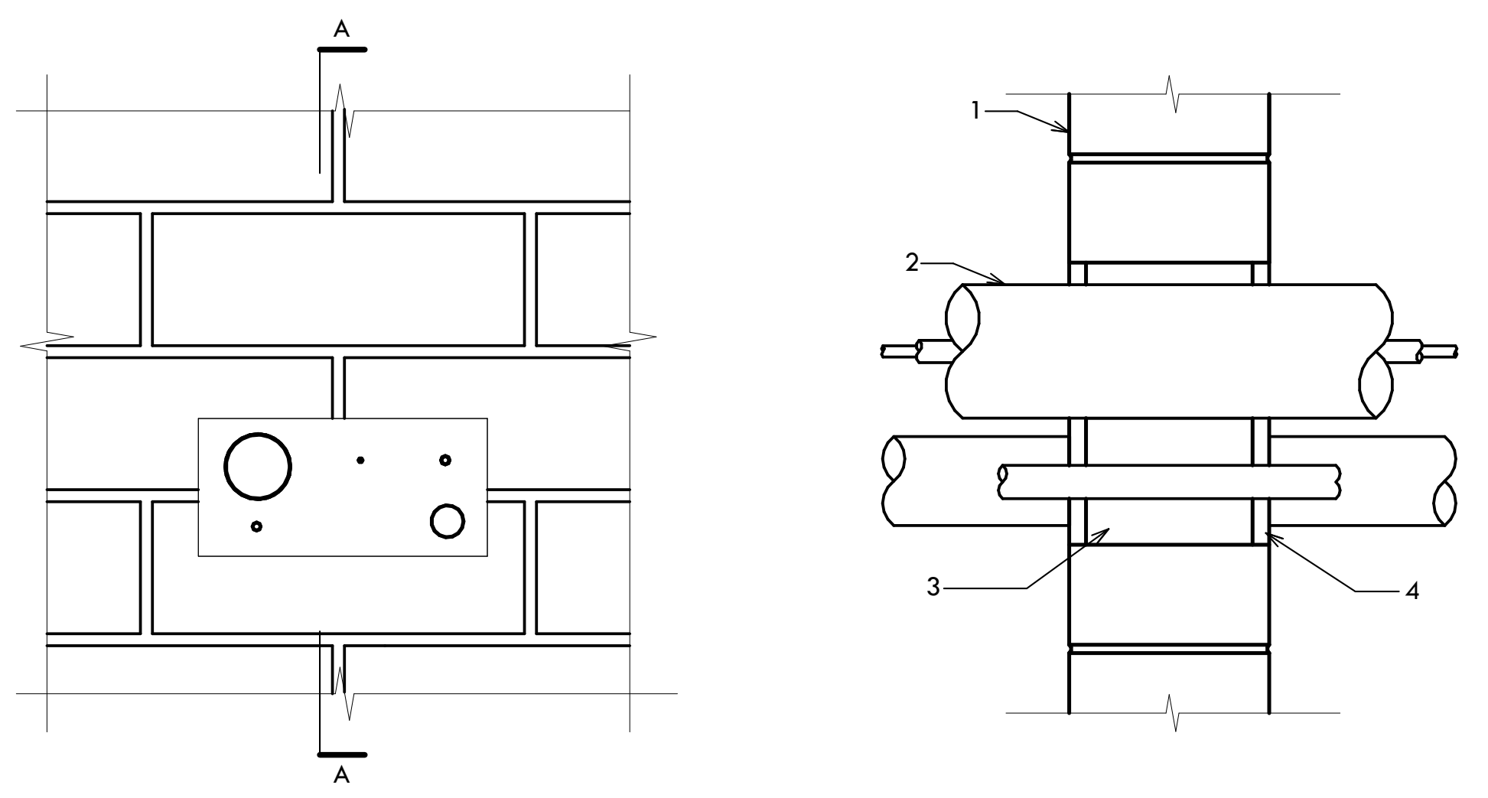
1. GYPSUM WALL ASSEMBLY (U.L. CLASSIFIED U300 OR U400) (2-HR. FIRE-RATING).
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   - A. MAXIMUM 3" NOMINAL DIAMETER EMT.
   - B. MAXIMUM 2" NOMINAL DIAMETER PVC PLASTIC PIPE (CLOSED PIPING SYSTEM ONLY).
   - C. MAXIMUM 25 PAIR NO. 24 AWG TELEPHONE CABLE.
   - D. MAXIMUM 3/C NO. 10 (+GRND) AWG CABLE (ROMEX).
   - E. MAXIMUM 300 KCMIL POWER CABLE.
3. NO. 8 STEEL WIRE MESH, 4-1/4" LONG (OR STANDARD METAL DRYWALL TRACK SCREWED SECURELY IN PLACE) CENTERED IN OPENING.
4. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT INSTALLED FLUSH WITH BOTH SURFACES OF WALL.

NOTES:
1. MAXIMUM AREA OF OPENING = 96 SQUARE INCHES, WITH A MAXIMUM DIMENSION OF 12 INCHES.
2. DISTANCE BETWEEN ITEMS = MINIMUM 1-3/4', MAXIMUM 7"
3. DISTANCE FROM EDGE OF OPENING = MINIMUM 1/2", MAXIMUM 7", (EXCEPTION: 300 KCMIL POWER CABLE MUST BE MINIMUM 1-1/2" FROM THE EDGE OF OPENING).

UL SYSTEM NO. WJ8004

MULTIPLE PENETRATIONS THROUGH 2-HR. CONCRETE WALL OR CONCRETE BLOCK WALL

F RATING = 2-HR.
T RATING = 1/4-HR.
L RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L RATING AT 400°F = 4 CFM/SQ. FT.


FRONT VIEW
SECTION A-A

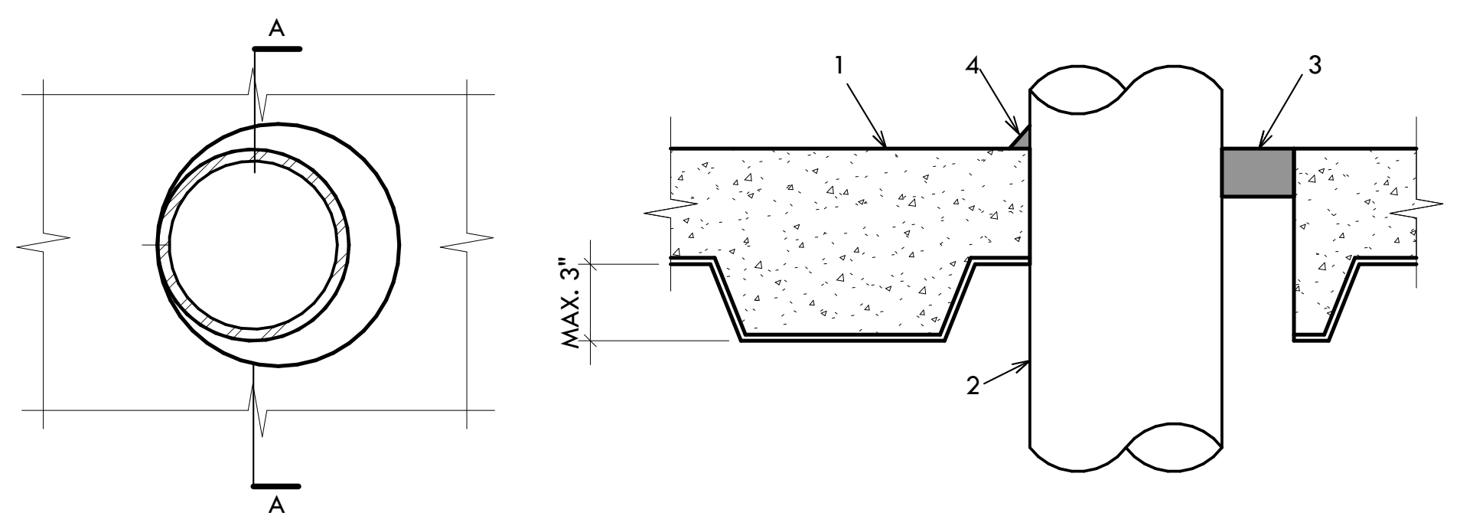
1. CONCRETE WALL ASSEMBLY (2-HR FIRE-RATING):
   - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK)
   - B. ANY U.L. CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   - A. MAXIMUM 3" NOMINAL DIAMETER EMT.
   - B. MAXIMUM 2" NOMINAL DIAMETER PVC PLASTIC PIPE (CLOSED PIPING SYSTEM ONLY).
   - C. MAXIMUM 25 PAIR NO. 24 AWG TELEPHONE CABLE.
   - D. MAXIMUM 3/C NO. 10 (+GRND) AWG CABLE (ROMEX).
   - E. MAXIMUM 300 KCMIL POWER CABLE.
3. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
4. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT INSTALLED FLUSH WITH BOTH SURFACES OF WALL.

NOTES:
1. MAXIMUM AREA OF OPENING = 96 SQUARE INCHES, WITH A MAXIMUM DIMENSION OF 12 INCHES.
2. DISTANCE BETWEEN ITEMS = MINIMUM 1-3/4', MAXIMUM 7"
3. DISTANCE FROM EDGE OF OPENING = MINIMUM 1/2", MAXIMUM 7", (EXCEPTION: 300 KCMIL POWER CABLE MUST BE MINIMUM 1-1/2" FROM THE EDGE OF OPENING).

UL SYSTEM NO. FA-1014

METAL PIPE THROUGH CONCRETE FLOOR OVER METAL DECKING

F RATING = 2-HR.
T RATING = 0-HR.


TOP VIEW
SECTION A-A

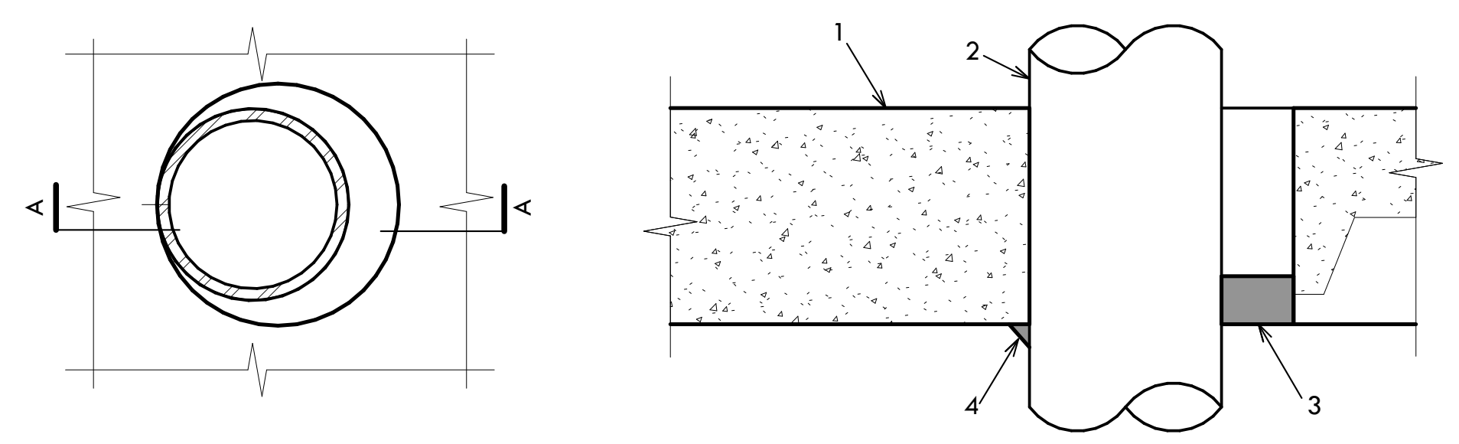
1. NORMAL WEIGHT CONCRETE FLOOR (MIN. 2-1/2" THICK) OVER METAL DECKING (2-HR. FIRE RATING).
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   - A. MAXIMUM 12" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   - B. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
   - C. MAXIMUM 6" NOMINAL DIAMETER STEEL CONDUIT.
   - D. MAXIMUM 6" NOMINAL DIAMETER EMT.
3. MINIMUM 1" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.
4. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

NOTES:
1. MAXIMUM DIAMETER OF OPENING = 14-5/8".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-7/8".

UL SYSTEM NO. CAJ-1184

METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

F RATING = 3-HR.
T RATING = 0-HR.


TOP VIEW
SECTION A-A

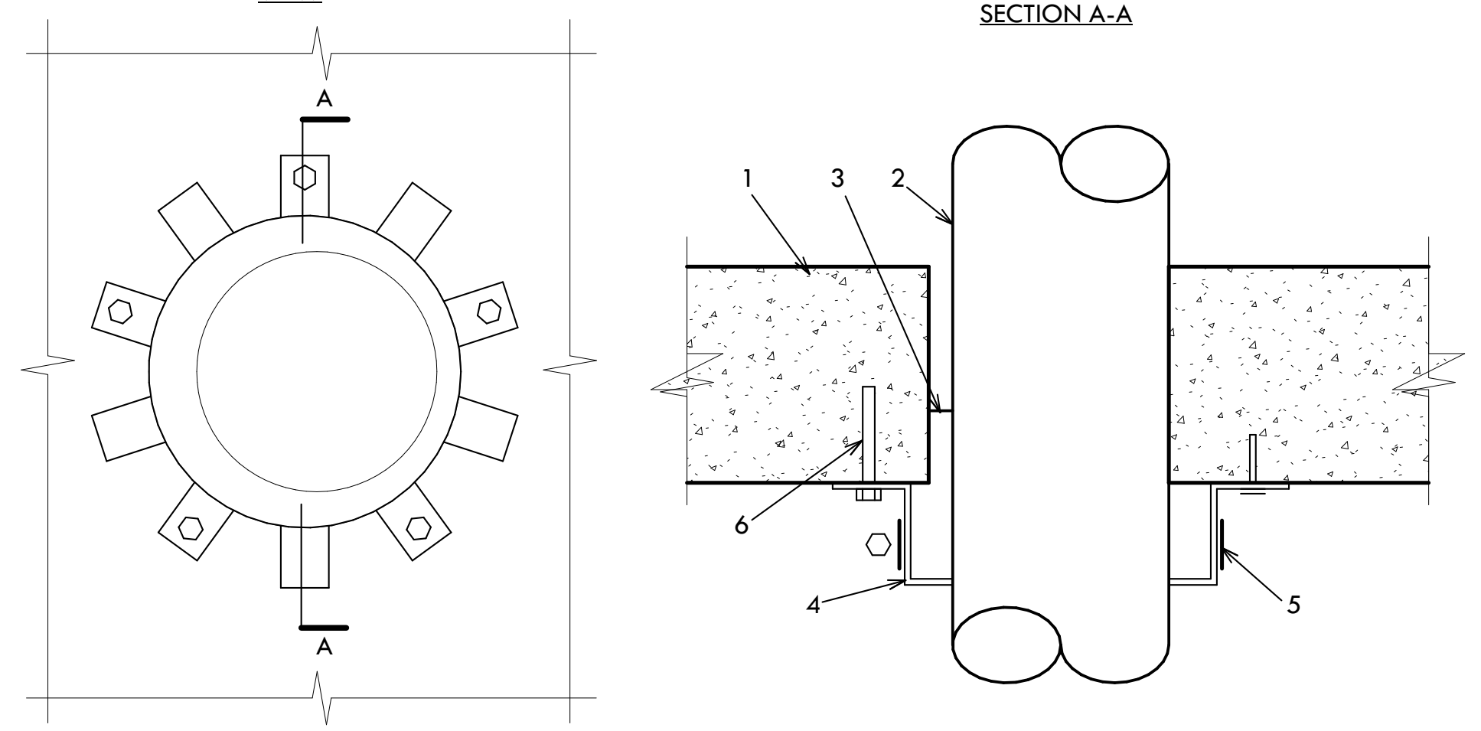
1. CONCRETE FLOOR OR WALL ASSEMBLY (3-HR. FIRE-RATING):
   - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MIN. 4-1/2" THICK).
   - B. PRECAST (HOLLOW CORE) CONCRETE FLOOR (MIN. 7-1/2" THICK).
   - C. ANY UL CLASSIFIED BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   - A. MAXIMUM 10" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   - B. MAXIMUM 10" NOMINAL DIAMETER CAST IRON PIPE.
   - C. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE.
   - D. MAXIMUM 4" NOMINAL DIAMETER EMT OR STEEL CONDUIT.
3. MINIMUM 1" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT FLUSH WITH TOP OR BOTTOM OF FLOOR. (SEE NOTE NO. 3 BELOW).
4. MINIMUM 1/2" CROWN HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

NOTES:
1. MAXIMUM DIAMETER OF OPENING = 14-5/8".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-7/8".

UL SYSTEM NO. CAJ-2095

PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

F RATING = 3-HR.
T RATING = 2-1/2-HR.


TOP VIEW
SECTION A-A

1. CONCRETE FLOOR OR WALL ASSEMBLY (3-HR. FIRE-RATING).
   - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MIN. 4-1/2": THICK).
   - B. ANY U.L. CLASSIFIED CONCRETE BLOCK WALL.
2. MAXIMUM 4" NOMINAL DIAMETER PVC OR CPVC PLASTIC PIPE (CLOSED OR VENTED PIPING SYSTEM).
3. MINIMUM 1-1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT, APPLIED WITHIN THE ANNULUS.
4. HILTI RETAINING COLLAR COMPLETELY FILLED WITH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT. MAINTAIN 3/4" SPACE BETWEEN HILTI RETAINING COLLAR AND PIPE.
5. HILTI COLLAR CLAMP(S) FASTENED TO MID-HEIGHT OF COLLAR.
6. ATTACH EVERY OTHER TAB WITH APPROPRIATE FASTENERS (SEE NOTE NO. 4).

NOTES:
1. MAXIMUM DIAMETER OF OPENING = 5".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1/2".
3. WALL REQUIRE COLLARS AND SEALANT ON BOTH SIDES.
4. FASTENERS: FOR CONCRETE FLOORS AND WALLS USE EITHER 1/4" HILTI KWIK-BOLT II OR POWDER ACUATED FASTENERS (X-ZF 27 PINS WITH STEEL WASHERS). FOR CONCRETE BLOCK WALLS, USE HILTI SLEEVE ANCHORS.

GENERAL FIRE-STOP SYSTEM NOTES:

1. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL FIRE-STOP DETAILS AND RESPONSIBILITIES AND CONFIRMING THAT EACH TRADE HAS INCLUDED APPROPRIATE COSTS FOR SUCH FIRE-STOP WORK IN THEIR BID OR THAT THE G.C. WILL ASSUME THE RESPONSIBILTY FOR THIS WORK HIMSELF.
2. THESE DETAILS & NOTES ARE INTENDED TO BE A GENERAL GUIDE AS TO TYPICAL EXPECTED CONDITIONS. ACTUAL CONDITIONS AND DETAILS SHALL BE REVIEWED BY EACH TRADE WITH THE GENERAL CONTRACTOR. ALTERNATIVE UL APPROVED FIRE-STOP SYSTEMS OR DETAILS MAY BE USED WHICH SATISFY THE FIRE RATING REQUIREMENTS.
3. FOR LARGER OPENINGS, ADDITIONAL ITEMS PENETRATING OPENINGS, ETC. SECURE "ENGINEERING JUDGEMENT" SHEETS FROM FIRE-STOP SYSTEM MANUFACTURER'S TECHNICAL SUPPORT DEPARTMENTS (SUCH AS HILTI OR TREMCO)
4. IN LIEU OF SECURING SPECIAL "ENGINEERING JUDGEMENTS", FOR LARGER OPENINGS WITH MULTIPLE PENETRATING ITEMS OF VARIOUS SIZES AND MATERIALS PENETRATING AN OPENING, THE CONTRACTOR MAY POUR A MINIMUM 6" THICK CONCRETE AROUND ALL SUCH ITEMS TO FILL THE BULK OF THE OPENING AND THEN FIRE-STOP/SEAL EACH ITEM AS AN INDIVIDUAL PENETRATION AS PER TYPICAL UL APPROVED DETAILS. ASSUME A MINIMUM #5 RE-BAR DOWELS OR 1/2" ∅ STUDS 12" O.C. TO TIE THIS CONCRETE IN-FILL INTO ADJACENT CONSTRUCTION. (WELD RE-BAR DOWELS TO LARGE OPENING LINTELS OR STEEL FRAMES AS REQUIRED. COORDINATE EXACT DETAILS OF THIS INFILL CONCRETE WITH THE STRUCTURAL ENGINEER/ ARCHITECT PRIOR TO PROCEEDING.)
5. SUBMIT A DETAILED SCHEDULE OF PENETRATION LOCATIONS, INTENDED FIRE-STOP DETAILS, MATERIALS/ CUT-SHEETS, ETC. FOR ALL PENETRATIONS FOR ARCHITECT REVIEW AND CITY APPROVAL PRIOR TO PROCEEDING TO ORDER MATERIAL AND INSTALL THE WORK.
6. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

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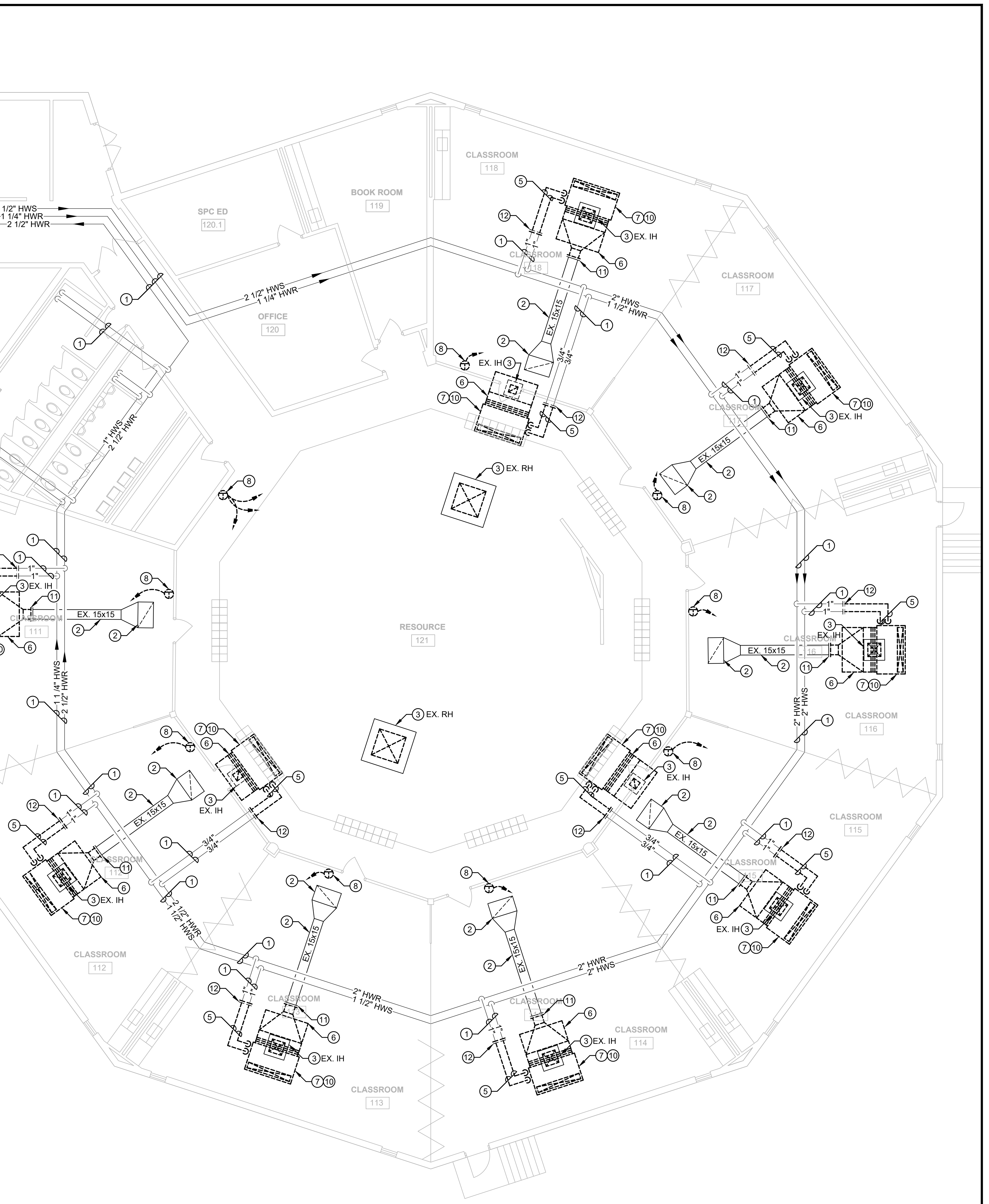
HILLMAN ELEMENTARY SCHOOL - HVAC IMPROVEMENTS
RPS DISTRICT 205 PROJ. #2301
3701 GREEN DALE DRIVE, ROCKFORD IL 61109

ISSUED FOR:	DATE

DATE: 10-11-22
PROJECT NUMBER
32103
SHEET NUMBER
A8.1

HVAC DEMOLITION DRAWING NOTES:

1. EXISTING PIPING AND VALVING TO REMAIN.
2. EXISTING DUCTWORK, DIFFUSERS, REGISTERS, AND GRILLES TO REMAIN.
3. EXISTING HVAC EQUIPMENT TO REMAIN.
4. EXISTING 24x24 RELIEF UP WITH FIRE DAMPER.
5. REMOVE ALL PIPING, VALVING, HANGERS, INSULATION, ETC. SHOWN DASHED.
6. REMOVE ALL DUCTWORK (O.A, R.A.), DIFFUSERS, REGISTERS, HANGERS, INSULATION, ETC. SHOWN DASHED AS REQUIRED TO REMOVE AND PROVIDE NEW UNIT VENTILATOR AT SIMILAR LOCATION.
7. REMOVE UNIT VENTILATOR AND ALL ASSOCIATED PIPING, VALVING, CONTROLS, ETC. REMOVE WALL LOUVER UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL FOR WIDENING OF EXISTING WALL OPENING OR WALL PATCHING IF NEW UV IS IN A DIFFERENT LOCATION.
8. REMOVE EXISTING THERMOSTAT INCLUDING ALL ASSOCIATED CONDUIT, WIRING, PNEUMATIC TUBING, ETC. LOCATED ABOVE ANY ACCESSIBLE CEILING BETWEEN THERMOSTAT AND THE UNIT IT CONTROLS. PROVIDE BLANK COVER PLATE OVER ALL ABANDONED JUNCTION BOXES IN WALLS THAT ARE TO REMAIN.
9. INFILL EXISTING 18x18 OPENING TO FLOOR ABOVE TO MATCH EXISTING. FIELD VERIFY EXACT SIZE. REFER TO ARCHITECTURAL FOR ADDITIONAL INFORMATION.
10. COORDINATE REMOVAL OF UNITS, PIPING, ETC WITH PARTIAL REMOVAL OF CEILING. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
11. NEW CONNECTION TO BE MADE AT THIS LOCATION. REMOVE ALL DUCTWORK, DIFFUSERS, REGISTERS, HANGERS, INSULATION, ETC. SHOWN DASHED BEYOND THIS POINT.
12. NEW CONNECTION TO BE MADE AT THIS LOCATION. REMOVE ALL PIPING, VALVING, HANGERS, INSULATION, ETC. SHOWN DASHED BEYOND THIS POINT.
13. EXISTING UNIT VENTILATOR WITH HOT WATER AND DX COIL TO REMAIN. REFER TO NEW WORK FOR ADDITION OF ROOF MOUNTED AIR COOLED CONDENSING UNIT AND ASSOCIATED REFRIGERANT PIPING, CONTROLS, ETC.
14. COORDINATE REMOVAL OF UNIT AND ASSOCIATED PIPING, DUCTWORK, CONTROLS, POWER, ETC. WITH PARTIAL REMOVAL OF CEILING/SOFFIT. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.

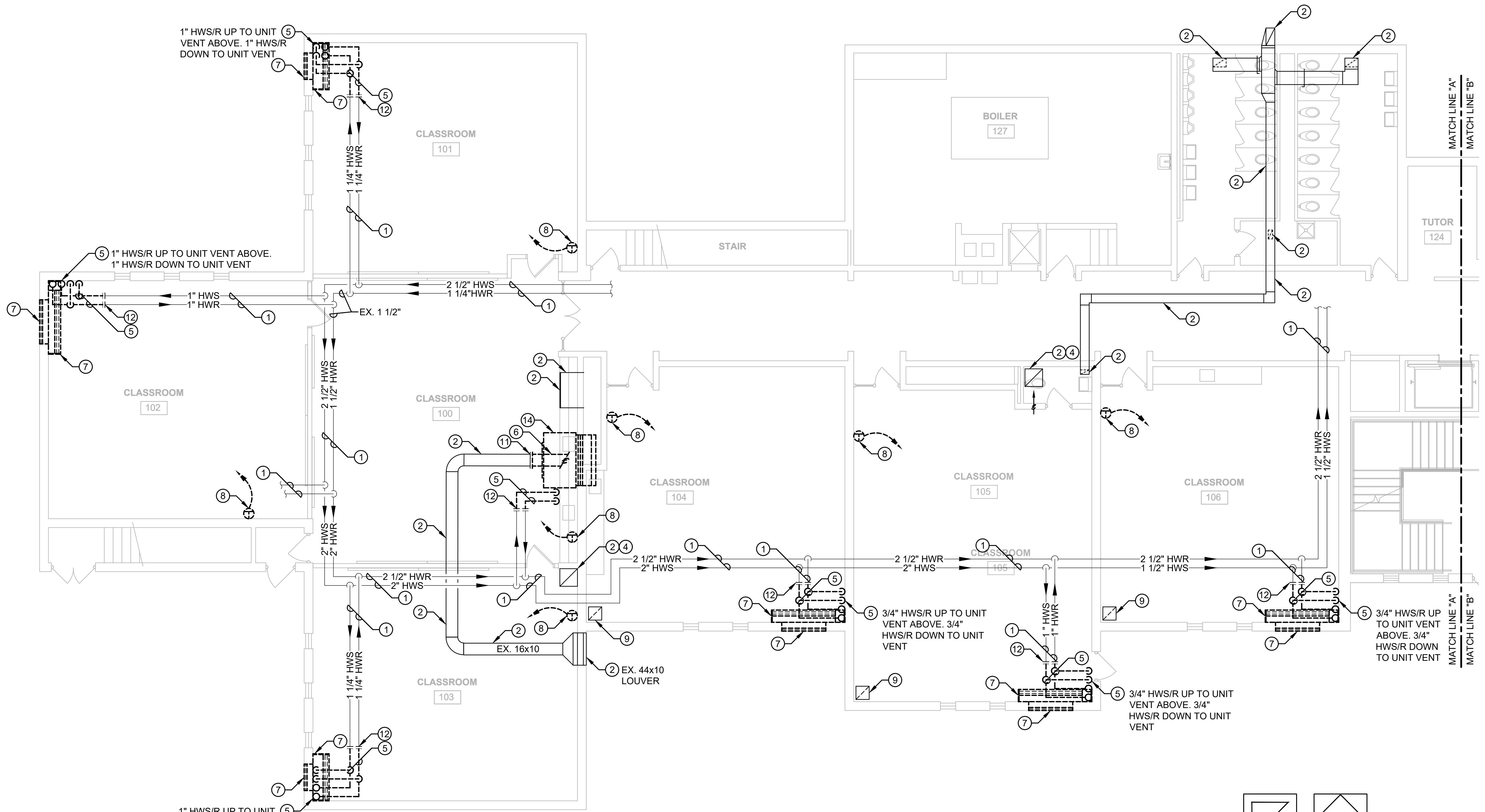


LOWER LEVEL HVAC PLAN AREA "B"–DEMOLITION

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

North
Project

North
True


1" HWS/R UP TO UNIT VENT ABOVE. 1" HWS/R DOWN TO UNIT VENT
1" HWS/R UP TO UNIT VENT ABOVE. 1" HWS/R DOWN TO UNIT VENT
CLASSROOM 101
CLASSROOM 102
CLASSROOM 100
CLASSROOM 104
CLASSROOM 105
CLASSROOM 106
CLASSROOM 103
BOILER 127
STAIR
TUTOR 124
MATCH LINE "A"
MATCH LINE "B"
1 1/4" HWS
1 1/4" HWR
1" HWS
1" HWR
EX. 1 1/2"
2 1/2" HWS
1 1/4"HWR
2 1/2" HWS
1 1/2" HWR
2" HWS
2" HWR
2 1/2" HWR
2" HWS
2 1/2" HWR
1 1/2" HWS
2 1/2" HWR
1 1/2" HWS
1" HWS
1" HWR
EX. 16x10
EX. 44x10 LOUVER
3/4" HWS/R UP TO UNIT VENT ABOVE. 3/4" HWS/R DOWN TO UNIT VENT
3/4" HWS/R UP TO UNIT VENT ABOVE. 3/4" HWS/R DOWN TO UNIT VENT
3/4" HWS/R UP TO UNIT VENT ABOVE. 3/4" HWS/R DOWN TO UNIT VENT
1" HWS/R UP TO UNIT VENT ABOVE. 1" HWS/R DOWN TO UNIT VENT

LOWER LEVEL HVAC PLAN AREA "A"–DEMOLITION

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

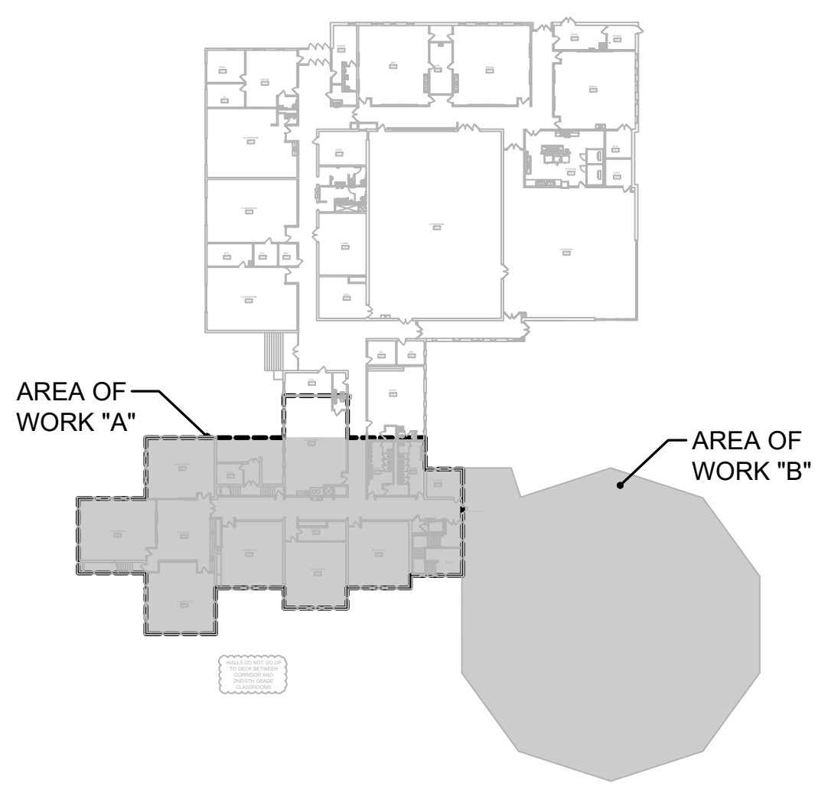
North
Project

North
True

CONTRACTOR TO REMOVE EXISTING PNEUMATIC / ELECTRIC CONTROL VALVES, ACTUATORS, WIRING, TUBING AND REPLACE WITH DDC CONTROL VALVES, ACTUATORS AND WIRING TO ALL NEW AND EXISTING EQUIPMENT. REMOVE EXISTING PNEUMATIC / ELECTRIC THERMOSTATS AND REPLACE WITH DDC SENSORS.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REMOVE AND REINSTALL PORTIONS OF THE CEILING TILE AND GRID (WHICH IS NOT INDICATED ON THE ARCHITECTURAL DRAWING) AS REQUIRED TO PERFORM WORK OF THIS TRADE.

ALL EXPOSED PIPING SHALL BE INSULATED PER SPECIFICATION AND COVERED WITH A PVC JACKET. ALL REFRIGERANT PIPING SHALL BE HARD DRAWN. SOFT COPPER LINE SETS ARE NOT ACCEPTABLE.



KEY PLAN

SCALE: NO SCALE

North
Project

North
True

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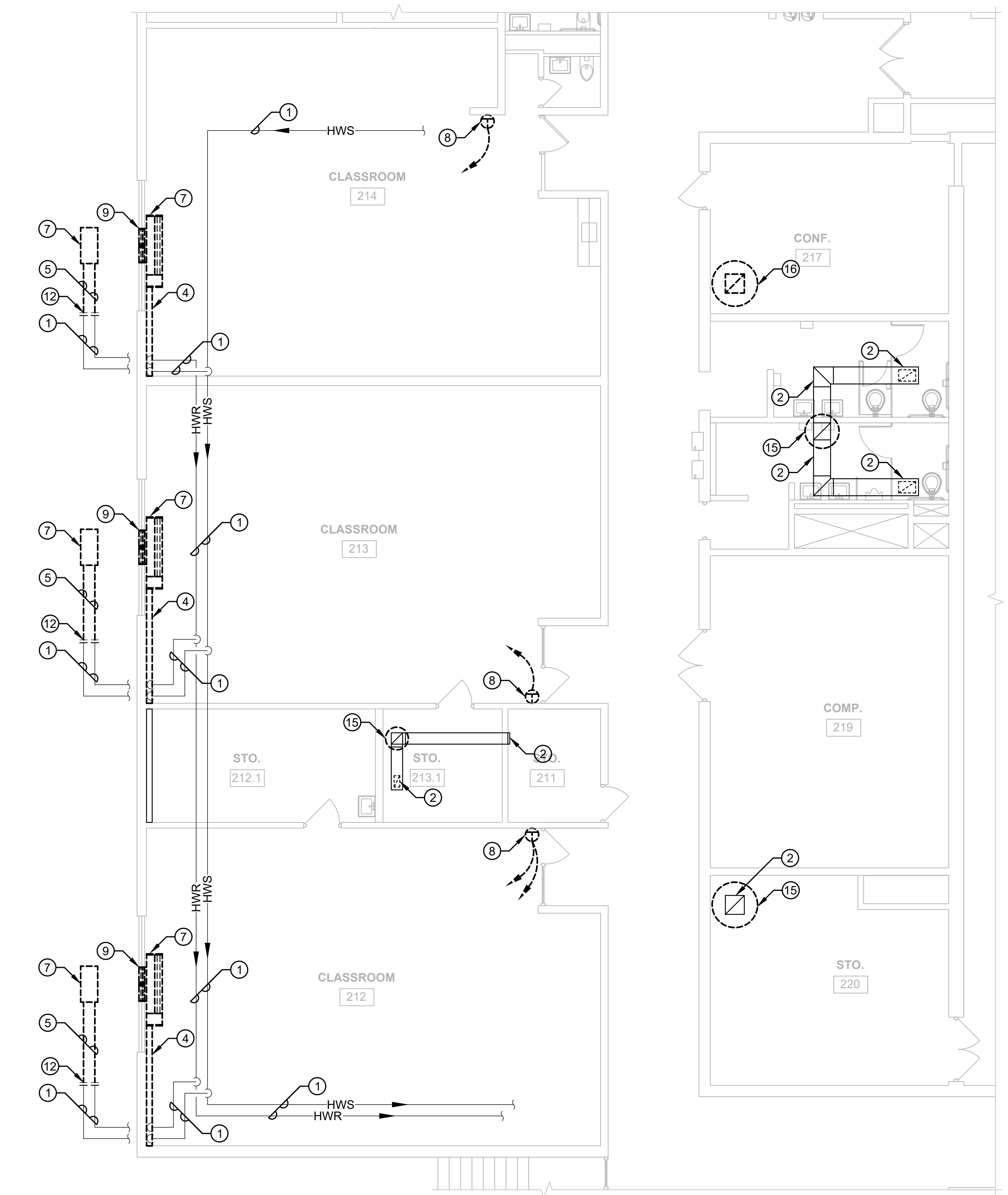
HILLMAN ELEMENTARY SCHOOL
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

ISSUED FOR:	DATE

DATE: 10-11-2022
PROJECT NUMBER
32103-01
SHEET NUMBER
MD1.1H

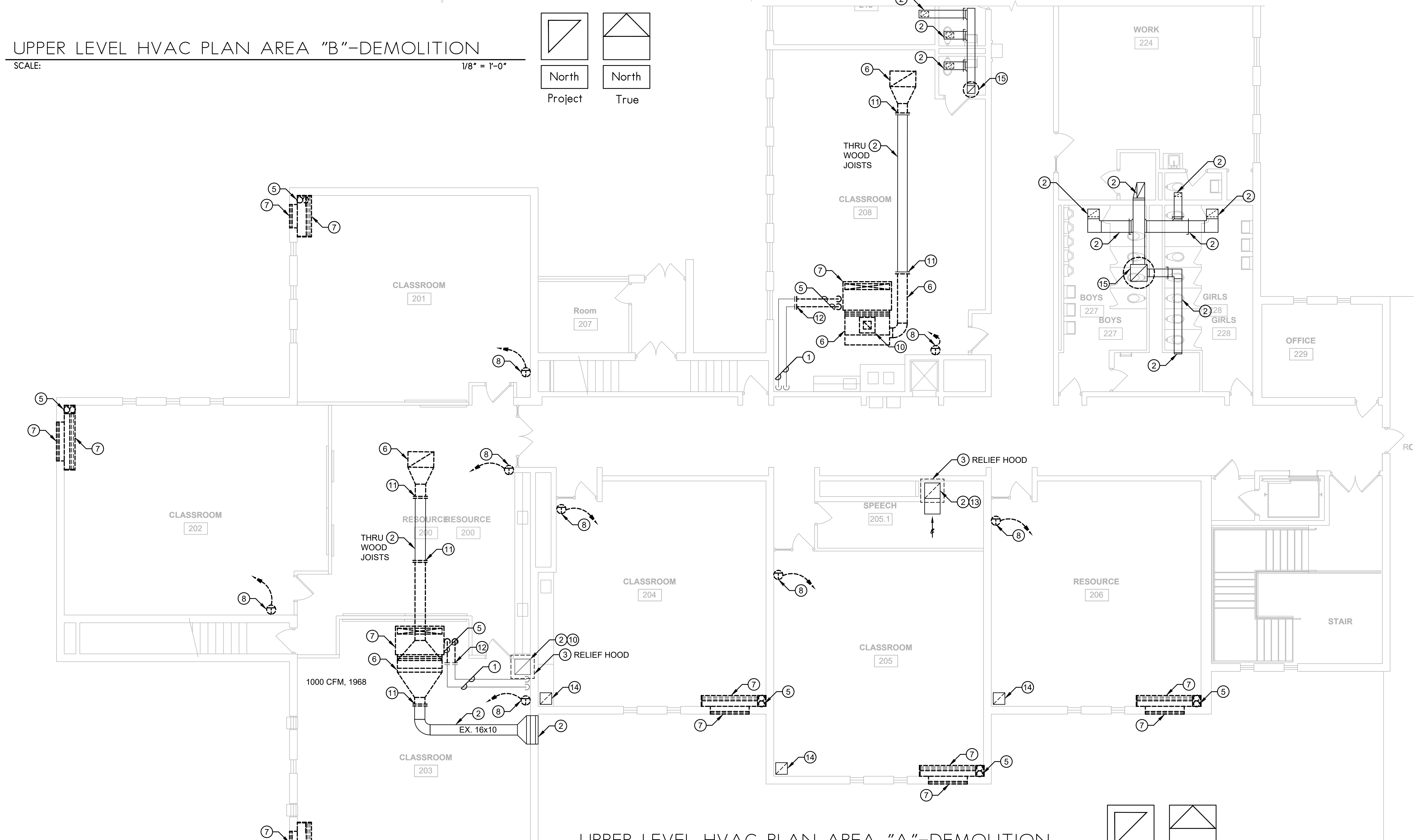


UPPER LEVEL HVAC PLAN AREA "B"-DEMOLITION

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

North Project

North True



UPPER LEVEL HVAC PLAN AREA "A"-DEMOLITION

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

North Project

North True

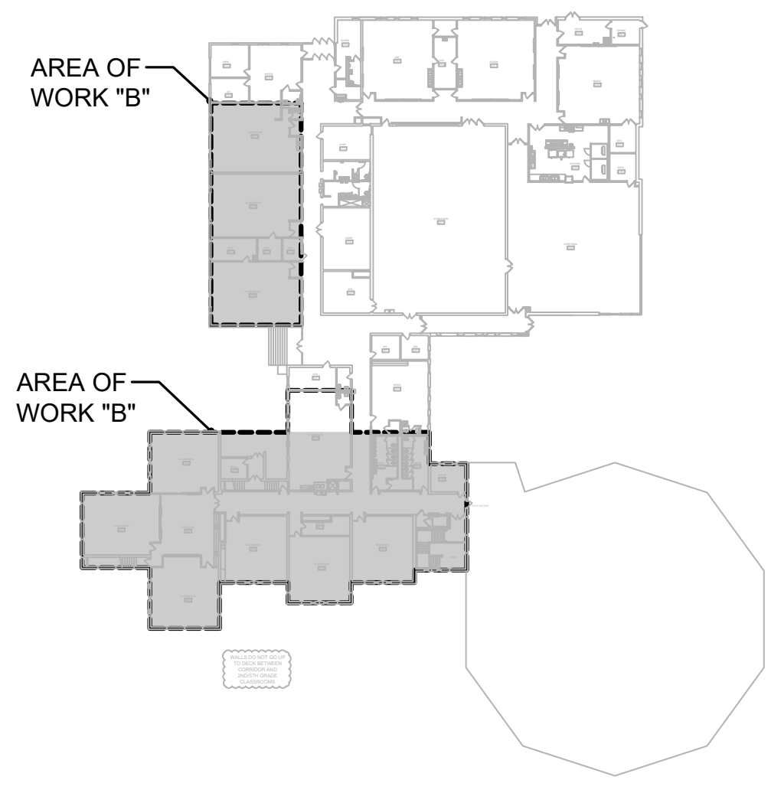
HVAC DEMOLITION DRAWING NOTES:

1. EXISTING PIPING AND VALVING TO REMAIN.
2. EXISTING DUCTWORK, DIFFUSERS, REGISTERS, AND GRILLES TO REMAIN.
3. EXISTING HVAC EQUIPMENT TO REMAIN.
4. REMOVE PIPE ENCLOSURE, TO MODIFY VERTICAL/HORIZONTAL HWS/R PIPING SERVING EQUIPMENT AT THIS LOCATION.
5. REMOVE ALL PIPING, VALVING, HANGERS, INSULATION, ETC. SHOWN DASHED.
6. REMOVE ALL DUCTWORK, DIFFUSERS, REGISTERS, HANGERS, INSULATION, ETC. SHOWN DASHED.
7. REMOVE UNIT VENTILATOR AND ALL ASSOCIATED PIPING, VALVING, CONTROLS, ETC. REMOVE WALL LOUVER UNLESS NOTED OTHERWISE.
8. REMOVE EXISTING THERMOSTAT INCLUDING ALL ASSOCIATED CONDUIT, WIRING, PNEUMATIC TUBING, ETC. LOCATED ABOVE ANY ACCESSIBLE CEILING BETWEEN THERMOSTAT AND THE UNIT IT CONTROLS. PROVIDE BLANK COVER PLATE OVER ALL ABANDONED JUNCTION BOXES IN WALLS THAT ARE TO REMAIN.
9. REMOVE LOUVER IN WINDOW PANEL SYSTEM. REFER TO NEW WORK TO MODIFY PANEL FOR LARGER LOVER IN WINDOW PANEL SYSTEM.
10. REMOVE EXISTING INTAKE/RELIEF HOOD AND ALL ASSOCIATED DUCTWORK, DAMPERS, INSULATION, CONTROLS, ETC.
11. NEW CONNECTION TO BE MADE AT THIS LOCATION. REMOVE ALL DUCTWORK, DIFFUSERS, REGISTERS, HANGERS, INSULATION, ETC. SHOWN DASHED BEYOND THIS POINT.
12. NEW CONNECTION TO BE MADE AT THIS LOCATION. REMOVE ALL PIPING, VALVING, HANGERS, INSULATION, ETC. SHOWN DASHED BEYOND THIS POINT.
13. EXISTING 24x24 RELIEF DOWN WITH FIRE DAMPER, 24x24 OPENING ABOVE CEILING, 24x24 UP TO EXISTING RELIEF HOOD ON ROOF ABOVE TO REMAIN.
14. INFILL EXISTING 18x18 OPENING IN FLOOR SLAB WITHIN BASE OF WARDROBE CABINET TO MATCH EXISTING. FIELD VERIFY EXACT SIZE. REFER TO ARCHITECTURAL FOR ADDITIONAL INFORMATION.
15. REMOVE EXISTING EXHAUST FAN AND ALL ASSOCIATED DUCTWORK (AS REQUIRED), CURB, CONTROLS ETC. IN PREPARATION FOR NEW FAN/CURB AT SAME LOCATION.
16. REMOVE ALL ABANDONED EXHAUST FAN, ALL DUCTWORK, HANGERS, CONTROLS, DAMPERS, GRILLES, POWER, ETC. FROM OLD KITCHEN EXHAUST.

CONTRACTOR TO REMOVE EXISTING PNEUMATIC / ELECTRIC CONTROL VALVES, ACTUATORS, WIRING, TUBING AND REPLACE WITH DDC CONTROL VALVES, ACTUATORS AND WIRING TO ALL NEW AND EXISTING EQUIPMENT. REMOVE EXISTING PNEUMATIC / ELECTRIC THERMOSTATS AND REPLACE WITH DDC SENSORS.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REMOVE AND REINSTALL PORTIONS OF THE CEILING TILE AND GRID (WHICH IS NOT INDICATED ON THE ARCHITECTURAL DRAWING) AS REQUIRED TO PERFORM WORK OF THIS TRADE.

ALL EXPOSED PIPING SHALL BE INSULATED PER SPECIFICATION AND COVERED WITH A PVC JACKET. ALL REFRIGERANT PIPING SHALL BE HARD DRAWN. SOFT COPPER LINE SETS ARE NOT ACCEPTABLE.



KEY PLAN

SCALE: NO SCALE

North Project

North True

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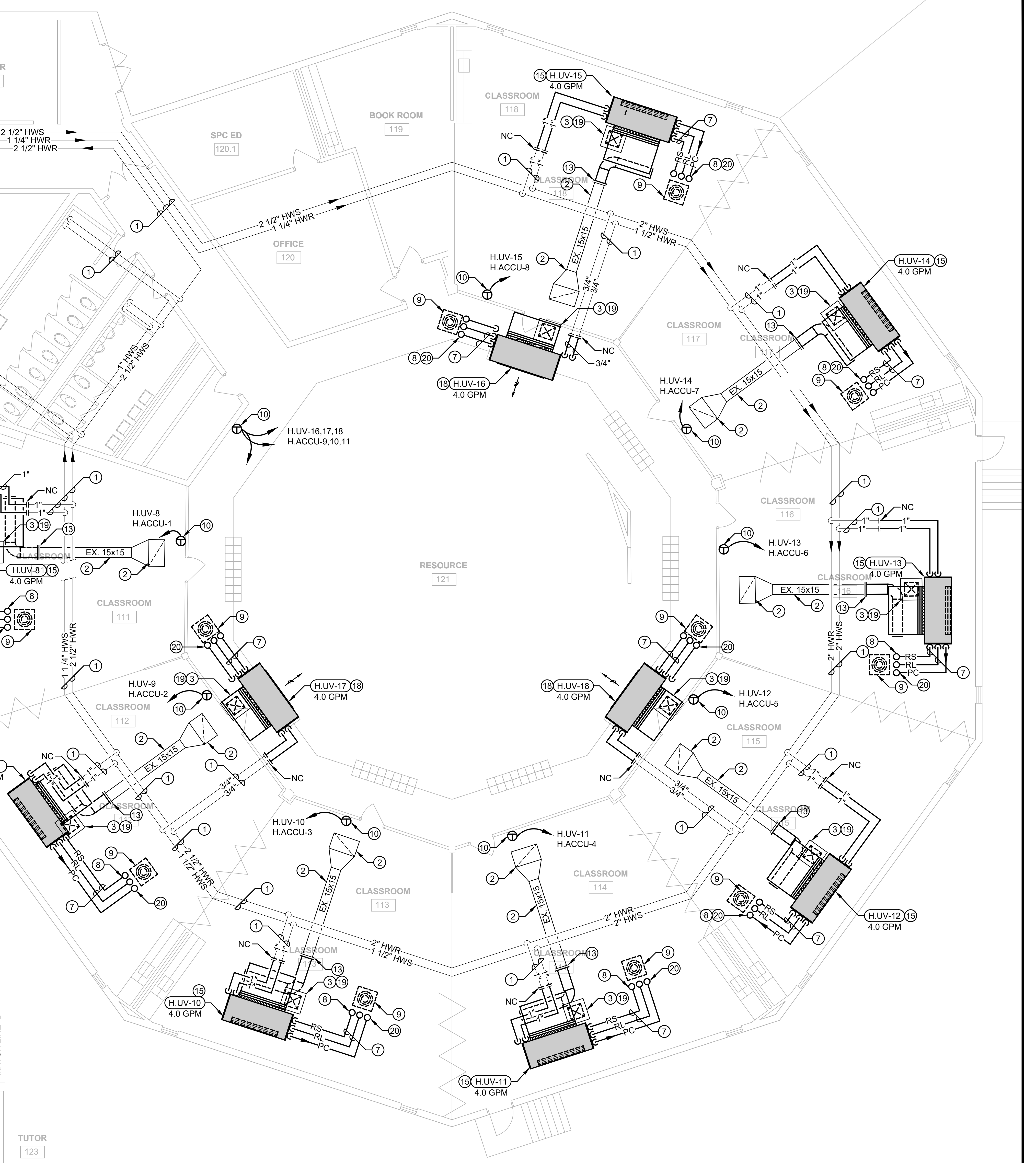
DATE: 10-11-2022
PROJECT NUMBER
32103-01
SHEET NUMBER
MD1.2H

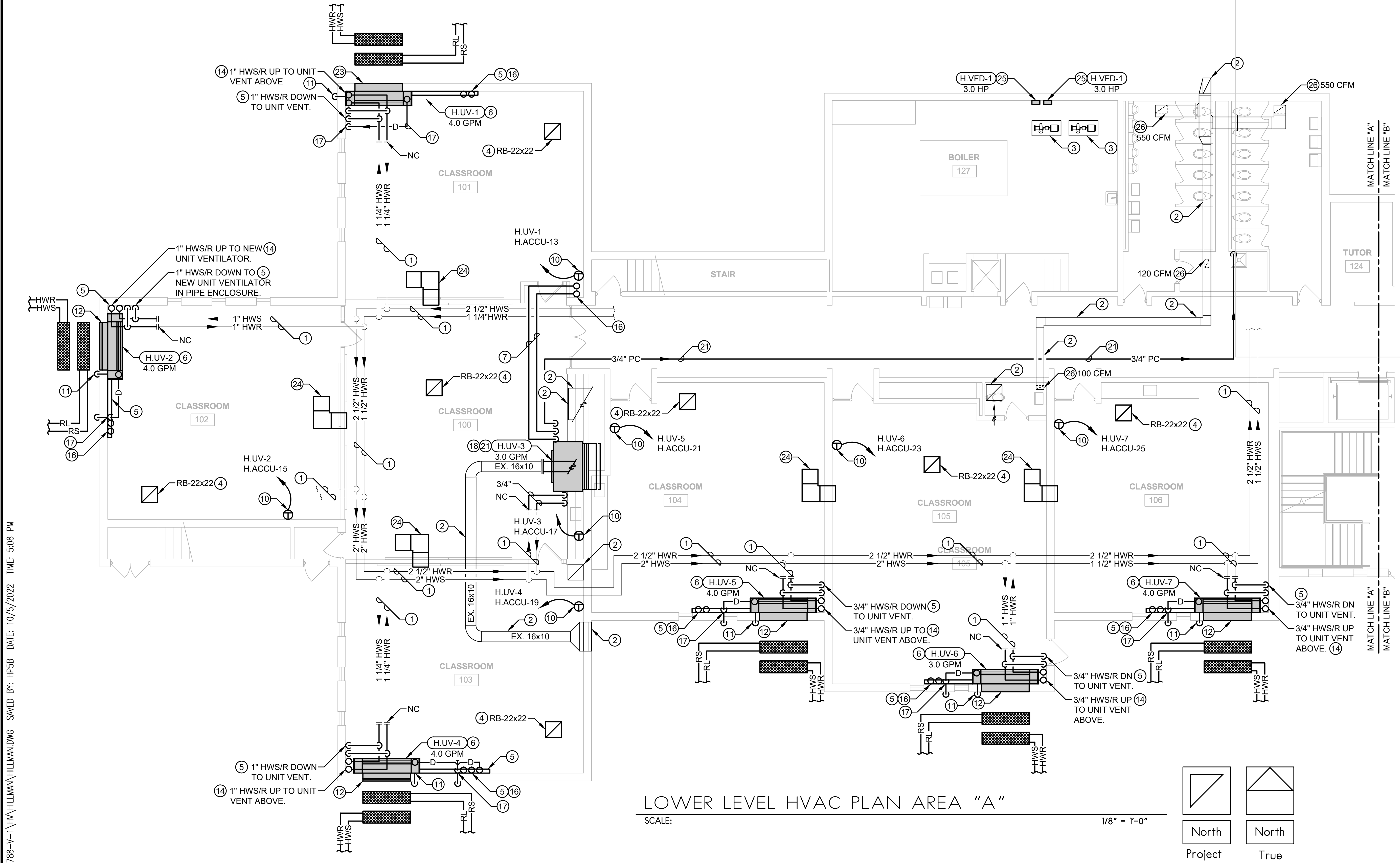
HVAC DRAWING NOTES:

1. EXISTING PIPING AND VALVING TO REMAIN.
2. EXISTING DUCTWORK, DIFFUSERS, REGISTERS, AND GRILLES TO REMAIN.
3. EXISTING HVAC EQUIPMENT TO REMAIN.
4. FIELD VERIFY EXACT LOCATION OF NEW RELIEF GRILLE IN EXISTING CEILING.
5. REFER TO ARCHITECTURAL FOR VERTICAL AND HORIZONTAL METAL PIPE ENCLOSURE PAINTED TO MATCH EXISTING WALLS TO COVER NEW HWS/R AND REFRIGERANT PIPING. PROVIDE WALL/PIPE MOUNTS EVERY 4'-0" O.C. USE CUSH-A-THERM OR KLO-SHURE SERIES 7 STYLE MOUNTS ON DX PIPING TO ENSURE CONTINUOUS INSULATION PREVENTING MOISTURE.
6. PROVIDE NEW HEATING/COOLING UNIT VENTILATOR AND ALL ASSOCIATED PIPING, VALVING, CONTROLS, HANGERS, SUPPORTS, ETC. AT SIMILAR LOCATION TO PREVIOUSLY REMOVED UNIT. PREP/SMOOTH WALL. ANCHOR THE UNIT TO THE WALL TO CREATE AND AIR TIGHT SEAL. PROVIDE VALVING AS REQUIRED TO CONNECT HW COIL TO EXISTING BUILDING HW LOOP AND NEW REFRIGERANT PIPING/ROOF MOUNTED ACCU TO NEW FLOOR/CEILING MOUNTED UNIT VENTILATOR 'DX' COIL. INSTALL PER UNIT MANUFACTURES REQUIREMENTS. REFER TO DETAILS
7. REFRIGERANT PIPING SIZED PER MANUFACTURER. FIELD VERIFY EXACT ROUTE BETWEEN UNIT DX COIL AND ROOF MOUNTED ACCU.
8. REFRIGERANT PIPING UP THROUGH PIPE PORTAL TO NEW ROOF MOUNTED AIR COOLED CONDENSING UNIT. REFER TO SPECIFICATION AND DETAIL.
9. MOUNT NEW (ACCU) AIR COOLED CONDENSING UNIT MOUNTED ON NON-PENETRATING EQUIPMENT PLATFORM. MOUNT A MINIMUM OF 10'-0" FROM ROOF EDGE. REFER TO DETAILS AND SCHEDULE. REFER TO ROOF PLAN ON DRAWING M1.3H.
10. PROVIDE NEW DDC THERMOSTAT TO FUNCTION IN BOTH HEATING AND COOLING MODES OF OPERATION. REFER TO NEW SEQUENCE OF OPERATIONS.
11. 3/4" CONNECTION TO UNIT VENTILATOR DRAIN PAN, SLOPE TO EXTERIOR, TERMINATE WITH DOWN TURNED SCREENED SCHEDULE 40 ELBOW. SEAL PIPE/WALL PENETRATION WEATHERTIGHT. REFER TO DETAIL ELSEWHERE.
12. PROVIDE NEW LOUVER/LINTEL. MODIFY EXISTING WALL OPENING TO ACCEPT NEW LOUVER AT SIMILAR LOCATION.
13. PROVIDE NEW CONNECTION TO EXISTING RETURN DUCTWORK. EXTEND TO NEW UV. RETURN AIR CONNECTION. VERIFY EXISTING OA./RA CONNECTION ORIENTATION PRIOR TO ORDERING.
14. PIPE SIZE INDICATED UP TO FLOOR BELOW. FOR CONTINUATION, REFER TO DRAWING M1.2H.
15. PROVIDE NEW CEILING MOUNTED HEATING/COOLING UNIT VENTILATOR AND ALL ASSOCIATED PIPING, VALVING, CONTROLS, HANGERS, SUPPORTS, ETC. FIELD VERIFY EXACT LOCATION IN NEW DROP CEILING. FIELD VERIFY OA/RA CONNECTION ORIENTAION PRIOR TO PURCHASE. CONNECT HW COIL TO EXISTING BUILDING HW LOOP AND NEW REFRIGERANT PIPING/ROOF MOUNTED ACCU. INSTALL PER UNIT MANUFACTURES REQUIREMENTS. REFER TO DETAILS
16. REFRIGERANT PIPING UP TO FLOOR ABOVE. FOR CONTINUATION, REFER TO DRAWING M1.2H.
17. 3/4" CONDENSATE DRAIN FROM UNIT ABOVE. DROP IN NEW PIPE ENCLOSURE AND EXIT WALL LOW. SEAL PIPE/WALL PENETRATION WEATHERTIGHT. TERMINATE WITH SCHEDULE 40 SCREENED ELBOW.
18. PROVIDE NEW CEILING MOUNTED HW/DX CEILING MOUNTED UNIT VENTILATOR IN SIMILAR LOCATION TO EXISTING. MODIFY EXISTING SUSPENDED CEILING/SOFFIT TO ACCEPT NEW UNIT AT SIMILAR LOCATION AS REQUIRED. PROVIDE ALL ASSOCIATED PIPING, VALVING, CONTROLS, HANGERS, SUPPORTS, ETC. FIELD VERIFY OA/RA CONNECTION ORIENTAION PRIOR TO PURCHASE. CONNECT HW COIL TO EXISTING BUILDING HW LOOP AND NEW REFRIGERANT PIPING/ROOF MOUNTED ACCU. INSTALL PER UNIT MANUFACTURES REQUIREMENTS. REFER TO DETAILS.
19. TRANSITION FROM EXISTING ROOF MOUNTED INTAKE HOOD TO NEW UV OUTDOOR AIR CONNECTION.
20. PROVIDE CONDENSATE PUMP. ROUTE PUMPED CONDENSATE UP THROUGH PIPE PORTAL AND TERMINATE WITH DOWN TURNED SCREENED SCHEDULE 40 PIPE.
21. PROVIDE CONDENSATE PUMP. ROUTE 3/4" PUMPED CONDENSATE TO JANITORS CLOSET MOP BASIN. FIELD VERIFY EXACT ROUTE.
22. DROP DOWN TO MOP BASIN. TERMINATE WITH INDIRECT CONNECTION. SUPPORT OF WALL WITH UNI-STRUT AT 4'-0" O.C. FIELD VERIFY EXACT ROUTE.
23. COORDINATE WITH ARCHITECTURAL FOR NEW WALL LOUVER THROUGH EXISTING POURED CONCRETE WALL. FIELD VERIFY EXACT ELEVATION, ABOVE GRADE AND BELOW TOP OF UNIT, 30".
24. PROVIDE 24x12 LINED TRANSFER SLEEVE THROUGH WALL ABOVE EXISTING LAY-IN CEILING. EXTEND SLEEVE MINIMUM OF 12" ON EACH SIDE OF WALL. FIELD VERIFY EXACT LOCATION. COVER OPEN ENDS WITH EXPANDED SHEET METAL SCREEN.
25. REMOVE EXISTING STARTERS AND PROVIDE NEW VARIABLE SPEED DRIVES FOR EXISTING HOT WATER SYSTEM PUMP/EXISTING HOT WATER SYSTEM STAND-BY PUMP. COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR. COORDINATE PROVISION AND LOCATION OF DIFFERENTIAL PRESSURE SENSORS WITH CONTROLS CONTRACTOR.
26. EXISTING GRILLES AND DUCTWORK TO REMAIN. BALANCE TO AIRFLOW RATE INDICATED.



LOWER LEVEL HVAC PLAN AREA "B"
SCALE: 1/8" = 1'-0"

North Project
North True



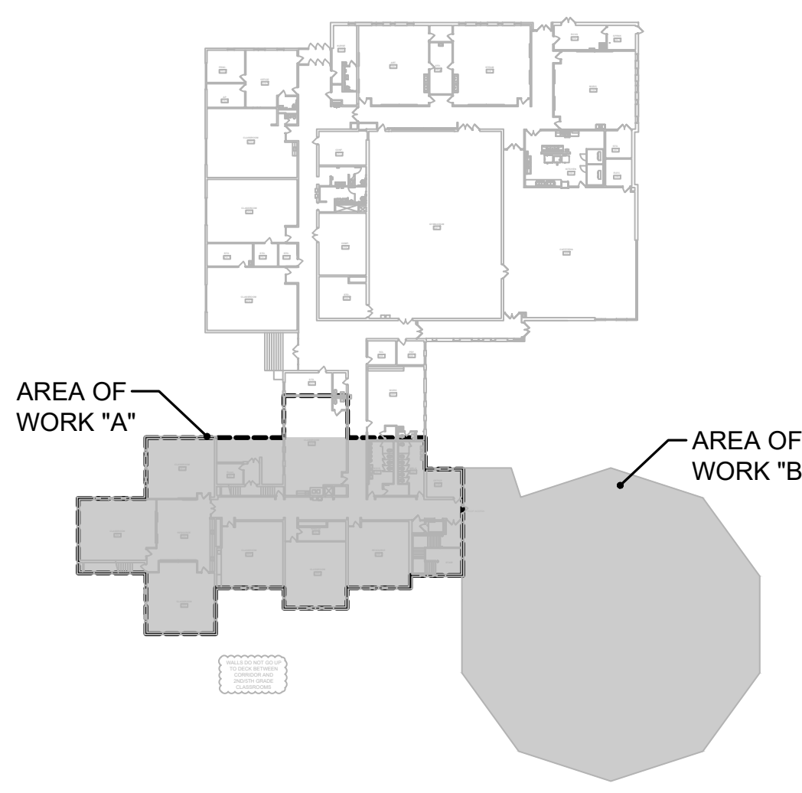
LOWER LEVEL HVAC PLAN AREA "A"
SCALE: 1/8" = 1'-0"

North Project
North True

CONTRACTOR TO REMOVE EXISTING PNEUMATIC / ELECTRIC CONTROL VALVES, ACTUATORS, WIRING, TUBING AND REPLACE WITH DDC CONTROL VALVES, ACTUATORS AND WIRING TO ALL NEW AND EXISTING EQUIPMENT. REMOVE EXISTING PNEUMATIC / ELECTRIC THERMOSTATS AND REPLACE WITH DDC SENSORS.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REMOVE AND REINSTALL PORTIONS OF THE CEILING TILE AND GRID (WHICH IS NOT INDICATED ON THE ARCHITECTURAL DRAWING) AS REQUIRED TO PERFORM WORK OF THIS TRADE.

ALL EXPOSED PIPING SHALL BE INSULATED PER SPECIFICATION AND COVERED WITH A PVC JACKET. ALL REFRIGERANT PIPING SHALL BE HARD DRAWN. SOFT COPPER LINE SETS ARE NOT ACCEPTABLE.



KEY PLAN
SCALE: NO SCALE

North Project
North True

Larson & Darby Group
Architecture Engineering Interiors

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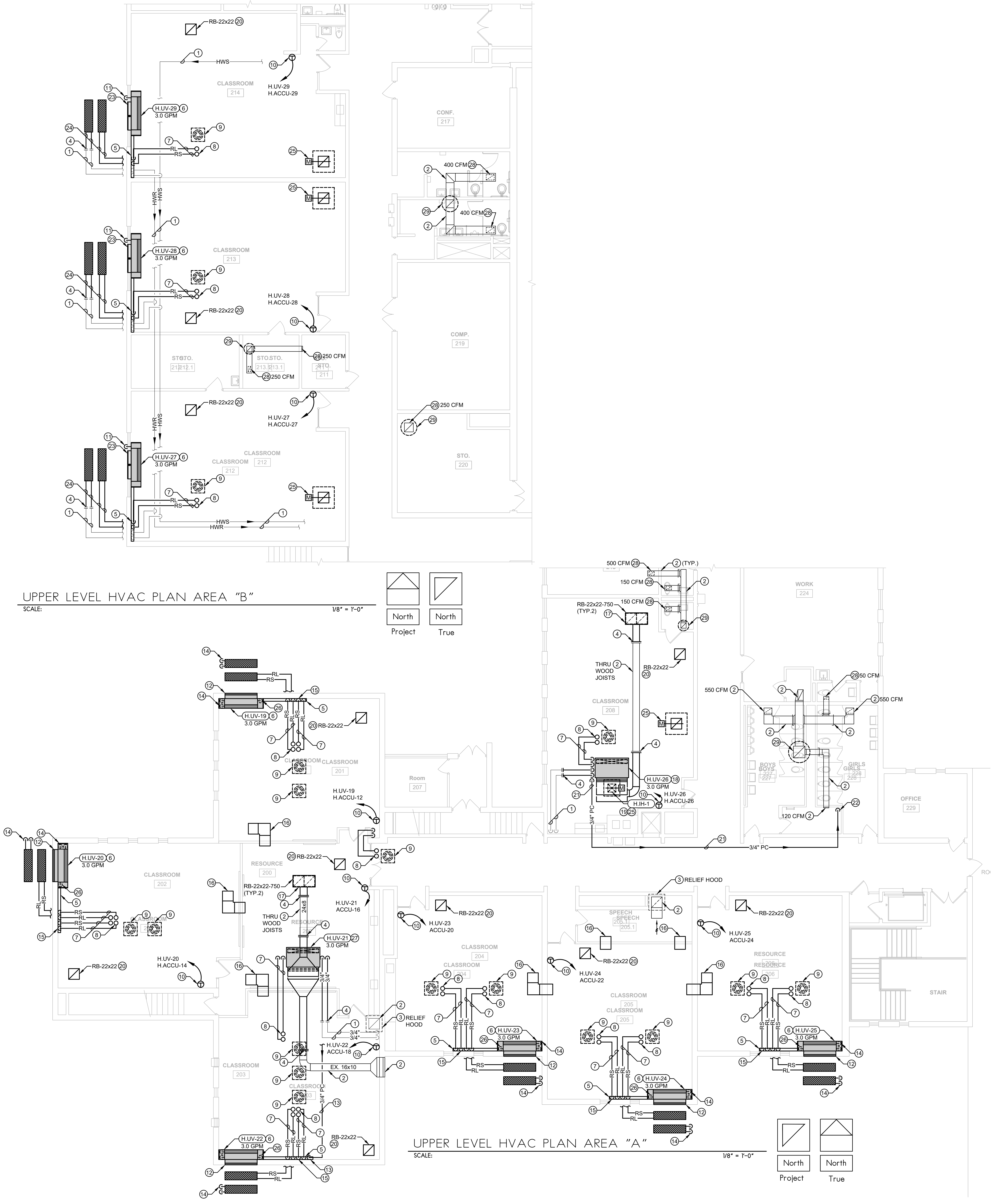
HILLMAN ELEMENTARY SCHOOL
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

ISSUED FOR:	DATE

DATE: 10-11-2022
PROJECT NUMBER
32103-01
SHEET NUMBER
M1.1H

FILE: F:\788-V-1\HV\HILLMAN\HILLMAN.DWG SAVED BY: HP5B DATE: 10/5/2022 TIME: 5:08 PM



UPPER LEVEL HVAC PLAN AREA "B"

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

UPPER LEVEL HVAC PLAN AREA "A"

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

HVAC DRAWING NOTES:

1. EXISTING PIPING AND VALVING TO REMAIN.
2. EXISTING DUCTWORK, DIFFUSERS, REGISTERS, AND GRILLES TO REMAIN.
3. EXISTING HVAC EQUIPMENT TO REMAIN.
4. PROVIDE NEW CONNECTION AT THIS LOCATION.
5. REFER TO ARCHITECTURAL PLANS FOR VERTICAL AND HORIZONTAL METAL PIPE ENCLOSURE PAINTED TO MATCH EXISTING WALLS TO COVER NEW HWS/R AND REFRIGERANT PIPING. PROVIDE WALL/PIPE MOUNTS EVERY 4'-0" O.C. USE CUSH-A-THERM STYLE MOUNTS ON DX PIPING TO ENSURE CONTINUOUS INSULATION PREVENTING MOISTURE.
6. PROVIDE NEW HEATING/COOLING UNIT VENTILATOR AND ALL ASSOCIATED PIPING, VALVING, CONTROLS, HANGERS, SUPPORTS, ETC. AT SIMILAR LOCATION TO PREVIOUSLY REMOVED UNIT. PREP/SMOOTH WALL. ANCHOR THE UNIT TO THE WALL TO CREATE AND AIR TIGHT SEAL. PROVIDE VALVING AS REQUIRED TO CONNECT HW COIL TO EXISTING BUILDING HW LOOP AND NEW REFRIGERANT PIPING/ROOF MOUNTED ACCU TO NEW FLOOR/CEILING MOUNTED UNIT VENTILATOR 'DX' COIL. INSTALL PER UNIT MANUFACTURES REQUIREMENTS. REFER TO DETAILS.
7. REFRIGERANT PIPING SIZED PER MANUFACTURER. FIELD VERIFY EXACT ROUTE BETWEEN UNIT DX COIL AND ROOF MOUNTED ACCU.
8. REFRIGERANT PIPING UP THROUGH PIPE PORTAL TO NEW ROOF MOUNTED AIR COOLED CONDENSING UNIT. REFER TO SPECIFICATION AND DETAIL.
9. NEW ROOF MOUNTED NEW (ACCU) AIR COOLED CONDENSING UNIT. REFER TO ROOF PLAN.
10. PROVIDE NEW DDC THERMOSTAT TO FUNCTION IN BOTH HEATING AND COOLING MODES OF OPERATION. REFER TO NEW SEQUENCE OF OPERATIONS.
11. 3/4" CONNECTION TO UNIT VENTILATOR DRAIN PAN, SLOPE TO EXTERIOR, TERMINATE WITH GAS PECK VENT. SEAL PIPE/WALL PENETRATION WEATHERTIGHT. REFER TO DETAIL ELSEWHERE.
12. PROVIDE NEW LOUVER/LINTEL. MODIFY EXISTING WALL OPENING TO ACCEPT NEW LOUVER AT SIMILAR LOCATION.
13. PROVIDE CONDENSATE PUMP. ROUTE 3/4" PUMPED CONDENSATE TO EXTERIOR WALL, DROP IN PIPE ENCLOSURE, EXIT LOWER LEVEL WALL LOW, TERMINATE WITH GAS PECK VENT, SEAL PIPE/WALL PENETRATION WEATHERTIGHT.
14. 1" HWS/R DOWN TO FLOOR BELOW. FOR CONTINUATION, REFER TO DRAWING XXX.
15. REFRIGERANT PIPING DOWN WALL IN PIPE ENCLOSURE TO FLOOR BELOW. FIELD VERIFY CORE LOCATION. FOR CONTINUATION, REFER TO DRAWING M1.1H.
16. PROVIDE 24X12 LINED TRANSFER SLEEVE THROUGH WALL ABOVE EXISTING LAY-IN CEILING. EXTEND SLEEVE MINIMUM OF 12" ON EACH SIDE OF WALL. FIELD VERIFY EXACT LOCATION. COVER OPEN ENDS WITH EXPANDED SHEET METAL SCREEN
17. PROVIDE 24x48x14 HIGH INSULATED PLENUM WITH SIDE CONNECTION TO ACCOMMODATE 20x10 RETURN AIR DUCT. FIELD VERIFY EXACT LOCATION WITH EXISTING LAY-IN CEILING.
18. PROVIDE NEW CEILING MOUNTED HW/DX CEILING MOUNTED UNIT VENTILATOR IN SIMILAR LOCATION TO EXISTING. MODIFY EXISTING SUSPENDED CEILING TO ACCEPT NEW UNIT AT SIMILAR LOCATION REQUIRED.
19. MODIFY EXISTING ROOF OPENING TO ACCEPT NEW HOOD/CURB AT SIMILAR LOCATION.
20. PROVIDE NEW CEILING RELIEF GRILLE OF SIZE INDICATED. FIELD VERIFY EXACT LOCATION IN EXISTING LAY-IN CEILING.
21. PROVIDE CONDENSATE PUMP. ROUTE 3/4" PUMPED CONDENSATE TO JANITORS CLOSET MOP BASIN. FIELD VERIFY EXACT ROUTE.
22. DROP DOWN TO MOP BASIN. TERMINATE WITH INDIRECT CONNECTION. SUPPORT OF WALL WITH UNI-STRUT AT 4'-0" O.C. FIELD VERIFY EXACT ROUTE.
23. PROVIDE NEW LOUVER(S) IN EXISTING WINDOW PANEL SYSTEM (2@30x12) VERIFY EXACT SIZE PRIOR TO PURCHASE.
24. MAKE NEW CONNECTION TO EXISTING HWS/R PIPING AND EXTEND TO NEW UNIT VENTILATOR COIL. ROUTE HWS/R, DX, CONTROLS AND POWER ON WALL. ROUTE REFRIGERANT PIPING THROUGH UNIT PIPE CHASE TO OPPOSITE HAND COIL CONNECTION.
25. PROVIDE LOW LEAK MOTOR OPERATED DAMPER TO OPEN/CLOSE WITH ON/OFF OPERATION OF UNIT VENTILATOR. 18x18 DUCT DOWN WITH EXPANDED SHEET METAL SCREEN OVER OPENING. FIELD VERIFY EXACT LOCATION.
26. 3/4" CONDENSATE DRAIN DOWN THROUGH FLOOR. REFER TO DRAWING M1.2H FOR CONTINUATION.
27. PROVIDE NEW CEILING MOUNTED HW/DX CEILING MOUNTED UNIT VENTILATOR MOUNTED UP WITHIN EXISTING WOOD STRUCTURE. FIELD VERIFY EXACT LOCATION WITHIN ROOM 200. MODIFY EXISTING SUSPENDED CEILING TO ACCEPT NEW UNIT. EXTEND EXISTING HWS/R PIPING AS REQUIRED.
28. EXISTING GRILLES AND DUCTWORK TO REMAIN. BALANCE TO AIRFLOW RATE INDICATED.
29. EXISTING EXHAUST RISER TO REMAIN. MODIFY TO CONNECT TO NEW FAN ON NEW TALLER CURB.

CONTRACTOR TO REMOVE EXISTING PNEUMATIC / ELECTRIC CONTROL VALVES, ACTUATORS, WIRING, TUBING AND REPLACE WITH DDC CONTROL VALVES, ACTUATORS AND WIRING TO ALL NEW AND EXISTING EQUIPMENT. REMOVE EXISTING PNEUMATIC / ELECTRIC THERMOSTATS AND REPLACE WITH DDC SENSORS.

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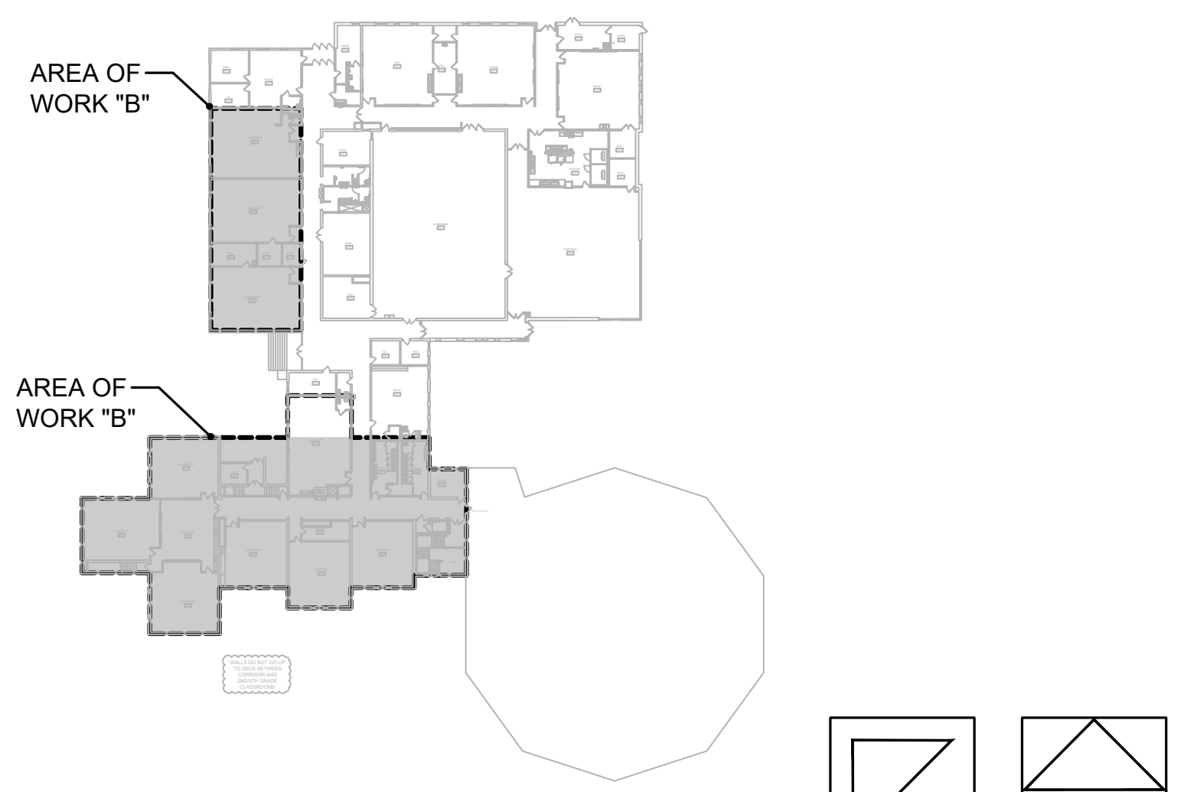

KEY PLAN

SCALE: NO SCALE

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Larson & Darby Group
Architecture Engineering Interiors

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HILLMAN ELEMENTARY SCHOOL
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

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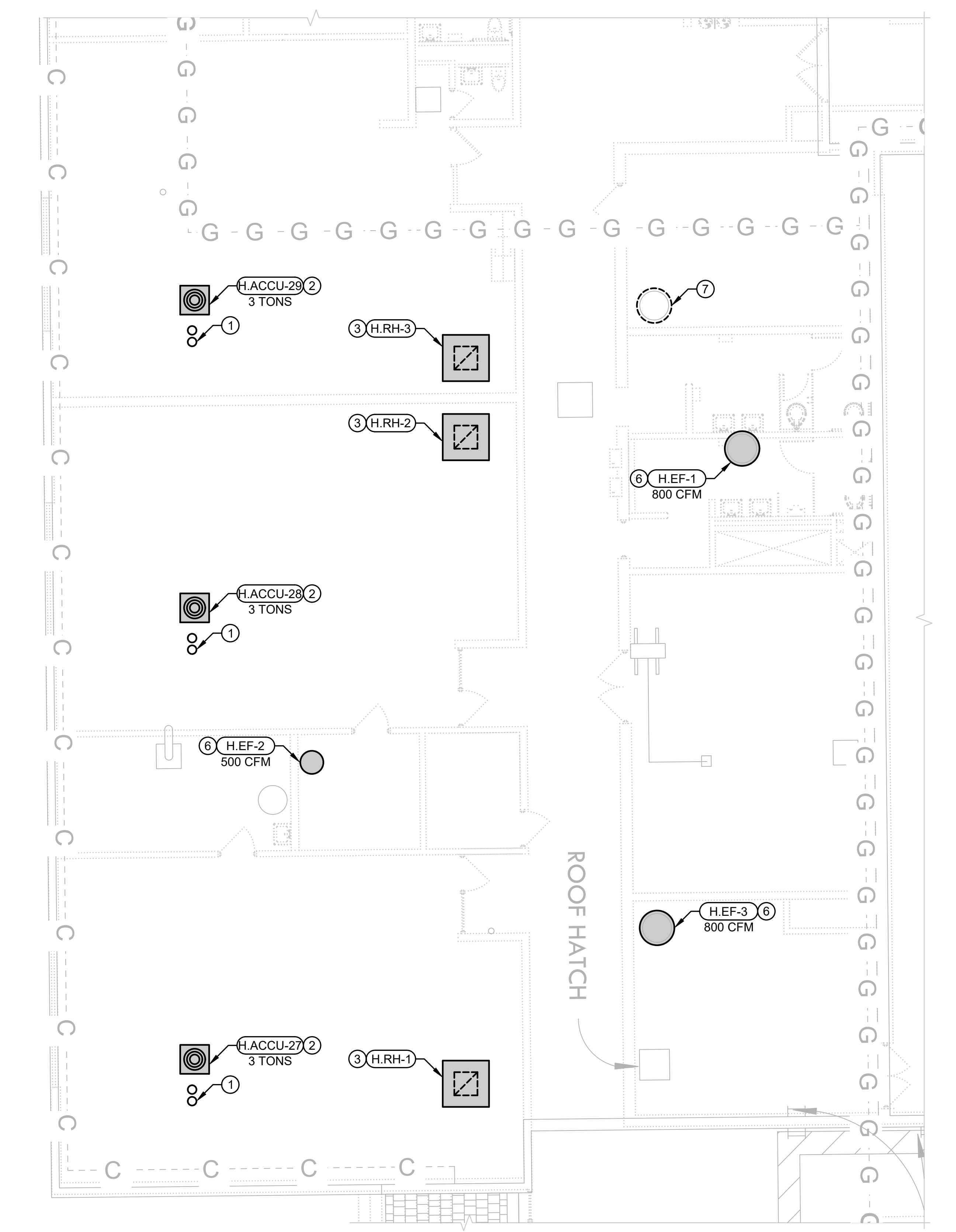
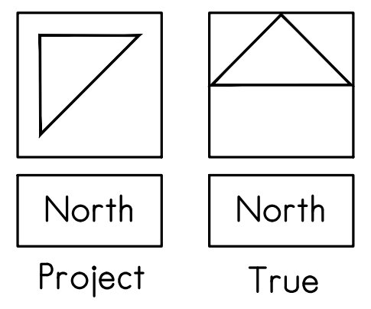


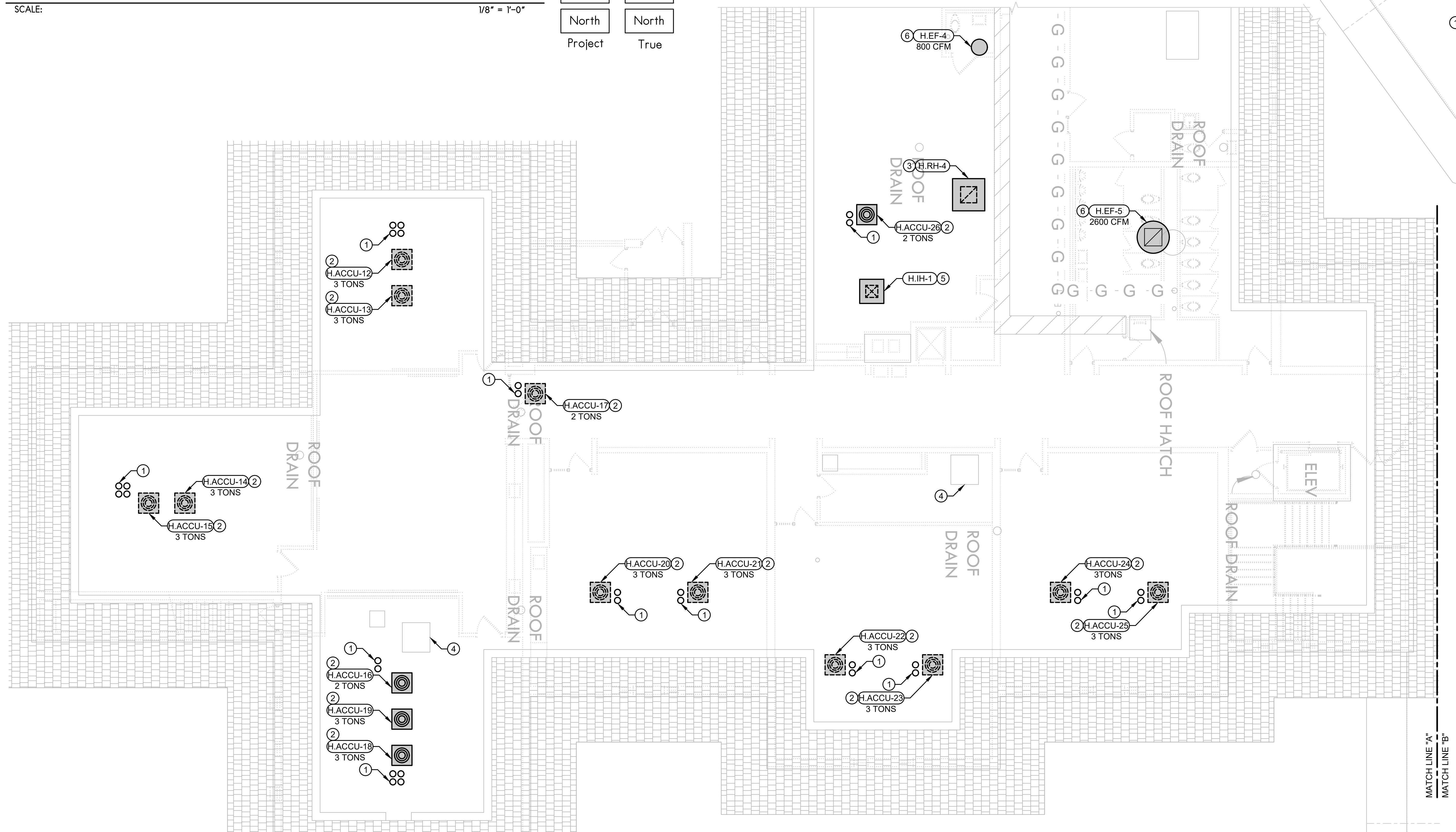
ROOF HVAC PLAN

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



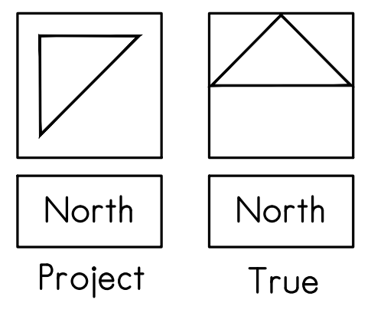
HVAC DRAWING NOTES:

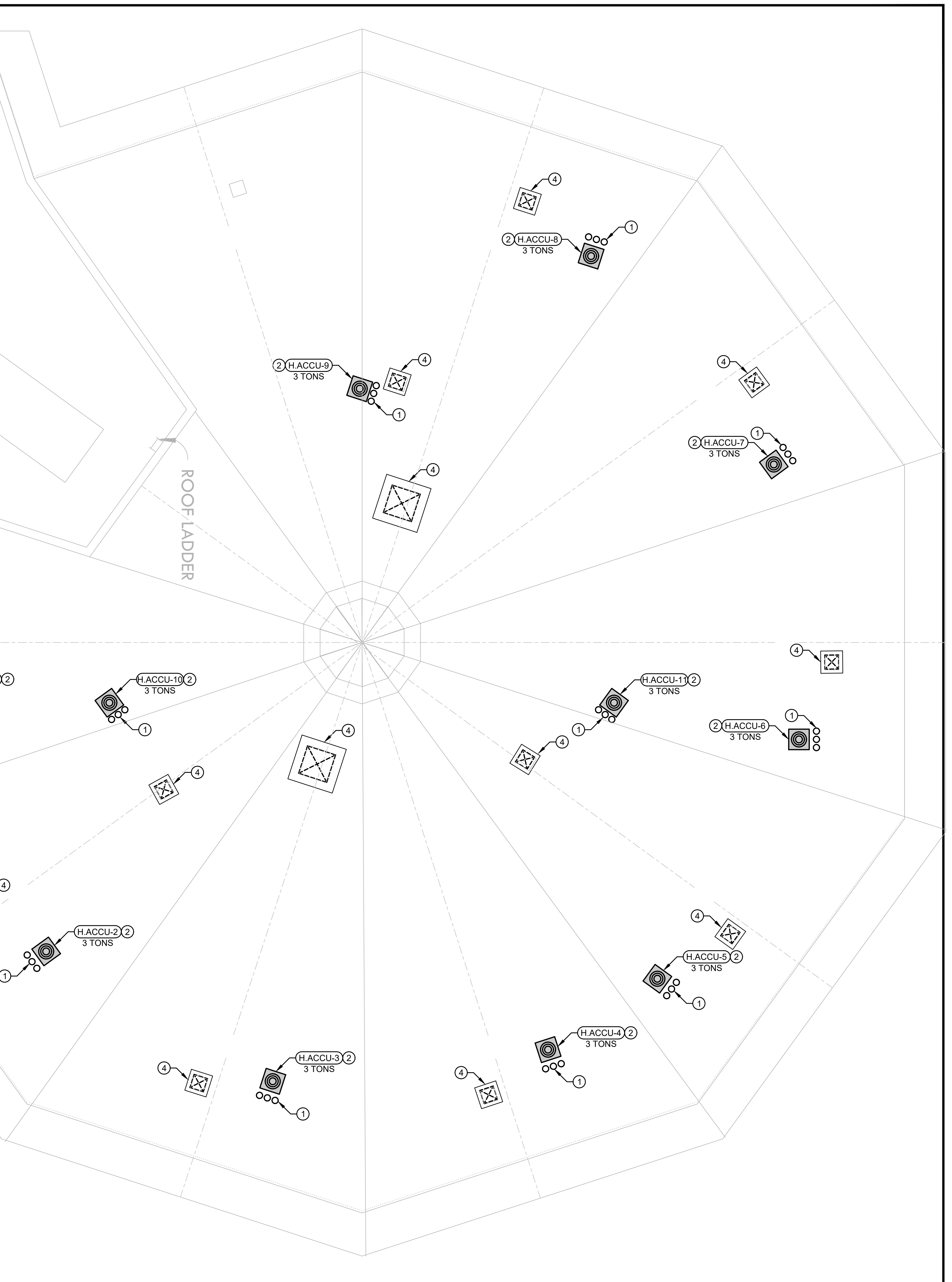
1. REFRIGERANT PIPING SIZED PER MANUFACTURER. ROUTE REFRIGERANT PIPING DOWN IN PIPE PORTAL . REFER TO DETAIL AND SPECIFICATIONS. SLOPE PORTAL TO MATCH EXISTING ROOF SLOPE.
2. PROVIDE NEW (ACCU) AIR COOLED CONDENSING UNIT ON NON-PENETRATING EQUIPMENT PLATFORM. FIELD VERIFY EXACT LOCATION. MOUNT A MINIMUM OF 10'-0" FROM ROOF EDGE. REFER TO DETAILS AND SCHEDULE.
3. PROVIDE RELIEF HOOD WITH COUNTER BALANCED BACK DRAFT DAMPER. 18x18 DUCT DOWN WITH EXPANDED SHEET METAL SCREEN OVER OPENING. COORDINATE FINAL LOCATION WITH ARCHITECT. PROVIDE ROOF CURB TO MATCH SLOPE OF EXISTING ROOF. REFER TO UPPER LEVEL PLAN FOR CONTINUATION.
4. EXISTING TIERED INTAKE/RELIEF HOOD TO REMAIN.
5. PROVIDE INTAKE HOOD AT SIMILAR LOCATION AS PREVIOUS. MODIFY ROOF OPENING AS REQUIRED. 18X18 DUCT DOWN CONNECTING TO NEW SUSPENDED UNITE VENTILATOR OUTDOOR AIR CONNECTION. COORDINATE FINAL LOCATION WITH ARCHITECT. PROVIDE ROOF CURB TO MATCH SLOPE OF EXISTING ROOF. REFER TO UPPER LEVEL PLAN FOR CONTINUATION.
6. PROVIDE NEW CURB AND NEW EXHAUST FAN AT SIMILAR LOCATION TO EXISTING . MODIFY DUCT RISER AS NEEDED. CONNECT TO EXISTING DDC SYSTEM. REFER TO DETAILS AND SPECIFICATIONS. UTILIZE DISTRICTS ROOFING CONTRACTOR TO PRESERVE EXISTING ROOFING WARRANTY IF ONE STILL REMAINS.
7. REMOVE ALL ABANDONED EXHAUST FAN, ALL DUCTWORK, HANGERS, CONTROLS, DAMPERS, GRILLES, POWER, ETC. FROM OLD KITCHEN EXHAUST.



ROOF HVAC PLAN AREA "A"

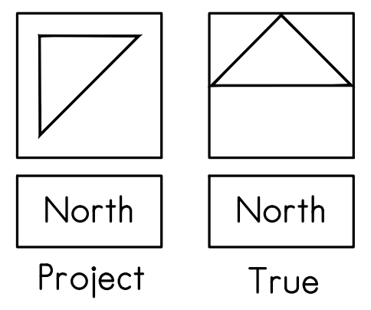
SCALE: 1/8" = 1'-0"





ROOF HVAC PLAN AREA "B"

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



CONTRACTOR TO REMOVE EXISTING PNEUMATIC / ELECTRIC CONTROL VALVES, ACTUATORS, WIRING, TUBING AND REPLACE WITH DDC CONTROL VALVES, ACTUATORS AND WIRING TO ALL NEW AND EXISTING EQUIPMENT. REMOVE EXISTING PNEUMATIC / ELECTRIC THERMOSTATS AND REPLACE WITH DDC SENSORS.

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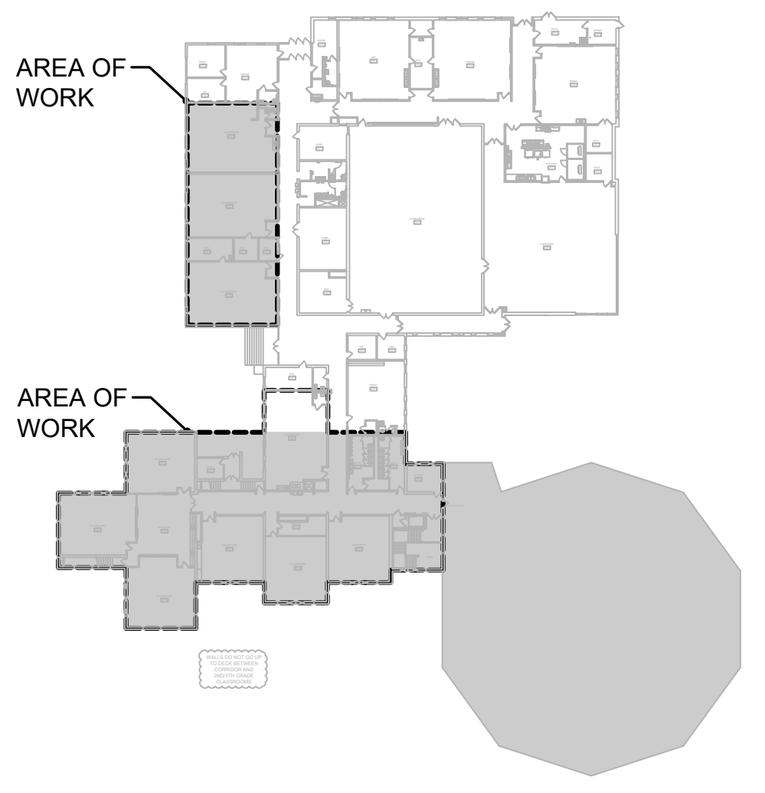
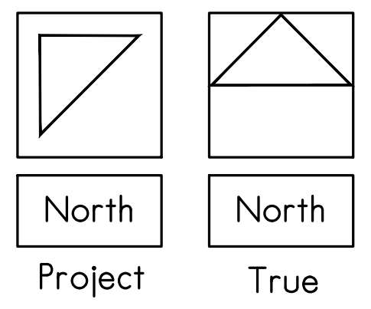


KEY PLAN

SCALE: NO SCALE



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ISSUED FOR:	DATE

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M1.3H

AIR COOLED CONDENSING UNIT SCHEDULE

EQUIPMENT TAG	SCHOOL LOCATION	UNIT SERVED AREA SERVED	MANUFACTURER	MODEL	SEER	HEAT REJECTION (MBH)	WEIGHT (LBS)	COMPRESSORS					FANS							ELECTRICAL DATA				NOTES
								QUANTITY	SIZE EACH (TONS)	CAPACITY STEPS	SST (°F)	REF. TYPE	EAT (°F)	QUANTITY	DIAMETER	TYPE	HP (ea.)	RPM	SP (IN)	MCA	MOCP	PHASE	VOLT	
G.ACCU-1	GREGORY ROOF	EX.UV/NEW DX COIL CLRM. 108	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,8
G.ACCU-2	GREGORY ROOF	EX.UV/NEW DX COIL CLRM. 110	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,8
G.ACCU-3	GREGORY ROOF	EX.UV/NEW DX COIL CLRM. 116	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,8
G.ACCU-4	GREGORY ROOF	EX.UV/NEW DX COIL CLRM. 118	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,8
G.ACCU-5	GREGORY ROOF	EX. UV/NEW DX COIL CLRM. 113	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,8
G.ACCU-6	GREGORY ROOF	EX.UV/NEW DX COIL CLRM. 115	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,8
G.ACCU-7	GREGORY ROOF	EX.UV/NEW DX COIL LOUNGE 117	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,8
G.ACCU-8	GREGORY ROOF	G.UV-1 CLASSROOM 161	DAIKIN	DX16TC0241	16.0	23.0	180	1	2	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	13.6	20	1	208	1-4,7
G.ACCU-9	GREGORY ROOF	G.UV-2 ART ROOM 163	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-1	HILLMAN ROOF	H.UV-8 CLSRM 111	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-2	HILLMAN ROOF	H.UV-9 CLSRM 112	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-3	HILLMAN ROOF	H.UV-10 CLSRM 113	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-4	HILLMAN ROOF	H.UV-11 CLSRM 114	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-5	HILLMAN ROOF	H.UV-12 CLSRM 115	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-6	HILLMAN ROOF	H.UV-13 CLSRM 116	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-7	HILLMAN ROOF	H.UV-14 CLSRM 117	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-8	HILLMAN ROOF	H.UV-15 CLSRM 118	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-9	HILLMAN ROOF	H.UV-16 RESOURCE 121	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-10	HILLMAN ROOF	H.UV-17 RESOURCE 121	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-11	HILLMAN ROOF	H.UV-18 RESOURCE 121	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-12	HILLMAN ROOF	H.UV-19 CLRM. 201	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-13	HILLMAN ROOF	H.UV-1 CLSRM. 101	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-14	HILLMAN ROOF	H.UV-20 CLRM. 202	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-15	HILLMAN ROOF	H.UV-2 CLSRM. 102	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-16	HILLMAN ROOF	H.UV-21 CLRM. 200	DAIKIN	DX16TC0241	16.0	23.0	180	1	2	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	13.6	20	1	208	1-4,7
H.ACCU-17	HILLMAN ROOF	H.UV-3 CLSRM. 100	DAIKIN	DX16TC0241	16.0	23.0	180	1	2	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	13.6	20	1	208	1-4,7
H.ACCU-18	HILLMAN ROOF	H.UV-22 CLRM. 203	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-19	HILLMAN ROOF	H.UV-4 CLSRM. 103	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-20	HILLMAN ROOF	H.UV-23 CLRM. 204	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-21	HILLMAN ROOF	H.UV-5 CLSRM. 104	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-22	HILLMAN ROOF	H.UV-24 CLRM. 205	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-23	HILLMAN ROOF	H.UV-6 CLSRM. 105	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-24	HILLMAN ROOF	H.UV-25 CLRM. 206	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-25	HILLMAN ROOF	H.UV-7 CLSRM. 106	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-VARIABLE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-26	HILLMAN ROOF	H.UV-26 CLSRM. 106	DAIKIN	DX16TC0241	16.0	23.0	180	1	2	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	13.6	20	1	208	1-4,7
H.ACCU-27	HILLMAN ROOF	H.UV-27 CLSRM. 212	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-VARIABLE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-28	HILLMAN ROOF	H.UV-28 CLSRM. 213	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-VARIABLE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
H.ACCU-29	HILLMAN ROOF	H.UV-29 CLSRM. 214	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-VARIABLE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-1	McINTOSH ROOF	CLASSROOM 12	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-2	McINTOSH ROOF	CLASSROOM 11	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-3	McINTOSH ROOF	CLASSROOM 10	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-4	McINTOSH ROOF	CLASSROOM 9	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-5	McINTOSH ROOF	CLASSROOM 8	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-6	McINTOSH ROOF	CLASSROOM 7	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-7	McINTOSH ROOF	CLASSROOM 6	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-8	McINTOSH ROOF	CLASSROOM 5	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-9	McINTOSH ROOF	CLASSROOM 4	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-10	McINTOSH ROOF	CLASSROOM 3	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-11	McINTOSH ROOF	CLASSROOM 2	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-12	McINTOSH ROOF	CLASSROOM 1	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-13	McINTOSH ROOF	EX.M.RTU-1 CLSRM. POD	AAON	CFA-013-B-A-8 DA00L	12.8 EER	141.8	1122	1	13 TOTAL	VAR. CAP. SCROLL	45.0	R410A	95.0	2	22	PROP	1/6	--	--	60	80	3	208	1-6,8
M.ACCU-14	McINTOSH ROOF	EX.M.RTU-2 CLSRM. POD	AAON	CFA-013-B-A-8 DA00L	12.8 EER	141.8	1122	1	13 TOTAL	VAR. CAP. SCROLL	45.0	R410A	95.0	2	22	PROP	1/6	--	--	60	80	3	208	1-6,8
M.ACCU-15	McINTOSH ROOF	EX.M.RTU-3 CLSRM. POD	AAON	CFA-013-B-A-8 DA00L	12.8 EER	141.8	1122	1	13 TOTAL	VAR. CAP. SCROLL	45.0	R410A	95.0	2	22	PROP	1/6	--	--	60	80	3	208	1-6,8
M.ACCU-16	McINTOSH ROOF	AU/STAR 24	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
M.ACCU-17	McINTOSH ROOF	AU/STAR 23	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
N.ACCU-1	NASHOLD ROOF	N.UV-1 MOTOR ROOM	DAIKIN	DX16TC0361	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
N.ACCU-2	NASHOLD ROOF	N.UV-2 SPEECH OFFICE	DAIKIN	DX16TC0241	16.0	23.0	180	1	2	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	13.6	20	1	208	1-4,7
N.ACCU-3	NASHOLD ROOF	N.UV-3 RESOURCE	DAIKIN	DX16TC0241	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
N.ACCU-4	NASHOLD ROOF	N.UV-4 MULTIPURPOSE	DAIKIN	DX16TC0241	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7
N.ACCU-5	NASHOLD ROOF	N.UV-5 MULTIPURPOSE	DAIKIN	DX16TC0241	16.0	34.0	201	1	3	2-STAGE SCROLL	45.0	R410A	95.0	1	22	PROP	1/6	--	--	19.7	30	1	208	1-4,7

NOTES:
1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECIFICATIONS.
2. PROVIDE MINIMUM 18" HIGH MIRO STRUCTURAL ROOF SUPPORT PLATFORMS WITH VIBRATION ISOLATION PADS. REFER TO DETAIL ELSEWHERE.
3. PROVIDE ANTI-SHORT CYCLE TIMER.
4. PROVIDE STEAL LOUVER COIL GUARDS.
5. HEAD PRESSURE CONTROL.
6. ECM CONDENSER FAN.
7. THE UNIT VENTILATOR MANUFACTURER SHALL MATCH THE DX COIL TO THE CONDENSING UNIT TO PRODUCE THE REQUIRED CAPACITY.
8. AIR COOLED CONDENSER MANUFACTURER TO MATCH EXISTING RTU AND/OR UNIT VENTILATOR 'DX' COIL TO PRODUCE REQUIRED CAPACITY.

INTAKE/RELIEF HOOD SCHEDULE

EQUIPMENT TAG	SCHOOL LOCATION	SERVICE	MANUFACTURER	MODEL/ SERIES NUMBER	TYPE	CFM	NUMBER OF TIERS	THROAT SIZE (IN. x IN.)	HOOD FREE AREA (SQ. FT.)	MAX. THROAT VELOCITY (FPM)	STATIC PRESSURE (IN. W.G.)	NOTES
G.RH-1	GREGORY ROOF	EX.UV CLRM. 110	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
G.RH-2	GREGORY ROOF	EX.UV CLRM. 116	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
G.RH-3	GREGORY ROOF	EX.UV CLRM. 118	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
G.RH-4	GREGORY ROOF	EX.UV CLRM. 113	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
G.RH-5	GREGORY ROOF	EX.UV CLRM. 115	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
G.RH-6	GREGORY ROOF	EX.UV CLRM. 117	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
G.RH-7	GREGORY ROOF	EX.UV ART RM. 163	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
G.RH-8	GREGORY ROOF	EX.UV CLRM. 161	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
H.RH-1	HILLMAN ROOF	H.UV-26 CLSRM. 212	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
H.RH-2	HILLMAN ROOF	H.UV-27 CLSRM. 213	GREENHECK	FABRA HOOD FHR	RELIEF	750	--	18x18	4.5	667	0.12	1-6
H.RH-3	HILLMAN ROOF	H.UV-28 CLSRM. 214	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
H.RH-1	HILLMAN ROOF	H.UV-28 CLSRM. 214	GREENHECK	FABRA HOOD FHI	INTAKE	1000	--	18x18	4.5	445	0.12	1-6
M.RH-1	MCINTOSH ROOF	M.UV-1 CLSRM. 12	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
M.RH-2	MCINTOSH ROOF	M.UV-2 CLSRM. 11	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
M.RH-3	MCINTOSH ROOF	M.UV-3 CLSRM. 10	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
M.RH-4	MCINTOSH ROOF	M.UV-4 CLSRM. 9	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
M.RH-5	MCINTOSH ROOF	M.UV-5 CLSRM. 8	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
M.RH-6	MCINTOSH ROOF	M.UV-6 CLSRM. 7	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
M.RH-7	MCINTOSH ROOF	M.UV-7 CLSRM. 6	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
M.RH-8	MCINTOSH ROOF	M.UV-8 CLSRM. 5	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
M.RH-9	MCINTOSH ROOF	M.UV-9 CLSRM. 4	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
M.RH-10	MCINTOSH ROOF	M.UV-10 CLSRM. 3	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
M.RH-11	MCINTOSH ROOF	M.UV-11 CLSRM. 2	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
M.RH-12	MCINTOSH ROOF	M.UV-12 CLSRM. 1	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
M.RH-13	MCINTOSH ROOF	M.UV-13 CLSRM. 22	GREENHECK	FABRA HOOD FHR	RELIEF	1400	--	18x18	4.5	622	0.093	1-6
N.RH-1	NASHOLD ROOF	N.UV-X MOTOR ROOM	GREENHECK	FABRA HOOD FHR	RELIEF	1500	--	18x18	4.5	667	0.12	1-6
N.RH-1	NASHOLD ROOF	N.UV-X SPEECH	GREENHECK	FABRA HOOD FHR	RELIEF	750	--	18x18	4.5	667	0.12	1-6
M.IH-1	MCINTOSH ROOF	M.UV-13 CLSRM. 22	GREENHECK	FABRA HOOD FHI	INTAKE	1400	--	30x12	5.0	560	0.074	1-6

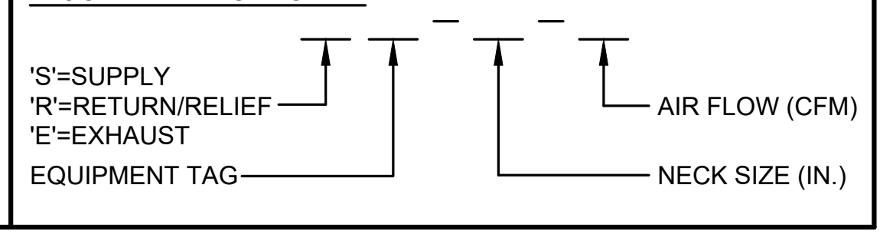
NOTES:
1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECIFICATIONS.
2. PROVIDE PREFABRICATED, INSULATED ROOF CURB, MINIMUM 18" HIGH.
3. PROVIDE GALVANIZED BIRD SCREEN.
4. PROVIDE BALANCING DAMPER.
5. COORDINATE INSTALLATION OF FIELD INSTALLED LOW LEAKAGE DAMPER AND CONTROLLER. BAS TO DAMPER DURING OCCUPIED/UN-OCCUPIED OPERATION THROUGH BAS.
6. COORDINATE VOLTAGE WITH TC.

DIFFUSER, GRILLE AND REGISTER SCHEDULE

EQUIPMENT TAG	MANUFACTURER	MODEL	TYPE	NOMINAL FACE SIZE	MATERIAL	MAX. N.C.	NOTES
A	TITUS	OMNI	SQUARE PANEL FACE	24"x24"	STEEL	30	1,2,3
B	TITUS	45F	EGGCRATE SIGHTPROOF	24"x24"	ALUMINUM	30	1,2,3,4
C	TITUS	300F	DOUBLE DEFLECTION REGISTER	VARIES	ALUMINUM	30	1,2,3
D	TITUS	350F	35° DEFLECTION REGISTER	VARIES	ALUMINUM	30	1,2,3

NOTES:
1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECIFICATIONS.
2. OFF-WHITE BAKED ENAMEL FINISH.
3. MATCH FRAME TYPE TO WALL/CEILING TYPE.
4. 1/2"x1/2"x1" GRID.

FLOOR PLAN TAG LEGEND:



DUCT FREE SPLIT SYSTEM SCHEDULE

EQUIPMENT TAG	SCHOOL LOCATION	AREA SERVED	MANUFACTURER	CAPACITY (MBH)		INDOOR UNIT																		OUTSIDE UNIT												CONDENSATE PUMP	NOTES
						MODEL	TYPE	DIMENSIONS			AIRFLOW				FAN MOTOR			FILTERS		ELECTRICAL DATA				MODEL	COMPRESSOR			FAN				ELECTRICAL DATA					
				TOTAL	SENS.			H	W	D	TOTAL CFM	O.A. CFM	EAT. D.B.	EAT. W.B.	WATTS	PHASE	VOLTS	TYPE	AREA (SQ. FT.)	MCA	MOCP	PHASE	VOLTS		SIZE (TONS)	SST (°F)	REF. TYPE	EAT (°F)	DIA.	WATTS	RPM	MCA	MOCP	PHASE	VOLTS		
G.DFSS-1	GREGORY SPEACH 121	SPEACH 121	MITSUBISHI	11,502	9,516	PKA-A12HA7	WALL MOUNTED	12	35	10	425	0	80.0° F	67.0° F	30	1	208	CLEANABLE	--	N/A	N/A	1	208	PUY-A12NKA7	1	45.0	R410A	95.0	20"	46	--	11	28	208	1	YES	1,2,3,4,5,6,7

NOTES:
1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECIFICATIONS.
2. PROVIDE: WIRED THERMOSTAT, DRAIN PAN HIGH LEVEL SWITCH, DISCONNECT SWITCH, AND ADVANCED WIND BAFFLE KIT FOR COOLING DOWN TO -20°F.
3. PRIOR TO ORDERING, FIELD VERIFY VOLTAGE AND PHASE.
4. PROVIDE POWER CONNECTION TO OUTDOOR UNIT. DASIY CHAIN POWER TO INDOOR UNIT. ELECTRICAL CONTRACTOR SHALL PROVIDE CIRCUIT BREAKER. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
5. PROVIDE 18" HIGH NON-PENETRATING PLATFORM.
6. PROVIDE WITH EXTRA SET OF WASHABLE FILTERS.
7. PROVIDE MANUFACTURERS CONDENSATE PUMP MOUNTED WITHIN UNIT SHROUD AND PIPE ENCLOSURE TO CONCEAL REFRIGERANT, POWER, CONTROL AND CONDENSATE PIPING.

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Larson & Darby Group
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MECHANICAL SCHEDULES
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

ISSUED FOR:	DATE

DATE: 10-11-2022
PROJECT NUMBER
32103-00
SHEET NUMBER
M3.0

UNIT VENTILATOR SCHEDULE (UNDER WINDOW/SUSPENDED)

GENERAL															HOT WATER/STEAM HEATING COIL								'DX' COOLING COIL					WALL LOUVER			CONTROLS	FILTERS				ELECTRICAL DATA				
								UNIT VENTILATOR CABINET					AIR ARRANGEMENT																											
EQUIPMENT TAG	SCHOOL LOCATION	AREA SERVED	MANUFACTURER	MODEL NO.	NOMINAL CFM	OPERATING CFM MEDIUM	O.A. CFM	TYPE	WIDTH (IN.)	DEPTH (IN.)	HEIGHT (IN.)	CABINET ACCESSORIES	RETURN AIR	DISCHARGE	COIL CONN.	ROWS	PD. (FT.)	FLOW (GPM)	EWT (°F)	EAT(°F)	LAT(°F)	CAP. (MBH)	COIL CONN.	NOMINAL TONS	CAP (MBH)	EAT(°F) (DB/WB)	LAT(°F) (DB/WB)	SIZE (IN.)	BLADES	DEC. GRILLE	DAMPER	TYPE	SIZE	EXTRA SET	SUPPLY FAN QTY. @ HP	MCA	MOCP	PHASE	VOLTS	NOTES
G.UV-1	GREGORY CLSRM 161	CLASSROOM 161	DAIKIN	UAVS9S13	1250	1100	310	FLOOR	112	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.3	4.0	180	50.0	114.0	80.4	NOTE 6	2.0	24.0	80/67	55.2/55.3	60x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	1 @ 10x60.5	YES	1@ 1/4	3.9	15	1	120	1-14
G.UV-2	GREGORY ART RM. 163	ART ROOM 163	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-14
H.UV-1	HILLMAN CLSRM 101	CLASSROOM 101	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-14
H.UV-2	HILLMAN CLSRM 102	CLASSROOM 102	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-14
H.UV-3	HILLMAN CLSRM 100	CLASSROOM 100	DAIKIN	UAHF9V10	1000	890	250	CLG.	76	36	16	DISCHARGE AIR DOUBLE DEF. GRILLE - FRONT	REAR	FRONT	NOTE 6	2	1.9	3.0	180	50.0	109.0	64.0	NOTE 6	2.0	24.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-4	HILLMAN CLSRM 103	CLASSROOM 103	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-14
H.UV-5	HILLMAN CLSRM 104	CLASSROOM 104	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-14
H.UV-6	HILLMAN CLSRM 105	CLASSROOM 105	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-14
H.UV-7	HILLMAN CLSRM 106	CLASSROOM 106	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-14
H.UV-8	HILLMAN CLSRM 111	CLASSROOM 111	DAIKIN	UAHF9V15	1500	1113	375	CLG.	98	40	16	DISCHARGE AIR DOUBLE DEF. GRILLE - BOTOM	REAR BOTTOM	BOTTOM	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-9	HILLMAN CLSRM 112	CLASSROOM 112	DAIKIN	UAHF9V15	1500	1113	375	CLG.	98	40	16	DISCHARGE AIR DOUBLE DEF. GRILLE - BOTOM	REAR BOTTOM	BOTTOM	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-10	HILLMAN CLSRM 113	CLASSROOM 113	DAIKIN	UAHF9V15	1500	1113	375	CLG.	98	40	16	DISCHARGE AIR DOUBLE DEF. GRILLE - BOTOM	REAR BOTTOM	BOTTOM	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-11	HILLMAN CLSRM 114	CLASSROOM 114	DAIKIN	UAHF9V15	1500	1113	375	CLG.	98	40	16	DISCHARGE AIR DOUBLE DEF. GRILLE - BOTOM	REAR BOTTOM	BOTTOM	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-12	HILLMAN CLSRM 115	CLASSROOM 115	DAIKIN	UAHF9V15	1500	1113	375	CLG.	98	40	16	DISCHARGE AIR DOUBLE DEF. GRILLE - BOTOM	REAR BOTTOM	BOTTOM	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-13	HILLMAN CLSRM 116	CLASSROOM 116	DAIKIN	UAHF9V15	1500	1113	375	CLG.	98	40	16	DISCHARGE AIR DOUBLE DEF. GRILLE - BOTOM	REAR BOTTOM	BOTTOM	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-14	HILLMAN CLSRM 117	CLASSROOM 117	DAIKIN	UAHF9V15	1500	1113	375	CLG.	98	40	16	DISCHARGE AIR DOUBLE DEF. GRILLE - BOTOM	REAR BOTTOM	BOTTOM	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-15	HILLMAN CLSRM 118	CLASSROOM 118	DAIKIN	UAHF9V15	1500	1113	375	CLG.	98	36	16	DISCHARGE AIR DOUBLE DEF. GRILLE - BOTOM	REAR BOTTOM	BOTTOM	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-16	HILLMAN RES. 121	RESOURCE 121	DAIKIN	UAHF9V15	1500	1113	375	CLG.	98	36	16	DISCHARGE AIR DOUBLE DEF. GRILLE - FRONT	REAR BOTTOM	FRONT	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-17	HILLMAN RES. 121	RESOURCE 121	DAIKIN	UAHF9V15	1500	1113	375	CLG.	98	36	16	DISCHARGE AIR DOUBLE DEF. GRILLE - FRONT	REAR BOTTOM	BOTTOM	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-18	HILLMAN RES. 121	RESOURCE 121	DAIKIN	UAHF9V15	1500	1113	375	CLG.	98	40	16	DISCHARGE AIR DOUBLE DEF. GRILLE - FRONT	REAR BOTTOM	BOTTOM	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-19	HILLMAN CLSRM 201	CLASSROOM 201	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
H.UV-20	HILLMAN CLSRM 202	CLASSROOM 202	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
H.UV-21	HILLMAN CLSRM 200	CLASSROOM 200	DAIKIN	UAHF9S10	1000	920	250	CLG.	76	40	16	DISCHARGE AIR DOUBLE DEF. GRILLE - BOTOM	BOTTOM FRONT	TOP	NOTE 6	2	1.9	3.0	180	50.0	109.0	64.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-22	HILLMAN CLSRM 203	CLASSROOM 203	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	REAR BOTTOM	BOTTOM	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
H.UV-23	HILLMAN CLSRM 204	CLASSROOM 204	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
H.UV-24	HILLMAN CLSRM 205	CLASSROOM 205	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
H.UV-25	HILLMAN CLSRM 206	CLASSROOM 206	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
H.UV-26	HILLMAN CLSRM 206	CLASSROOM 208	DAIKIN	UAHF9V10	1000	920	250	CLG.	76	40	16	DISCHARGE AIR DOUBLE DEF. GRILLE - BOTOM	REAR BOTTOM	BOTTOM	NOTE 6	2	1.9	3.0	180	50.0	109.0	64.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8		YES	1@ 1/4	3.9	15	1	120	1-13,15
H.UV-27	HILLMAN CLSRM 212	CLASSROOM 212	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (1) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	2@30x12	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,16
H.UV-28	HILLMAN CLSRM 213	CLASSROOM 213	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (1) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	2@30x12	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,16
H.UV-29	HILLMAN CLSRM 214	CLASSROOM 214	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	100	22	30	(2) 1" END PANELS (1) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	2@30x12	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13,16
M.UV-1	MCINTOSH CLSRM 12	CLASSROOM 12	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
M.UV-2	MCINTOSH CLSRM 11	CLASSROOM 11	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
M.UV-3	MCINTOSH CLSRM 10	CLASSROOM 10	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
M.UV-4	MCINTOSH CLSRM 9	CLASSROOM 9	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
M.UV-5	MCINTOSH CLSRM 8	CLASSROOM 8	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
M.UV-6	MCINTOSH CLSRM 7	CLASSROOM 7	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
M.UV-7	MCINTOSH CLSRM 6	CLASSROOM 6	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
M.UV-8	MCINTOSH CLSRM 5	CLASSROOM 5	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
M.UV-9	MCINTOSH CLSRM 4	CLASSROOM 4	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
M.UV-10	MCINTOSH CLSRM 3	CLASSROOM 3	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
M.UV-11	MCINTOSH CLSRM 2	CLASSROOM 2	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
M.UV-12	MCINTOSH CLSRM 1	CLASSROOM 1	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	124	22	30	(2) 1" END PANELS (2) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	2	2.6	4.0	180	50.0	123.7	97.0	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
N.UV-1	NASHOLD MOTOR ROOM	MOTOR SKILLS ROOM	DAIKIN	UAVS9S15	1500	1113	375	FLOOR	112	22	30	(2) 1" END PANELS (1) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	1	--	2 PSI	--	50.0	103.4	74.9	NOTE 6	3.0	34.0	80/67	55.2/55.3	72x10.375	HORIZ.	NO	VALVE & F&B	1" T.A., MERV 8	2 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13
N.UV-2	NASHOLD SPEECH OFFICE	SPEECH OFFICE	DAIKIN	UAHF9V07	750	592	185	FLOOR	64	22	30	(2) 1" END PANELS (-) 12" UTILITY COMP.	BOTTOM FRONT	TOP	NOTE 6	1	--	2 PSI	--	50.0	95.9	37.2	NOTE 6	2.0	24.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	1 @ 10x36.5	YES	1@ 1/4	3.9	15	1	120	1-13.15
N.UV-3	NASHOLD RESOURCE	RESOURCE	DAIKIN	UAHF9V13	1250	1083	375	CLG.	88	36	16	DISCHARGE AIR DOUBLE DEF. GRILLE - FRONT	REAR BOTTOM	FRONT	NOTE 6	2	2.3	4.0	180	50.0	112.5	84.7	NOTE 6	2.0	24.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	1 @ 10x60.5	YES	1@ 1/4	3.9	15	1	120	1-13
N.UV-4	NASHOLD MULTIPURPOSE	MULTIPURPOSE	DAIKIN	UAHF9V13	1250	1083	375	CLG.	88	36	16	DISCHARGE AIR DOUBLE DEF. GRILLE - FRONT	REAR BOTTOM	FRONT	NOTE 6	2	2.3	4.0	180	50.0	112.5	84.7	NOTE 6	2.0	24.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x60.5	YES	1@ 1/4	3.9	15	1	120	1-13
N.UV-5	NASHOLD MULTIPURPOSE	MULTIPURPOSE	DAIKIN	UAHF9V13	1250	1083	375	CLG.	88	36	16	DISCHARGE AIR DOUBLE DEF. GRILLE - FRONT	REAR BOTTOM	FRONT	NOTE 6	2	2.3	4.0	180	50.0	112.5	84.7	NOTE 6	2.0	24.0	80/67	55.2/55.3	--	--	--	VALVE & F&B	1" T.A., MERV 8	2 @ 10x60.5	YES	1@ 1/4	3.9	15	1	120	1-13

NOTES:

1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECIFICATIONS.
2. PROVIDE DISCONNECT SWITCH.
3. UNIT TO BE FACTORY INTERNALLY WIRED FOR SINGLE POINT ELECTRICAL CONNECTION.
4. VERIFY ALL DIMENSIONS PRIOR TO ORDERING EQUIPMENT.
5. THE VOID IN ALL UNIT VERTICAL FLOOR MOUNTED VENTILATOR SIDE AND REAR COMPARTMENTS BETWEEN THE PIPING, CONDUITS, AND CONTROL WIRING SHALL BE FILLED WITH BATT INSULATION.
6. FIELD VERIFY COIL PIPING CONNECTIONS SIDE PRIOR TO ORDERING EQUIPMENT.
7. COLOR SELECTED BY ARCHITECT.
8. PROVIDE 1 EXTRA SET OF FILTERS.
9. SYSTEM IS DESIGNED TO OPERATE ON MEDIUM SPEED.
10. TEMPERATURE CONTROL CONTRACTOR TO FURNISH THE CONTROLLER AND SHIP TO THE MANUFACTURER FOR FACTORY MOUNTING.
11. PROVIDE 12" UTILITY COMPARTMENTS. FIELD VERIFY R/L HAND.
12. HOT WATER COIL SELECTED WITH NO GLYCOL.
13. 2-WAY HOT WATER CONTROL VALVE UNLESS NOTED OTHERWISE ON FLOOR PLANS. REFER TO DETAILS.
14. LOUVER: DARK BRONZE OR ANODIZED FINISH AS SELECTED BY ARCH.
15. PROVIDE LITTLE GIANT CONDENSATE PUMP.
16. LOUVER TO FIT IN EXISTING WINDOW PANEL.

UNIT VENTILATOR SCHEDULE (VERTICAL STAND UP)

GENERAL														HOT WATER COIL								DX COOLING COIL									ACCESSORIES		FACTORY CONTROLS		FILTERS			SUPPLY FAN-POWER EXHAUST					
								UNIT VENTILATOR CABINET				AIR ARRANGEMENT																			WALL LOUVER												
EQUIPMENT TAG	SCHOOL LOCATION	AREA SERVED	MANUF.	MODEL	STANDARD AIR DELIVERY	EXT. S.P. IN.	MIN. O.A. (CFM)	TYPE	WIDTH (IN.)	HEIGHT (IN.)	DEPTH (IN.)	INLET AIR	DISCHARGE	ROWS	COIL CONN.	EAT (°F)	LAT (°F)	EWT (°F)	MAX. PD. (FT.)	GPM	CAP. (MBH)	ROWS	COIL CONN.	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	SST	SENS. CAP. (MBH)	TOTAL CAP. (MBH)	WIDTH	DEPTH	DAMPERS	HOT WATER COIL CONTROLS	TYPE	SIZE	EXTRA SET	HP- SUPPLY HP- EXHAUST	MCA	MOCP	PHASE	VOLTS	NOTES
M.UV-13	McINTOSH CLSRM. 24	CLASSROOM 24	AIREDALE	CMS36DABA CBNNC92N	1100	0.5	275	VERT.	42	90	30	SIDE GRILLE	DUCTED TOP	1	NOTE 4	50	113	180	2.2	5.5	78.3	4	NOTE 4	75	63	55	54	45	35.8	45.5	44"	31"	DDC. FIELD INSTALLED	2-WAY DDC. MOD. VALVE	2" T.A. MERV 13	2 @ 12"x24"x1"	YES	3/4 HP	4.8	15	3	208	1 THRU 7,10
M.UV-14	McINTOSH CLSRM. 23	CLASSROOM 23	AIREDALE	CMS36DABA CBNNN92N	1100	0.5	275	VERT.	42	90	30	SIDE GRILLE	DUCTED TOP	1	NOTE 4	50	113	180	2.2	5.5	78.3	4	NOTE 4	75	63	55	54	45	35.8	45.5	44"	31"	DDC. FIELD INSTALLED	2-WAY DDC. MOD. VALVE	2" T.A. MERV 13	2 @ 12"x24"x1"	YES	1 HP/ 1/2 HP	5.9	15	3	208	1 THRU 9

NOTES:

1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECIFICATION
2. PROVIDE WITH CIRCUIT BREAKER AND DISCONNECT SWITCH.
3. UNIT VENTILATOR INITIAL MINIMUM O.A. SETPOINT BASED ON CURRENT ROOM OCCUPANCY.
4. PROVIDE A HOT WATER PIPING PACKAGE WITH A TWO WAY, BELIMO (OR APPROVED EQUAL), MODULATING CONTROL VALVE (SIZED FOR MAXIMUM 3.0# PRESSURE DROP), SEE PIPING DETAIL FOR TRIM.
5. COLOR AS SELECTED BY ARCHITECT.
6. PROVIDE WITH TOP DUCT SHROUD, FRONT AND SIDE EXTENSION PANELS FROM TOP OF UNIT TO CEILING.
7. PROVIDE WITH MATCHED 3-TON AIR COOLED CONDENSING UNIT. REFER TO ACCU SCHEDULE.
8. PROVIDE WITH 1/2 HP POWER EXHAUST FAN.
9. PROVIDE MANUFACTURERS ADJUSTABLE INSULATED WALL SLEEVE WITH SPLITTER AND 39"Wx31"Hx4" DEEP MANUF. WALL LOUVER.
10. PROVIDE LITTLE GIANT M# VCMX-20, 120V/1 PH, 1.5A. 93W CONDENSATE PUMP WITH CHECK VALVE.

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MECHANICAL SCHEDULES
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

ISSUED FOR:	DATE

DATE: 10-11-2022
PROJECT NUMBER
32103-00
SHEET NUMBER
M3.1

FILE: F:\788-V-1\HV\COMMON\788V1 M3.1.DWG SAVED BY: MCASTRO DATE: 9/30/2022 TIME: 1:56 PM

DEDICATED OUTDOOR AIR SYSTEM

GENERAL												SUPPLY FAN DATA							RETURN FAN DATA							GAS HEATING SECTION					DIRECT EXPANSION COIL										ENERGY RECOVERY							FILTERS		ELECTRICAL DATA				NOTES
EQUIPMENT TAG	SCHOOL LOCATION	AREA SERVED	MANUFACTURER	MODEL	TYPE OF SYSTEM	UNIT EFFICIENCY	TYPE OF UNIT	PHYSICAL CHARACTERISTICS DIMENSIONS L	W	H	WEIGHT (LBS.)	CFM	MIN.O.A. (CFM)	SUPPLY TSP (IN.)	TYPE	DRIVE SPEEDS	MOTOR RPM	HP	CFM	MIN.O.A. (CFM)	SUPPLY ESP (IN.)	TYPE	DRIVE SPEEDS	MOTOR RPM	HP	INPUT CAPACITY (MBH)	OUTPUT CAPACITY (MBH)	STAGES	EAT (°F)	LAT (°F)	MIN. ROWS	MAX. FPI	MAXIMUM VELOCITY (FPM)	EAT (DB °F)	EAT (WB °F)	LAT (DB °F)	LAT (WB °F)	MAX. SP. (IN.)	SST (°F)	TOTAL MBH	TYPE	SUMMER OA (DB/WB)	SUMMER LAT (DB/WB)	SUMMER CAP. (MBH)	WINTER OA (DB/WB)	WINTER LAT (DB/WB)	WINTER CAP. (MBH)	FACE VELOCITY (FPM)	TYPE	MINIMUM CIRCUIT AMPS	MOCP	PHASE	VOLTS	
N. DOAS-1	ROOF NASHHOLD	CLASSROOM VENTILATION	AAON	RN-016-8-0-EA09-34B	100% O.A. W/WHEEL	HIGH EFF. 10.1 EER	DEDICATED O.A. SYSTEM	157"	59"	60"	2580	3600	3600	2.9	PLUG	DIRECT VFD	1760	5.0	3600	3600	1.5	PLUG	DIRECT VFD	1760	2.0	270.0	218.7	FULL MOD. 9:1	51.4	107.6	3	14	185.0	79.9	66.1	50.9	49.5	0.2	45.0	172.3	WHEEL	95/75 °F	79.9/66.1 °F	113.8	-10/-10 °F	51.4/46.9 °F	330.0	175.0	2" THICK MERV 14	95.0	110	3	208	1-21
N. DOAS-2	ROOF NASHHOLD	CLASSROOM VENTILATION	AAON	RN-016-8-0-EA09-34B	100% O.A. W/WHEEL	HIGH EFF. 10.1 EER	DEDICATED O.A. SYSTEM	157"	59"	60"	2580	3600	3600	2.9	PLUG	DIRECT VFD	1760	5.0	3600	3600	1.5	PLUG	DIRECT VFD	1760	2.0	270.0	218.7	FULL MOD. 9:1	51.4	107.6	3	14	185.0	79.9	66.1	50.9	49.5	0.2	45.0	172.3	WHEEL	95/75 °F	79.9/66.1 °F	113.8	-10/-10 °F	51.4/46.9 °F	330.0	175.0	2" THICK MERV 14	95.0	110	3	208	1-21
N. DOAS-3	ROOF NASHOLD	CLASSROOM VENTILATION	AAON	RN-020-8-0-EA09-34B	100% O.A. W/WHEEL	HIGH EFF. 10.1 EER	DEDICATED O.A. SYSTEM	157"	59"	60"	3575	5000	5000	3.5	PLUG	DIRECT VFD	1760	5.0	5000	5000	1.9	PLUG	DIRECT VFD	1760	5.0	270.0	218.7	FULL MOD. 9:1	45.5	85.9	4	14	255.0	81.3	67.1	53.6	52.1	0.2	45.0	225.2	WHEEL	95/75 °F	81.3/67.1 °F	143.1	-10/-10 °F	45.4/42.7 °F	417.0	175.0	2" THICK MERV 14	95.0	110	3	208	1-21

NOTES:
1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECIFICATIONS.
2. PROVIDE ENTHALPY ECONOMIZER WITH FDD
3. PROVIDE MOTOR OPERATED LOW LEAKAGE O.A. DAMPER
4. PROVIDE SUPPLY FAN VFD
5. PROVIDE DOUBLE WALL CONSTRUCTION
6. PROVIDE STAINLESS STEEL DRAIN PAN
7. PROVIDE FULL MODULATING BURNER AND STAINLESS STEEL HEAT EXCHANGER
8. PROVIDE VARIABLE CAPACITY COMPRESSORS
9. PROVIDE EXTENDED GREASE LINES
10. PROVIDE HINGED ACCESS DOORS
11. PROVIDE ANTI-RECYCLE TIMER
12. PROVIDE DISCONNECT SWITCH
13. PROVIDE NON-POWERED 120 VOLT GFI SERVICE RECEPTACLE
14. PROVIDE CONDENSER COIL GUARDS
15. PROVIDE OUTDOOR AIR RESET FOR TEMPERATURE AND HUMIDITY.
16. PROVIDE AN EXTRA SET OF FILTERS.
17. PROVIDE MODULATING HOT GAS REHEAT FOR DEHUMIDIFICATION.
18. PROVIDE UNIT VERTICAL SUPPLY/RETURN CONNECTION.
19. PROVIEDE 65 kAIC SCCR.
20. PROVIDE AEGIS SHAFT GROUNDING RINGS ON ALL VARIABLE SPEED MOTORS.
21. PROVIDE VIBRATION ISOLATION CURB.

VARIABLE REFRIGERANT FLOW BRANCH CONTROLLER SCHEDULE

EQUIPMENT TAG	SCHOOL LOCATION	UNIT SERVED	MANUF.	MODEL	PHYSICAL DIMENSIONS H	W	D	WEIGHT	MAX CAPACITY PER PORT (BTU/H)	ELECTRICAL DATA MCA	MOCP	V/PH/HZ	NOTES
N.VRFBS-1	NASHOLD CORRIDOR	N.VRFC-1	TRANE	TCMBM0108JA11N4 (8-PORT)	9.9	35.9	21.5	106	54,000	0.83	15	230/1/60	1 - 5
N.VRFBS-2	NASHOLD CORRIDOR	N.VRFC-2	TRANE	TCMBM1012JA11N4 (12-PORT)	9.9	44.7	21.5	133	54,000	1.57	15	230/1/60	1 - 5
N.VRFBS-3	NASHOLD CORRIDOR	N.VRFC-3	TRANE	TCMBM1012JA11N4 (12-PORT)	9.9	44.7	21.5	133	54,000	1.57	15	230/1/60	1 - 5

NOTES:
1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECAIFICATIONS.
2. PROVIDE FACTORY INSTALLED REFRIGERATION ISOLATION VALVES.
3. FOR ADDITIONAL INFORMATION, REFER TO SYSTEM SCHEMATIC DIAGRAM.
4. CAP EACH UNUSED PORT.
5. SERVICE UNIT FROM BOTTOM AND SIDES ONLY. TOP ACCESS NOT REQUIRED / ALLOWED.
6. PROVIDE BLUE DIAMOND, MAXI BLUE CONDENSATE PUMP MODEL# X87-712,WITH RESERVOIR & SENSOR, DUAL VOLTAGE OPTIONS, COORDINATE WITH ELECTRICAL CONTRACTOR.

VARIABLE REFRIGERANT FLOW CONDENSER SCHEDULE

EQUIPMENT TAG	SCHOOL LOCATION	UNITS SERVED	MANUFACTURER	MODEL	EER / IEER / COP @ 47°F.	PRELIM. BASE REF. CHARGE	PRELIM. ADD. REF. CHARGE	PHYSICAL DIMENSIONS W	D	H	WEIGHT	APPROX. ROOF SUPPORT WEIGHT (LBS.)	REFRIGERANT	CONDENSOR FANS QUANTITY/ TYPE	AIRFLOW (CFM)	ESP (INCHES, W.G.)	COMPRESSOR TYPE	COOLING CAP. (MBH) (RATED)	CAP. (MBH) (ACTUAL)	DESIGN O.A. TEMP (DB °F)	HEATING CAP. (MBH) (RATED)	CAP. (MBH) (ACTUAL)	DESIGN O.A. TEMP (DB °F)	ELECTRICAL DATA MCA	MOCP	VOLT/PHASE/HZ	NOTES
N.VRFC-1	NASHOLD ROOF	N.VRFU-1-14	TRANE	TURYE1683AN40AN HEAT RECOVERY SERIES	11.2/23.4/3.3	24.0 #	40.0 #	69.0	29.1	71.6	777	250	R410A	(2)-PROP.	(2)@7425	0.0	INVERTER SCROLL HERMETIC	168.0	154.6	95	188.0	86.1	-13.0	57.0	90.0	208 / 3 / 60	1 - 13
N.VRFC-2	NASHOLD ROOF	N.VRFU-15-30	TRANE	TURYE1923AN40AN HEAT RECOVERY SERIES	11.3/20.0/3.3	26.0 #	57.0 #	69.0	29.1	71.6	887	250	R410A	(2)-PROP.	(2)@7425	0.0	INVERTER SCROLL HERMETIC	192.0	174.8	95	215.0	82.9	-13.0	66.0	110.0	208 / 3 / 60	1 - 13
N.VRFC-3	NASHOLD ROOF	N.VRFC-31-39	TRANE	TURYE1923AN40AN HEAT RECOVERY SERIES	11.3/20.0/3.3	26.0 #	57.0 #	69.0	29.1	71.6	887	250	R410A	(2)-PROP.	(2)@6525	0.0	INVERTER SCROLL HERMETIC	192.0	179.7	95	215.0	83.8	-13.0	66.0	110.0	208 / 3 / 60	1 - 13

NOTES:
1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECIFICATIONS.
2. PROVIDE MINIMUM 18" HIGH, MIRO NON-PENETRATING EQUIPMENT SUPPORT WITH VIBRATION ISOLATION.
3. PROVIDE PANEL HEATER KIT.
4. PROVIDE SNOW & HAIL GUARDS.
5. UNITS SHALL PROVIDE CONTINUOUS HEATING DURING DEFROST AND OIL RETURN CYCLES.
6. PROVIDE VRF CENTRAL CONTROLLER UNIT. SYSTEM SHALL BE CONTROLLED THROUGH THE VRF CENTRAL CONTROLLER. FIELD VERIFY AND COORDINATE WITH OWNER EXACT LOCATION.
7. PROVIDE BACNET GATEWAY FOR INTEGRATION INTO EXISTING BUILDING AUTOMATION SYSTEM (SCHEDULING, MONITORING & ALARMS ONLY THROUGH BAS). BAS SHALL MONITOR STATUS, ENABLE/DISABLE SYSTEM, SET SCHEDULE AND RECEIVE AN ALARM. REFER TO SPECIFICATIONS. FIELD VERIFY AND COORDINATE EXACT REQUIREMENTS.
8. RATED DESIGN CONDITIONS: SUMMER DESIGN CONDITIONS: INDOOR 75°F DB, 62.5°F WB. OUTDOOR 95°F DB. WINTER DESIGN CONDITIONS: INDOOR 70°F DB, OUTDOOR -13. SYSTEM SHALL PROVIDE MINIMALLY DE-RATED HEATING PERFORMANCE DURING WINTER DESIGN CONDITIONS. SUBMITTED PERFORMANCE DATA MUST BE FULLY DE-RATED FOR ALL COMPONENTS AND ACCESSORIES, INCLUDING BUT NOT LIMITED TO, LINE LENGTH, VERTICAL SEPARATION, CONNECTION RATIO, DESIGN CONDITIONS, CONDENSER COIL COATING.
9. PROVIDE MANUFACTURER'S STARTUP & COMMISSIONING FOR ENTIRE VRF SYSTEM(S).
10. PROVIDE 10-YEAR PARTS & COMPRESSOR WARRANTY.
11. FOR ACTUAL ADDITIONAL REFRIGERANT CHARGE, COORDINATE WITH MANUFACTURER AND FIELD VERIFY ACTUAL PIPING LENGTHS AND ELBOW COUNT.
12. PROVIDE MANUFACTURER'S REFRIGERANT PIPING TWINNING KIT.
13. PROVIDE A SEPARATE ELECTRICAL CONNECTION TO EACH MODULE.

VARIABLE REFRIGERANT FLOW UNIT SCHEDULE

GENERAL															HEATING		COOLING				ELECTRICAL				FILTERS		INTEGRAL CONDENSATE PUMP	NOTES
EQUIPMENT TAG	SCHOOL LOCATION	AREA SERVED	VRFC SERVED	MANUFACTURER	MODEL	MAX. CFM	DUCTED O.A. CFM	ESP (IN. WG)	TYPE	REFRIGERANT	CABINET HEIGHT (IN.)	WIDTH (IN.)	DEPTH (IN.)	WEIGHT (LBS.)	LAT (°F)	CAP. (MBH) (ACTUAL)	TOTAL CAP. (MBH) (NOMINAL)	LAT (°F)	TOTAL CAP. (MBH) (ACTUAL)	SENSIBLE CAP. (MBH) (ACTUAL)	MCA	MOCP	VOLTS	PHASE	TYPE	EXTRA SET		
N.VRFU-1	NASHOLD CLASSROOM 2	CLASSROOM 2	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-2	NASHOLD CLASSROOM 2	CLASSROOM 2	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-3	NASHOLD CLASSROOM 4	CLASSROOM 4	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-4	NASHOLD CLASSROOM 4	CLASSROOM 4	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-5	NASHOLD CLASSROOM 6	CLASSROOM 6	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.0" LIFT)	1 - 8
N.VRFU-6	NASHOLD CLASSROOM 6	CLASSROOM 6	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.0" LIFT)	1 - 8
N.VRFU-7	NASHOLD CLASSROOM 1	CLASSROOM 1	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.0" LIFT)	1 - 8
N.VRFU-8	NASHOLD CLASSROOM 1	CLASSROOM 1	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.0" LIFT)	1 - 8
N.VRFU-9	NASHOLD CLASSROOM 3	CLASSROOM 3	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.0" LIFT)	1 - 8
N.VRFU-10	NASHOLD CLASSROOM 3	CLASSROOM 3	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.0" LIFT)	1 - 8
N.VRFU-11	NASHOLD CLASSROOM 5	CLASSROOM 5	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.0" LIFT)	1 - 8
N.VRFU-12	NASHOLD CLASSROOM 5	CLASSROOM 5	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.0" LIFT)	1 - 8
N.VRFU-13	NASHOLD CLASSROOM 7	CLASSROOM 7	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.0" LIFT)	1 - 8
N.VRFU-14	NASHOLD CLASSROOM 7	CLASSROOM 7	N.VRFC-1	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.0" LIFT)	1 - 8
N.VRFU-15	NASHOLD CLASSROOM 12	CLASSROOM 12	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-16	NASHOLD CLASSROOM 12	CLASSROOM 12	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-17	NASHOLD TEAM ROOM 8	TEAM ROOM 8	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-18	NASHOLD TEAM ROOM 8	TEAM ROOM 8	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-19	NASHOLD CLASSROOM 9	CLASSROOM 9	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-20	NASHOLD CLASSROOM 9	CLASSROOM 9	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-21	NASHOLD CLASSROOM 11	CLASSROOM 11	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-22	NASHOLD CLASSROOM 11	CLASSROOM 11	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-23	NASHOLD LIBRARY 14	LIBRARY 14	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-24	NASHOLD LIBRARY 14	LIBRARY 14	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-25	NASHOLD CLASSROOM 16	CLASSROOM 16	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-26	NASHOLD CLASSROOM 16	CLASSROOM 16	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-27	NASHOLD CLASSROOM 13	CLASSROOM 13	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-28	NASHOLD CLASSROOM 13	CLASSROOM 13	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-29	NASHOLD CLASSROOM 15	CLASSROOM 15	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-30	NASHOLD CLASSROOM 15	CLASSROOM 15	N.VRFC-2	TRANE	TPKFYP012LM140A	257	N/A	N/A	WALL MOUNTED	R410A	12.0	31.0	10.0	30	112.5	13.5	12	49.5	11.2	8.4	0.2	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1 - 8
N.VRFU-31	NASHOLD CLASSROOM 24	CLASSROOM 24	N.VRFC-3	TRANE	TPLFYP024EM140B	812	N/A	N/A	3'x3' CASSETTE	R410A	11.75	33.1	33.1	67	100.8	27.0	24	55.6	24.0	18.0	0.54	15	230	1	STANDARD	YES	YES (33.0" LIFT)	1,2,4-9
N.VRFU-32	NASHOLD CLASSROOM 25	CLASSROOM 25	N.VRFC-3	TRANE	TPLFYP024EM140B	812	N/A	N/A	3'x3' CASSETTE	R410A	11.75	33.1	33.1	67	100.8	27.0	24	55.6	24.0	18.0	0.54	15	230	1	STANDARD	YES	YES (33.0" LIFT)	1,2,4-9
N.VRFU-33	NASHOLD CLASSROOM 22	CLASSROOM 22	N.VRFC-3	TRANE	TPLFYP024EM140B	812	N/A	N/A	3'x3' CASSETTE	R410A	11.75	33.1	33.1	67	100.8	27.0	24	55.6	24.0	18.0	0.54	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1,2,4-9
N.VRFU-34	NASHOLD CLASSROOM 23	CLASSROOM 23	N.VRFC-3	TRANE	TPLFYP024EM140B	812	N/A	N/A	3'x3' CASSETTE	R410A	11.75	33.1	33.1	67	100.8	27.0	24	55.6	24.0	18.0	0.54	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1,2,4-9
N.VRFU-35	NASHOLD CLASSROOM 20	CLASSROOM 20	N.VRFC-3	TRANE	TPLFYP024EM140B	812	N/A	N/A	3'x3' CASSETTE	R410A	11.75	33.1	33.1	67	100.8	27.0	24	55.6	24.0	18.0	0.54	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1,2,4-9
N.VRFU-36	NASHOLD CLASSROOM 21	CLASSROOM 21	N.VRFC-3	TRANE	TPLFYP024EM140B	812	N/A	N/A	3'x3' CASSETTE	R410A	11.75	33.1	33.1	67	100.8	27.0	24	55.6	24.0	18.0	0.54	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1,2,4-9
N.VRFU-37	NASHOLD CLASSROOM 19	CLASSROOM 19	N.VRFC-3	TRANE	TPLFYP024EM140B	812	N/A	N/A	3'x3' CASSETTE	R410A	11.75	33.1	33.1	67	100.8	27.0	24	55.6	24.0	18.0	0.54	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1,2,4-9
N.VRFU-38	NASHOLD CLASSROOM 17	CLASSROOM 17	N.VRFC-3	TRANE	TPLFYP024EM140B	812	N/A	N/A	3'x3' CASSETTE	R410A	11.75	33.1	33.1	67	100.8	27.0	24	55.6	24.0	18.0	0.54	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1,2,4-9
N.VRFU-39	NASHOLD FACULTY 18	FACULTY 18	N.VRFC-3	TRANE	TPLFYP024EM140B	812	N/A	N/A	3'x3' CASSETTE	R410A	11.75	33.1	33.1	67	100.8	27.0	24	55.6	24.0	18.0	0.54	15	230	1	STANDARD	YES	YES (33.4" LIFT)	1,2,4-9

NOTES:
1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECIFICATIONS.
2. PROVIDE WITH REMOTE MOUNTED THERMOSTAT.
3. PROVIDE WITH MANUFACTURER'S WALL MOUNT BRACKET.
4. RATED DESIGN CONDITIONS: SUMMER DESIGN CONDITIONS: INDOOR 75°F DB, 62.5°F WB. OUTDOOR 95°F DB. WINTER DESIGN CONDITIONS: INDOOR 70°F DB, OUTDOOR -13.
5. PROVIDE NEOPRENE VIBRATION ISOLATORS.
6. ELECTRICAL CONTRACTOR TO PROVIDE DISCONNECT.
7. FOR ADDITIONAL INFORMATION, REFER TO SYSTEM SCHEMATIC DIAGRAM.
8. PROVIDE WITH MANUFACTURER'S INTEGRAL UNIT MOUNTED CONDENSATE PUMP & DRAIN PAN LEVEL SENSOR.
9. RECESSED CEILING MOUNT. MODIFY SUSPENDED CEILING AS REQUIRED.

Larson & Darby Group
Architecture Engineering Interiors

CS2 DESIGNGROUP LLC
837 Oakton Street
Elk Grove, IL 60007
Tel: 847-981-1880
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www.cs2designgroup.com

MECHANICAL SCHEDULES
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

DATE	ISSUED FOR:

DATE: 10-11-2022
PROJECT NUMBER
32103-00
SHEET NUMBER
M3.2

DIAGRAM SYMBOL LEGEND	
DISPLAY	DESCRIPTION
—///	POWER WIRE
——	CONTROL WIRE
——	REF. PIPE

CONT.No		PAGE	

CITY MULTI
SYSTEM SCHEMATIC DWG.

This drawing is schematic in nature. Final routing of piping & wiring shall be determined by the installing contractor and/or designer of record

Additional refrigerant charge is needed depending on the size and length of extended piping. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.

1.25mm²(16 AWG) : 1.25mm²(16 AWG) or more. 0.75mm²(20 AWG) : between 0.5mm²(24 AWG) and 0.75mm²(20 AWG).

Diamond System Builder
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db: 4.4.2.15
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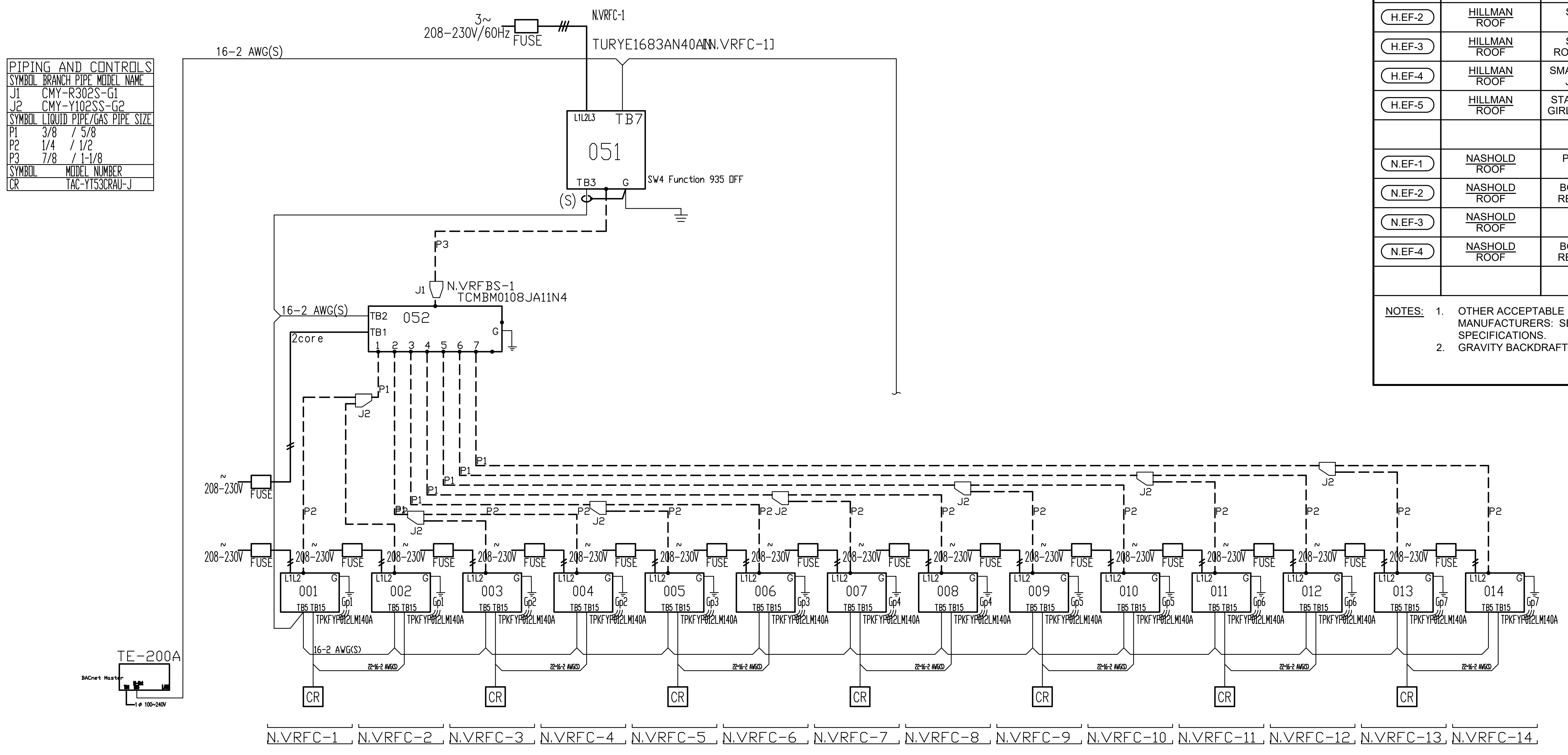


PIPING AND CONTROLS	
SYMBOL	BRANCH PIPE MODEL NAME
J1	CMY-R302S-G1
J2	CMY-Y102SS-G2
SYMBOL	LIQUID PIPE/GAS PIPE SIZE
P1	3/8 / 5/8
P2	1/4 / 1/2
P3	7/8 / 1-1/8
SYMBOL	MODEL NUMBER
CR	TAC-YT53CRAU-J

EXHAUST FAN SCHEDULE

EQUIPMENT TAG	SCHOOL LOCATION	AREA SERVED	MANUFACTURER	MODEL	TYPE	DRIVE	MIN. WHEEL DIA. (IN.)	CFM	SP (IN.)	FAN RPM	BHP	MOTOR				SONES	CONTROLS	NOTES
												HP(MAX.)	RPM	PHASE	VOLT			
G.EF-1	GREGORY ROOF	SPEECH/STORAGE CLASSROOM	GREENHECK	G-120-VG	CENTRIFUGAL ROOF	DIRECT	12	1600	0.375	1483	0.29	1/2	1750	1	120	13.4	TC	1,2,3,4,5,6
G.EF-2	GREGORY ROOF	CONFERENCE/ AP	GREENHECK	G-100-VG	CENTRIFUGAL ROOF	DIRECT	10	875	0.375	1297	0.12	1/4	1750	1	120	7.1	TC	1,2,3,4,5,6
H.EF-1	HILLMAN ROOF	BOYS/GIRLS RESTROOMS	GREENHECK	G-100-VG	CENTRIFUGAL ROOF	DIRECT	10	800	0.375	1230	0.10	1/4	1750	1	120	6.3	TC	1,2,3,4,5,6
H.EF-2	HILLMAN ROOF	STORAGE JANITOR	GREENHECK	G-095-VG	CENTRIFUGAL ROOF	DIRECT	9.5	500	0.375	1317	0.07	1/6	1750	1	120	6.6	TC	1,2,3,4,5,6
H.EF-3	HILLMAN ROOF	STORAGE ROOF ACCESS	GREENHECK	G-100-VG	CENTRIFUGAL ROOF	DIRECT	10	800	0.375	1230	0.10	1/4	1750	1	120	6.3	TC	1,2,3,4,5,6
H.EF-4	HILLMAN ROOF	SMALL RESTRM. JANITORS	GREENHECK	G-100-VG	CENTRIFUGAL ROOF	DIRECT	10	800	0.375	1230	0.10	1/4	1750	1	120	6.3	TC	1,2,3,4,5,6
H.EF-5	HILLMAN ROOF	STACKED BOYS GIRLS RESTRMS.	GREENHECK	G-160-VG	CENTRIFUGAL ROOF	DIRECT	16	2600	0.500	1230	0.52	1.0	1750	1	120	13.5	TC	1,2,3,4,5,6
N.EF-1	NASHOLD ROOF	PE OFFICE/ SHOWER	GREENHECK	G-100-VG	CENTRIFUGAL ROOF	DIRECT	10	800	0.375	1230	0.10	1/4	1750	1	120	6.3	TC	1,2,3,4,5,6
N.EF-2	NASHOLD ROOF	BOYS/GIRLS RESTROOMS	GREENHECK	G-130-VG	CENTRIFUGAL ROOF	DIRECT	13.0	1400	0.375	1179	0.18	1/2	1750	1	120	9.7	TC	1,2,3,4,5,6
N.EF-3	NASHOLD ROOF	MAIN OFFICE	GREENHECK	G-090-VG	CENTRIFUGAL ROOF	DIRECT	9.0	340	0.375	1280	0.04	1/10	1750	1	120	5.5	TC	1,2,3,4,5,6
N.EF-4	NASHOLD ROOF	BOYS/GIRLS RESTROOMS	GREENHECK	G-130-VG	CENTRIFUGAL ROOF	DIRECT	13.0	1400	0.375	1179	0.18	1/2	1750	1	120	9.7	TC	1,2,3,4,5,6

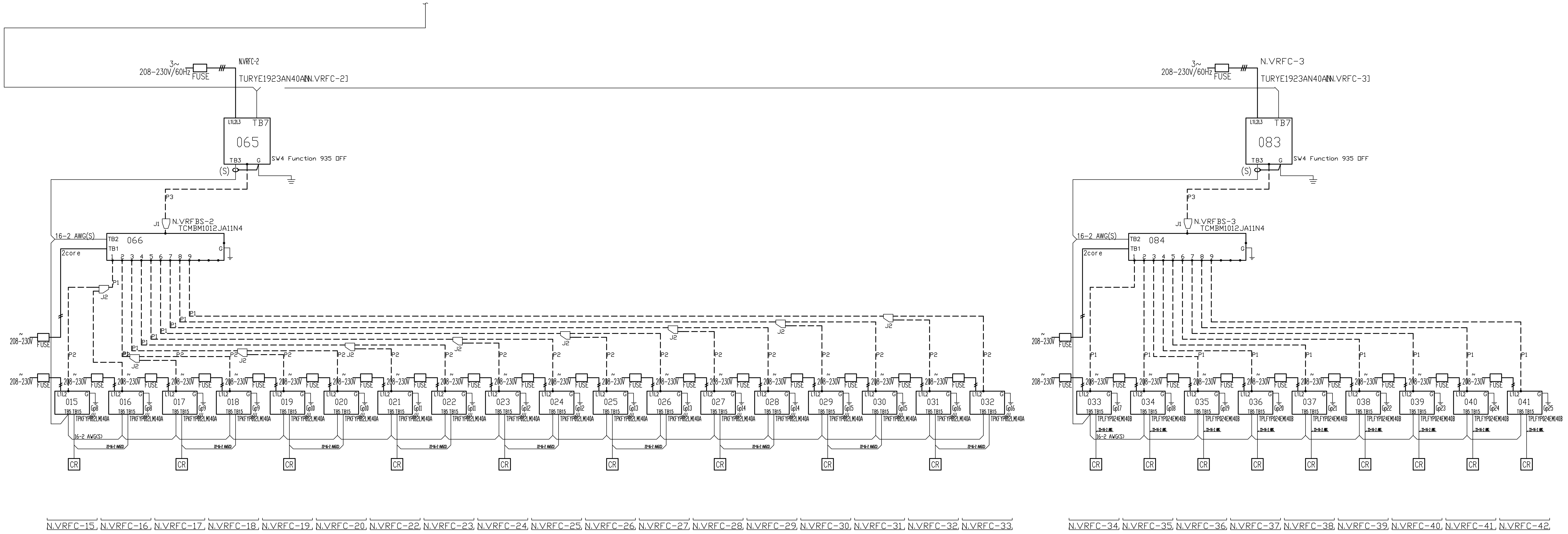
NOTES:
1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECIFICATIONS.
2. GRAVITY BACKDRAFT DAMPER.
3. DISCONNECT SWITCH.
4. INSULATED PREFABRICATED ROOF CURB, MINIMUM 18" ABOVE EXISTING ROOF MEMBRANE.
5. EC MOTOR WITH MOTOR MOUNTED POTENTIOMETER DIAL.
6. GALVANIZED BIRDSCREEN.

CONTROLS:
LS - LOCAL SWITCH BY E.C.
SC - WALL SPEED CONTROLLER PROVIDED BY M.C. INSTALLED AND WIRED BY E.C.
TC - TEMPERATURE CONTROLS CONTRACTOR TO PROVIDE BAS CONTROLS AND INTERFACE.
Ⓣ - THERMOSTAT BY TEMPERATURE CONTROL CONTRACTOR.

VARIABLE FREQUENCY DRIVE SCHEDULE

EQUIPMENT TAG	SCHOOL LOCATION	EQUIPMENT SERVED	MANUF.	MODEL	MOUNTING	SIZE (H"xW"xD")	MAX. DRIVE OUTPUT CURRENT	MOTOR					SPEED RANGE	NOTES
								HP(MAX.)	RPM	FREQ.(Hz)	PHASE	VOLTS		
H.VFD-1	HILLMAN BOILER RM.	HOT WATER SYS. PUMP	DANFOSS	SS	WALL MOUNTED	30.8x7.8x8.3	10.6	3	1800	60	3	208	10%	1,2,3
H.VFD-2	HILLMAN BOILER RM.	HOT WATER SYS. PUMP	DANFOSS	SS	WALL MOUNTED	30.8x7.8x8.3	10.6	3	1800	60	3	208	10%	1,2,4

NOTES:
1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECIFICATIONS.
2. PROVIDE NEMA 1 ENCLOSURE RFI FILTER, DC LINK REACTOR, MANUAL 3-CONTACTOR CONSTANT SPEED BYPASS, INPUT DISCONNECT SWITCH & OUTPUT LINE REACTOR.
3. EXISTING SYSTEM PUMP.
4. EXISTING STAND-BY SYSTEM PUMP.



VARIABLE REFRIGERANT FLOW SYSTEM(S) SCHEMATIC DIAGRAMS

NO SCALE

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www.cs2designgroup.com

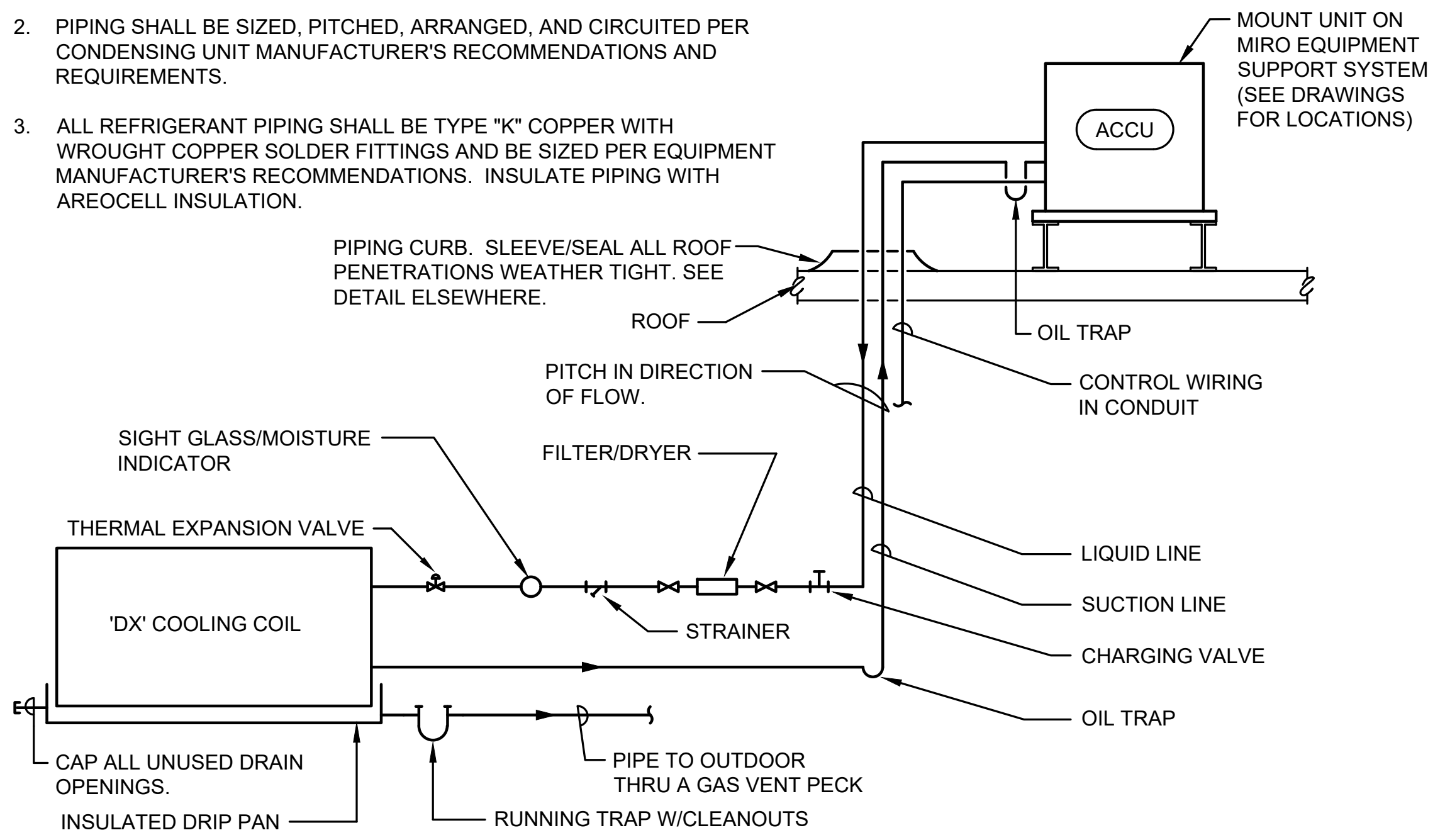
MECHANICAL SCHEDULES
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

ISSUED FOR:	DATE

DATE: 10-11-2022
PROJECT NUMBER
32103-00
SHEET NUMBER
M3.3

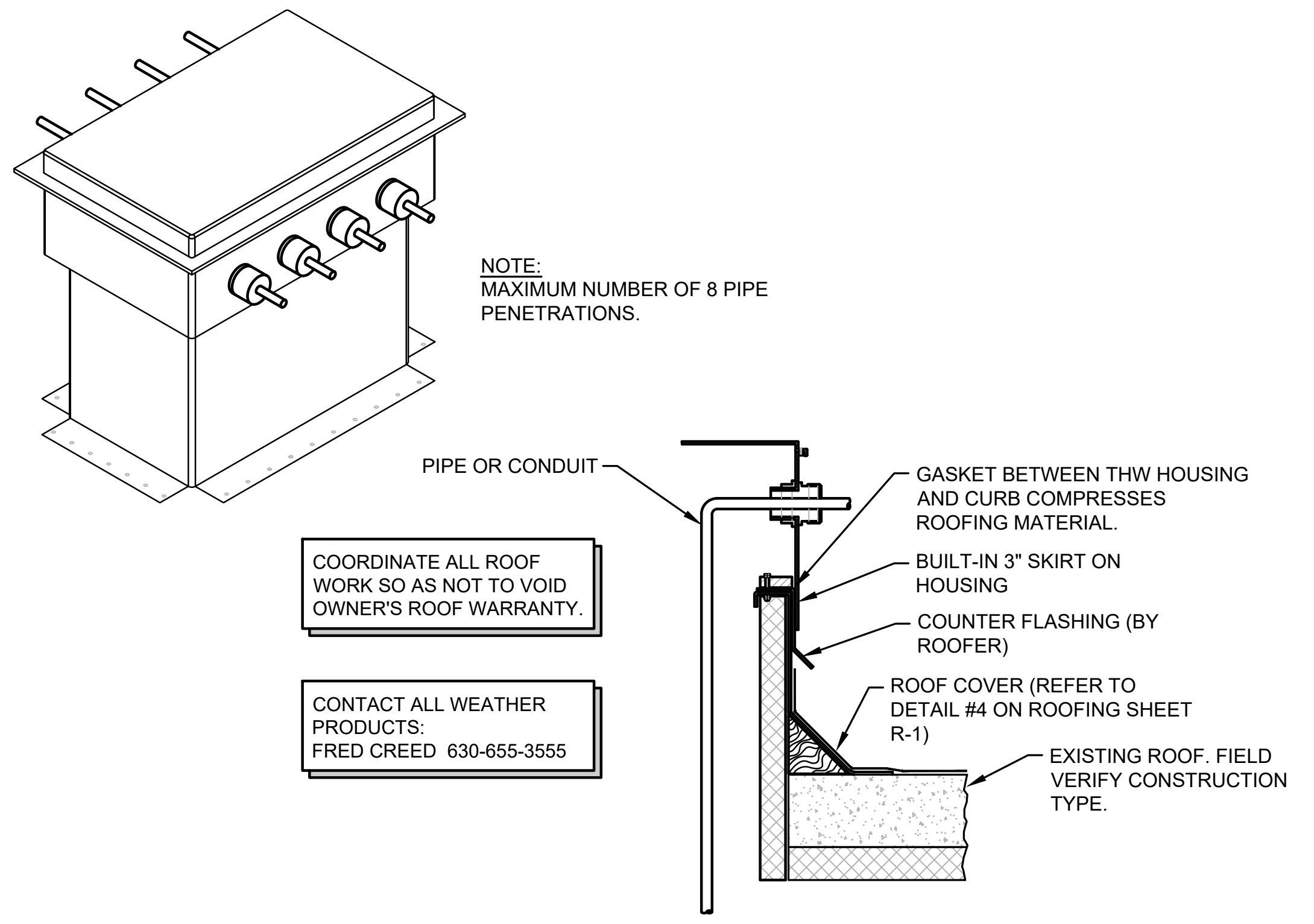
NOTES:

1. AIR COOLED CONDENSING UNIT AND "DX" COIL SHALL BE COMPATIBLE.
2. PIPING SHALL BE SIZED, PITCHED, ARRANGED, AND CIRCUITED PER CONDENSING UNIT MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.
3. ALL REFRIGERANT PIPING SHALL BE TYPE "K" COPPER WITH WROUGHT COPPER SOLDER FITTINGS AND BE SIZED PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. INSULATE PIPING WITH AREOCELL INSULATION.


MOUNT UNIT ON MIRO EQUIPMENT SUPPORT SYSTEM (SEE DRAWINGS FOR LOCATIONS)
ACCU
PIPING CURB. SLEEVE/SEAL ALL ROOF PENETRATIONS WEATHER TIGHT. SEE DETAIL ELSEWHERE.
ROOF
OIL TRAP
PITCH IN DIRECTION OF FLOW.
CONTROL WIRING IN CONDUIT
SIGHT GLASS/MOISTURE INDICATOR
FILTER/DRYER
THERMAL EXPANSION VALVE
LIQUID LINE
'DX' COOLING COIL
STRAINER
SUCTION LINE
CHARGING VALVE
OIL TRAP
CAP ALL UNUSED DRAIN OPENINGS.
PIPE TO OUTDOOR THRU A GAS VENT PECK
INSULATED DRIP PAN
RUNNING TRAP W/CLEANOUTS

REFRIGERANT PIPING DETAIL

NO SCALE


PIPE OR CONDUIT
GASKET BETWEEN THW HOUSING AND CURB COMPRESSES ROOFING MATERIAL.
BUILT-IN 3" SKIRT ON HOUSING
COUNTER FLASHING (BY ROOFER)
ROOF COVER (REFER TO DETAIL #4 ON ROOFING SHEET R-1)
EXISTING ROOF. FIELD VERIFY CONSTRUCTION TYPE.

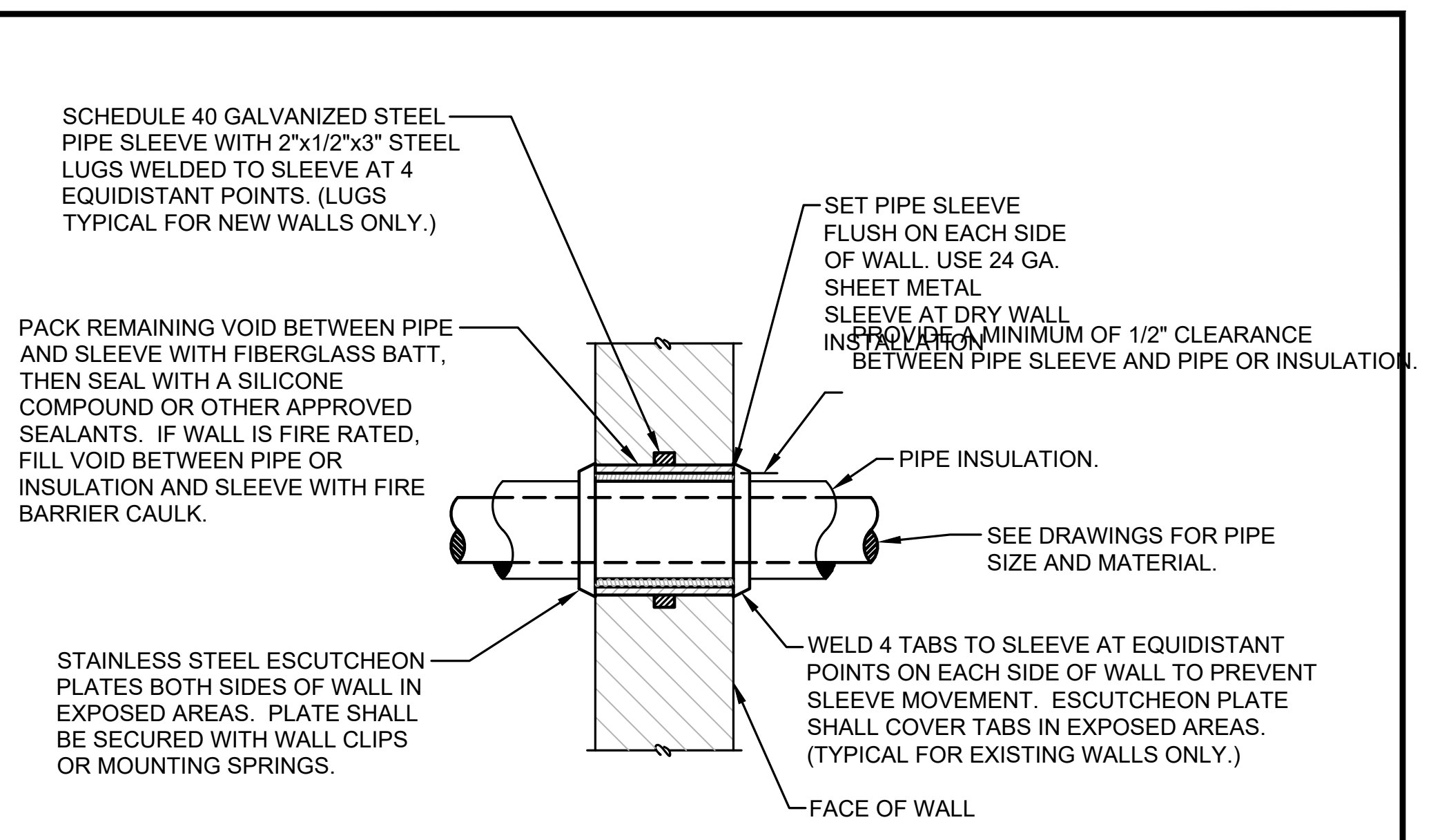
NOTE:
MAXIMUM NUMBER OF 8 PIPE PENETRATIONS.

COORDINATE ALL ROOF WORK SO AS NOT TO VOID OWNER'S ROOF WARRANTY.

CONTACT ALL WEATHER PRODUCTS:
FRED CREED 630-655-3555

SMART BOX PIPING/CONDUIT ROOF CURB DETAIL

NO SCALE

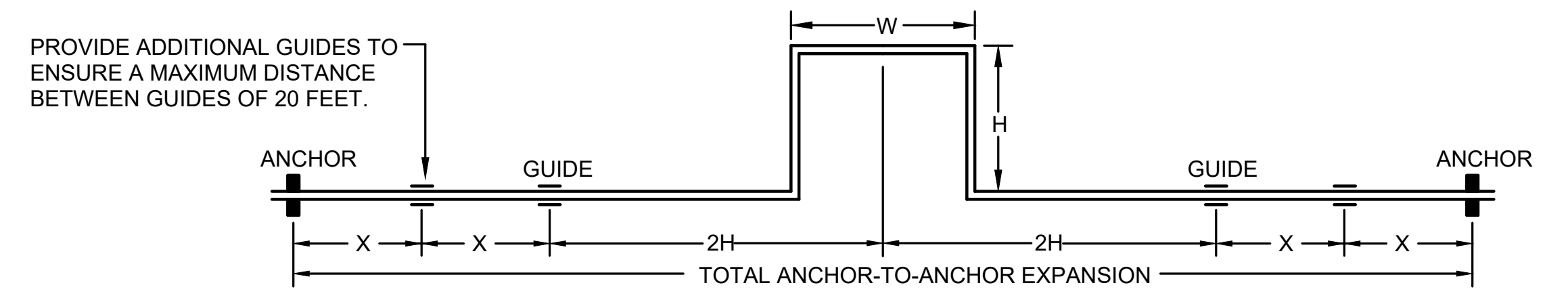

SCHEDULE 40 GALVANIZED STEEL PIPE SLEEVE WITH 2"x1/2"x3" STEEL LUGS WELDED TO SLEEVE AT 4 EQUIDISTANT POINTS. (LUGS TYPICAL FOR NEW WALLS ONLY.)
SET PIPE SLEEVE FLUSH ON EACH SIDE OF WALL. USE 24 GA. SHEET METAL SLEEVE AT DRY WALL INSTALLATION
PROVIDE A MINIMUM OF 1/2" CLEARANCE BETWEEN PIPE SLEEVE AND PIPE OR INSULATION.
PACK REMAINING VOID BETWEEN PIPE AND SLEEVE WITH FIBERGLASS BATT, THEN SEAL WITH A SILICONE COMPOUND OR OTHER APPROVED SEALANTS. IF WALL IS FIRE RATED, FILL VOID BETWEEN PIPE OR INSULATION AND SLEEVE WITH FIRE BARRIER CAULK.
PIPE INSULATION.
SEE DRAWINGS FOR PIPE SIZE AND MATERIAL.
STAINLESS STEEL ESCUTCHEON PLATES BOTH SIDES OF WALL IN EXPOSED AREAS. PLATE SHALL BE SECURED WITH WALL CLIPS OR MOUNTING SPRINGS.
WELD 4 TABS TO SLEEVE AT EQUIDISTANT POINTS ON EACH SIDE OF WALL TO PREVENT SLEEVE MOVEMENT. ESCUTCHEON PLATE SHALL COVER TABS IN EXPOSED AREAS. (TYPICAL FOR EXISTING WALLS ONLY.)
FACE OF WALL

NOTES:

1. I.D. OF OF PIPE SLEEVE TO BE A MIN. OF 1/2" LARGER THAN O.D. OF PIPE OR INSULATION PASSING THROUGH WALL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THEIR SLEEVES WITH OTHER TRADES AND/OR CONTRACTORS.
3. PIPE SLEEVES THRU SMOKE OR FIRE WALLS SHALL BE IN COMPLIANCE WITH NFPA-90A.

PIPE SLEEVE THRU INTERIOR WALL DETAIL

NO SCALE


PROVIDE ADDITIONAL GUIDES TO ENSURE A MAXIMUM DISTANCE BETWEEN GUIDES OF 20 FEET.
W
H
ANCHOR
GUIDE
GUIDE
ANCHOR
X
X
2H
2H
X
X
TOTAL ANCHOR-TO-ANCHOR EXPANSION

TOTAL ANCHOR TO ANCHOR EXPANSION TABLE

PIPE TYPE	FLUID	INSTALLED TEMPERATURE	OPERATING TEMPERATURE	EXPANSION
BLACK STEEL	HOT WATER	50° F.	200° F.	1.3" PER 100' LENGTH
COPPER	HOT WATER	50° F.	200° F.	1.8" PER 100' LENGTH

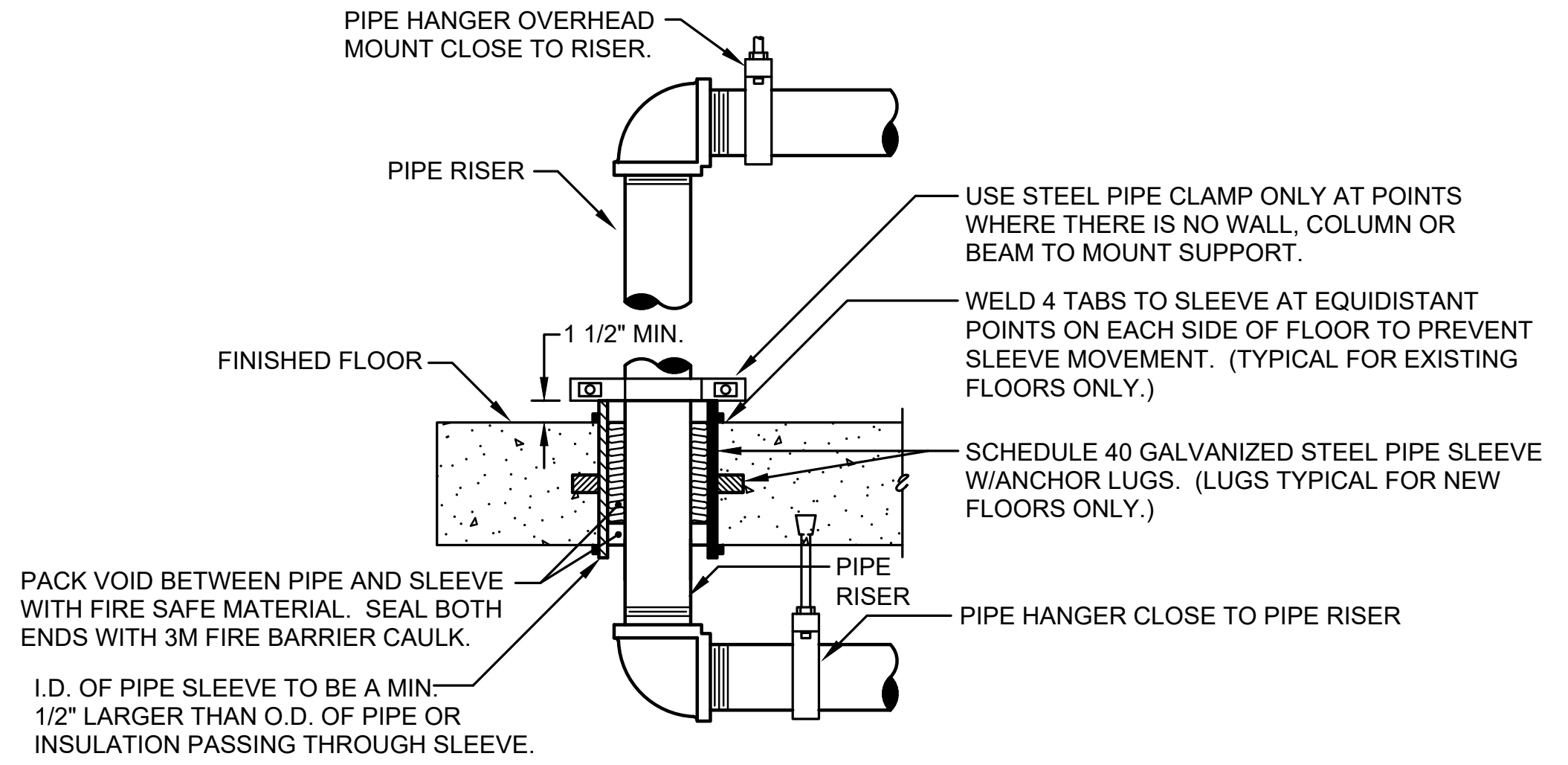
PIPE EXPANSION LOOP DIMENSION (WxH) SCHEDULE

PIPE SIZE (IN.)	TOTAL ANCHOR TO ANCHOR EXPANSION					
	2"		4"		6"	
	W(FT.)	H(FT.)	W(FT.)	H(FT.)	W(FT.)	H(FT.)
1	2	4	3	6	3.5	7
2	3	6	4	8	5	10
3	3.5	7	5	10	6	12
4	4	8	5.5	11	6.5	13
6	5	10	6.5	13	8	16

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR CALCULATING EXPANSION IN SYSTEM AND PROVIDING LOOPS WHERE REQUIRED.

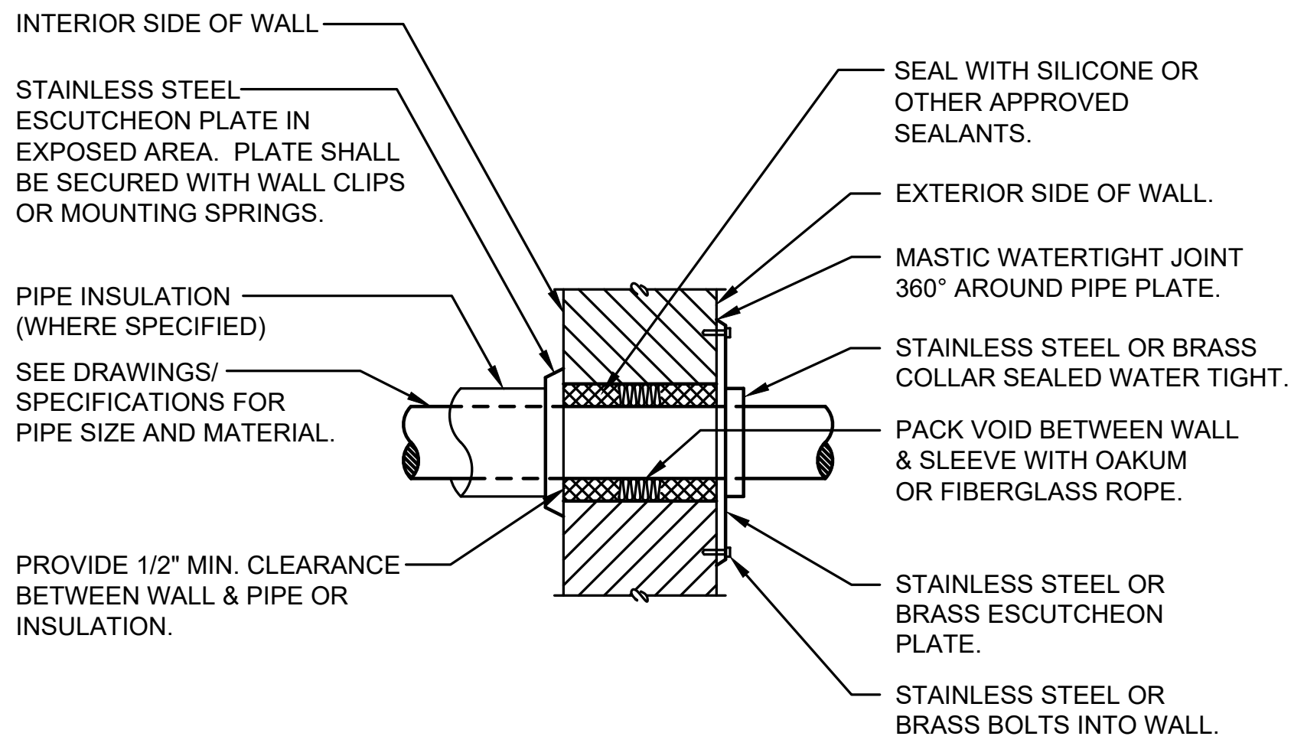
PIPE EXPANSION LOOP DETAIL/SCHEDULE

NO SCALE


PIPE HANGER OVERHEAD MOUNT CLOSE TO RISER.
PIPE RISER
USE STEEL PIPE CLAMP ONLY AT POINTS WHERE THERE IS NO WALL, COLUMN OR BEAM TO MOUNT SUPPORT.
WELD 4 TABS TO SLEEVE AT EQUIDISTANT POINTS ON EACH SIDE OF FLOOR TO PREVENT SLEEVE MOVEMENT. (TYPICAL FOR EXISTING FLOORS ONLY.)
1 1/2" MIN.
FINISHED FLOOR
SCHEDULE 40 GALVANIZED STEEL PIPE SLEEVE W/ANCHOR LUGS. (LUGS TYPICAL FOR NEW FLOORS ONLY.)
PACK VOID BETWEEN PIPE AND SLEEVE WITH FIRE SAFE MATERIAL. SEAL BOTH ENDS WITH 3M FIRE BARRIER CAULK.
PIPE RISER
PIPE HANGER CLOSE TO PIPE RISER
I.D. OF PIPE SLEEVE TO BE A MIN. 1/2" LARGER THAN O.D. OF PIPE OR INSULATION PASSING THROUGH SLEEVE.

PIPE SLEEVE THRU` FLOOR DETAIL

NO SCALE

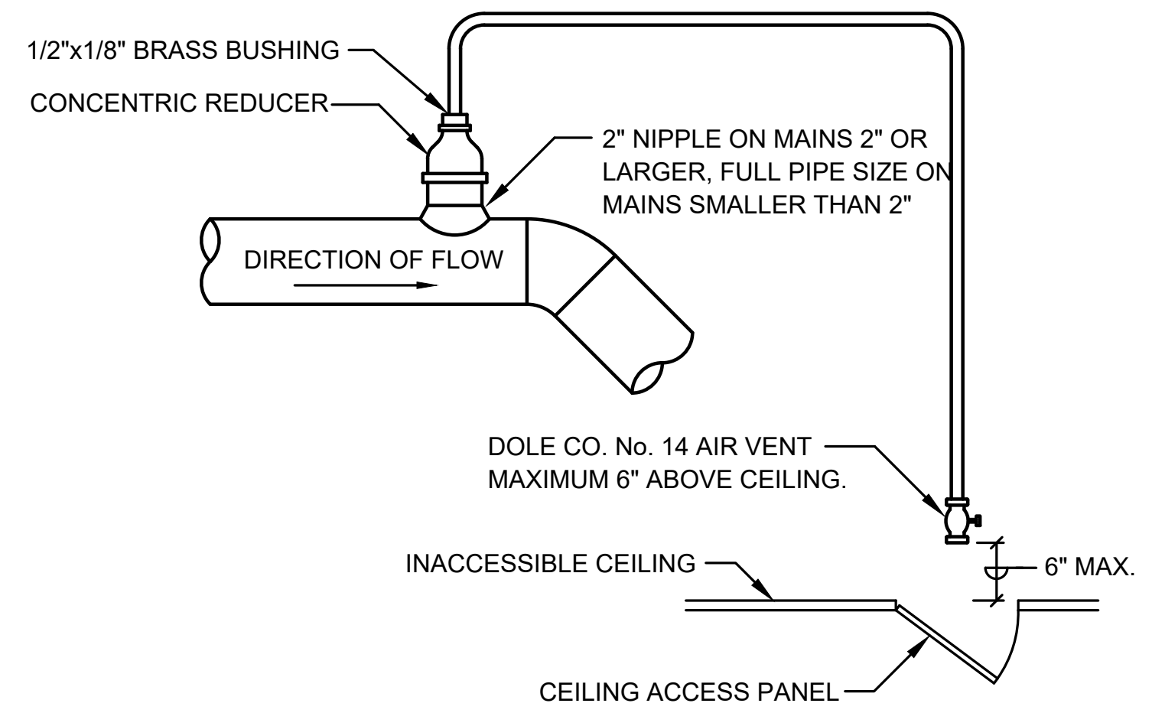

INTERIOR SIDE OF WALL
STAINLESS STEEL ESCUTCHEON PLATE IN EXPOSED AREA. PLATE SHALL BE SECURED WITH WALL CLIPS OR MOUNTING SPRINGS.
PIPE INSULATION (WHERE SPECIFIED)
SEE DRAWINGS/ SPECIFICATIONS FOR PIPE SIZE AND MATERIAL.
PROVIDE 1/2" MIN. CLEARANCE BETWEEN WALL & PIPE OR INSULATION.
SEAL WITH SILICONE OR OTHER APPROVED SEALANTS.
EXTERIOR SIDE OF WALL.
MASTIC WATERTIGHT JOINT 360° AROUND PIPE PLATE.
STAINLESS STEEL OR BRASS COLLAR SEALED WATER TIGHT.
PACK VOID BETWEEN WALL & SLEEVE WITH OAKUM OR FIBERGLASS ROPE.
STAINLESS STEEL OR BRASS ESCUTCHEON PLATE.
STAINLESS STEEL OR BRASS BOLTS INTO WALL.

NOTES:

1. CONTRACTOR SHALL ISOLATE ALL PIPES WHICH VIBRATE FROM CONSTRUCTION IN ORDER TO AVOID TRANSMISSION TO STRUCTURE.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THEIR WALL OPENINGS WITH OTHER TRADES AND/OR CONTRACTORS.

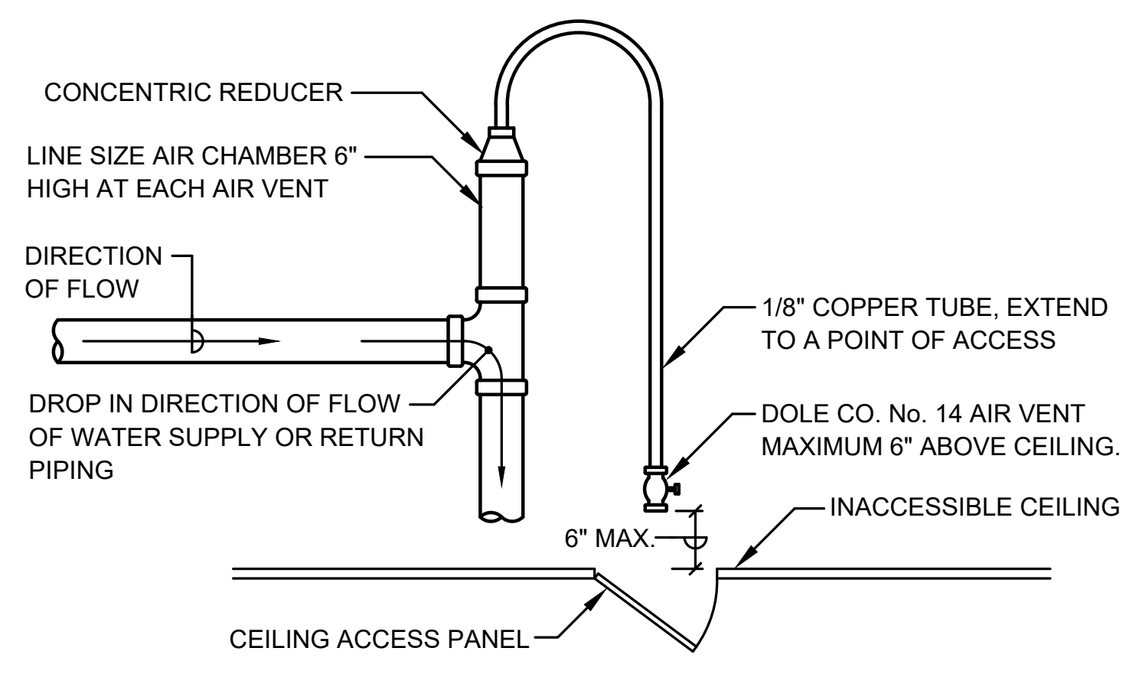
PIPE PENETRATION OF EXTERIOR WALL ABOVE GRADE DETAIL

NO SCALE


1/2"x1/8" BRASS BUSHING
CONCENTRIC REDUCER
2" NIPPLE ON MAINS 2" OR LARGER, FULL PIPE SIZE ON MAINS SMALLER THAN 2"
DIRECTION OF FLOW
DOLE CO. No. 14 AIR VENT MAXIMUM 6" ABOVE CEILING.
INACCESSIBLE CEILING
6" MAX.
CEILING ACCESS PANEL

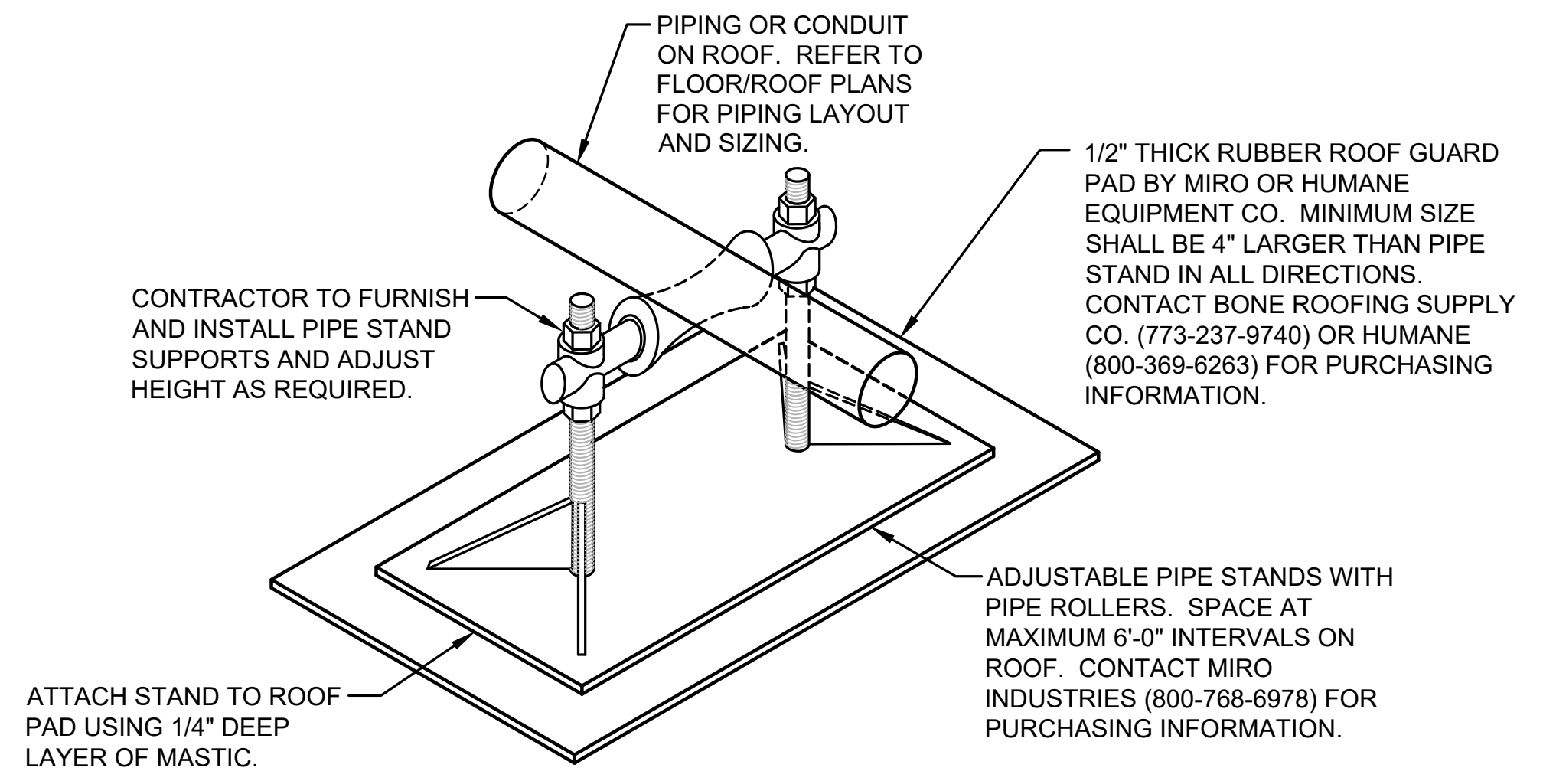
AIR VENT AT HIGH POINTS OF MAINS DETAIL

NO SCALE


CONCENTRIC REDUCER
LINE SIZE AIR CHAMBER 6" HIGH AT EACH AIR VENT
DIRECTION OF FLOW
1/8" COPPER TUBE, EXTEND TO A POINT OF ACCESS
DROP IN DIRECTION OF FLOW OF WATER SUPPLY OR RETURN PIPING
DOLE CO. No. 14 AIR VENT MAXIMUM 6" ABOVE CEILING.
INACCESSIBLE CEILING
6" MAX.
CEILING ACCESS PANEL

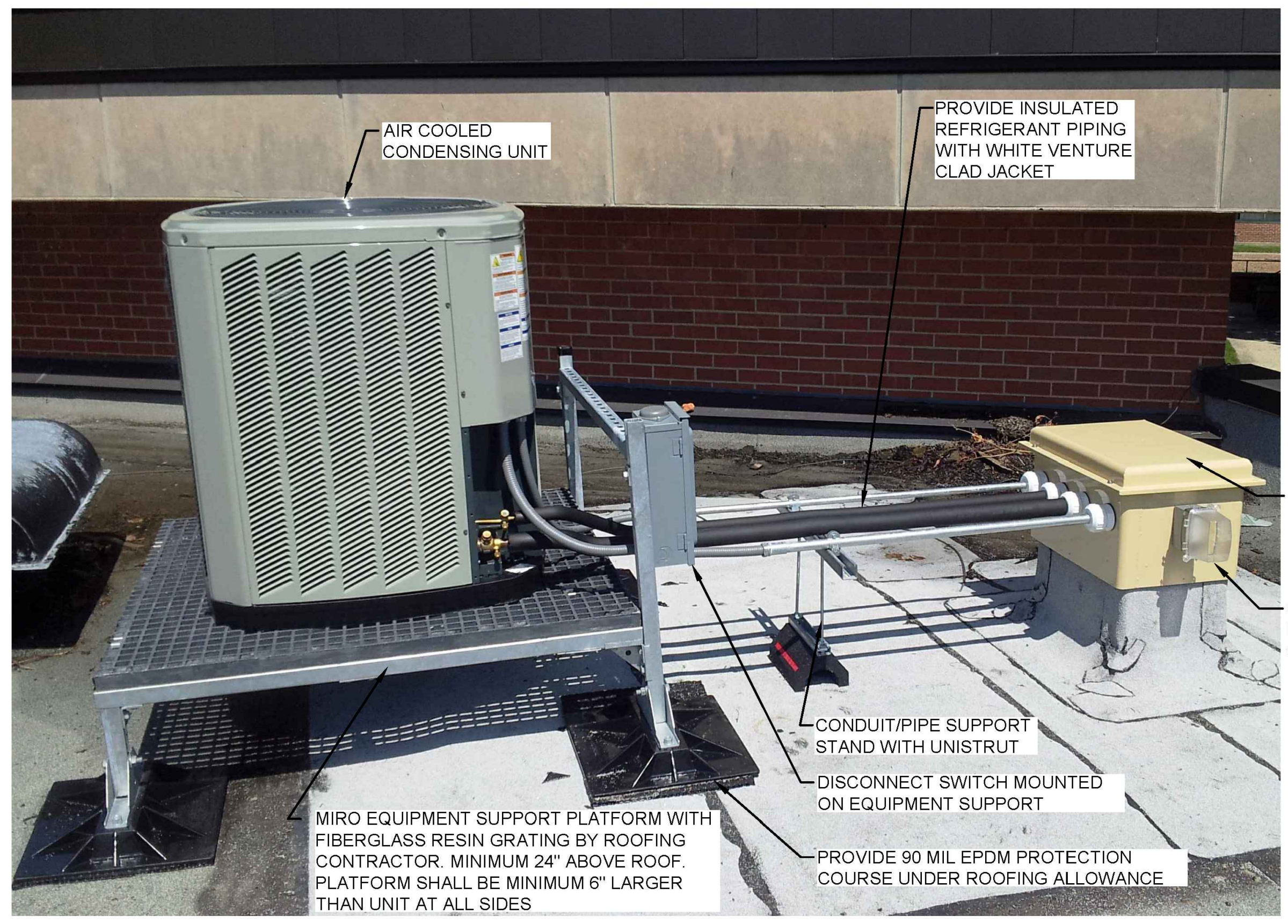
MANUAL AIR VENT DETAIL

NO SCALE


PIPING OR CONDUIT ON ROOF. REFER TO FLOOR/ROOF PLANS FOR PIPING LAYOUT AND SIZING.
1/2" THICK RUBBER ROOF GUARD PAD BY MIRO OR HUMANE EQUIPMENT CO. MINIMUM SIZE SHALL BE 4" LARGER THAN PIPE STAND IN ALL DIRECTIONS. CONTACT BONE ROOFING SUPPLY CO. (773-237-9740) OR HUMANE (800-369-6263) FOR PURCHASING INFORMATION.
CONTRACTOR TO FURNISH AND INSTALL PIPE STAND SUPPORTS AND ADJUST HEIGHT AS REQUIRED.
ADJUSTABLE PIPE STANDS WITH PIPE ROLLERS. SPACE AT MAXIMUM 6'-0" INTERVALS ON ROOF. CONTACT MIRO INDUSTRIES (800-768-6978) FOR PURCHASING INFORMATION.
ATTACH STAND TO ROOF PAD USING 1/4" DEEP LAYER OF MASTIC.

ADJUST. PIPING OR CONDUIT ROOF SUPPORT DETAIL

NO SCALE

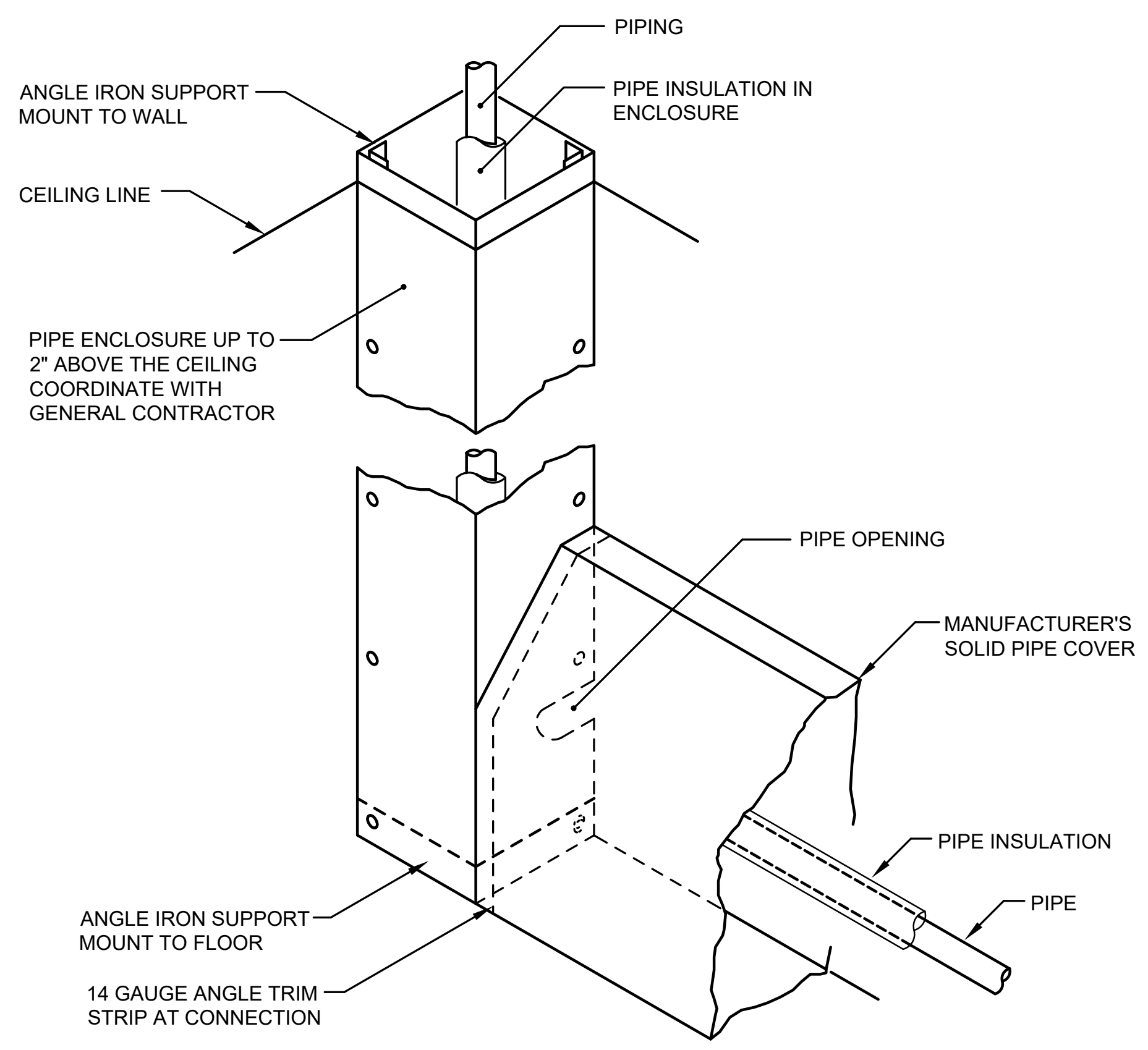

AIR COOLED CONDENSING UNIT
PROVIDE INSULATED REFRIGERANT PIPING WITH WHITE VENTURE CLAD JACKET
PIPE CHASE HOUSING/SMART BOX
SERVICE OUTLET BY ELECTRICAL CONTRACTOR
CONDUIT/PIPE SUPPORT STAND WITH UNISTRUT
DISCONNECT SWITCH MOUNTED ON EQUIPMENT SUPPORT
MIRO EQUIPMENT SUPPORT PLATFORM WITH FIBERGLASS RESIN GRATING BY ROOFING CONTRACTOR. MINIMUM 24" ABOVE ROOF. PLATFORM SHALL BE MINIMUM 6" LARGER THAN UNIT AT ALL SIDES
PROVIDE 90 MIL EPDM PROTECTION COURSE UNDER ROOFING ALLOWANCE

NOTE:

1. DETAIL IS SIMILAR FOR BUILT-UP ROOFS EXCEPT A PLATFORM CURB IS REQUIRED TO SUPPORT THE CONDENSING UNIT. SEE DETAIL ELSEWHERE. THE INSTALLATION SHALL BE DONE UNDER THE ROOFING ALLOWANCE.
2. ALL ROOF PENETRATIONS SHALL BE CORED AND NOT CUT.

TYPICAL CONDENSING UNIT INSTALLATION DETAIL

NO SCALE

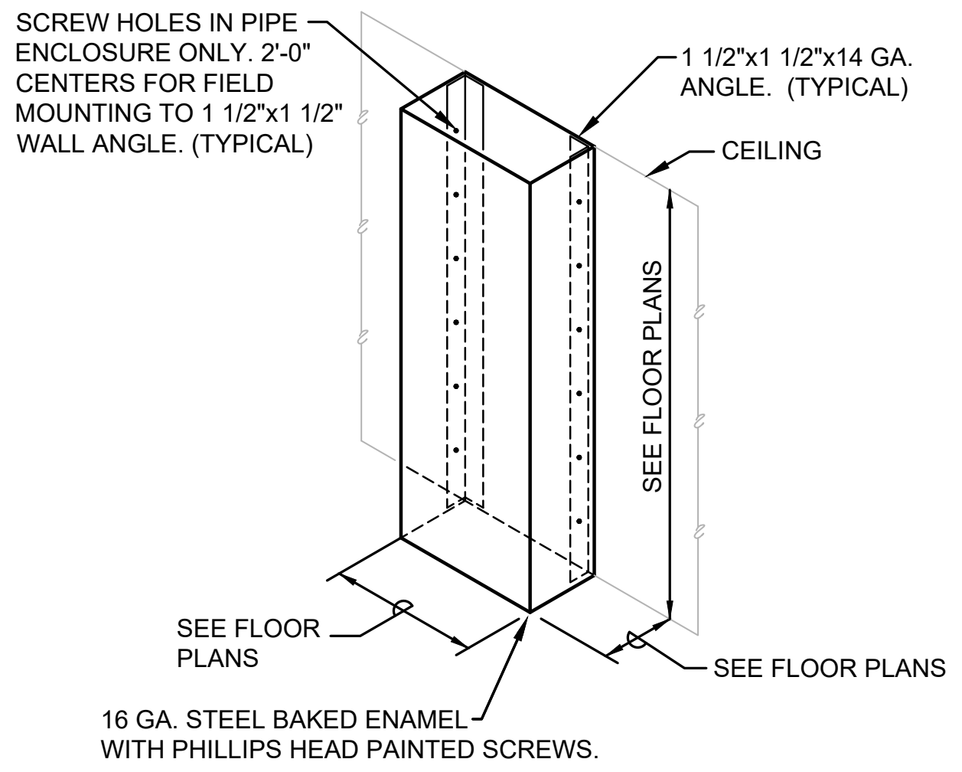

PIPING
ANGLE IRON SUPPORT MOUNT TO WALL
PIPE INSULATION IN ENCLOSURE
CEILING LINE
PIPE ENCLOSURE UP TO 2" ABOVE THE CEILING COORDINATE WITH GENERAL CONTRACTOR
PIPE OPENING
MANUFACTURER'S SOLID PIPE COVER
PIPE INSULATION
PIPE
ANGLE IRON SUPPORT MOUNT TO FLOOR
14 GAUGE ANGLE TRIM STRIP AT CONNECTION

NOTE:

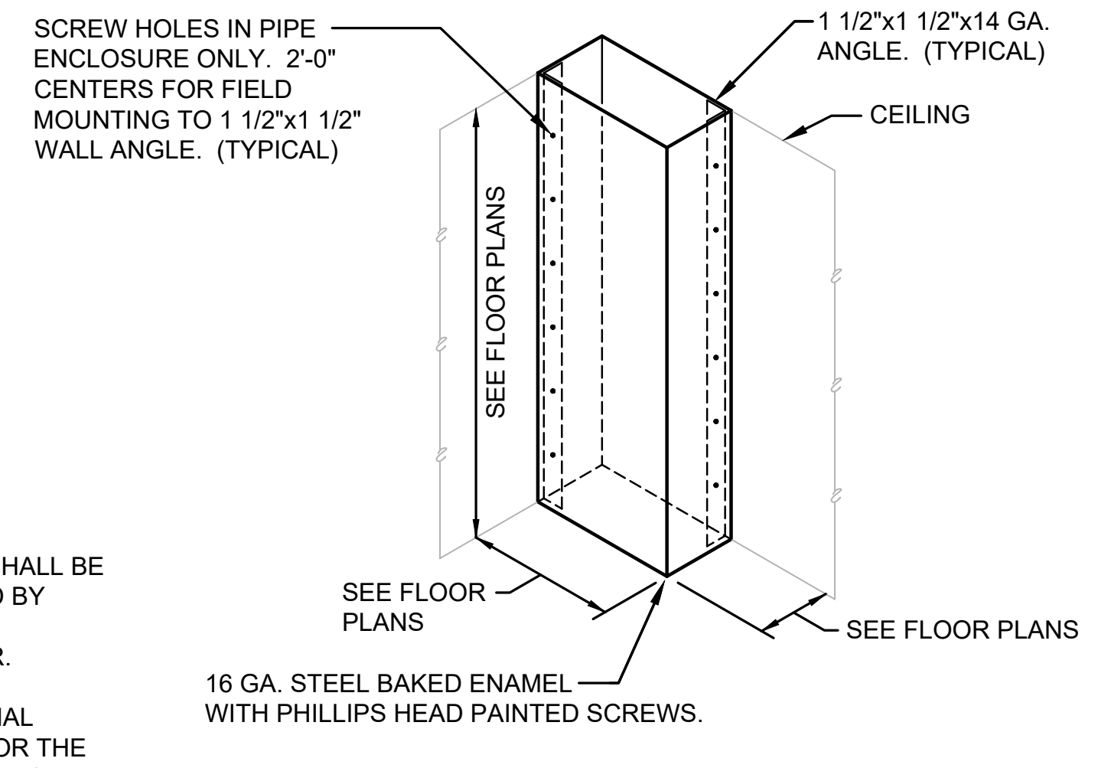
1. FOR ADDITIONAL INFORMATION OF PIPE ENCLOSURE SEE DETAIL ELSEWHERE.
2. ALL SCREWS/FASTENERS SHALL BE PAINTED TO MATCH COLOR OF ENCLOSURE.

PIPE ENCLOSURE DETAIL

NO SCALE


SCREW HOLES IN PIPE ENCLOSURE ONLY. 2'-0" CENTERS FOR FIELD MOUNTING TO 1 1/2"x1 1/2" WALL ANGLE. (TYPICAL)
1 1/2"x1 1/2"x14 GA. ANGLE. (TYPICAL)
CEILING
SEE FLOOR PLANS
SEE FLOOR PLANS
SEE FLOOR PLANS
16 GA. STEEL BAKED ENAMEL WITH PHILLIPS HEAD PAINTED SCREWS.

(3-SIDED)


SCREW HOLES IN PIPE ENCLOSURE ONLY. 2'-0" CENTERS FOR FIELD MOUNTING TO 1 1/2"x1 1/2" WALL ANGLE. (TYPICAL)
1 1/2"x1 1/2"x14 GA. ANGLE. (TYPICAL)
CEILING
SEE FLOOR PLANS
SEE FLOOR PLANS
SEE FLOOR PLANS
16 GA. STEEL BAKED ENAMEL WITH PHILLIPS HEAD PAINTED SCREWS.

(2-SIDED)

NOTE: 1. ENCLOSURE SHALL BE MANUFACTURED BY FINNED TUBE MANUFACTURER.

2. FOR ADDITIONAL INFORMATION FOR THE PIPE ENCLOSURE, SEE DETAIL ELSEWHERE.

PIPE ENCLOSURE

NO SCALE

Larson & Darby Group
Architecture Engineering Interiors

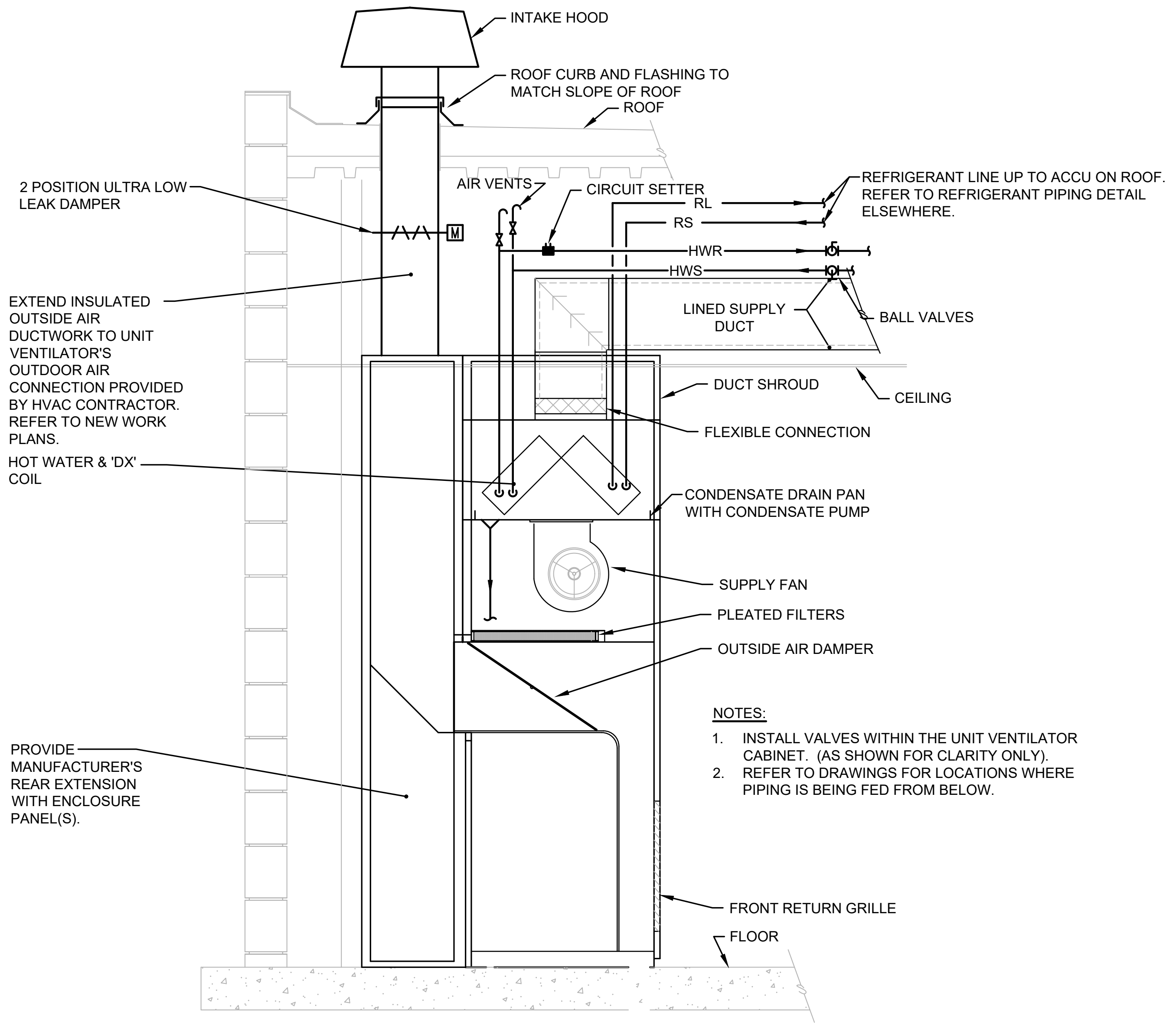
CS2 DESIGNGROUP LLC
837 Oakton Street
Elk Grove, IL 60007
Tel: 847-981-1880
Fax: 847-981-1885
www.cs2designgroup.com

MECHANICAL DETAILS
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

ISSUED FOR:	DATE

DATE: 10-11-2022
PROJECT NUMBER
32103-00
SHEET NUMBER
M4.0

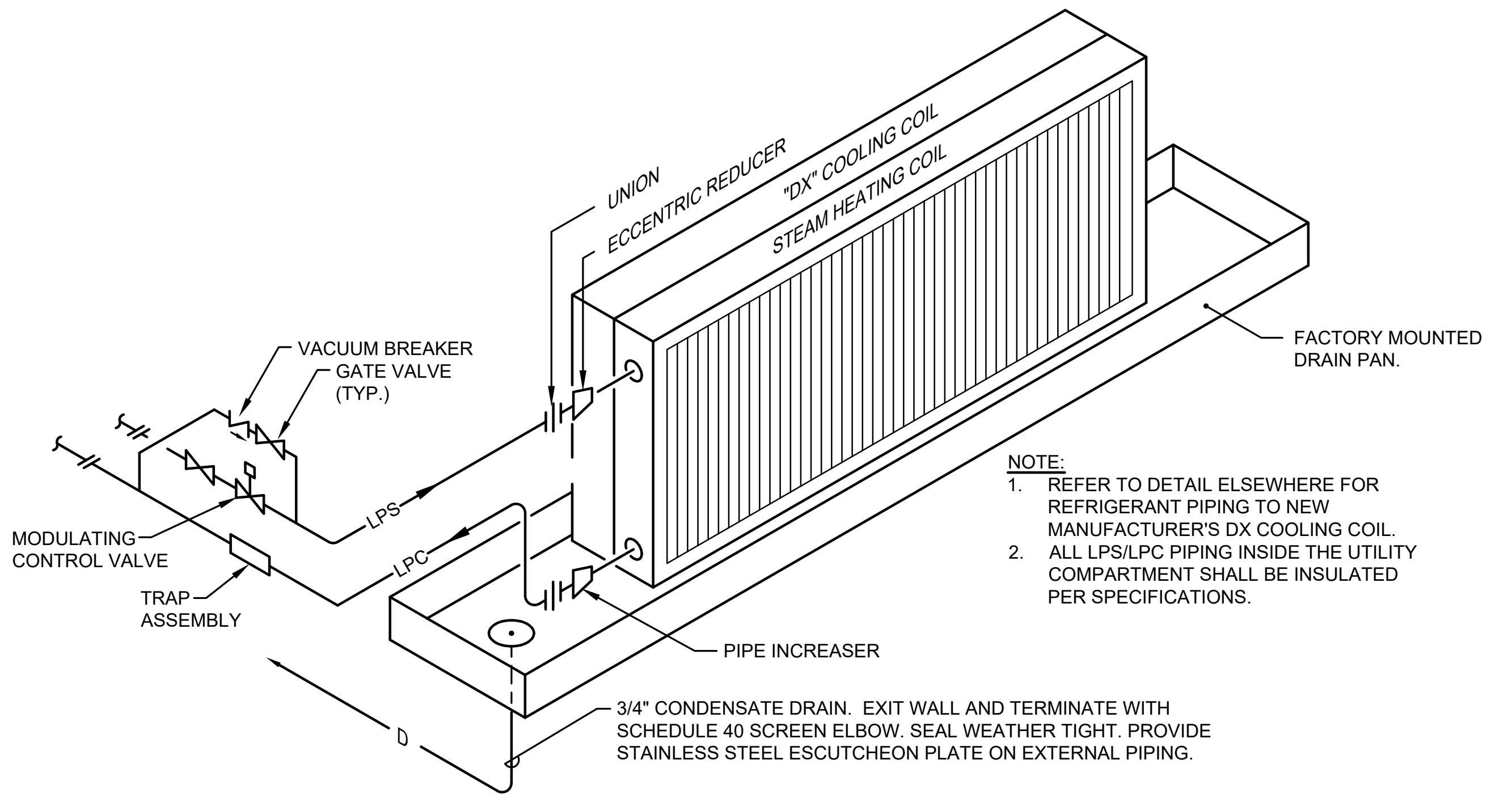
FILE: [illegible] M4.0.DWG SAVED BY: MCASTRO DATE: 9/30/2022 TIME: 1:53 PM


INTAKE HOOD
ROOF CURB AND FLASHING TO MATCH SLOPE OF ROOF
ROOF
2 POSITION ULTRA LOW LEAK DAMPER
M
AIR VENTS
CIRCUIT SETTER
RL
RS
HWR
HWS
REFRIGERANT LINE UP TO ACCU ON ROOF. REFER TO REFRIGERANT PIPING DETAIL ELSEWHERE.
EXTEND INSULATED OUTSIDE AIR DUCTWORK TO UNIT VENTILATOR'S OUTDOOR AIR CONNECTION PROVIDED BY HVAC CONTRACTOR. REFER TO NEW WORK PLANS.
LINED SUPPLY DUCT
BALL VALVES
DUCT SHROUD
CEILING
FLEXIBLE CONNECTION
HOT WATER & 'DX' COIL
CONDENSATE DRAIN PAN WITH CONDENSATE PUMP
SUPPLY FAN
PLEATED FILTERS
OUTSIDE AIR DAMPER
PROVIDE MANUFACTURER'S REAR EXTENSION WITH ENCLOSURE PANEL(S).
FRONT RETURN GRILLE
FLOOR

NOTES:
1. INSTALL VALVES WITHIN THE UNIT VENTILATOR CABINET. (AS SHOWN FOR CLARITY ONLY).
2. REFER TO DRAWINGS FOR LOCATIONS WHERE PIPING IS BEING FED FROM BELOW.

TYPICAL VERTICAL UNIT VENTILATOR INSTALLATION DETAIL

NO SCALE

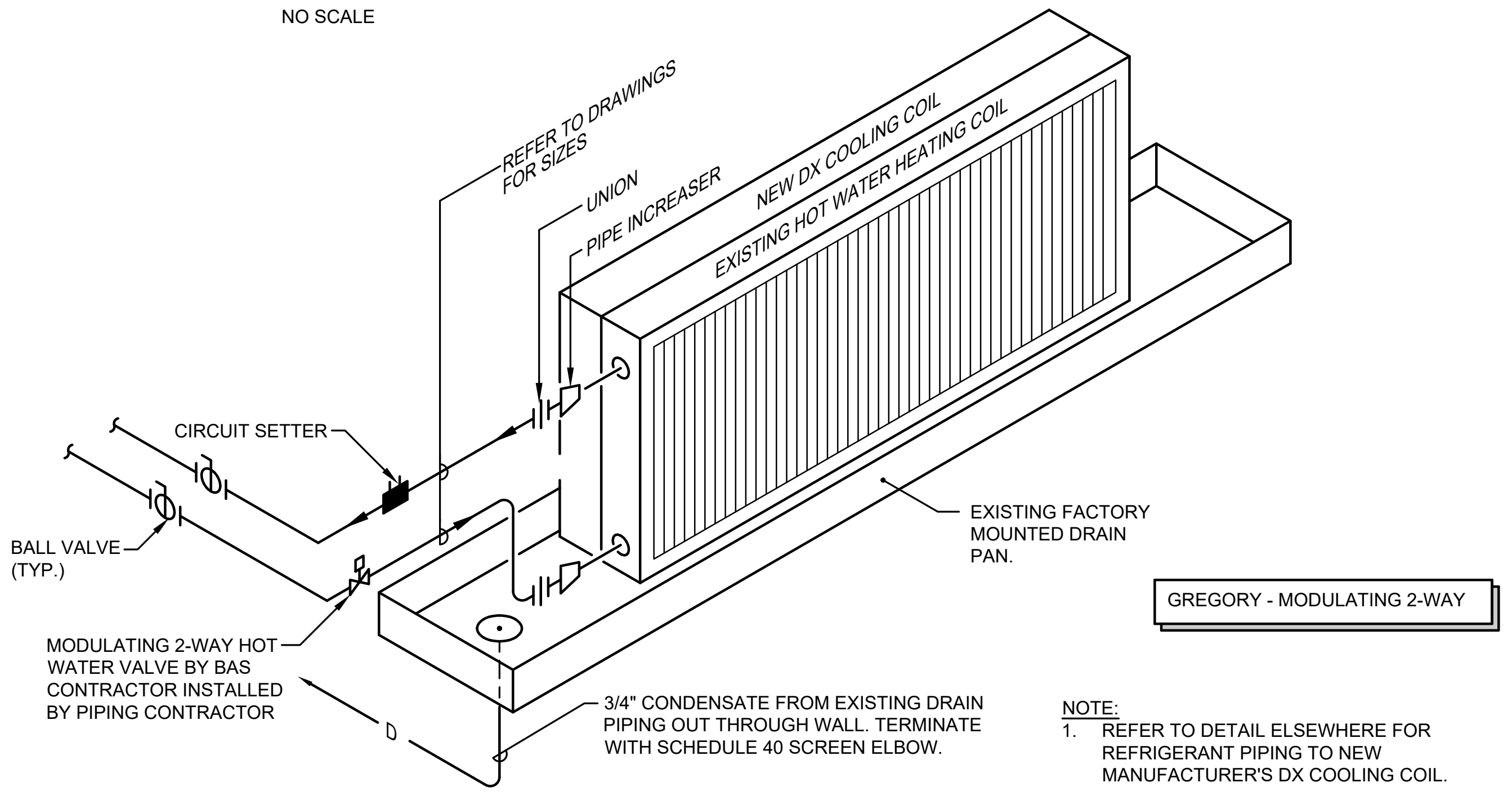


NOTE:
1. REFER TO DETAIL ELSEWHERE FOR REFRIGERANT PIPING TO NEW MANUFACTURER'S DX COOLING COIL.
2. ALL LPS/LPC PIPING INSIDE THE UTILITY COMPARTMENT SHALL BE INSULATED PER SPECIFICATIONS.

3/4" CONDENSATE DRAIN. EXIT WALL AND TERMINATE WITH SCHEDULE 40 SCREEN ELBOW. SEAL WEATHER TIGHT. PROVIDE STAINLESS STEEL ESCUTCHEON PLATE ON EXTERNAL PIPING.

UNIT VENTILATOR WITH STEAM HEAT AND 'DX' COIL DETAIL

NO SCALE


REFER TO DRAWINGS FOR SIZES
UNION
PIPE INCREASER
NEW DX COOLING COIL
EXISTING HOT WATER HEATING COIL
CIRCUIT SETTER
BALL VALVE (TYP.)
EXISTING FACTORY MOUNTED DRAIN PAN.
GREGORY - MODULATING 2-WAY
MODULATING 2-WAY HOT WATER VALVE BY BAS CONTRACTOR INSTALLED BY PIPING CONTRACTOR
D

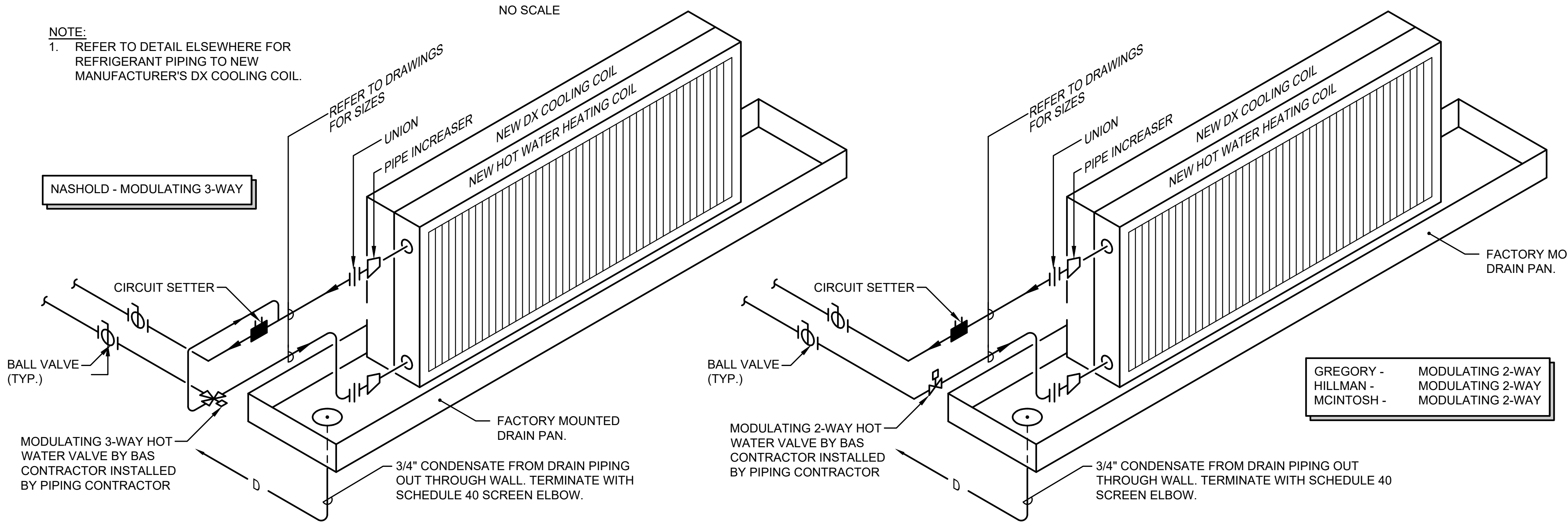
3/4" CONDENSATE FROM EXISTING DRAIN PIPING OUT THROUGH WALL. TERMINATE WITH SCHEDULE 40 SCREEN ELBOW.

NOTE:
1. REFER TO DETAIL ELSEWHERE FOR REFRIGERANT PIPING TO NEW MANUFACTURER'S DX COOLING COIL.

EXISTING UNIT VENTILATOR WITH EXIST. HOT WATER COIL AND NEW 'DX' COIL

NO SCALE

NOTE:
1. REFER TO DETAIL ELSEWHERE FOR REFRIGERANT PIPING TO NEW MANUFACTURER'S DX COOLING COIL.


NASHOLD - MODULATING 3-WAY
REFER TO DRAWINGS FOR SIZES
UNION
PIPE INCREASER
NEW DX COOLING COIL
NEW HOT WATER HEATING COIL
CIRCUIT SETTER
BALL VALVE (TYP.)
MODULATING 3-WAY HOT WATER VALVE BY BAS CONTRACTOR INSTALLED BY PIPING CONTRACTOR
FACTORY MOUNTED DRAIN PAN.
D
REFER TO DRAWINGS FOR SIZES
UNION
PIPE INCREASER
NEW DX COOLING COIL
NEW HOT WATER HEATING COIL
CIRCUIT SETTER
BALL VALVE (TYP.)
MODULATING 2-WAY HOT WATER VALVE BY BAS CONTRACTOR INSTALLED BY PIPING CONTRACTOR
FACTORY MOUNTED DRAIN PAN.
D
GREGORY - MODULATING 2-WAY
HILLMAN - MODULATING 2-WAY
MCINTOSH - MODULATING 2-WAY

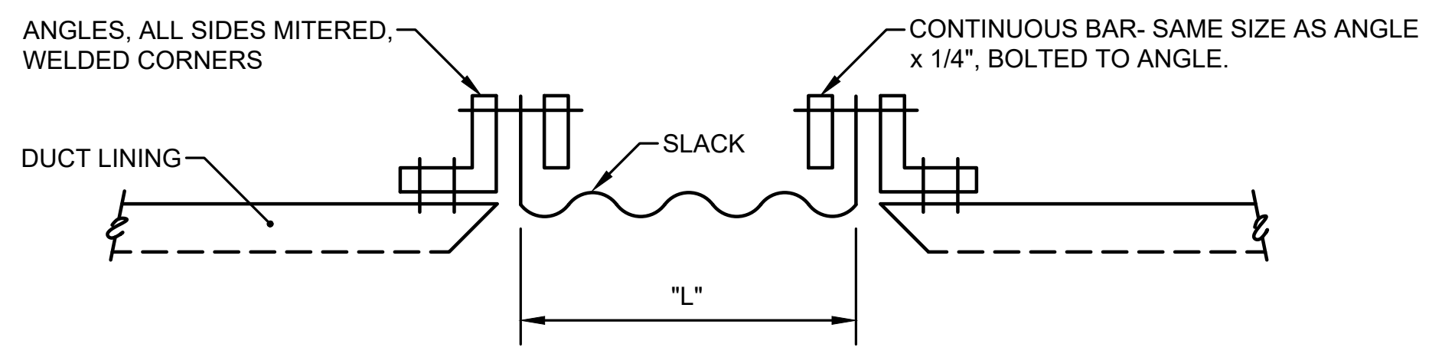
3/4" CONDENSATE FROM DRAIN PIPING OUT THROUGH WALL. TERMINATE WITH SCHEDULE 40 SCREEN ELBOW.

3/4" CONDENSATE FROM DRAIN PIPING OUT THROUGH WALL. TERMINATE WITH SCHEDULE 40 SCREEN ELBOW.

NEW UNIT VENTILATOR WITH HOT WATER COIL AND 'DX' COIL

NO SCALE

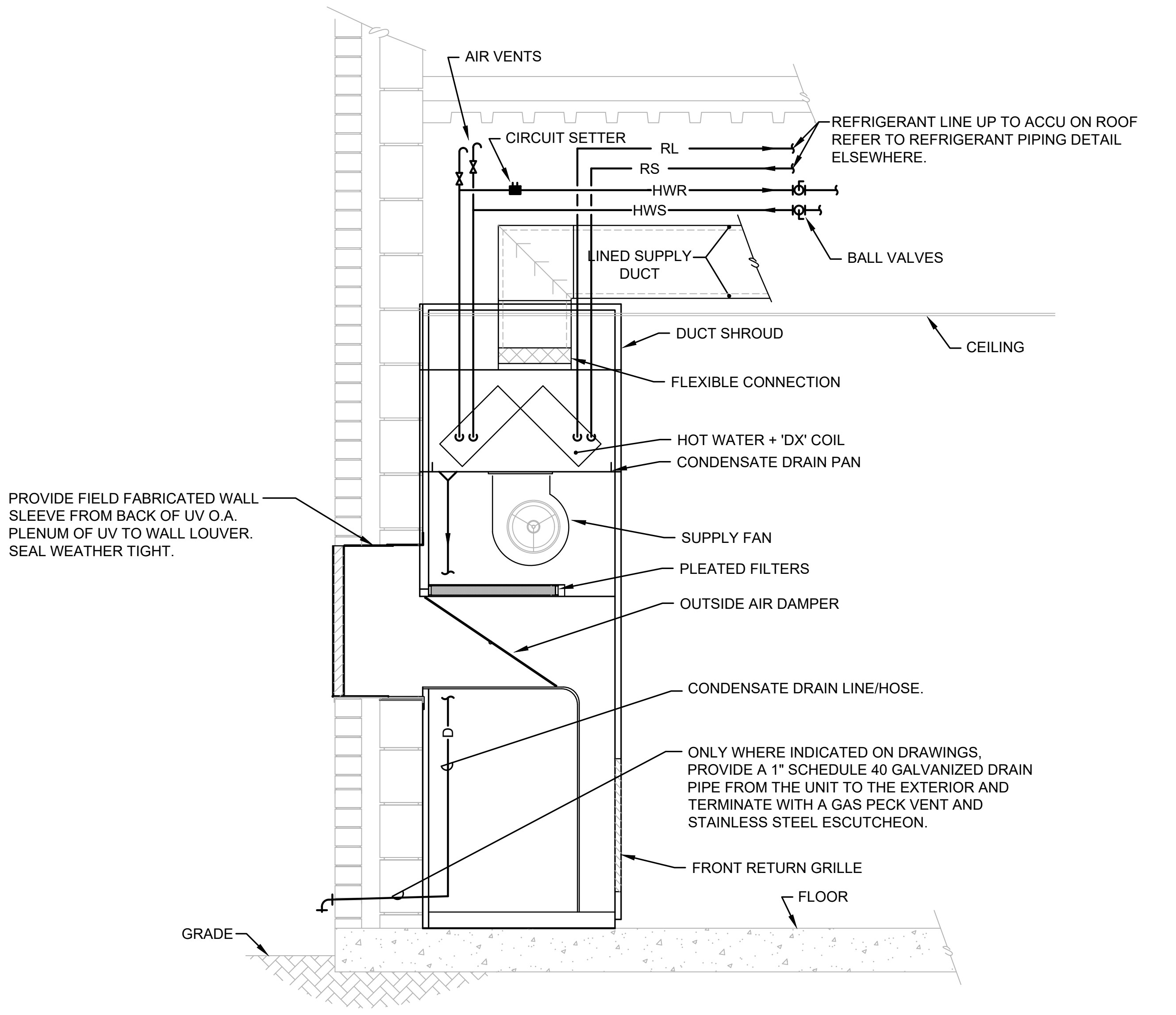
NOTE:
FLEXIBLE CONNECTION TO ISOLATE ALL DUCTS FROM ALL FANS AND FAN ENCLOSURES TO PREVENT TRANSMISSION OF VIBRATION TO DUCTWORK AND STRUCTURE.


ANGLES, ALL SIDES MITERED, WELDED CORNERS
CONTINUOUS BAR- SAME SIZE AS ANGLE x 1/4", BOLTED TO ANGLE.
DUCT LINING
SLACK
"L"

SP OF FAN	MIN. SLACK	MIN. "L"
UP TO 2"	1 1/4"	4"
2 1/8" TO 4"	2"	6"

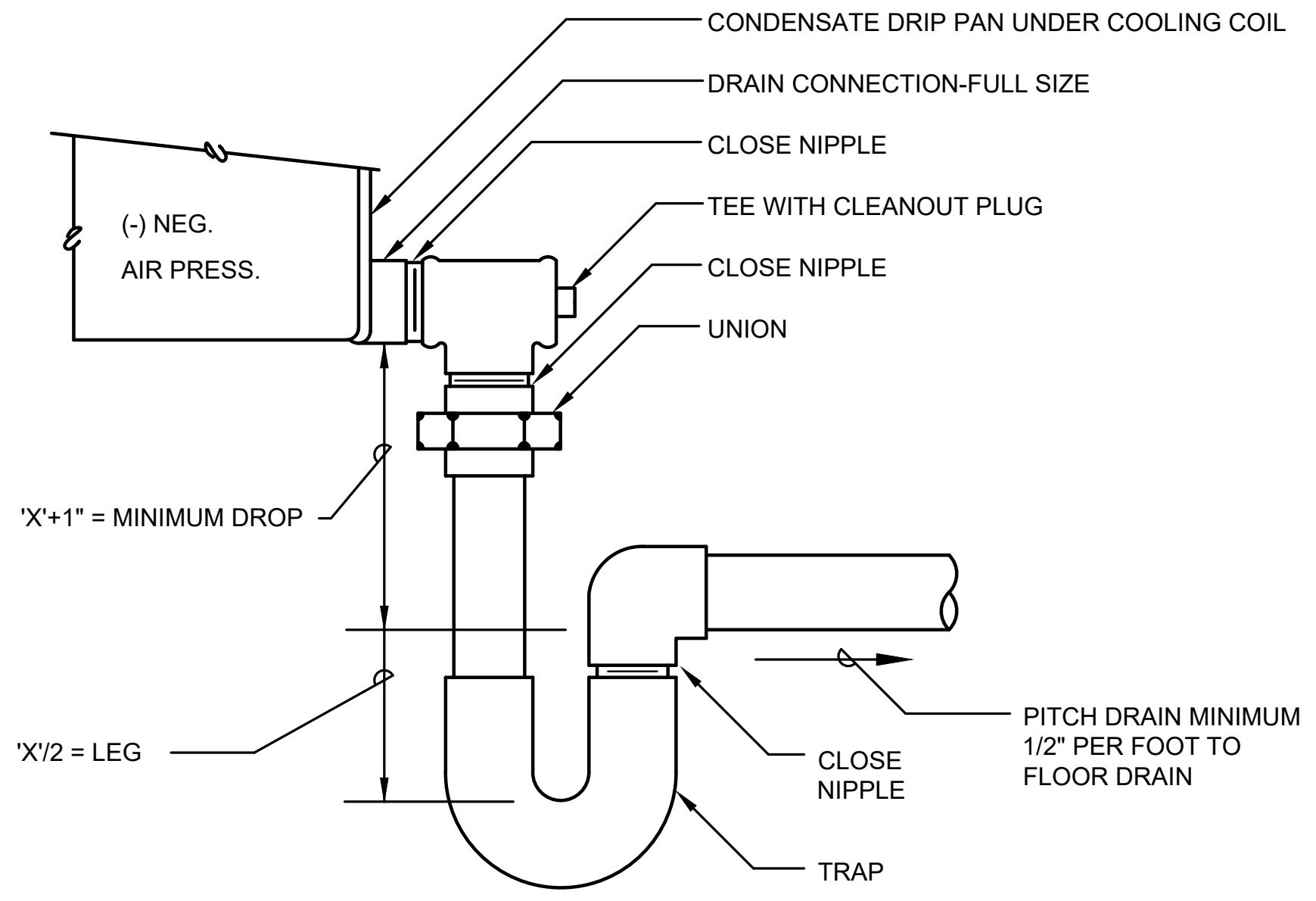
FLEXIBLE CONNECTION DETAIL

NO SCALE


AIR VENTS
CIRCUIT SETTER
RL
RS
HWR
HWS
REFRIGERANT LINE UP TO ACCU ON ROOF REFER TO REFRIGERANT PIPING DETAIL ELSEWHERE.
LINED SUPPLY DUCT
BALL VALVES
DUCT SHROUD
CEILING
FLEXIBLE CONNECTION
HOT WATER + 'DX' COIL
CONDENSATE DRAIN PAN
PROVIDE FIELD FABRICATED WALL SLEEVE FROM BACK OF UV O.A. PLENUM OF UV TO WALL LOUVER. SEAL WEATHER TIGHT.
SUPPLY FAN
PLEATED FILTERS
OUTSIDE AIR DAMPER
CONDENSATE DRAIN LINE/HOSE.
ONLY WHERE INDICATED ON DRAWINGS, PROVIDE A 1" SCHEDULE 40 GALVANIZED DRAIN PIPE FROM THE UNIT TO THE EXTERIOR AND TERMINATE WITH A GAS PECK VENT AND STAINLESS STEEL ESCUTCHEON.
FRONT RETURN GRILLE
FLOOR
GRADE
D

UNIT VENTILATOR INSTALLATION DETAIL WITH EXTERIOR LOUVER AND POWER EXHAUST

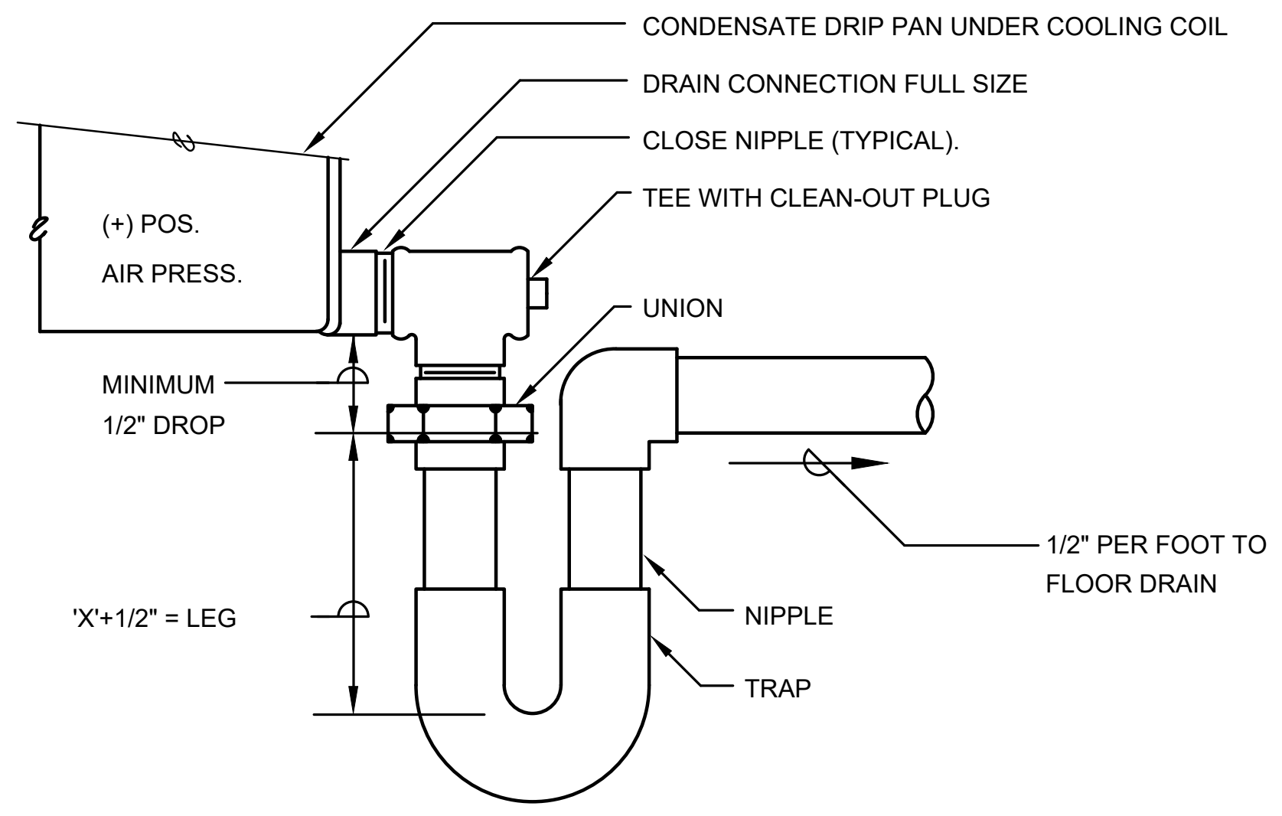
NO SCALE



NOTES:
1. 'X' = SUCTION PRESSURE AT FAN INLET (NEGATIVE INTERNAL S.P.)
2. FOR ROOFTOP UNITS, SPILL DRAIN TO OVER 12"x12"x3/4" THICK RUBBER ROOF GUARD PAD.

DRAW-THRU COOLING COIL DRIP PAN DRAIN DETAIL

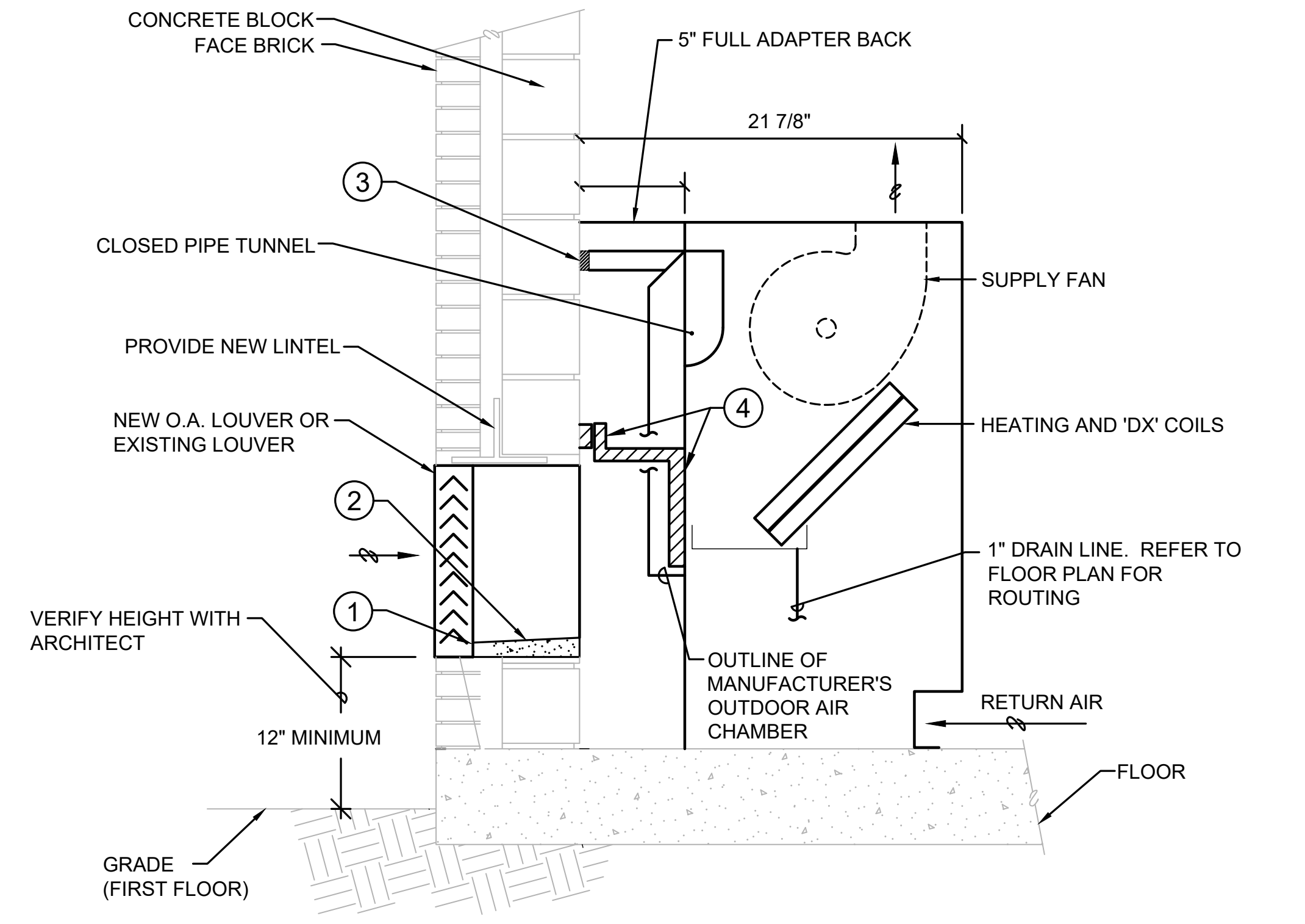
NO SCALE



NOTES:
1. 'X' = DISCHARGE PRESSURE OF FAN (POSITIVE INTERNAL S.P.)

BLOW-THRU COOLING COIL DRIP PAN DRAIN DETAIL

NO SCALE



NOTE:

① PROVIDE A CONTINUOUS SHEET METAL SLEEVE FROM THE LOUVER THROUGH THE WALL TO THE INSIDE OF THE UV COMPARTMENT

② PROVIDE GROUT WASH OR ALUMINUM PAN FROM INSIDE FACE OF WALL TO LOUVER. PITCH FROM 1 1/2" HIGH AT UNIT TO 1/2" AT LOUVER.

③ CONTRACTOR TO APPLY 1" THICK COMPRESSIBLE GASKET (COMPATIBLE WITH UV MANUFACTURER'S SPECIFICATIONS). CONTRACTOR SHALL SEAL ALL (4) SIDES OF O.A. INTAKE OPENING AIRTIGHT BY APPLYING CAULK TO GASKET JUST PRIOR TO PLACING UNIT AGAINST WALL.

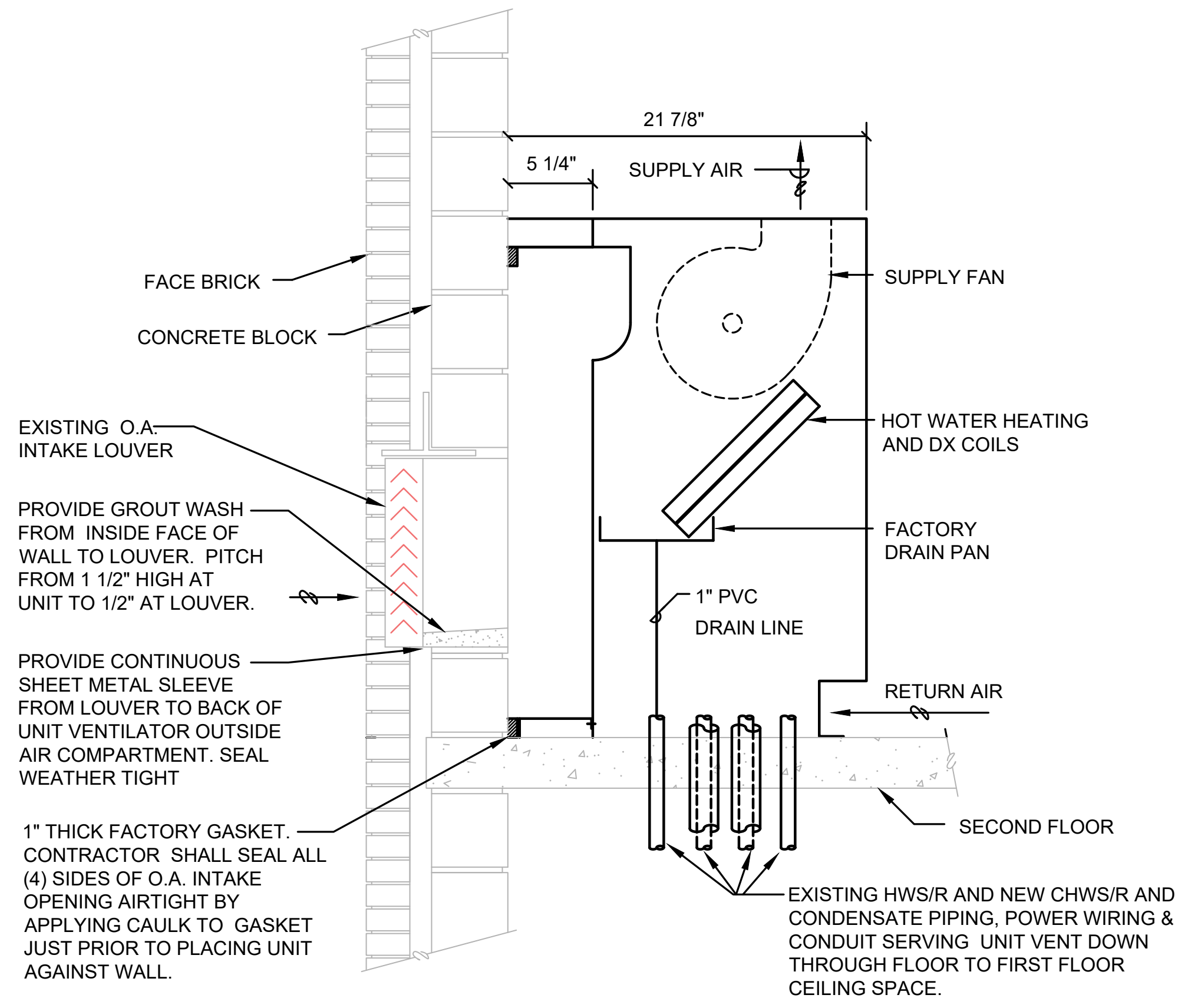
④ FILL VOID IN REAR OF UNIT AND REAR OF SIDE COMPARTMENTS WITH FIBERGLASS BATT INSULATION.

⑤ PROVIDE FIELD FABRICATED INSULATED CAP ON TOP OF OUTSIDE AIR INTAKE FROM TOP OF LOUVER TO BACK OF UNIT. MODIFY ONLY FOR U.V.'S WHERE PASSAGE OF PIPING IS LIMITED AND MODIFICATIONS ARE REQUIRED TO ALLOW PIPES TO PASS BEHIND UNIT VENTILATOR.

SIMILAR DETAIL FOR STEAM COILS. REFER TO COIL PIPING DETAILS FOR ADDITIONAL INFORMATION.

UNIT VENTILATOR WITH STEAM & 'DX' COIL

NO SCALE

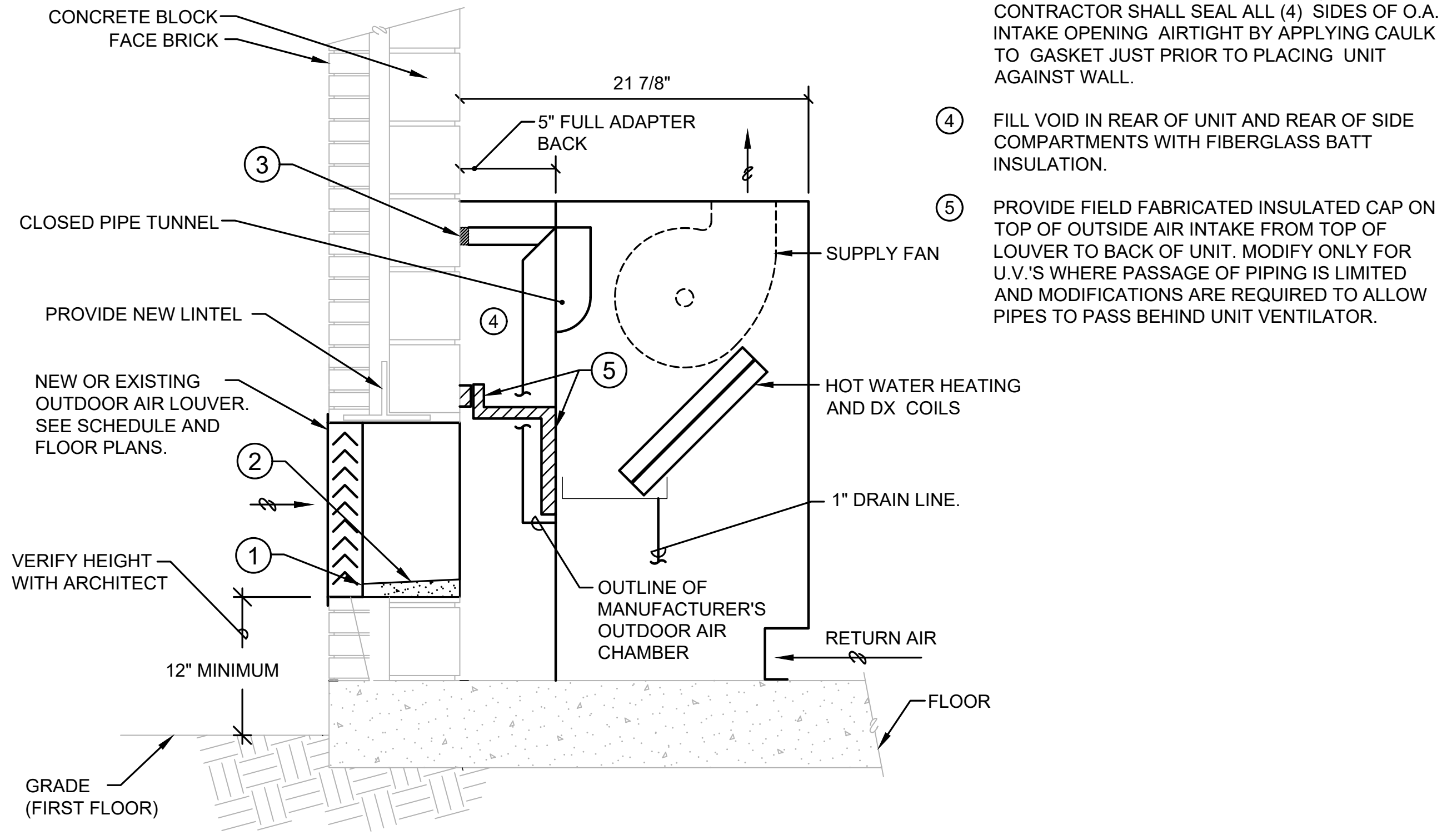

21 7/8"
5 1/4"
SUPPLY AIR
FACE BRICK
SUPPLY FAN
CONCRETE BLOCK
EXISTING O.A. INTAKE LOUVER
HOT WATER HEATING AND DX COILS
PROVIDE GROUT WASH FROM INSIDE FACE OF WALL TO LOUVER. PITCH FROM 1 1/2" HIGH AT UNIT TO 1/2" AT LOUVER.
FACTORY DRAIN PAN
1" PVC DRAIN LINE
PROVIDE CONTINUOUS SHEET METAL SLEEVE FROM LOUVER TO BACK OF UNIT VENTILATOR OUTSIDE AIR COMPARTMENT. SEAL WEATHER TIGHT
RETURN AIR
1" THICK FACTORY GASKET. CONTRACTOR SHALL SEAL ALL (4) SIDES OF O.A. INTAKE OPENING AIRTIGHT BY APPLYING CAULK TO GASKET JUST PRIOR TO PLACING UNIT AGAINST WALL.
SECOND FLOOR
EXISTING HWS/R AND NEW CHWS/R AND CONDENSATE PIPING, POWER WIRING & CONDUIT SERVING UNIT VENT DOWN THROUGH FLOOR TO FIRST FLOOR CEILING SPACE.

NOTES:
1. LINE INTERIOR OF OUTDOOR AIR INTAKE OF UNIT VENTILATOR COMPARTMENT WITH 1" THICK FIBER FREE ACOUSTICAL INSULATION ON ALL SIDES.
2. THE VOID IN ALL UNIT VENTILATOR SIDE COMPARTMENTS BETWEEN THE PIPING, CONDUITS, AND CONTROL WIRING SHALL BE FILLED WITH BATT INSULATION.

UNIT VENT INSTALLATION DETAIL

NO SCALE

SIMILAR DETAIL FOR HOT WATER, CHILLED WATER AND DIRECT EXPANSION COILS. REFER TO COIL PIPING DETAILS FOR ADDITIONAL INFORMATION.


CONCRETE BLOCK
FACE BRICK
21 7/8"
5" FULL ADAPTER BACK
3
CLOSED PIPE TUNNEL
SUPPLY FAN
PROVIDE NEW LINTEL
4
5
NEW OR EXISTING OUTDOOR AIR LOUVER. SEE SCHEDULE AND FLOOR PLANS.
HOT WATER HEATING AND DX COILS
2
1
1" DRAIN LINE.
VERIFY HEIGHT WITH ARCHITECT
OUTLINE OF MANUFACTURER'S OUTDOOR AIR CHAMBER
RETURN AIR
12" MINIMUM
FLOOR
GRADE (FIRST FLOOR)

NOTES:

① PROVIDE A CONTINUOUS SHEET METAL SLEEVE FROM THE LOUVER THROUGH THE WALL TO THE INSIDE OF THE UV COMPARTMENT

② PROVIDE GROUT WASH FROM INSIDE FACE OF WALL TO LOUVER. PITCH FROM 1 1/2" HIGH AT UNIT TO 1/2" AT LOUVER.

③ CONTRACTOR TO APPLY 1" THICK COMPRESSIBLE GASKET (COMPATIBLE WITH UV MANUFACTURER'S SPECIFICATIONS). CONTRACTOR SHALL SEAL ALL (4) SIDES OF O.A. INTAKE OPENING AIRTIGHT BY APPLYING CAULK TO GASKET JUST PRIOR TO PLACING UNIT AGAINST WALL.

④ FILL VOID IN REAR OF UNIT AND REAR OF SIDE COMPARTMENTS WITH FIBERGLASS BATT INSULATION.

⑤ PROVIDE FIELD FABRICATED INSULATED CAP ON TOP OF OUTSIDE AIR INTAKE FROM TOP OF LOUVER TO BACK OF UNIT. MODIFY ONLY FOR U.V.'S WHERE PASSAGE OF PIPING IS LIMITED AND MODIFICATIONS ARE REQUIRED TO ALLOW PIPES TO PASS BEHIND UNIT VENTILATOR.

UNIT VENTILATOR WITH HOT WATER COIL AND DX OR COILS

NO SCALE

FILE: F:\788-V-1\HV\COMMON\788V1 M4.1.DWG SAVED BY: MCASTRO DATE: 9/30/2022 TIME: 1:52 PM

Larson & Darby Group
Architecture Engineering Interiors

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Elk Grove, IL 60007
Tel: 847-981-1880
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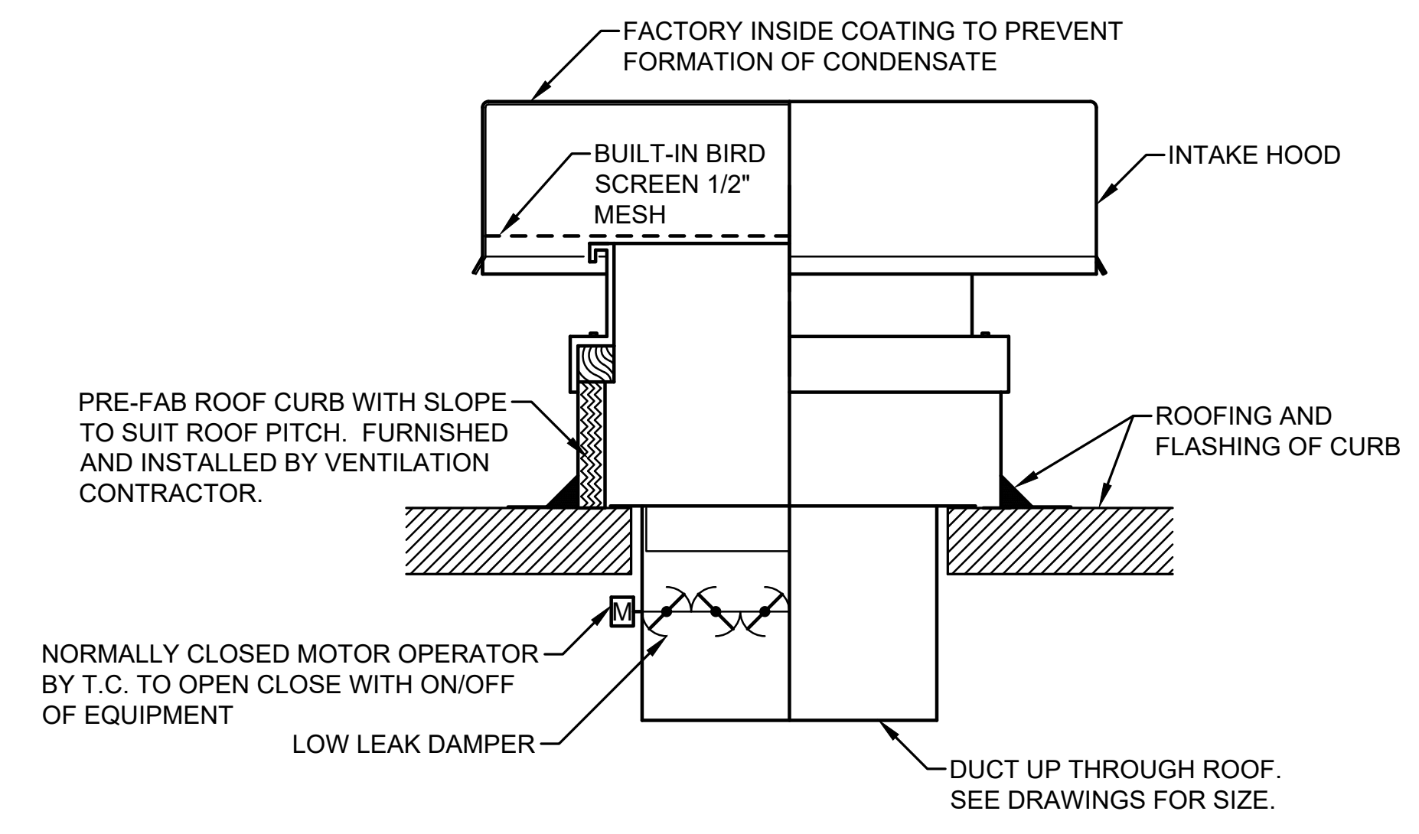
www.cs2designgroup.com

MECHANICAL DETAILS
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

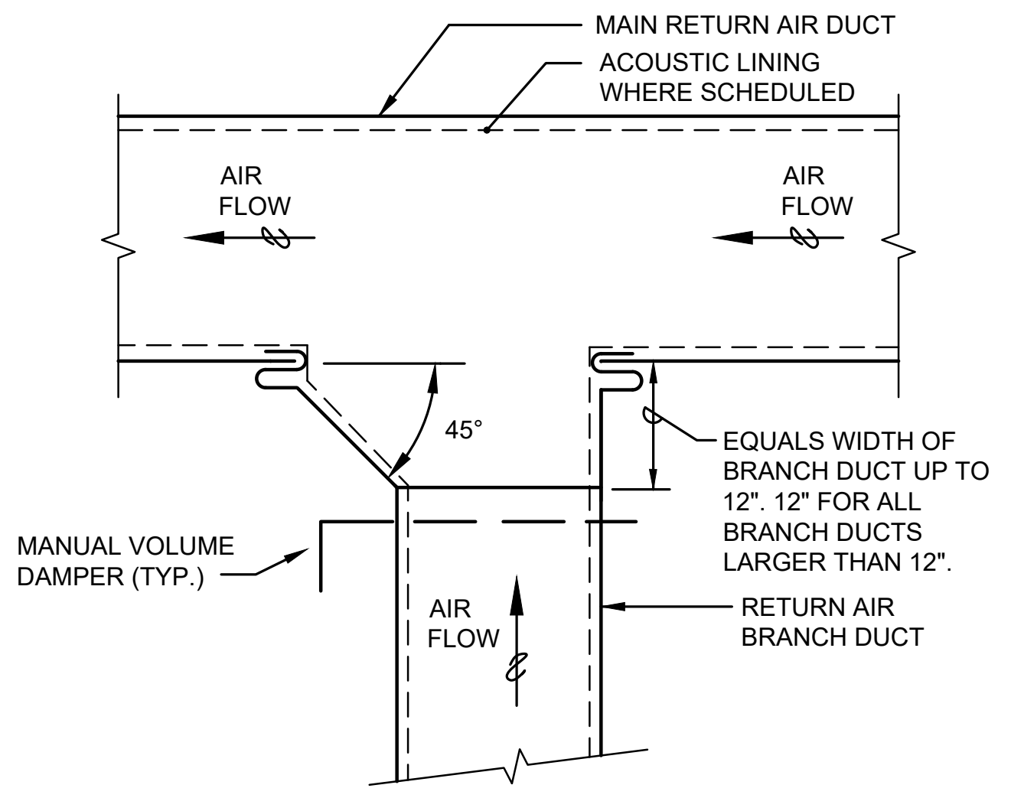
ISSUED FOR:	DATE

DATE: 10-11-2022
PROJECT NUMBER
32103-00
SHEET NUMBER
M4.1


FACTORY INSIDE COATING TO PREVENT FORMATION OF CONDENSATE
BUILT-IN BIRD SCREEN 1/2" MESH
INTAKE HOOD
PRE-FAB ROOF CURB WITH SLOPE TO SUIT ROOF PITCH. FURNISHED AND INSTALLED BY VENTILATION CONTRACTOR.
ROOFING AND FLASHING OF CURB
NORMALLY CLOSED MOTOR OPERATOR BY T.C. TO OPEN CLOSE WITH ON/OFF OF EQUIPMENT
LOW LEAK DAMPER
DUCT UP THROUGH ROOF. SEE DRAWINGS FOR SIZE.

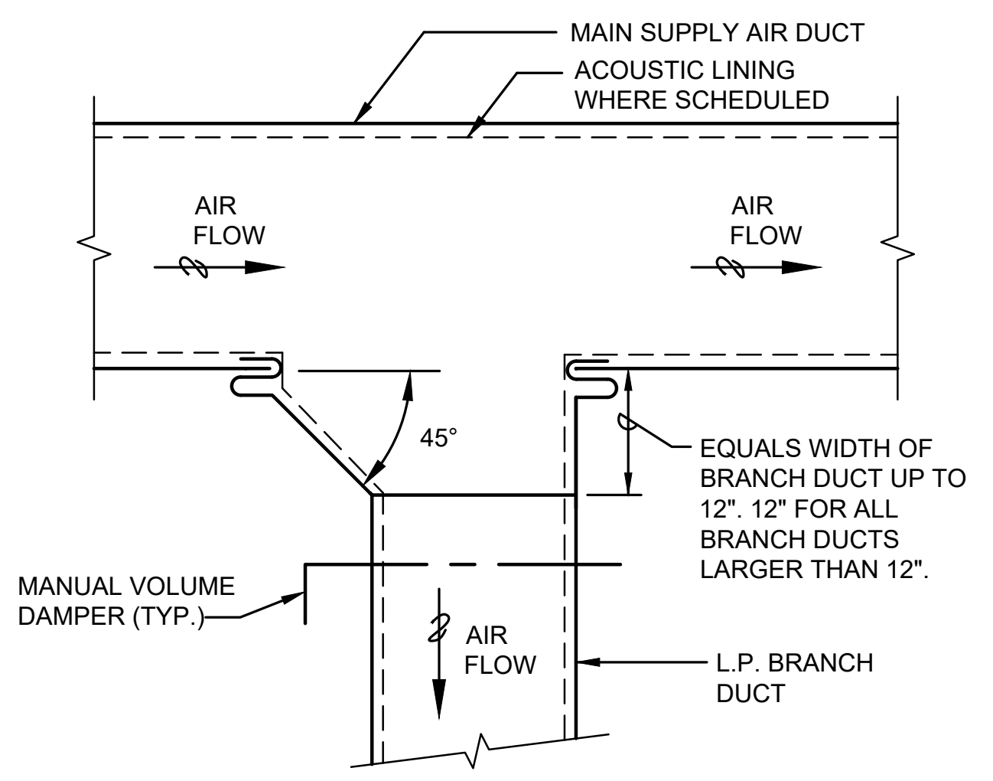
INTAKE/RELIEF HOOD INSTALLATION DETAIL

NO SCALE


MAIN RETURN AIR DUCT
ACOUSTIC LINING WHERE SCHEDULED
AIR FLOW
AIR FLOW
45°
EQUALS WIDTH OF BRANCH DUCT UP TO 12". 12" FOR ALL BRANCH DUCTS LARGER THAN 12".
MANUAL VOLUME DAMPER (TYP.)
AIR FLOW
RETURN AIR BRANCH DUCT

TYP. RETURN BRANCH DUCT TAKE-0FF

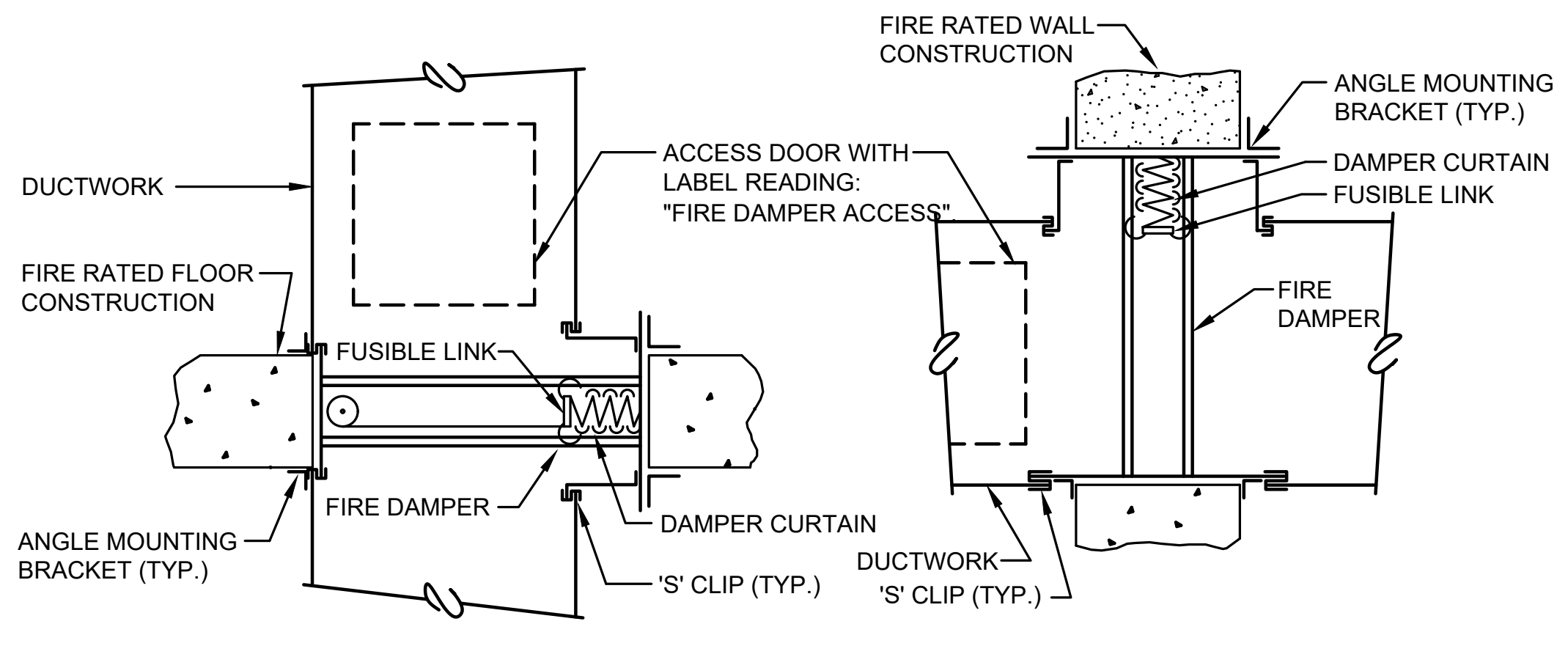
NO SCALE


MAIN SUPPLY AIR DUCT
ACOUSTIC LINING WHERE SCHEDULED
AIR FLOW
AIR FLOW
45°
EQUALS WIDTH OF BRANCH DUCT UP TO 12". 12" FOR ALL BRANCH DUCTS LARGER THAN 12".
MANUAL VOLUME DAMPER (TYP.)
AIR FLOW
L.P. BRANCH DUCT

TYP. SUPPLY BRANCH DUCT TAKE-0FF

NO SCALE

NOTES:
1. ACCESS DOORS TO BE SIZED/LOCATED SUCH THAT RESETTING FIRE DAMPER LINK CAN BE ACCOMPLISHED VIA ACCESS DOOR.
2. MINIMUM SIZE IS 12"x12". PROVIDE MULTIPLE ACCESS DOORS AT MULTIPLE SECTION FIRE DAMPERS.
3. COORDINATE GENERAL CONTRACTOR FURNISHED/INSTALLED WALL OR CEILING ACCESS PANELS REQUIRED AT OTHERWISE INACCESSIBLE LOCATIONS.

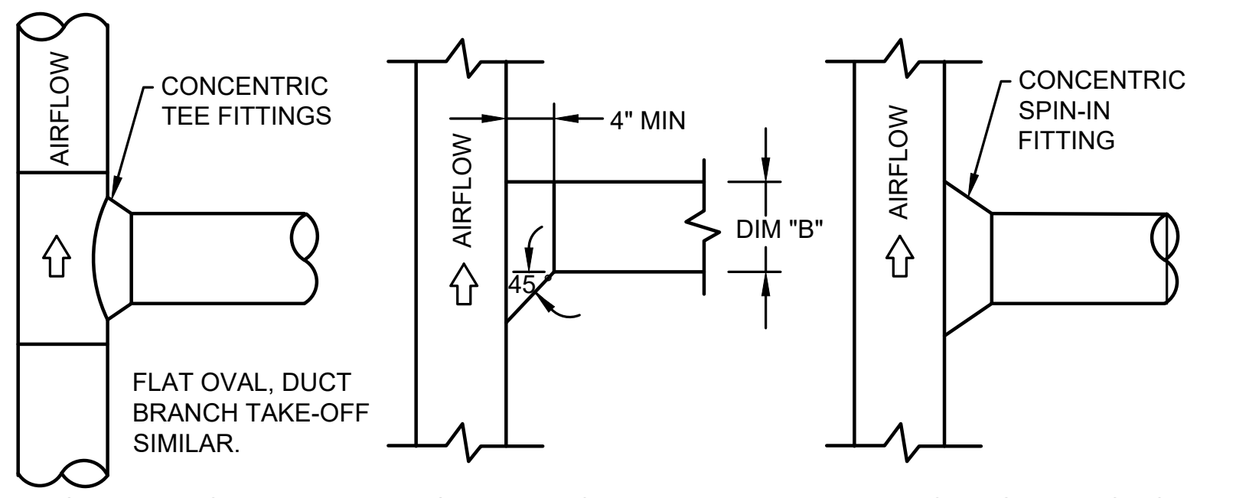

DUCTWORK
FIRE RATED FLOOR CONSTRUCTION
ACCESS DOOR WITH LABEL READING: "FIRE DAMPER ACCESS"
FUSIBLE LINK
FIRE DAMPER
ANGLE MOUNTING BRACKET (TYP.)
DAMPER CURTAIN
'S' CLIP (TYP.)
FIRE RATED WALL CONSTRUCTION
ANGLE MOUNTING BRACKET (TYP.)
DAMPER CURTAIN
FUSIBLE LINK
FIRE DAMPER
DUCTWORK
'S' CLIP (TYP.)

FLOOR DAMPER

WALL DAMPER

FIRE DAMPER DETAIL (FID)

NO SCALE


AIRFLOW
CONCENTRIC TEE FITTINGS
FLAT OVAL, DUCT BRANCH TAKE-OFF SIMILAR.
AIRFLOW
4" MIN
DIM "B"
45°
AIRFLOW
CONCENTRIC SPIN-IN FITTING

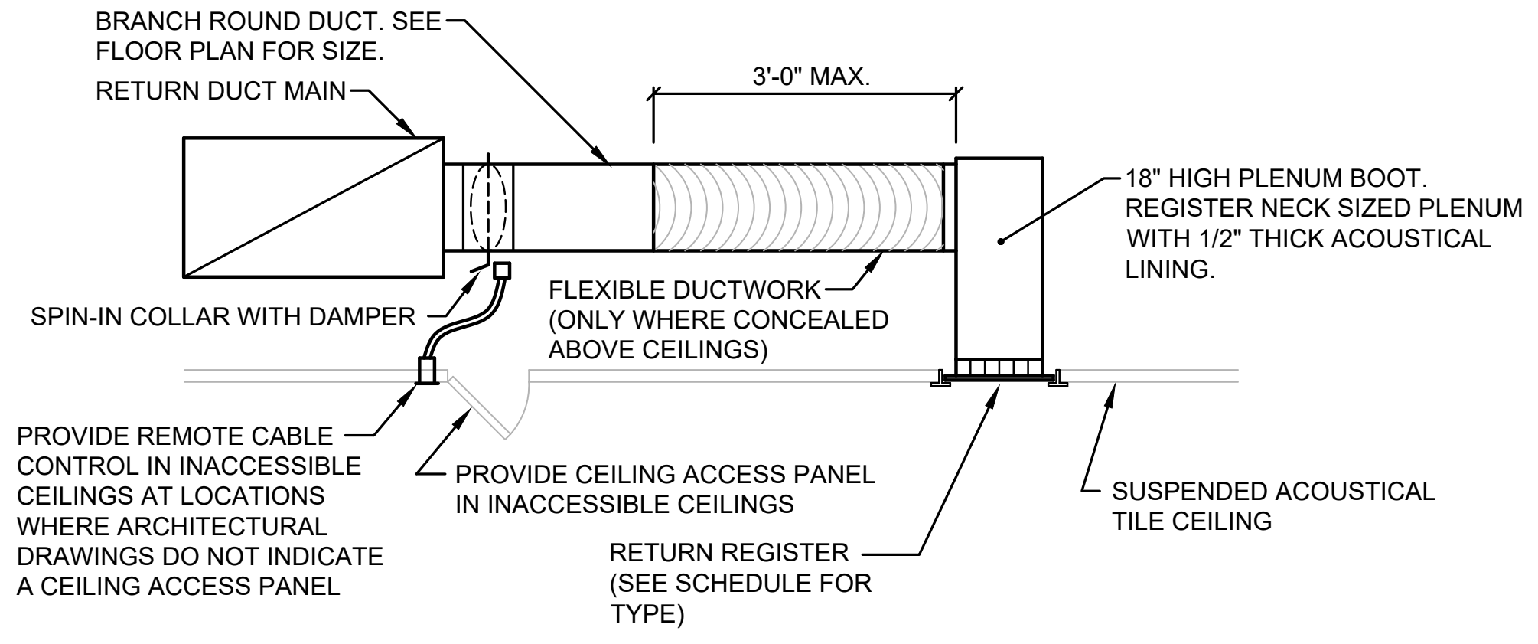
SUPPLY DUCT

SUPPLY DUCT

RECTANGULAR TO ROUND DUCT

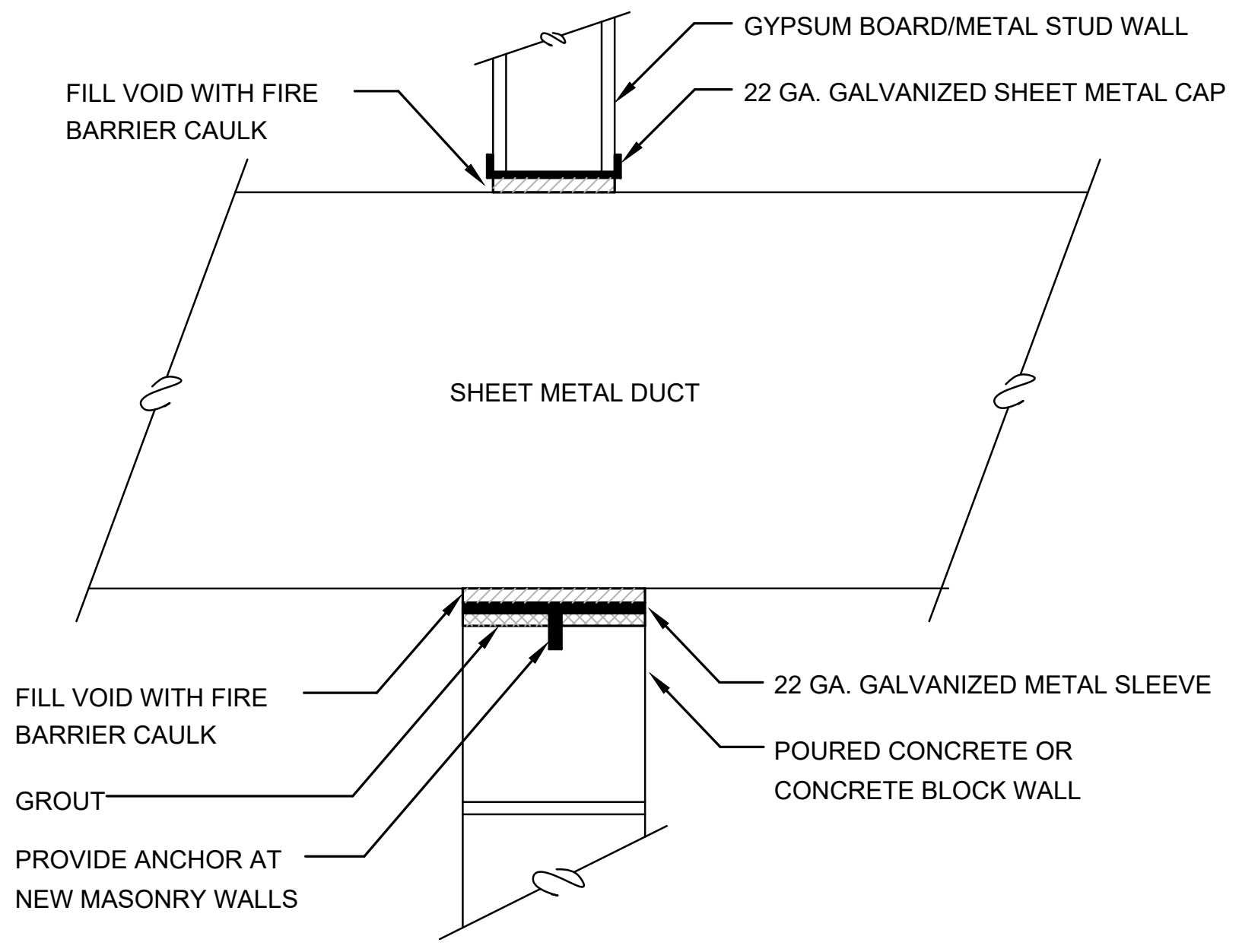
DUCT BRAANCH TAKE-OFF DETAIL

NO SCALE


BRANCH ROUND DUCT. SEE FLOOR PLAN FOR SIZE.
RETURN DUCT MAIN
3'-0" MAX.
18" HIGH PLENUM BOOT. REGISTER NECK SIZED PLENUM WITH 1/2" THICK ACOUSTICAL LINING.
SPIN-IN COLLAR WITH DAMPER
FLEXIBLE DUCTWORK (ONLY WHERE CONCEALED ABOVE CEILINGS)
PROVIDE REMOTE CABLE CONTROL IN INACCESSIBLE CEILINGS AT LOCATIONS WHERE ARCHITECTURAL DRAWINGS DO NOT INDICATE A CEILING ACCESS PANEL
PROVIDE CEILING ACCESS PANEL IN INACCESSIBLE CEILINGS
RETURN REGISTER (SEE SCHEDULE FOR TYPE)
SUSPENDED ACOUSTICAL TILE CEILING

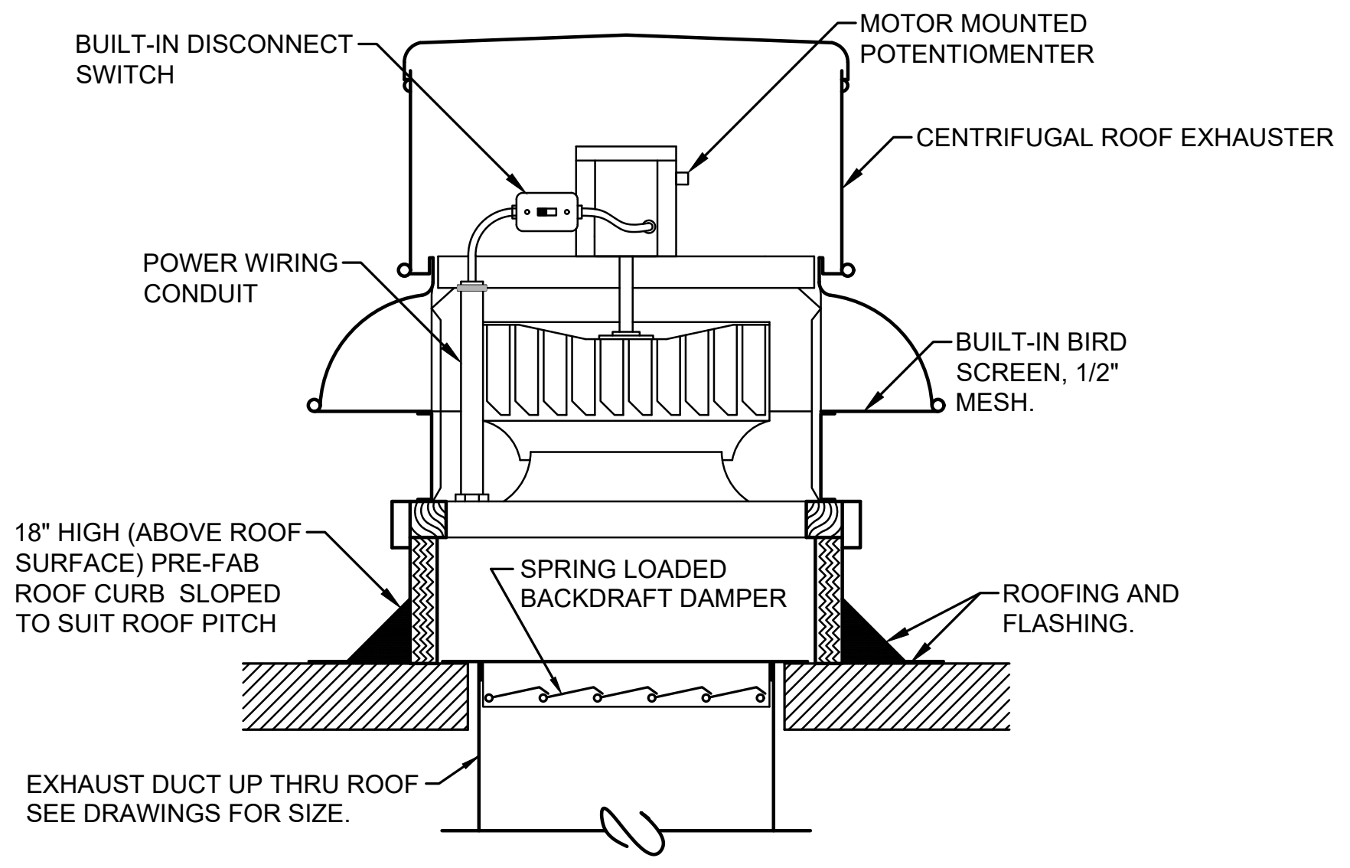
RETURN/EXHAUST REGISTER INSTALLATION DETAIL

NO SCALE


GYPSUM BOARD/METAL STUD WALL
FILL VOID WITH FIRE BARRIER CAULK
22 GA. GALVANIZED SHEET METAL CAP
SHEET METAL DUCT
FILL VOID WITH FIRE BARRIER CAULK
22 GA. GALVANIZED METAL SLEEVE
GROUT
POURED CONCRETE OR CONCRETE BLOCK WALL
PROVIDE ANCHOR AT NEW MASONRY WALLS

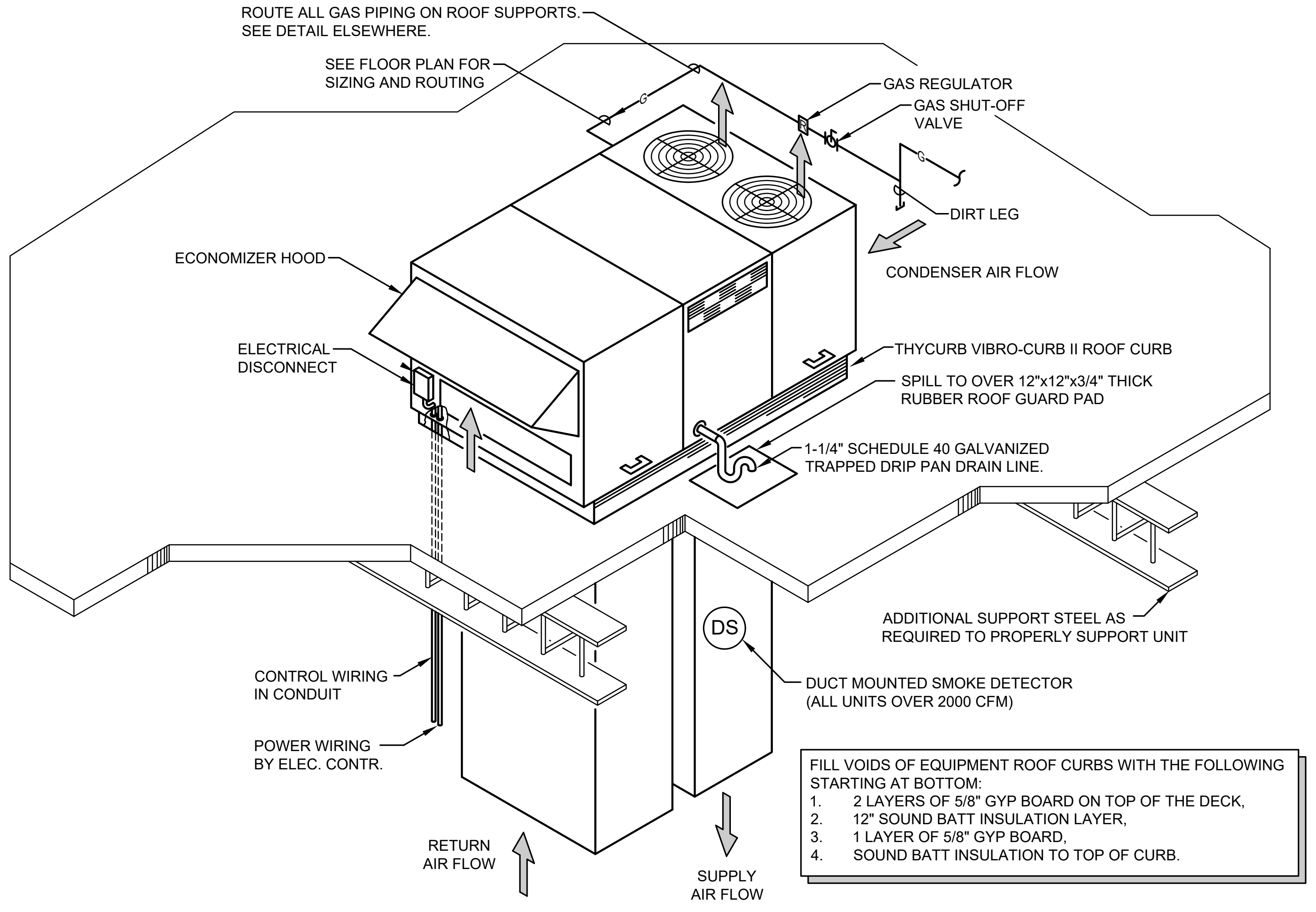
DUCT SLEEVE THROUGH INTERIOR WALL DETAIL

NO SCALE


BUILT-IN DISCONNECT SWITCH
MOTOR MOUNTED POTENTIOMENTER
CENTRIFUGAL ROOF EXHAUSTER
POWER WIRING CONDUIT
BUILT-IN BIRD SCREEN, 1/2" MESH.
18" HIGH (ABOVE ROOF SURFACE) PRE-FAB ROOF CURB SLOPED TO SUIT ROOF PITCH
SPRING LOADED BACKDRAFT DAMPER
ROOFING AND FLASHING.
EXHAUST DUCT UP THRU ROOF SEE DRAWINGS FOR SIZE.

DOWNBLAST CENTRIFUGAL ROOF EXHAUSTER DETAIL

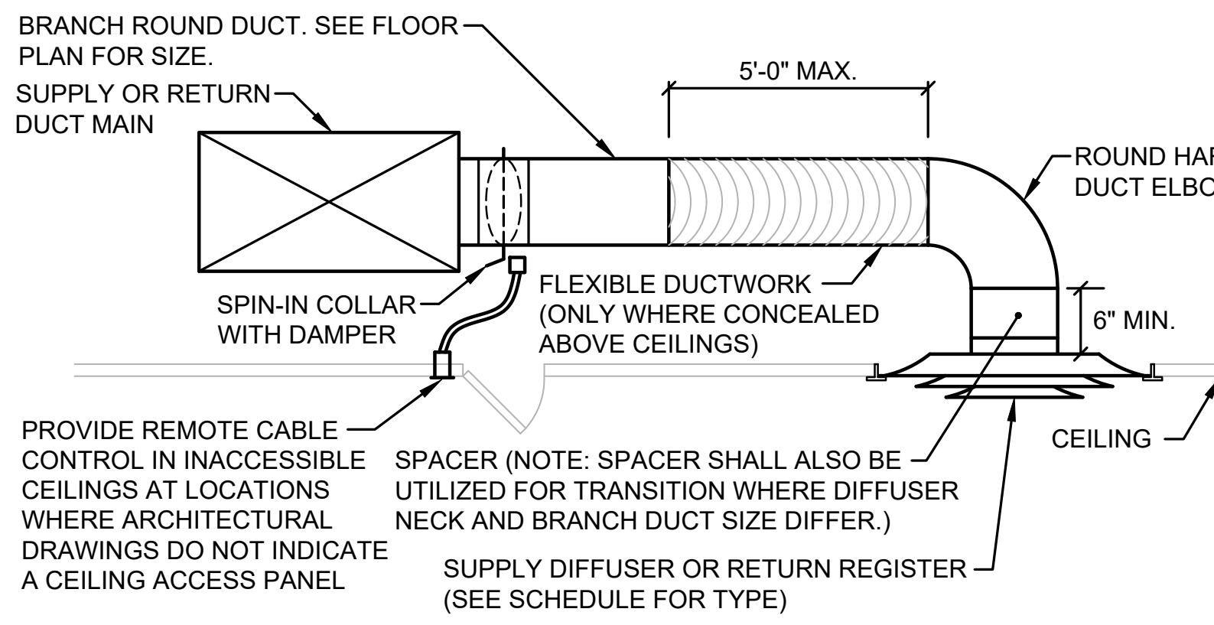
NO SCALE


ROUTE ALL GAS PIPING ON ROOF SUPPORTS. SEE DETAIL ELSEWHERE.
SEE FLOOR PLAN FOR SIZING AND ROUTING
GAS REGULATOR
GAS SHUT-OFF VALVE
DIRT LEG
CONDENSER AIR FLOW
ECONOMIZER HOOD
ELECTRICAL DISCONNECT
THYCURB VIBRO-CURB II ROOF CURB
SPILL TO OVER 12"x12"x3/4" THICK RUBBER ROOF GUARD PAD
1-1/4" SCHEDULE 40 GALVANIZED TRAPPED DRIP PAN DRAIN LINE.
ADDITIONAL SUPPORT STEEL AS REQUIRED TO PROPERLY SUPPORT UNIT
DS
CONTROL WIRING IN CONDUIT
DUCT MOUNTED SMOKE DETECTOR (ALL UNITS OVER 2000 CFM)
POWER WIRING BY ELEC. CONTR.
RETURN AIR FLOW
SUPPLY AIR FLOW

FILL VOIDS OF EQUIPMENT ROOF CURBS WITH THE FOLLOWING STARTING AT BOTTOM:
1. 2 LAYERS OF 5/8" GYP BOARD ON TOP OF THE DECK,
2. 12" SOUND BATT INSULATION LAYER,
3. 1 LAYER OF 5/8" GYP BOARD,
4. SOUND BATT INSULATION TO TOP OF CURB.

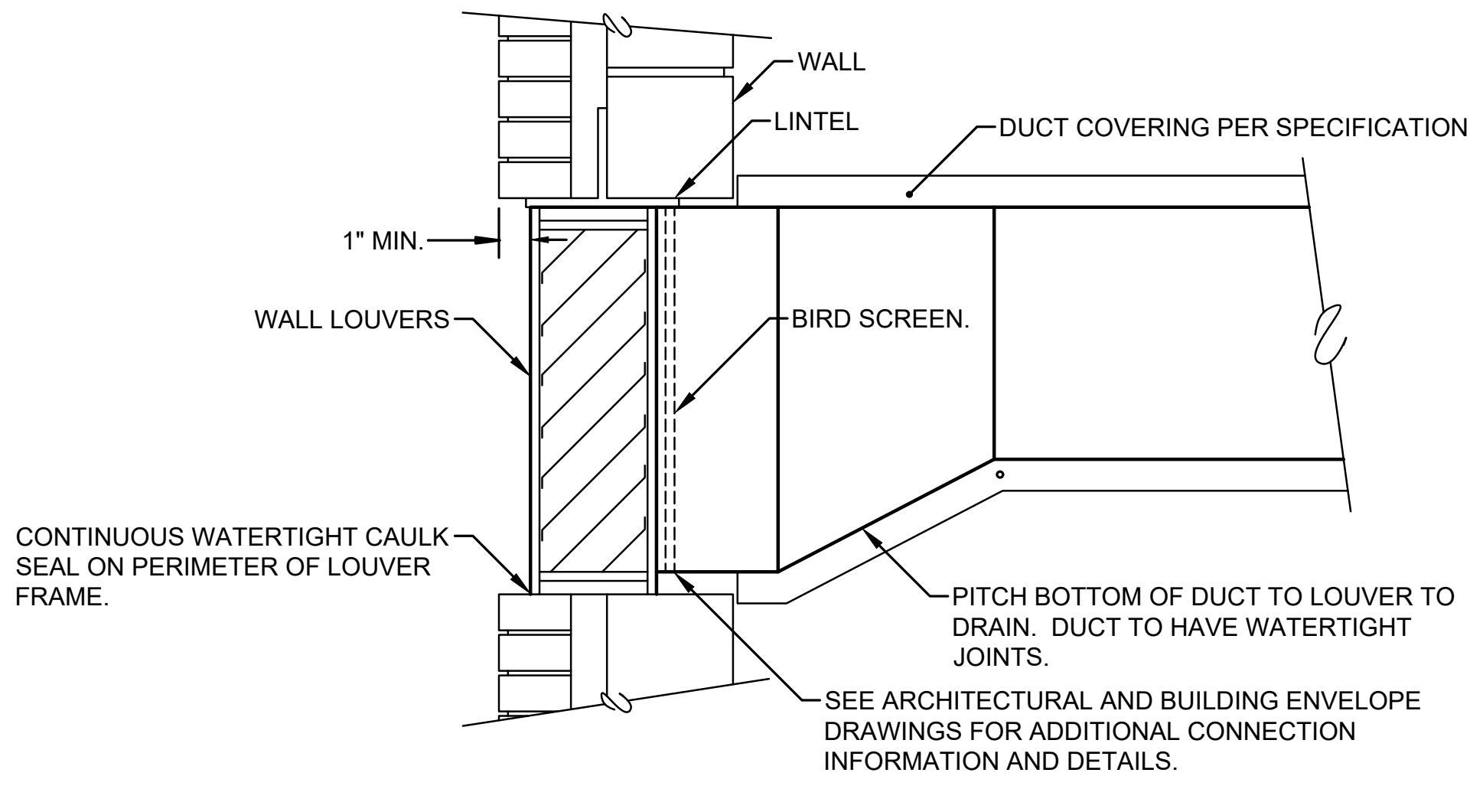
ROOFTOP UNIT INSTALLATION DETAIL

NO SCALE


BRANCH ROUND DUCT. SEE FLOOR PLAN FOR SIZE.
SUPPLY OR RETURN DUCT MAIN
5'-0" MAX.
ROUND HARD DUCT ELBOW
SPIN-IN COLLAR WITH DAMPER
FLEXIBLE DUCTWORK (ONLY WHERE CONCEALED ABOVE CEILINGS)
6" MIN.
PROVIDE REMOTE CABLE CONTROL IN INACCESSIBLE CEILINGS AT LOCATIONS WHERE ARCHITECTURAL DRAWINGS DO NOT INDICATE A CEILING ACCESS PANEL
SPACER (NOTE: SPACER SHALL ALSO BE UTILIZED FOR TRANSITION WHERE DIFFUSER NECK AND BRANCH DUCT SIZE DIFFER.)
CEILING
SUPPLY DIFFUSER OR RETURN REGISTER (SEE SCHEDULE FOR TYPE)

DIFFUSER/REGISTER INSTALLATION DETAIL

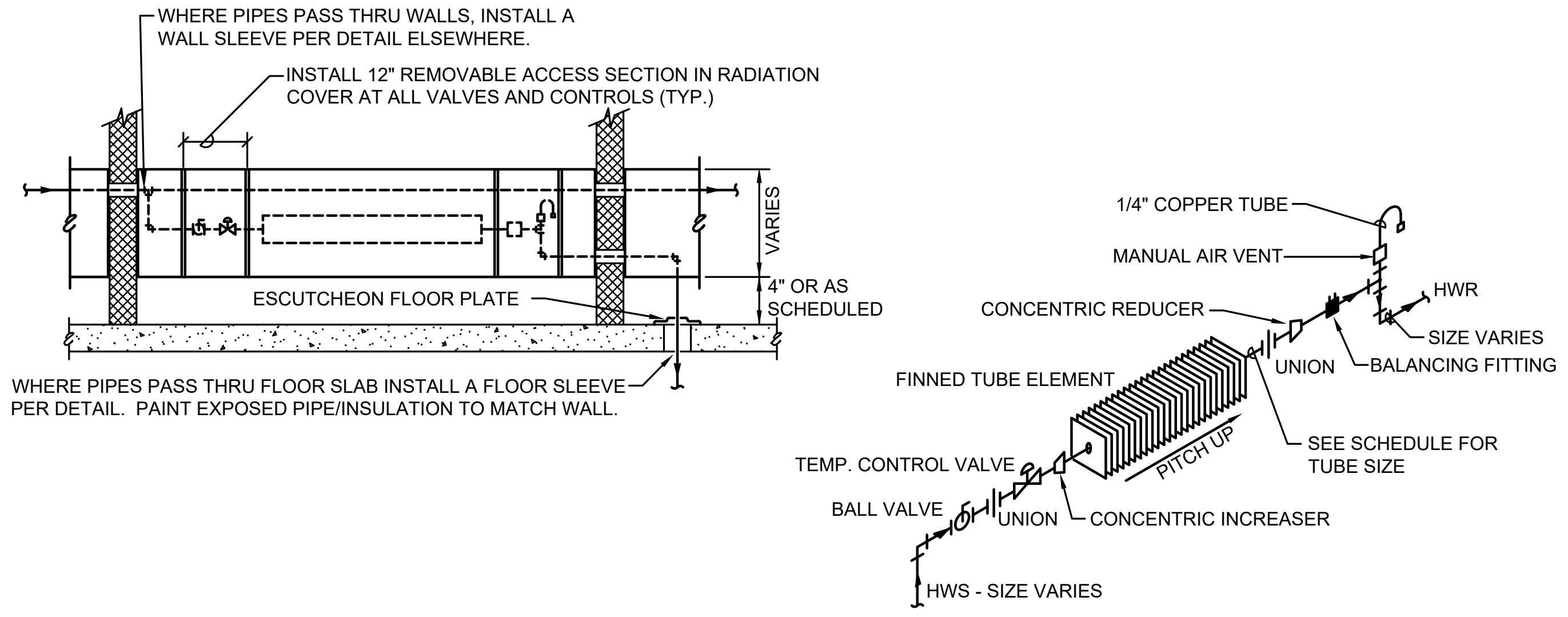
NO SCALE


WALL
LINTEL
DUCT COVERING PER SPECIFICATION
1" MIN.
WALL LOUVERS
BIRD SCREEN.
CONTINUOUS WATERTIGHT CAULK SEAL ON PERIMETER OF LOUVER FRAME.
PITCH BOTTOM OF DUCT TO LOUVER TO DRAIN. DUCT TO HAVE WATERTIGHT JOINTS.
SEE ARCHITECTURAL AND BUILDING ENVELOPE DRAWINGS FOR ADDITIONAL CONNECTION INFORMATION AND DETAILS.

NOTE:
1. SEE WALL LOUVER SCHEDULE FOR CONNECTION SIZES.

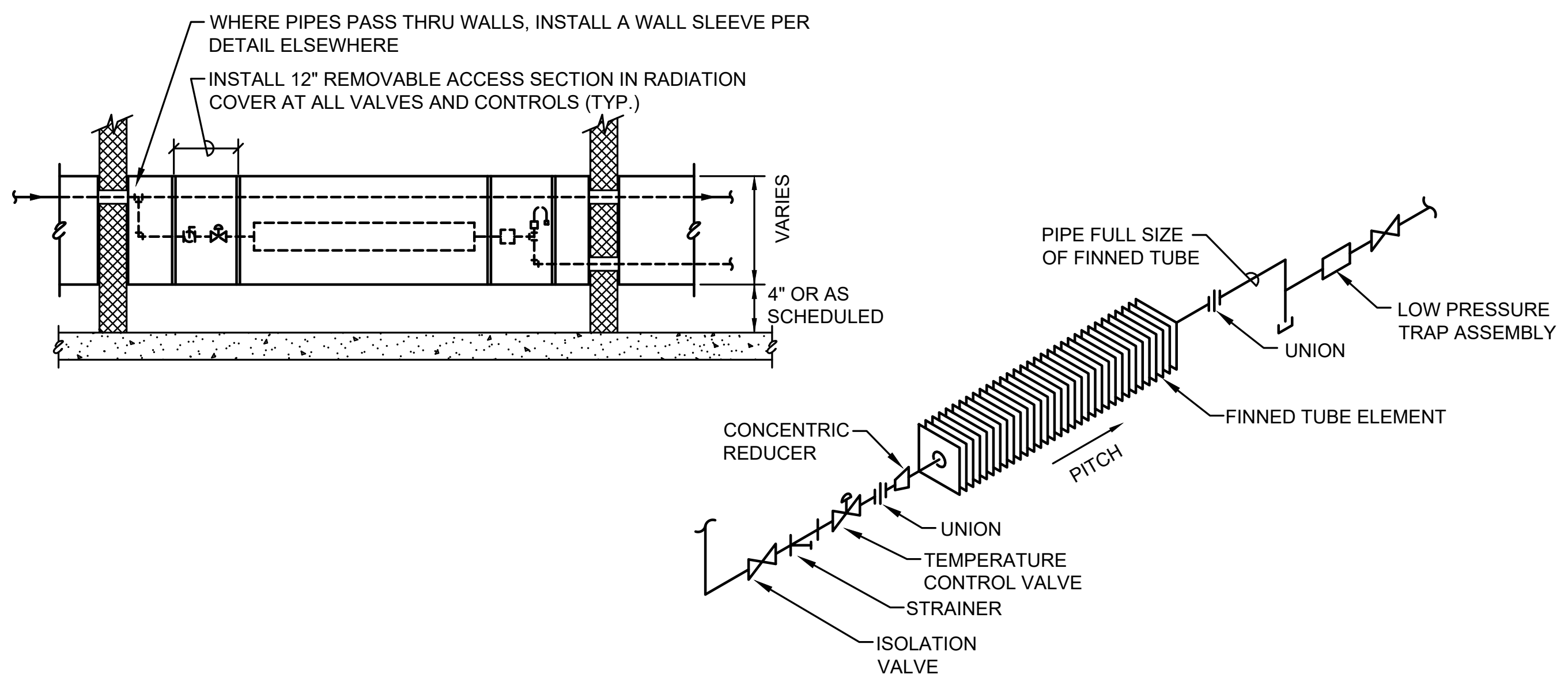
DUCT CONNECTION TO WALL LOUVER DETAIL

NO SCALE


WHERE PIPES PASS THRU WALLS, INSTALL A WALL SLEEVE PER DETAIL ELSEWHERE.
INSTALL 12" REMOVABLE ACCESS SECTION IN RADIATION COVER AT ALL VALVES AND CONTROLS (TYP.)
VARIES
4" OR AS SCHEDULED
ESCUTCHEON FLOOR PLATE
WHERE PIPES PASS THRU FLOOR SLAB INSTALL A FLOOR SLEEVE PER DETAIL. PAINT EXPOSED PIPE/INSULATION TO MATCH WALL.
1/4" COPPER TUBE
MANUAL AIR VENT
HWR
CONCENTRIC REDUCER
SIZE VARIES
UNION
BALANCING FITTING
FINNED TUBE ELEMENT
PITCH UP
SEE SCHEDULE FOR TUBE SIZE
TEMP. CONTROL VALVE
BALL VALVE
UNION
CONCENTRIC INCREASER
HWS - SIZE VARIES

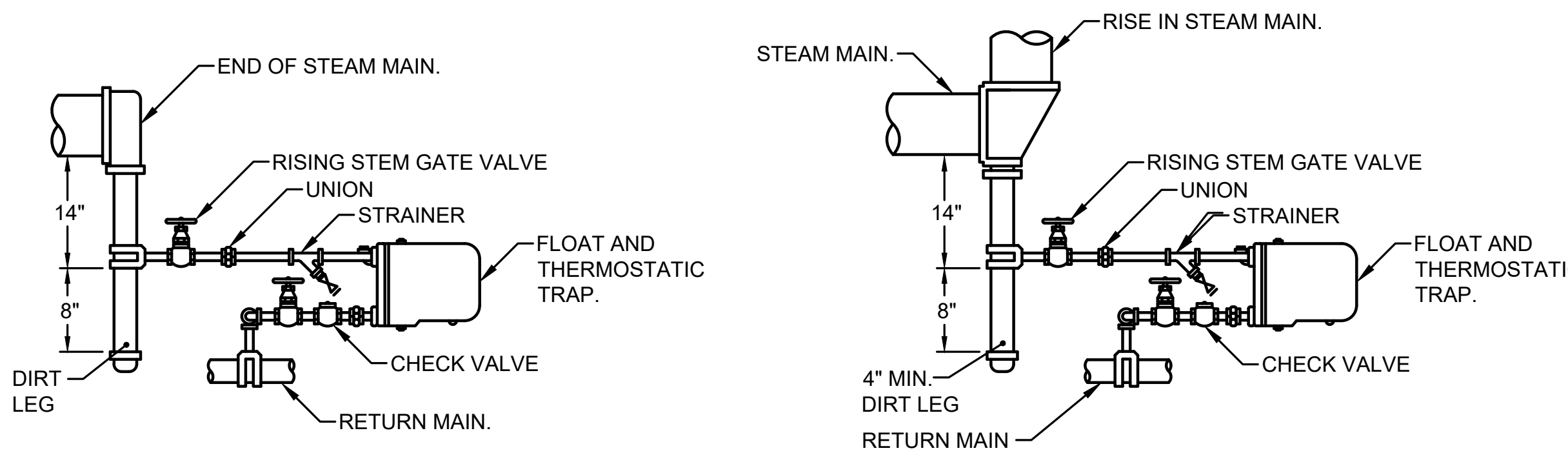
TYPICAL HOT WATER FINNED TUBE RADIATION

NO SCALE


WHERE PIPES PASS THRU WALLS, INSTALL A WALL SLEEVE PER DETAIL ELSEWHERE
INSTALL 12" REMOVABLE ACCESS SECTION IN RADIATION COVER AT ALL VALVES AND CONTROLS (TYP.)
VARIES
4" OR AS SCHEDULED
PIPE FULL SIZE OF FINNED TUBE
LOW PRESSURE TRAP ASSEMBLY
UNION
FINNED TUBE ELEMENT
CONCENTRIC REDUCER
PITCH
UNION
TEMPERATURE CONTROL VALVE
STRAINER
ISOLATION VALVE

TYPICAL STEAM FINNED TUBE RADIATION

NO SCALE



END OF STEAM MAIN DRIP DETAIL

STEAM RISER DETAIL

TYPICAL STEAM FINNED TUBE RADIATION

NO SCALE

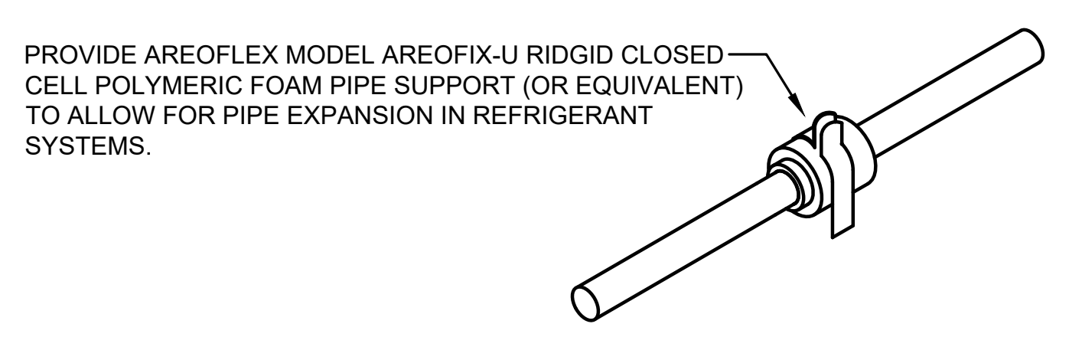
Larson & Darby Group
Architecture Engineering Interiors

CS2 DESIGNGROUP LLC
837 Oakton Street
Elk Grove, IL 60007
Tel: 847-981-1880
Fax: 847-981-1885
www.cs2designgroup.com

MECHANICAL DETAILS
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

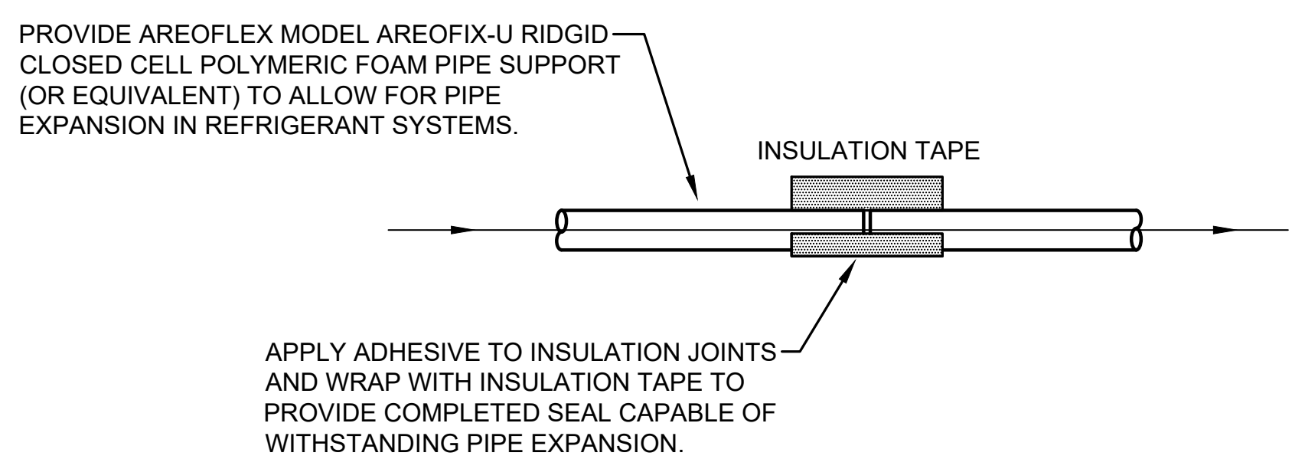
ISSUED FOR:	DATE

DATE: 10-11-2022
PROJECT NUMBER
32103-00
SHEET NUMBER
M4.2


PROVIDE AREOFLEX MODEL AREOFIX-U RIDGID CLOSED CELL POLYMERIC FOAM PIPE SUPPORT (OR EQUIVALENT) TO ALLOW FOR PIPE EXPANSION IN REFRIGERANT SYSTEMS.

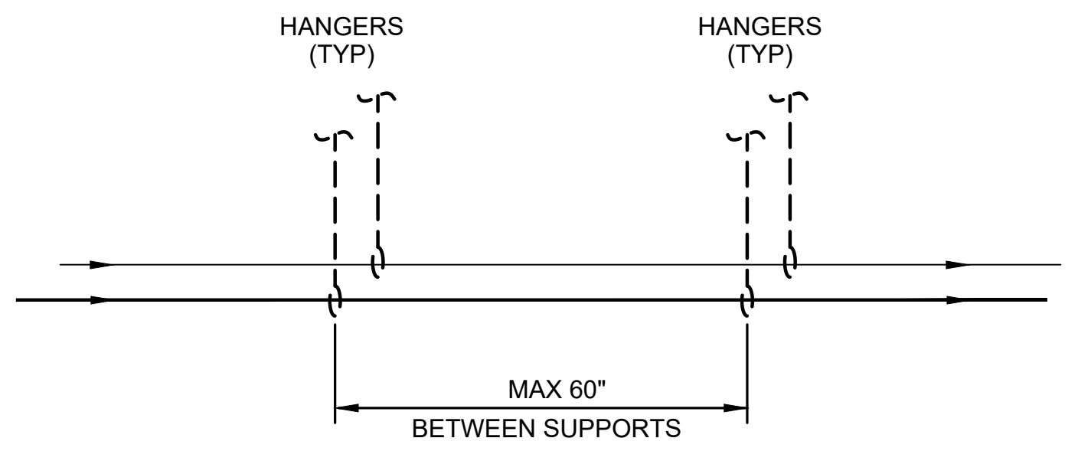
VRF - TYPICAL PIPE EXPANSION AND SUPPORT DETAIL

NO SCALE


PROVIDE AREOFLEX MODEL AREOFIX-U RIDGID CLOSED CELL POLYMERIC FOAM PIPE SUPPORT (OR EQUIVALENT) TO ALLOW FOR PIPE EXPANSION IN REFRIGERANT SYSTEMS.
INSULATION TAPE
APPLY ADHESIVE TO INSULATION JOINTS AND WRAP WITH INSULATION TAPE TO PROVIDE COMPLETED SEAL CAPABLE OF WITHSTANDING PIPE EXPANSION.

VRF - TYPICAL REFRIGERANT PIPING INSULATION DETAIL

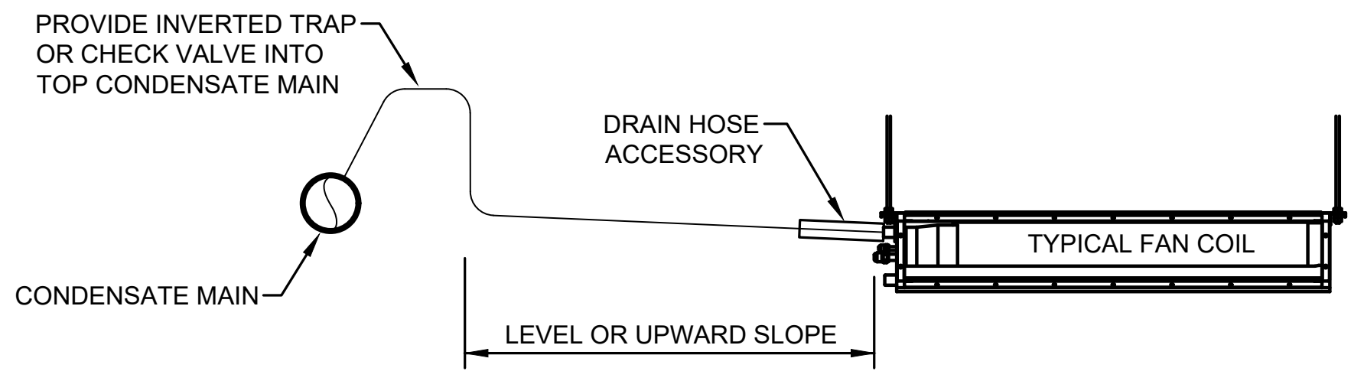
NO SCALE



NOTES;
1. HANGAR TYPES TO INCLUDE CLEVIS HANGARS OR TRAPEZE HANGARS.

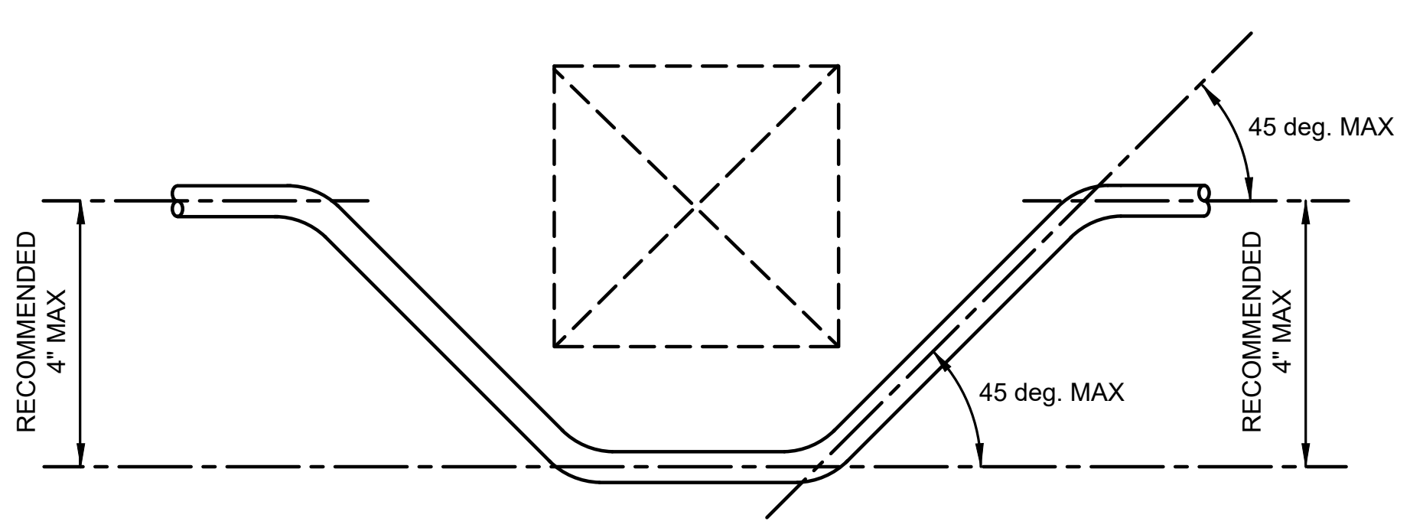
VRF - TYPICAL HANGAR SPACING DETAIL

NO SCALE



VRF - CONDENSATE DRAIN PIPING FOR INDOOR UNITS

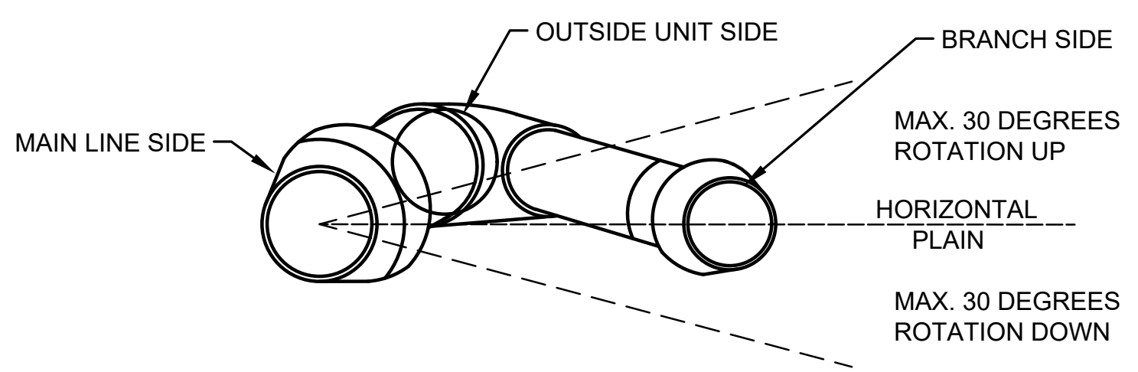
NO SCALE (REFER TO MANUFACTURERS INSTRUCTIONS)



NOTE: IN CASES WHERE PIPING/TUBING NEEDS TO DROP BELOW OBJECTS, (BEAMS, DUCTS, CONDUITS, PIPES ETC.) PIPING SHALL HAVE LARGE RADIUS TURNS AS INDICATED ABOVE (NO MORE THAN 45 DEGREES PER FITTING) TO PREVENT TRAPPING OF REFRIGERANT.

VRF - ELEVATION - PIPING OFFSET BELOW OBJECT

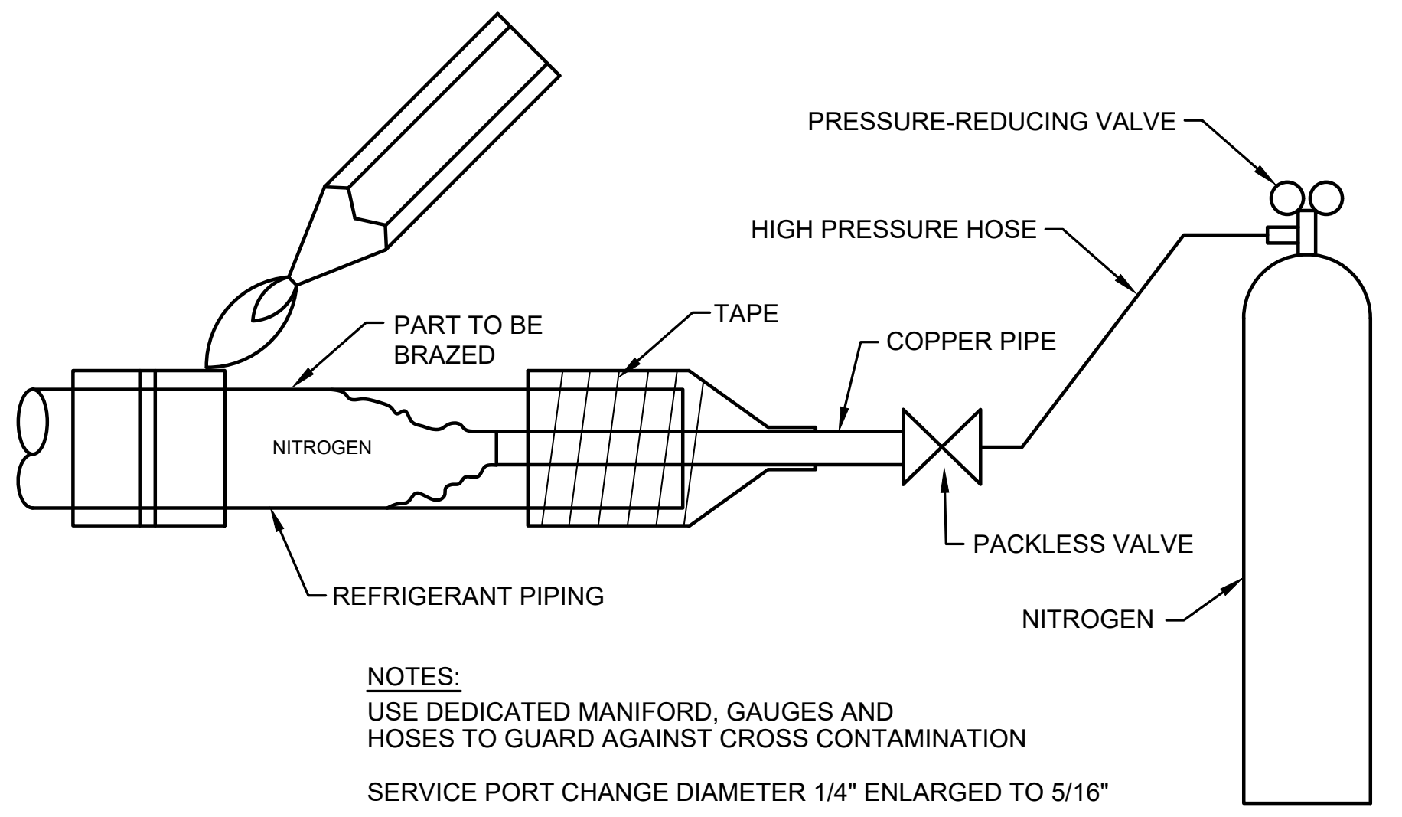
NO SCALE



NOTE:
THIS SAME HORIZONTAL APPLICATION APPLIES TO HEADERS.

VRF - MAXIMUM ROTATION OF HORIZONTAL INSTALLED "REFNET"

NO SCALE (REFER TO MANUFACTURERS INSTRUCTIONS)

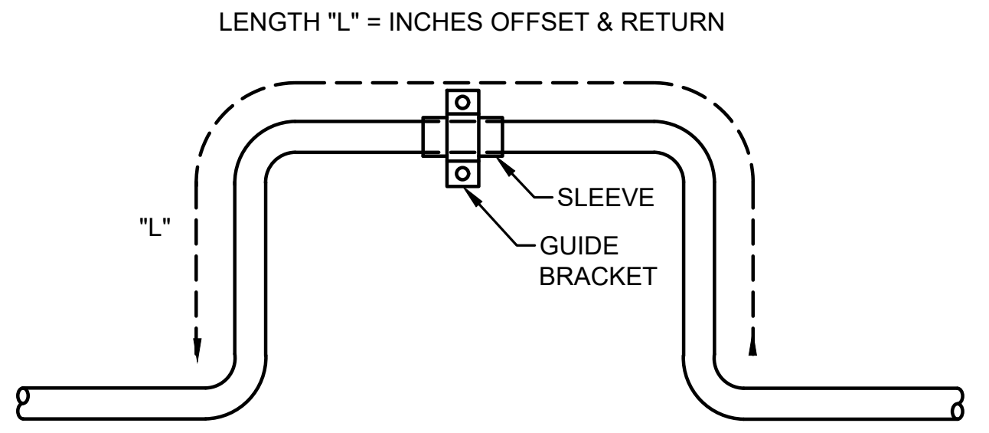


NOTES:
USE DEDICATED MANIFORD, GAUGES AND HOSES TO GUARD AGAINST CROSS CONTAMINATION

SERVICE PORT CHANGE DIAMETER 1/4" ENLARGED TO 5/16"

VRF - TYPICAL NITROGEN PURGING SET-UP

NO SCALE



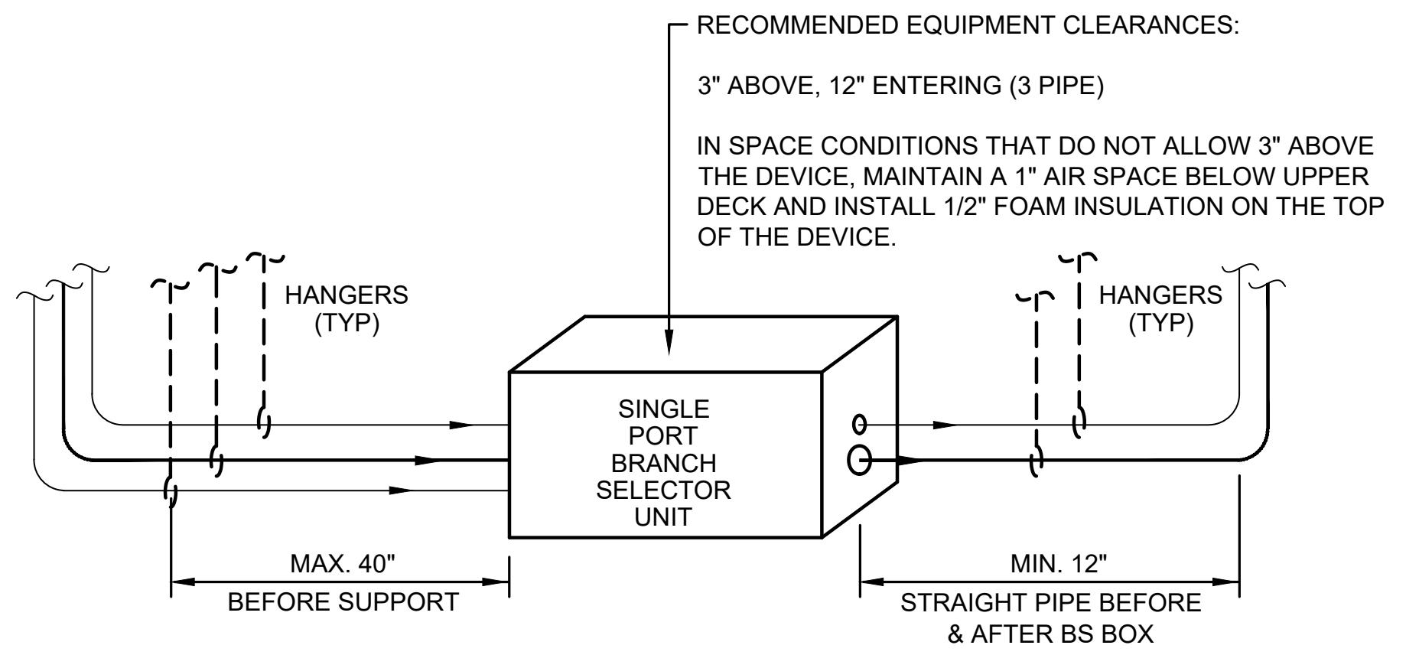
NOTE: CALCULATION FOR EXPANSION AND CONTRACTION SHOULD BE BASED ON THE AVERAGE COEFFICIENT OF EXPANSION OF COPPER WHICH IS 0.0000094 INCH PER INCH PER DEGREE F, BETWEEN 70 degrees F AND 212 degrees F.

(EXAMPLE: EXPANSION OF A 100 DEGREE F RISE FOR EACH 100 FT. OF ANY SIZE IS 1.128 INCHES)

EXPANSION DIMENSION "L" FOR OFFSET & RETURN TO BE BASED ON THE EXPECTED EXPANSION INCHES PER DIMENSION OF PIPE

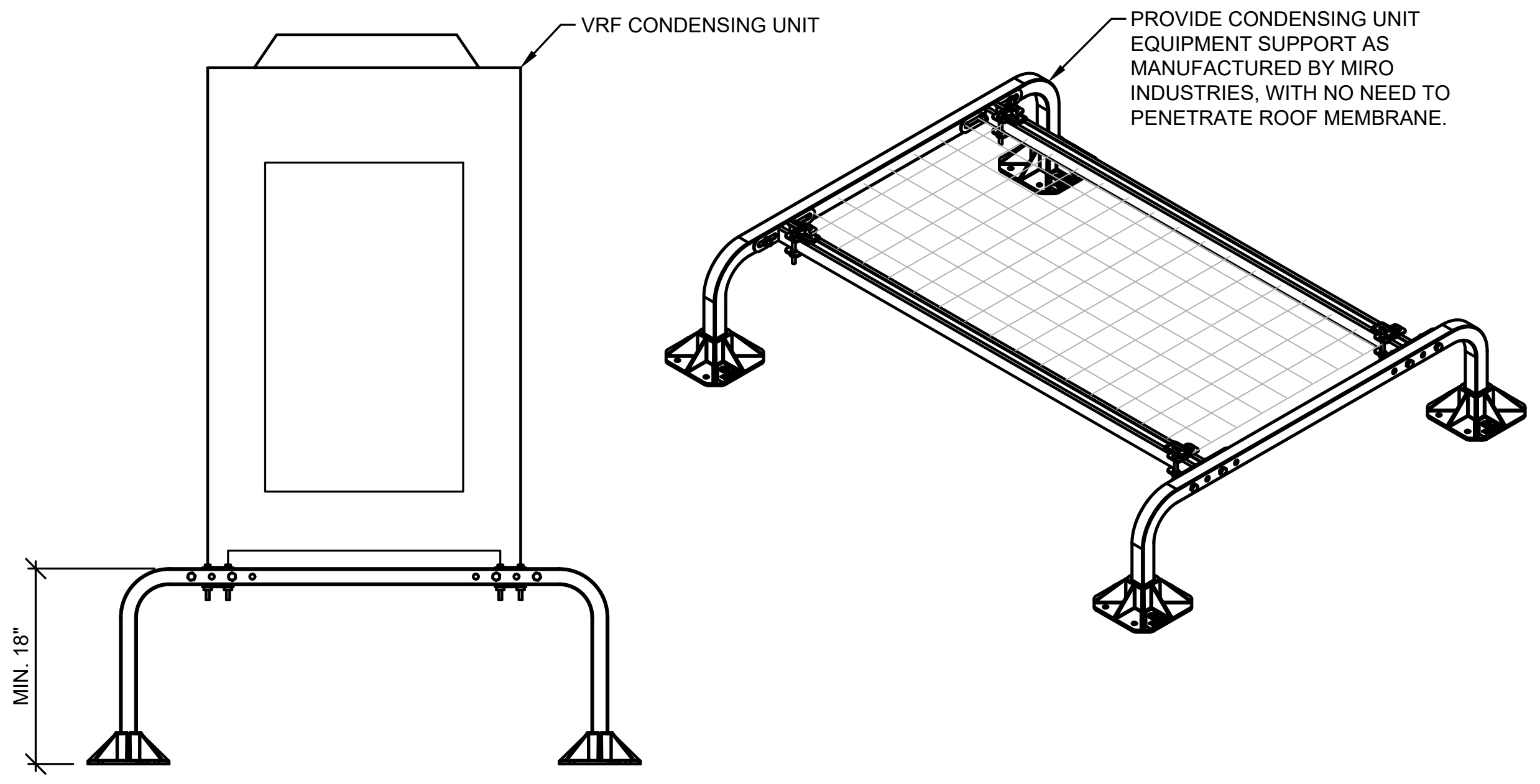
VRF - PLAN - EXPANSION LOOPS

NO SCALE


RECOMMENDED EQUIPMENT CLEARANCES:
3" ABOVE, 12" ENTERING (3 PIPE)
IN SPACE CONDITIONS THAT DO NOT ALLOW 3" ABOVE THE DEVICE, MAINTAIN A 1" AIR SPACE BELOW UPPER DECK AND INSTALL 1/2" FOAM INSULATION ON THE TOP OF THE DEVICE.
HANGERS (TYP)
HANGERS (TYP)
SINGLE PORT BRANCH SELECTOR UNIT
MAX. 40"
BEFORE SUPPORT
MIN. 12"
STRAIGHT PIPE BEFORE & AFTER BS BOX

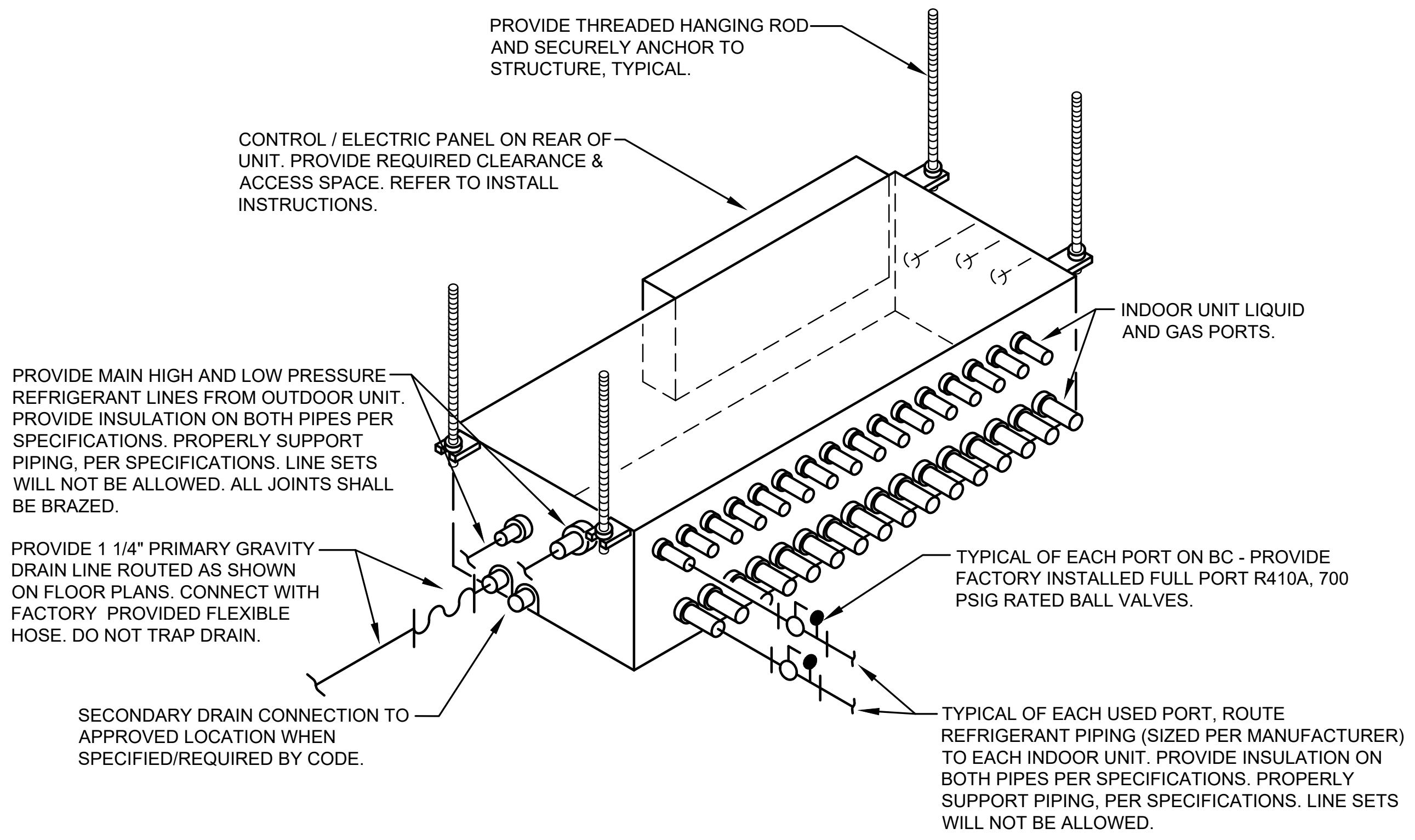
VRF - RECOMMENDED PIPE CLEARANCES FOR BRANCH SELECTOR UNITS

NO SCALE (REFER TO MANUFACTURERS INSTRUCTIONS)


VRF CONDENSING UNIT
PROVIDE CONDENSING UNIT EQUIPMENT SUPPORT AS MANUFACTURED BY MIRO INDUSTRIES, WITH NO NEED TO PENETRATE ROOF MEMBRANE.
MIN. 18"

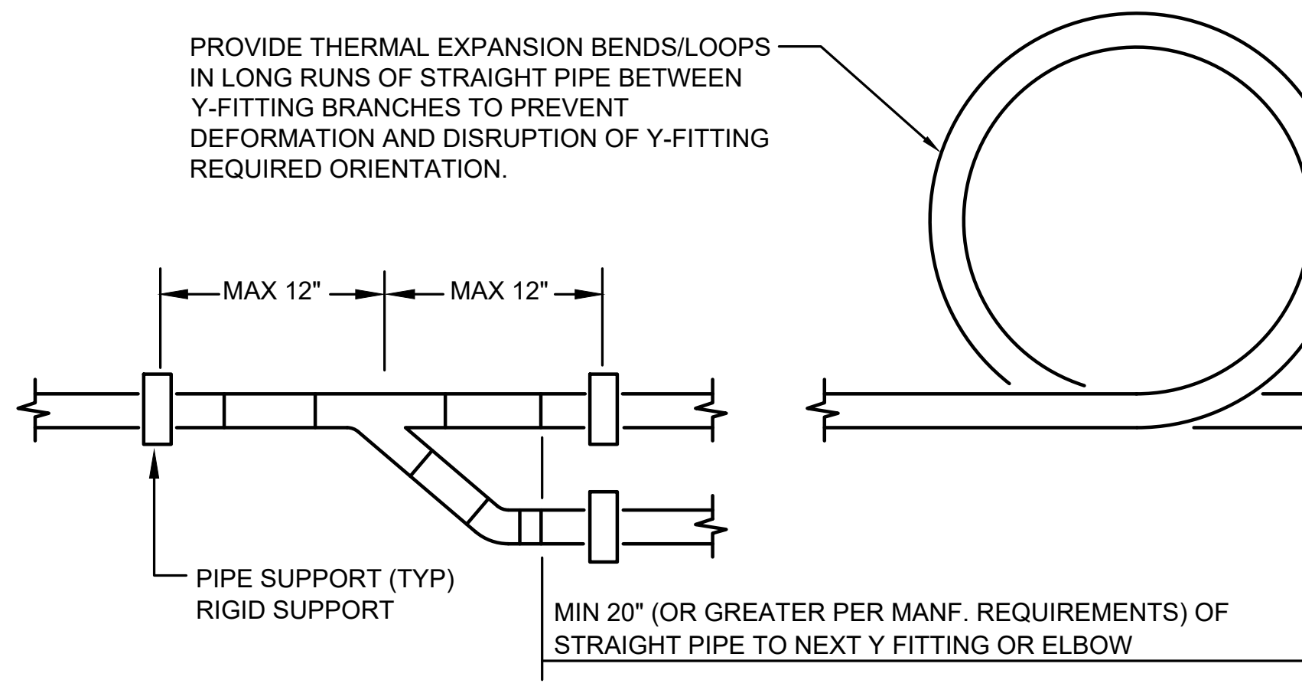
VRF - CONDENSING UNIT ROOF SUPPORT (SIDE VIEW / ISOMETRIC VIEW)

NO SCALE (SINGLE MODULE SYSTEM SHOWN)

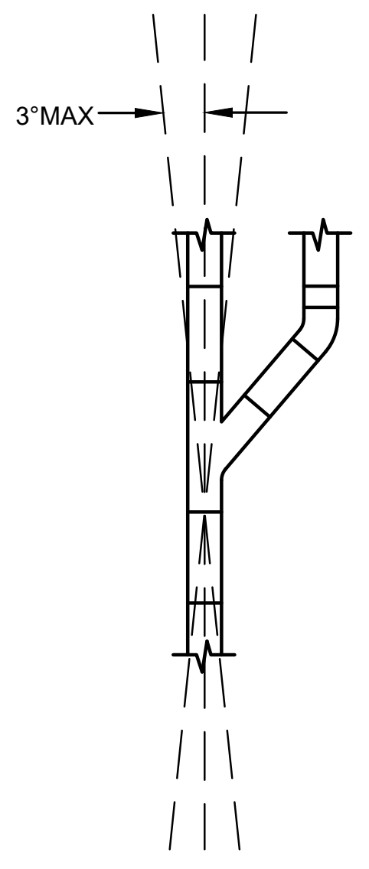

PROVIDE THREADED HANGING ROD AND SECURELY ANCHOR TO STRUCTURE, TYPICAL.
CONTROL / ELECTRIC PANEL ON REAR OF UNIT. PROVIDE REQUIRED CLEARANCE & ACCESS SPACE. REFER TO INSTALL INSTRUCTIONS.
INDOOR UNIT LIQUID AND GAS PORTS.
PROVIDE MAIN HIGH AND LOW PRESSURE REFRIGERANT LINES FROM OUTDOOR UNIT. PROVIDE INSULATION ON BOTH PIPES PER SPECIFICATIONS. PROPERLY SUPPORT PIPING, PER SPECIFICATIONS. LINE SETS WILL NOT BE ALLOWED. ALL JOINTS SHALL BE BRAZED.
PROVIDE 1 1/4" PRIMARY GRAVITY DRAIN LINE ROUTED AS SHOWN ON FLOOR PLANS. CONNECT WITH FACTORY PROVIDED FLEXIBLE HOSE. DO NOT TRAP DRAIN.
TYPICAL OF EACH PORT ON BC - PROVIDE FACTORY INSTALLED FULL PORT R410A, 700 PSIG RATED BALL VALVES.
SECONDARY DRAIN CONNECTION TO APPROVED LOCATION WHEN SPECIFIED/REQUIRED BY CODE.
TYPICAL OF EACH USED PORT, ROUTE REFRIGERANT PIPING (SIZED PER MANUFACTURER) TO EACH INDOOR UNIT. PROVIDE INSULATION ON BOTH PIPES PER SPECIFICATIONS. PROPERLY SUPPORT PIPING, PER SPECIFICATIONS. LINE SETS WILL NOT BE ALLOWED.

VRF - BRACH CIRCUIT (BC) CONTROLLER DETAIL

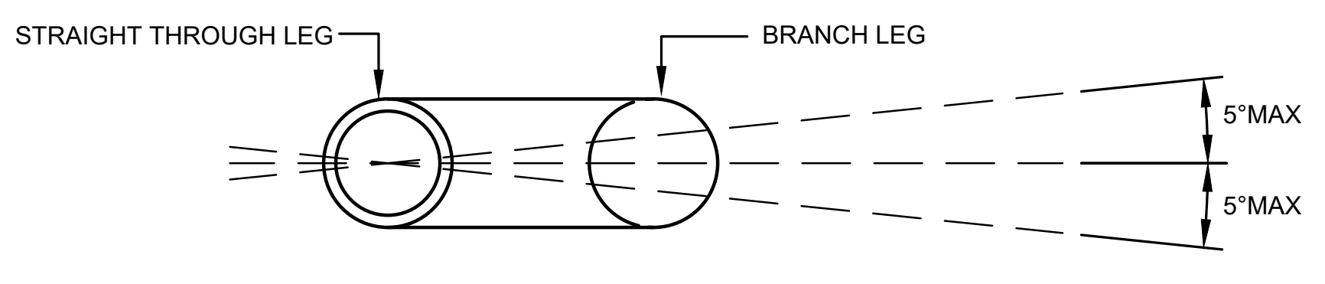
NO SCALE


PROVIDE THERMAL EXPANSION BENDS/LOOPS IN LONG RUNS OF STRAIGHT PIPE BETWEEN Y-FITTING BRANCHES TO PREVENT DEFORMATION AND DISRUPTION OF Y-FITTING REQUIRED ORIENTATION.
MAX 12"
MAX 12"
PIPE SUPPORT (TYP) RIGID SUPPORT
MIN 20" (OR GREATER PER MANF. REQUIREMENTS) OF STRAIGHT PIPE TO NEXT Y FITTING OR ELBOW

Y–BRANCH FITTING – PLAN VIEW



VERTICAL ORIENTATION RESTRICTIONS



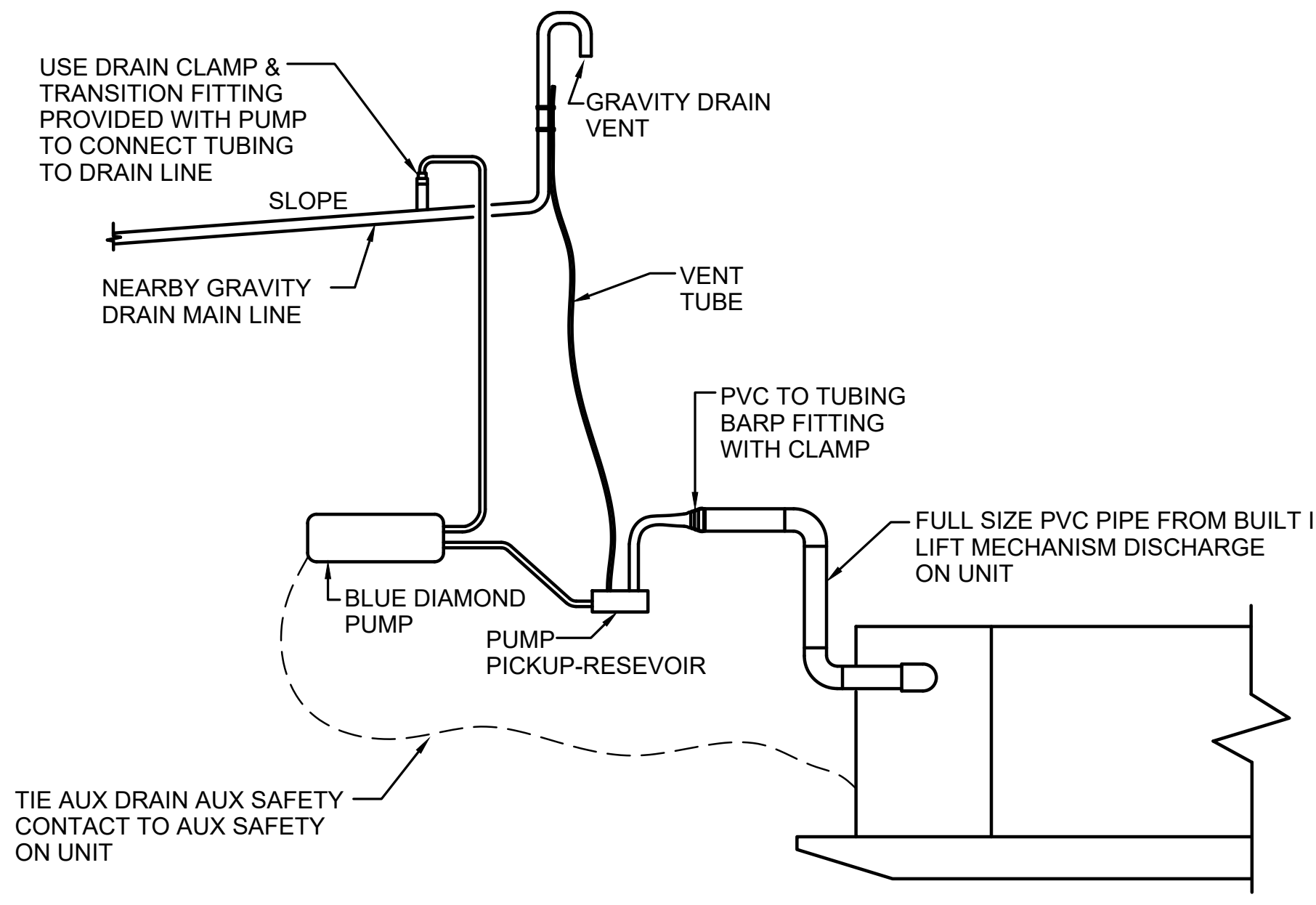
Y–BRANCH HORIZONTAL ORIENTATION RESTRICTIONS

ADDITIONAL PIPING DISTRIBUTION NOTES:

- 90 DEG ELBOWS TO BE KEPT 20" FROM FAN COILS AND BS BOXES (OR GREATER PER MANF REQUIREMENTS)
- 90 DEG ELBOWS SHOULD BE KEPT 20" FROM Y-FITTINGS AND HEADERS (OR GREATER PER MANF REQUIREMENTS).
- ALL PIPING TO BE SUPPORTED WITHIN 12" OF FAN COILS, BS BOXES, AND CONDENSERS.

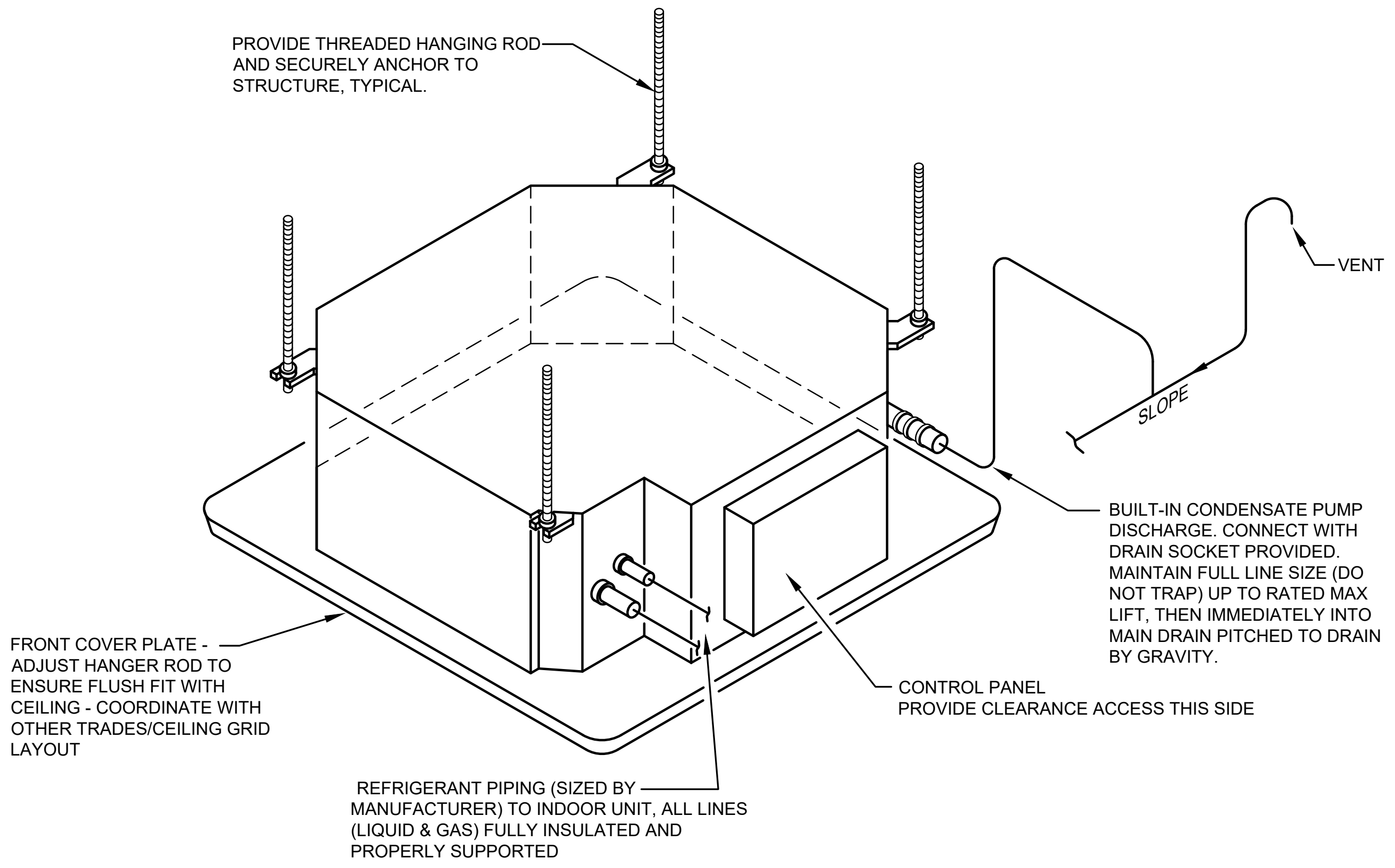
VRF PIPING DISTRIBUTION REQUIREMENTS

NO SCALE


USE DRAIN CLAMP & TRANSITION FITTING PROVIDED WITH PUMP TO CONNECT TUBING TO DRAIN LINE
GRAVITY DRAIN VENT
SLOPE
NEARBY GRAVITY DRAIN MAIN LINE
VENT TUBE
PVC TO TUBING BARP FITTING WITH CLAMP
FULL SIZE PVC PIPE FROM BUILT IN LIFT MECHANISM DISCHARGE ON UNIT
BLUE DIAMOND PUMP
PUMP PICKUP-RESEVOIR
TIE AUX DRAIN AUX SAFETY CONTACT TO AUX SAFETY ON UNIT

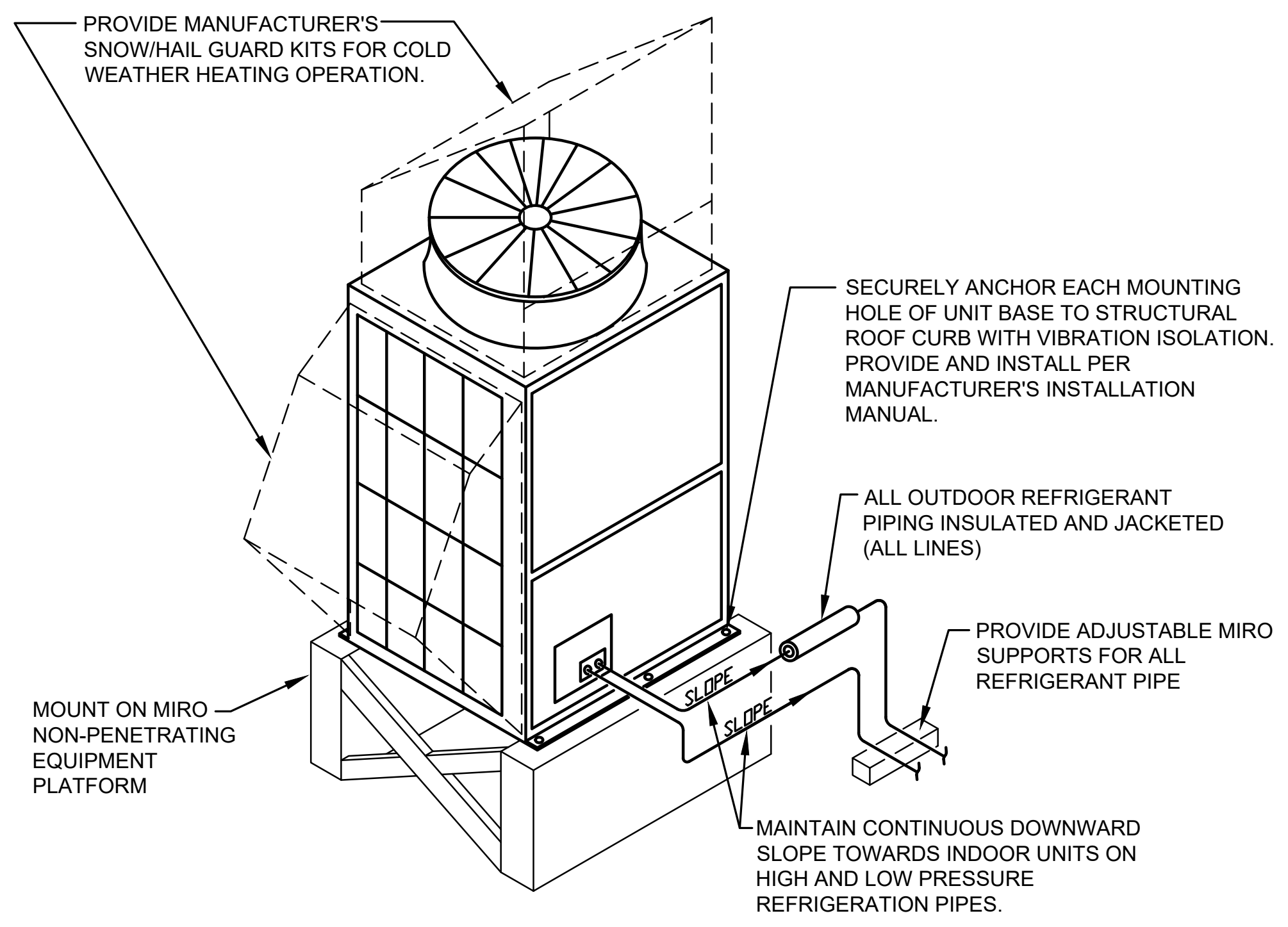
CONDENSATE PUMP ON VRF CASSETTE UNIT DETAIL

NO SCALE


PROVIDE THREADED HANGING ROD AND SECURELY ANCHOR TO STRUCTURE, TYPICAL.
VENT
SLOPE
BUILT-IN CONDENSATE PUMP DISCHARGE. CONNECT WITH DRAIN SOCKET PROVIDED. MAINTAIN FULL LINE SIZE (DO NOT TRAP) UP TO RATED MAX LIFT, THEN IMMEDIATELY INTO MAIN DRAIN PITCHED TO DRAIN BY GRAVITY.
FRONT COVER PLATE - ADJUST HANGER ROD TO ENSURE FLUSH FIT WITH CEILING - COORDINATE WITH OTHER TRADES/CEILING GRID LAYOUT
CONTROL PANEL PROVIDE CLEARANCE ACCESS THIS SIDE
REFRIGERANT PIPING (SIZED BY MANUFACTURER) TO INDOOR UNIT, ALL LINES (LIQUID & GAS) FULLY INSULATED AND PROPERLY SUPPORTED

VRF CASSETTE INDOOR UNIT DETAIL

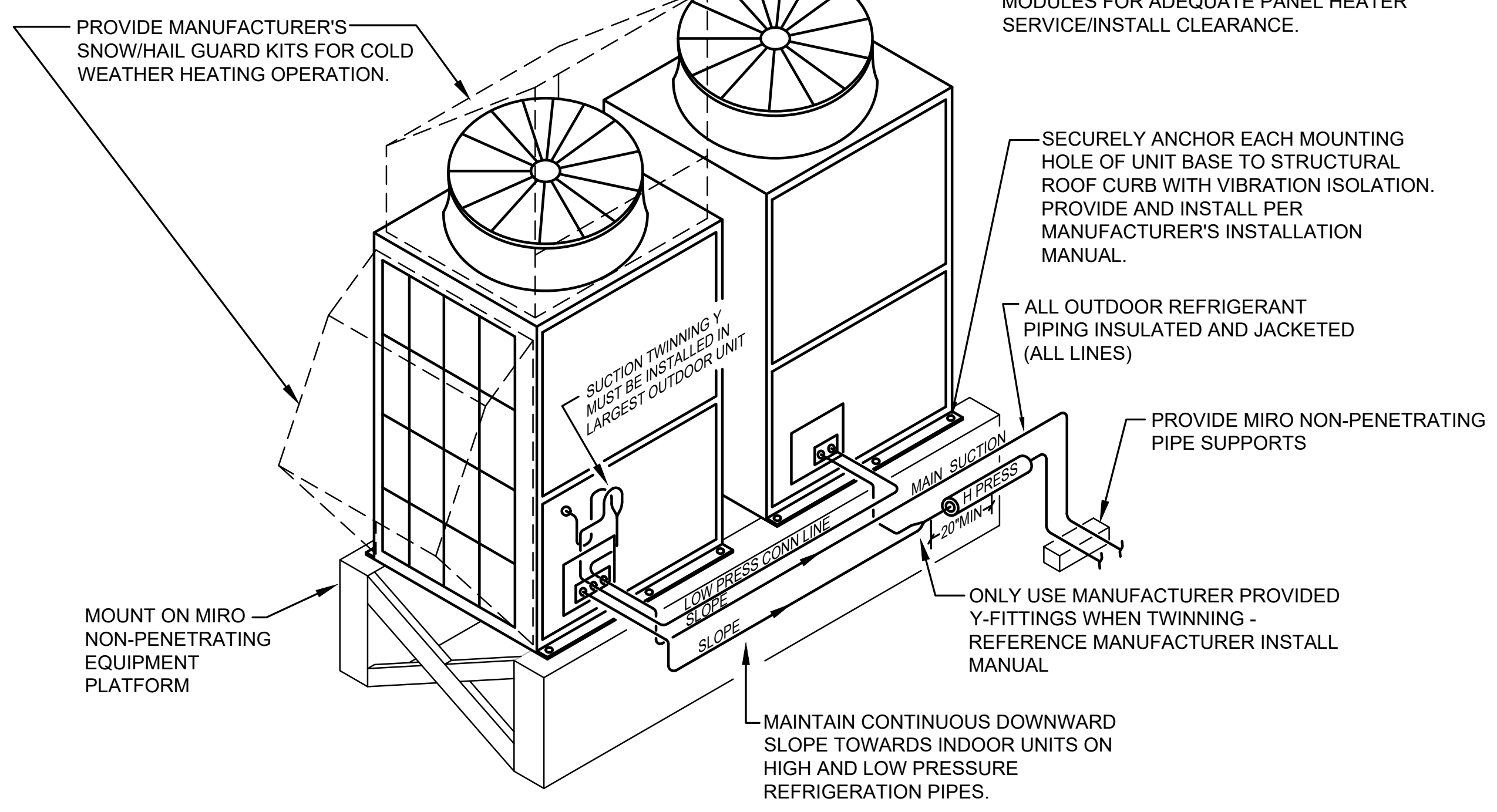
NO SCALE


PROVIDE MANUFACTURER'S SNOW/HAIL GUARD KITS FOR COLD WEATHER HEATING OPERATION.
SECURELY ANCHOR EACH MOUNTING HOLE OF UNIT BASE TO STRUCTURAL ROOF CURB WITH VIBRATION ISOLATION. PROVIDE AND INSTALL PER MANUFACTURER'S INSTALLATION MANUAL.
ALL OUTDOOR REFRIGERANT PIPING INSULATED AND JACKETED (ALL LINES)
PROVIDE ADJUSTABLE MIRO SUPPORTS FOR ALL REFRIGERANT PIPE
SLOPE
SLOPE
MOUNT ON MIRO NON-PENETRATING EQUIPMENT PLATFORM
MAINTAIN CONTINUOUS DOWNWARD SLOPE TOWARDS INDOOR UNITS ON HIGH AND LOW PRESSURE REFRIGERATION PIPES.

VRF OUTDOOR UNIT SINGLE MODULE DETAIL

NO SCALE

*PANEL HEATER NOTE:
WHEN INSTALLING PANEL HEATERS (WHEN SPECIFIED) - MAINTAIN 6" MINIMUM BETWEEN MODULES FOR ADEQUATE PANEL HEATER SERVICE/INSTALL CLEARANCE.


PROVIDE MANUFACTURER'S SNOW/HAIL GUARD KITS FOR COLD WEATHER HEATING OPERATION.
SECURELY ANCHOR EACH MOUNTING HOLE OF UNIT BASE TO STRUCTURAL ROOF CURB WITH VIBRATION ISOLATION. PROVIDE AND INSTALL PER MANUFACTURER'S INSTALLATION MANUAL.
ALL OUTDOOR REFRIGERANT PIPING INSULATED AND JACKETED (ALL LINES)
SUCTION TWINNING Y MUST BE INSTALLED IN LARGEST OUTDOOR UNIT
PROVIDE MIRO NON-PENETRATING PIPE SUPPORTS
MAIN SUCTION
H PRESS
20"MIN
LOW PRESS CONN LINE
SLOPE
SLOPE
MOUNT ON MIRO NON-PENETRATING EQUIPMENT PLATFORM
ONLY USE MANUFACTURER PROVIDED Y-FITTINGS WHEN TWINNING - REFERENCE MANUFACTURER INSTALL MANUAL
MAINTAIN CONTINUOUS DOWNWARD SLOPE TOWARDS INDOOR UNITS ON HIGH AND LOW PRESSURE REFRIGERATION PIPES.

VRF - HEAT RECOVERY-R2 (TWINNED) DETAIL

NO SCALE

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MECHANICAL DETAILS
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

ISSUED FOR:	DATE

DATE: 10-11-2022
PROJECT NUMBER
32103-00
SHEET NUMBER
M4.3

MECHANICAL SYMBOLS AND ABBREVIATIONS

AFF.	ABOVE FINISHED FLOOR
ACCU	AIR COOLED CONDENSING UNIT
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
BHP	BRAKE HORSE POWER
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
CFM	CUBIC FEET PER MINUTE
CUH	CABINET UNIT HEATER
CV	CONVECTOR
D	DRAIN LINE
DB	DRY BULB
DOAS	DEDICATED OUTDOOR AIR SYSTEM
DN.	DOWN
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
F	FAHRENHEIT
FID	FIRE DAMPER
FPM	FEET PER MINUTE
HP	HORSEPOWER
LAT	LEAVING AIR TEMPERATURE
MCA	MINIMUM CIRCUIT AMPS
MOCP	MAXIMUM OVERCURRENT PROTECTION
PH	PHASE
PSI	POUNDS PER SQUARE INCH
RPM	REVOLUTIONS PER MINUTE
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
VRF	VARIABLE REFRIGERANT FLOW
VRFBC	VARIABLE REFRIGERANT FLOW BRANCH CONTROLLER
VRFC	VARIABLE REFRIGERANT FLOW CONDENSER
VRFU	VARIABLE REFRIGERANT FLOW UNIT
WB	WET BULB
WL	WALL LOUVER

—HWS—	LOW TEMPERATURE (HEATING) HOT WATER SUPPLY
—HWR—	LOW TEMPERATURE (HEATING) HOT WATER RETURN
— LPC —	LOW PRESSURE CONDENSATE
— LPS —	LOW PRESSURE STEAM
— PC —	PUMPED CONDENSATE
— RS —	REFRIGERANT SUCTION
— RL —	REFRIGERANT LIQUID
— D —	DRAIN LINE / PUMPED CONDENSATE
— — — —	PIPING TO BE REMOVED (DEMOLITION DRAWING ONLY)
——►——	DIRECTION OF FLOW
PITCH	PITCH OF PIPE (DOWN)
———○	PIPE ELBOW (TURNED UP)
	PIPE ELBOW (TURNED DOWN)
	PIPE TEE DOWN (DROP)
——○——	PIPE TEE UP
	PIPE TEE UP OR ANGLE
	PIPE TEE DOWN OR ANGLE
NC	NEW CONNECTION
	FLEXIBLE DUCT CONNECTION
	MANUAL SINGLE BLADE OR OPPOSED BLADE DAMPER
	VERTICAL FIRE DAMPER WITH ACCESS DOOR
——►	AIR FLOW
12x24	DUCT SIZE FREE AREA (1ST FIGURE, SIDE OF DUCT SHOWN)
⊠	CROSS-SECTION OF SUPPLY OR OUTSIDE AIR INTAKE DUCT
▨	CROSS-SECTION OF RETURN OR EXHAUST DUCT
	90° ELBOW WITH TURNING VANES
	90° BRANCH TAKE-OFF W/45 DEGREE ENTRY
	ROUND FLEXIBLE DUCT
	SQUARE OR RECTANGLE DUCT TRANSITION
	SQUARE OR RECTANGLE TO ROUND DUCT TRANSITION
	DUCT UP TO ROOF MOUNTED EXHAUST FAN OR VENTILATOR
XXX-1	EQUIPMENT TAG
Ⓣ	WALL THERMOSTAT OR TEMPERATURE SENSOR
Ø	ROUND

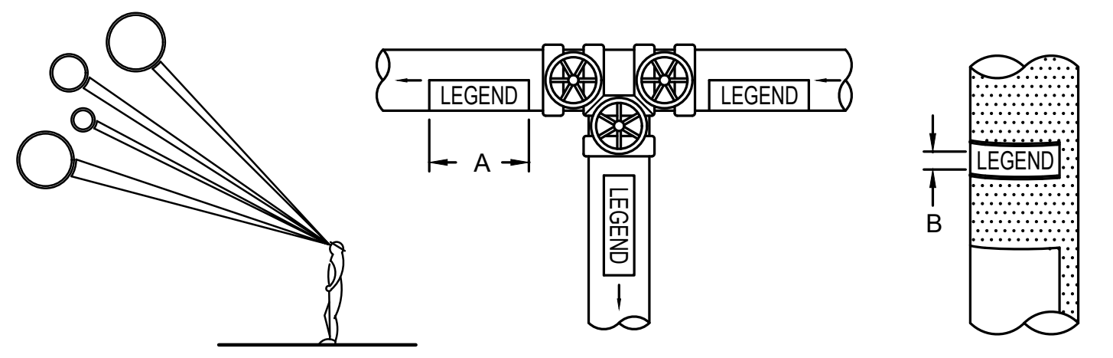
GENERAL NOTES - ALL CONTRACTORS

1. DRAWINGS ARE GENERALLY DIAGRAMMATIC. ROUTING OF PIPING, DUCTWORK, CONDUITS, RACEWAYS, ETC., AS SHOWN ON DRAWINGS, DOES NOT INTEND TO SHOW EVERY RISE, DROP, OFFSET, FITTING NOR EVERY STRUCTURAL ELEMENT THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THIS WORK. EACH CONTRACTOR SHALL MAKE ANY REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS, SUCH AS OFFSETS, BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY IN COMPLETION DATE OF THE PROJECT.
2. IT IS INTENDED THAT EQUIPMENT SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS OF THE BUILDING, NOTWITHSTANDING THE FACT THAT LOCATIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLEARNESS OF PRESENTATION.
3. CONTRACTOR SHALL CHECK DRAWINGS OF OTHER TRADES TO VERIFY THAT SPACES IN WHICH THEIR WORK WILL BE INSTALLED ARE CLEAR OF OBSTRUCTIONS. WORK SHALL BE INSTALLED TO MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS IN THE BUILDING. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, CONTRACTOR SHALL NOTIFY OWNER/ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION OF THEIR WORK.
4. CONTRACTOR SHALL FURNISH OTHER TRADES ADVANCE INFORMATION AND SHOP DRAWINGS ON LOCATIONS AND SIZES OF PIPING, DUCTWORK, CONDUIT, RACEWAYS, EQUIPMENT, FRAMES, BOXES, SLEEVES AND OPENINGS, ETC. NEEDED FOR THEIR WORK TO PERMIT OTHER TRADES AFFECTED TO INSTALL THEIR WORK PROPERLY AND WITHOUT DELAY.
5. WHERE THERE IS EVIDENCE THAT WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL MEET ON JOB SITE TO WORK OUT SPACE CONDITIONS AND MAKE SATISFACTORY ADJUSTMENTS TO INSTALLATION OF THE NEW WORK. CONTRACTORS SHALL VERIFY EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITH FIELD CONDITIONS, SHOP DRAWINGS, AND WORK OF OTHER TRADES PRIOR TO ROUGH-IN. EACH CONTRACTOR SHALL BE RESPONSIBLE, AT THEIR OWN EXPENSE, FOR THE REMOVAL AND REINSTALLATION OF ANY PART OF THEIR WORK IF SAME WAS INSTALLED WITHOUT CONSULTING WITH OTHER TRADES BEFORE INSTALLING THEIR WORK.
6. CONTRACTOR SHALL PROVIDE SLEEVES IN BEAMS, FLOORS, COLUMNS AND WALLS AS SHOWN ON THE DRAWINGS, AS REQUIRED BY JOB SITE CONDITIONS, AND/OR AS SPECIFIED, WHEN INSTALLING THEIR WORK. ALL BEAMS AND COLUMNS WHICH ARE REQUIRED TO BE SLEEVED SHALL BE CUT AND REINFORCED AS REQUIRED BY FIELD CONDITIONS AND LOCATIONS AND SIZES SHALL BE CHECKED AND APPROVED BY ARCHITECT BEFORE CONTRACTOR CUTS ANY STRUCTURAL BUILDING MEMBER.
7. THE SEQUENCE FOR THE INSTALLATION OF ALL WORK SHALL BE COORDINATED BETWEEN ALL CONTRACTORS ON THE PROJECT AND IN STRICT ACCORDANCE WITH ARCHITECT/ENGINEER AND OWNERS STIPULATION AS DIRECTED.
8. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND STRUCTURAL CONTRACT DRAWINGS AND VISIT THE JOB SITE (BEFORE SUBMITTING THEIR BIDS) TO FAMILIARIZE THEMSELVES WITH THE EXTENT OF THE GENERAL CONTRACTOR'S WORK, CEILING HEIGHTS AND CLEARANCE FOR INSTALLING THEIR WORK.
9. CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL CORING, CUTTING, PATCHING, REPAIRING, REFINISHING AND REMOVAL/REPLACEMENT OF NEW BUILDING CONSTRUCTION ALREADY IN PLACE AS REQUIRED TO ACCOMMODATE THE INSTALLATION OF THEIR WORK. ALL PATCHING, REPAIRING AND REFINISHING WORK SHALL BE PERFORMED BY THOSE REGULARLY INVOLVED IN THAT TRADE AND SHALL MATCH THE ADJACENT CONSTRUCTION AS CLOSELY AS POSSIBLE. CARE SHALL BE TAKEN SO AS NOT TO DAMAGE ANY PREVIOUSLY INSTALLED NEW BUILDING CONSTRUCTION. ANY PREVIOUSLY INSTALLED FINISHES THAT ARE DAMAGED DURING THE INSTALLATION OF NEW WORK SHALL BE REPAIRED, REPLACED AND PAID FOR BY THE INSTALLING CONTRACTOR WHO DAMAGED THEM TO THE SATISFACTION OF THE ARCHITECT AND OWNER.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN CLEAN-UP DURING CONSTRUCTION. IF CONTRACTOR FAILS TO PROVIDE SUCH CLEAN-UP, THE ARCHITECT/ENGINEER WILL DIRECT ANOTHER CONTRACTOR TO PERFORM THE CLEAN-UP AND THE NEGLIGENT CONTRACTOR SHALL PAY THE ASSOCIATED BACK-CHARGES AS DEEMED APPROPRIATE BY THE ARCHITECT/ENGINEER.
11. CONTRACTOR SHALL INSTALL ALL AUXILIARY SUPPORTING STEEL AS REQUIRED FOR THE SUPPORTING OF THEIR PIPING, DUCTWORK, CONDUIT, TANKS, EQUIPMENT, ETC. ALL SUPPORTING STEEL FOR ITEMS ABOVE A SUSPENDED CEILING SHALL BE FROM BUILDING STRUCTURAL MEMBERS ONLY.
12. CONTRACTOR SHALL STORE ALL MATERIALS AND EQUIPMENT SHIPPED TO THE SITE IN A PROTECTED AREA. IF MATERIAL IS STORED OUTSIDE OF THE BUILDING, IT MUST BE STORED OFF THE GROUND A MINIMUM OF SIX INCHES (6") SET ON 6 X 6 PLANKS AND/OR WOOD PALLETS. ALL MATERIAL AND EQUIPMENT MUST BE COMPLETELY COVERED WITH WATERPROOF TARPS OR VISQUIN. ALL PIPING AND DUCTWORK WILL HAVE THE ENDS CLOSED TO KEEP OUT DIRT AND OTHER DEBRIS. NO EQUIPMENT WILL BE ALLOWED TO BE STORED OUTSIDE THE BUILDING ON THE SITE UNLESS IT IS SUPPORTED OFF THE GROUND AND COMPLETELY PROTECTED WITH WEATHERPROOF COVERS.
13. THE DRAWINGS, SCHEDULES AND SPECIFICATIONS HAVE BEEN PREPARED USING ONE MANUFACTURER FOR EACH PIECE OF EQUIPMENT AS THE BASIS FOR DIMENSIONAL DESIGN. IF THE CONTRACTOR PURCHASES EQUIPMENT FROM A SPECIFIED ACCEPTABLE MANUFACTURER, BUT NOT THE SCHEDULED MANUFACTURER USED FOR THE BASE DESIGN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL THE DIMENSIONS OF THE EQUIPMENT TO VERIFY THAT IT WILL FIT IN THE SPACE SHOWN ON THE DRAWINGS. MINOR DEVIATIONS IN DIMENSIONS WILL BE PERMITTED, PROVIDED THE RATINGS MEET THOSE SHOWN ON THE DRAWINGS AND EQUIPMENT WILL PHYSICALLY FIT INTO THE SPACE ALLOCATED WITH SUITABLE ACCESS AROUND EQUIPMENT FOR OPERATION AND MAINTENANCE OF THE EQUIPMENT. WHEN EQUIPMENT SUBMITTED FOR REVIEW DOES NOT MEET THE PHYSICAL SIZE OR ARRANGEMENT OF THAT SCHEDULED AND SPECIFIED, CONTRACTOR SHALL PAY FOR ALL ALTERATIONS REQUIRED TO ACCOMMODATE SUCH EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR WILL ALSO PAY ALL COSTS FOR ADDITIONAL WORK REQUIRED BY OTHER CONTRACTORS, OWNER, ARCHITECT OR ENGINEER TO MAKE CHANGES WHICH WOULD ALLOW THE EQUIPMENT TO FIT IN THE SPACE AND FUNCTION AS INTENDED.
14. CONTRACTOR AND/OR MANUFACTURER SHALL VERIFY THAT THE CHARACTERISTICS OF THE EQUIPMENT HE SUBMITS FOR REVIEW MEET THE CAPACITY AND DUTY SPECIFIED. WHEN EQUIPMENT SUBMITTED FOR REVIEW REQUIRES MODIFICATIONS TO THE WORK OF OTHER CONTRACTORS, SUBMITTING CONTRACTOR SHALL PAY FOR ALL COSTS FOR ADDITIONAL WORK REQUIRED BY OTHER CONTRACTORS, OWNER, ARCHITECT OR ENGINEER TO MAKE CHANGES WHICH WOULD ALLOW THE EQUIPMENT FUNCTION SAFELY AND PROPERLY.
15. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF HIS WORK WITH CONSTRUCTION OF THE BUILDING, INCLUDING VERIFYING THE SIZE OF EXISTING OPENINGS, WINDOWS, DOORS, CORRIDORS, ROOMS, ETC. FOR ACCESS OF HIS NEW EQUIPMENT INTO THE BUILDING AREAS WHICH WILL ALREADY BE CONSTRUCTED WHEN HIS EQUIPMENT IS READY TO BE INSTALLED. IF OPENINGS ARE TOO SMALL FOR ACCESS THEN CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROVIDE NEW OR ENLARGED OPENINGS AND RESTORE SAME TO PREVIOUS SIZE AND CONDITION. CONTRACTOR MAY ELECT TO ORDER THE EQUIPMENT DISASSEMBLED AND/OR WITH SPLIT HOUSING FOR ENTRANCE INTO THE SPACE OR BUILDING. CONTRACTOR SHALL REASSEMBLE EQUIPMENT AFTER IT IS IN THE SPACE AT HIS OWN EXPENSE.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND THEIR ASSOCIATED FEES.
17. SEAL ALL FLOOR PENETRATIONS BETWEEN THE PIPE AND THE FLOOR SLAB WITH A HIGH ADHESIVE POLYURETHANE SEALANT AS PER THE LATEST EDITION OF THE EPA "RADON PREVENTION IN THE DESIGN AND CONSTRUCTION OF SCHOOLS AND OTHER LARGE BUILDINGS" MANUAL.

HVAC/PLUMBING/ELECTRICAL COORDINATION SCHEDULE

EQUIPMENT TAG	EQUIPMENT DESCRIPTION	UNIT MOUNTED DEVICES				REMOTE OR LOOSE DEVICES			REMARKS
		STARTER	DISCONNECT	OVERCURRENT PROTECTION	SINGLE POINT CONNECTION	STARTER	DISCONNECT	OVERCURRENT PROTECTION	
ACCU	AIR COOLED CONDENSING UNIT	MANUF			MANUF		E	E	
DFSS	DUCT FREE SPLIT SYSTEM	MANUF			MANUF		E	E	
DOAS	DEDICATED OUTDOOR AIR SYSTEM	MANUF			MANUF		E	E	
EF	EXHAUST FAN		MANUF		MANUF	SEE REMARKS		E	1,2,3,4,5
UV	UNIT VENTILATOR	MANUF	MANUF		MANUF			E	
VRFBC	VRF BRANCH CONTROLLER BOX	MANUF				E	E	E	1,2,3,4,5
VRFC	VRF CONDENSING UNIT	MANUF				E	E	E	1,2,3,4,5
VRFU	VRF UNIT	MANUF				E	E	E	1,2,3,4,5

NOTES:
1. DEVICES TO BE FURNISHED BY THE ELECTRICAL CONTRACTOR (MARKED "E"), MECHANICAL CONTRACTOR (MARKED "M"), HVAC CONTRACTOR (MARKED "HV"), BAS CONTRACTOR (MARKED "B"), PLUMBING CONTRACTOR (MARKED "P"), FIRE PROTECTION CONTRACTOR (MARKED "FP"), OR MANUFACTURER (MARKED "MANUF").
2. ALL CONDUIT AND WIRING FOR TEMPERATURE CONTROL AND EQUIPMENT INTERLOCK SHALL BE BY BAS CONTRACTOR. OTHER CONTROLS AND CONTROL CONDUIT/WIRING BY TRADE FURNISHING RESPECTIVE EQUIPMENT.
3. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE AND REVIEW THE ELECTRICAL CHARACTERISTICS, AMPACITY AND OTHER REQUIREMENTS OF COMPONENTS BEFORE INSTALLATION OF WORK. ALL OTHER CONTRACTORS SHALL ADVISE ELECTRICAL CONTRACTOR OF ANY MOTOR/DEVICE CHANGES.
4. ALL LOOSE STARTERS SHALL INCLUDE HOA SWITCH, CONTROL TRANSFORMER, AND ONE N.O. AND ONE N.C. AUXILIARY CONTACTS. ALL SINGLE PHASE EXHAUST FAN CONTROL SWITCHES SHALL HAVE IDENTIFICATION NAMEPLATE AND PILOT LIGHT.
5. SEE SPECIFICATIONS AND DRAWINGS FOR TYPES AND LOCATIONS OF DEVICES SCHEDULED BELOW.



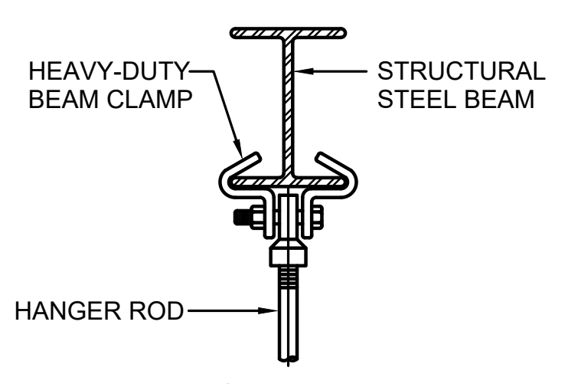
NOTE:
IDENTIFICATION MARKERS OR STRIPS TO BE PLACED ON ALL EXPOSED COVERED AND UNCOVERED PIPES AT 20'-0" INTERVALS, ADJACENT TO ALL VALVES OR BRANCHES, AND AT BOTH SIDES OF WALL/FLOOR PENETRATIONS. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL ALSO BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING DIRECTION OF FLOW.

SERVICE	BACKGROUND OR COLOR BAND	IDENTIFICATION MARKER
NATURAL GAS	YELLOW	BLACK ON YELLOW
NATURAL GAS VENT	YELLOW	BLACK ON YELLOW
HOT WATER HEATING SUPPLY	YELLOW	BLACK ON YELLOW
HOT WATER HEATING RETURN	YELLOW	BLACK ON YELLOW
LOW PRESSURE CONDENSATE	YELLOW	BLACK ON YELLOW
LOW PRESSURE STEAM	YELLOW	BLACK ON YELLOW
PUMPED CONDENSATE	YELLOW	BLACK ON YELLOW
REFRIGERANT LIQUID	GREEN	WHITE ON GREEN
REFRIGERANT SUCTION	GREEN	WHITE ON GREEN

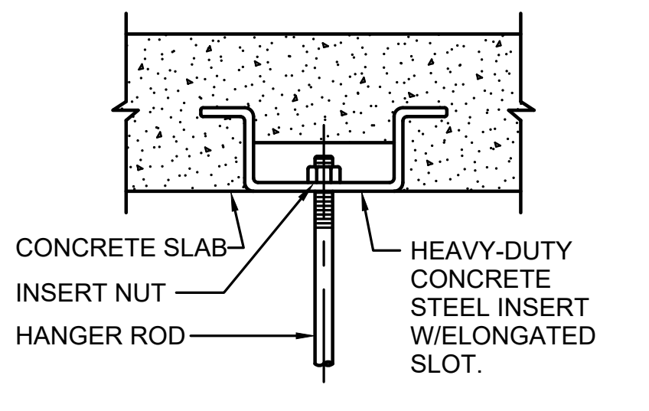
SIZE OF LEGEND LETTERS		
OUTSIDE DIAMETER OF PIPE OR COVERING	LENGTH OF COLOR FIELD A	SIZE OF LETTERS B
3/4" TO 1 1/4"	8"	1/2"
1 1/2" TO 2"	8"	3/4"
2" 1/2" TO 6"	12"	1 1/4"
8" TO 10"	24"	2 1/2"
OVER 10"	32"	3 1/2"

TYPICAL PIPE IDENTIFICATION MARKERS

NO SCALE



STEEL BEAM



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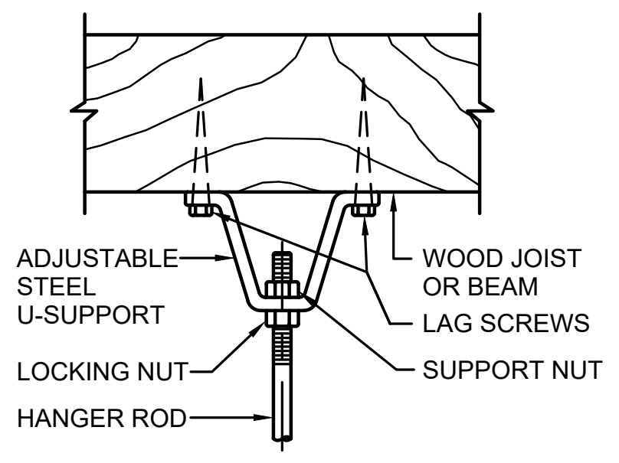
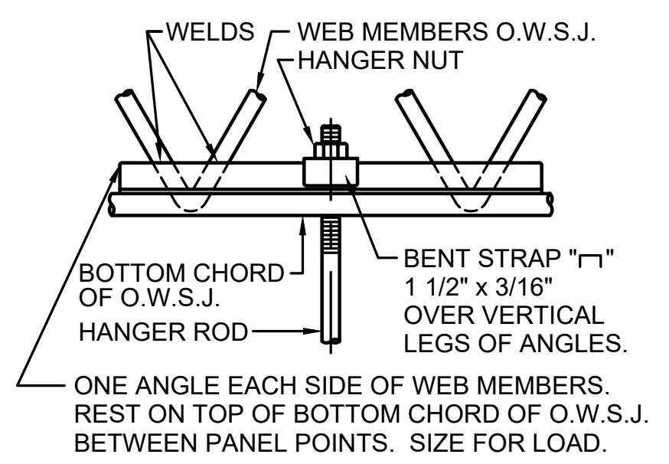


WOOD JOIST OR BEAM


WELDS
WEB MEMBERS O.W.S.J.
HANGER NUT
BOTTOM CHORD OF O.W.S.J.
HANGER ROD
BENT STRAP "⊓" 1 1/2" x 3/16" OVER VERTICAL LEGS OF ANGLES.
ONE ANGLE EACH SIDE OF WEB MEMBERS. REST ON TOP OF BOTTOM CHORD OF O.W.S.J. BETWEEN PANEL POINTS. SIZE FOR LOAD.

STEEL JOIST

PIPE HANGERS AND SUPPORTS

SUPPORT HORIZONTAL STEEL AND COPPER PIPING AS FOLLOWS:

NOMINAL PIPE SIZE	DISTANCE BETWEEN SUPPORTS	HANGER ROD DIAMETERS
1/2"	6'	3/8"
3/4 TO 1-1/2"	6'	1/2"
2" TO 2-1/2"	10'	1/2"
3" AND 4"	12'	5/8"
6" TO 12"	14'	7/8"
14" TO 18"	20'	1"

PLACE HANGER WITHIN 1 FOOT OF EACH HORIZ. ELBOW. SUPPORT HORIZ. SOIL WASTE AND STORM PIPE NEAR EACH HUB, WITH 5 FEET MAXIMUM SPACING BETWEEN HANGERS.

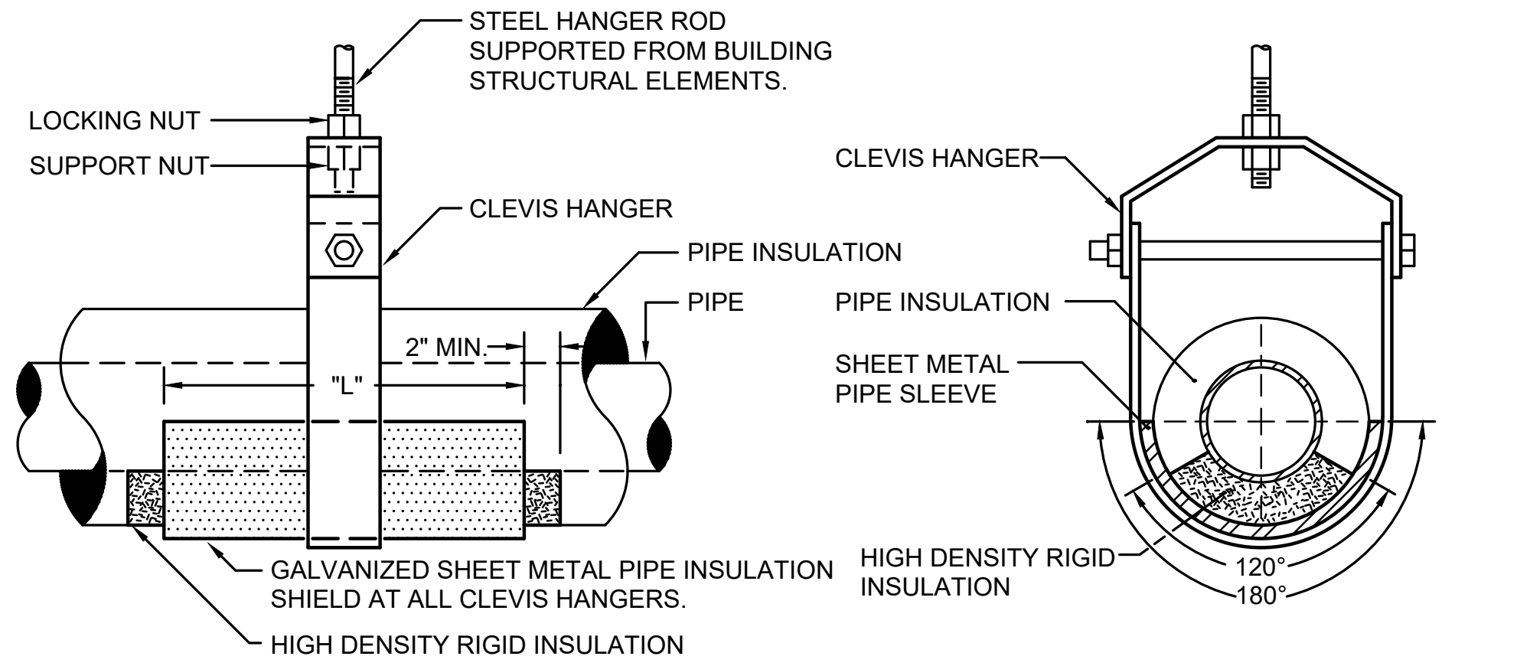
VERTICAL PIPING:
1. SUPPORT VERTICAL WATER PIPING AT EVERY FLOOR.
2. SUPPORT VERTICAL SOIL PIPE AT EACH FLOOR AT HUB.

WHERE SEVERAL PIPES CAN BE INSTALLED IN PARALLEL AND AT SAME ELEVATION PROVIDE MULTIPLE OR TRAPEZE HANGERS.

WHERE PRACTICAL, SUPPORT RISER PIPING INDEPENDENTLY OF CONNECTED HORIZ. PIPING.

TYPICAL PIPE HANGER DETAILS

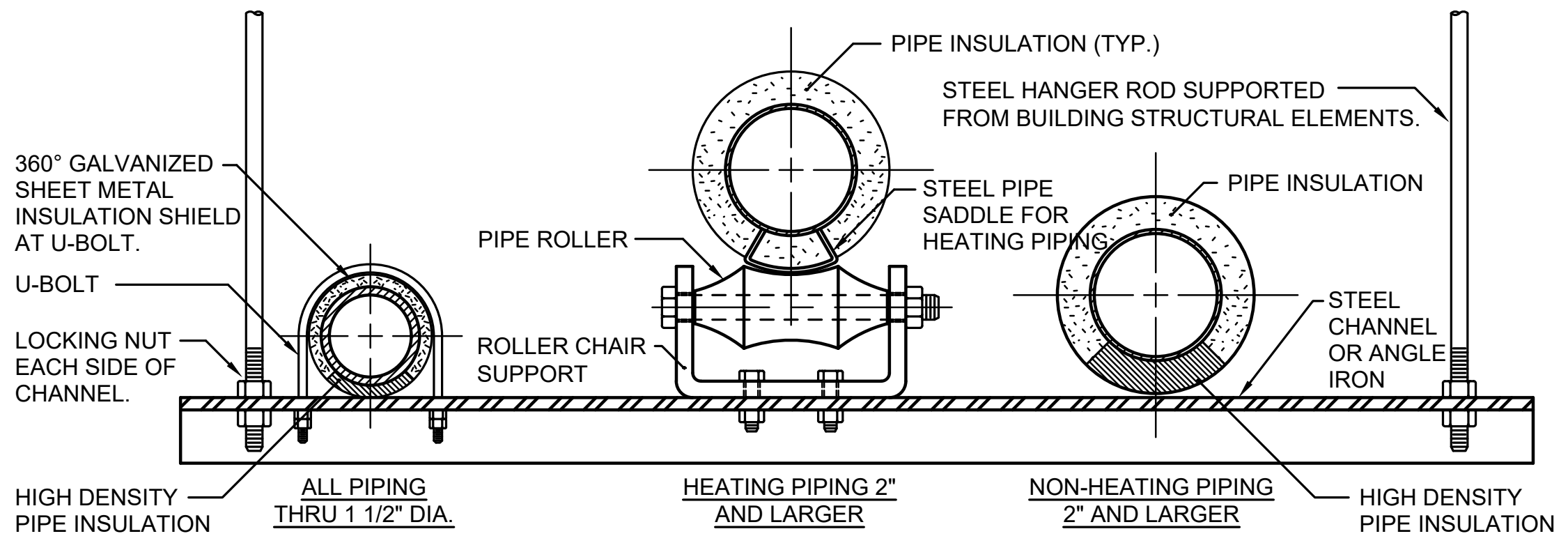
NO SCALE


STEEL HANGER ROD SUPPORTED FROM BUILDING STRUCTURAL ELEMENTS.
LOCKING NUT
SUPPORT NUT
CLEVIS HANGER
PIPE INSULATION
PIPE
2" MIN.
"L"
GALVANIZED SHEET METAL PIPE INSULATION SHIELD AT ALL CLEVIS HANGERS.
HIGH DENSITY RIGID INSULATION
CLEVIS HANGER
PIPE INSULATION
SHEET METAL PIPE SLEEVE
HIGH DENSITY RIGID INSULATION
120°
180°

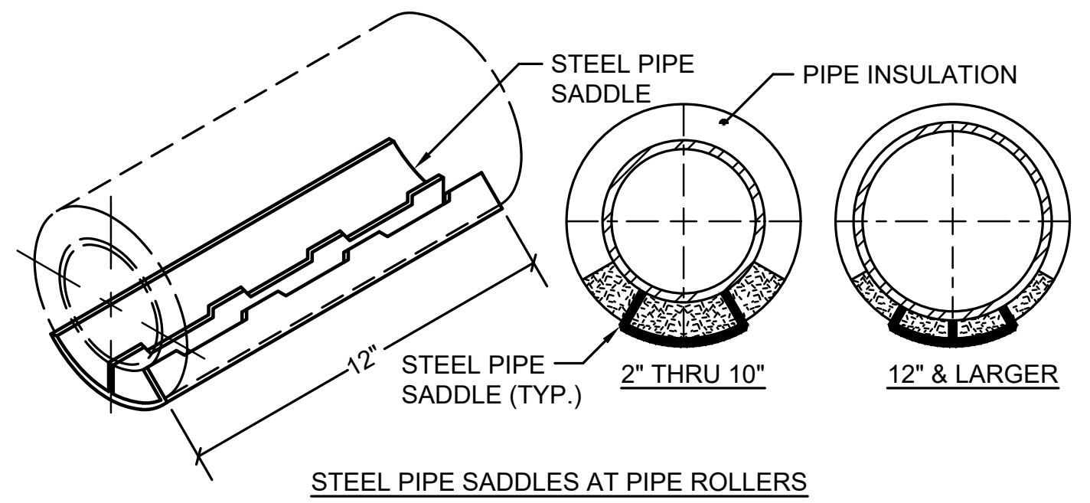
CLEVIS HANGER

PIPE INSULATION SHIELD SCHEDULE		
PIPE SIZE	LENGTH	GAUGE
UP TO 3/4"	8"	20 GA.
1" - 2"	12"	18 GA.
2 1/2" - 4"	12"	16 GA.
5" & 6"	18"	16 GA.
8" & UP	24"	14 GA.

NOTE: 1. CONFER WITH ARCHITECT AND REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON ACCEPTABLE METHODS AND LOCATIONS FOR HANGER SUPPORTS.


PIPE INSULATION (TYP.)
STEEL HANGER ROD SUPPORTED FROM BUILDING STRUCTURAL ELEMENTS.
360° GALVANIZED SHEET METAL INSULATION SHIELD AT U-BOLT.
U-BOLT
LOCKING NUT EACH SIDE OF CHANNEL.
PIPE ROLLER
ROLLER CHAIR SUPPORT
STEEL PIPE SADDLE FOR HEATING PIPING
PIPE INSULATION
STEEL CHANNEL OR ANGLE IRON
HIGH DENSITY PIPE INSULATION
ALL PIPING THRU 1 1/2" DIA.
HEATING PIPING 2" AND LARGER
NON-HEATING PIPING 2" AND LARGER
HIGH DENSITY PIPE INSULATION

TRAPEZE HANGER



STEEL PIPE SADDLES AT PIPE ROLLERS

TYPICAL PIPE HANGER DETAILS

NO SCALE

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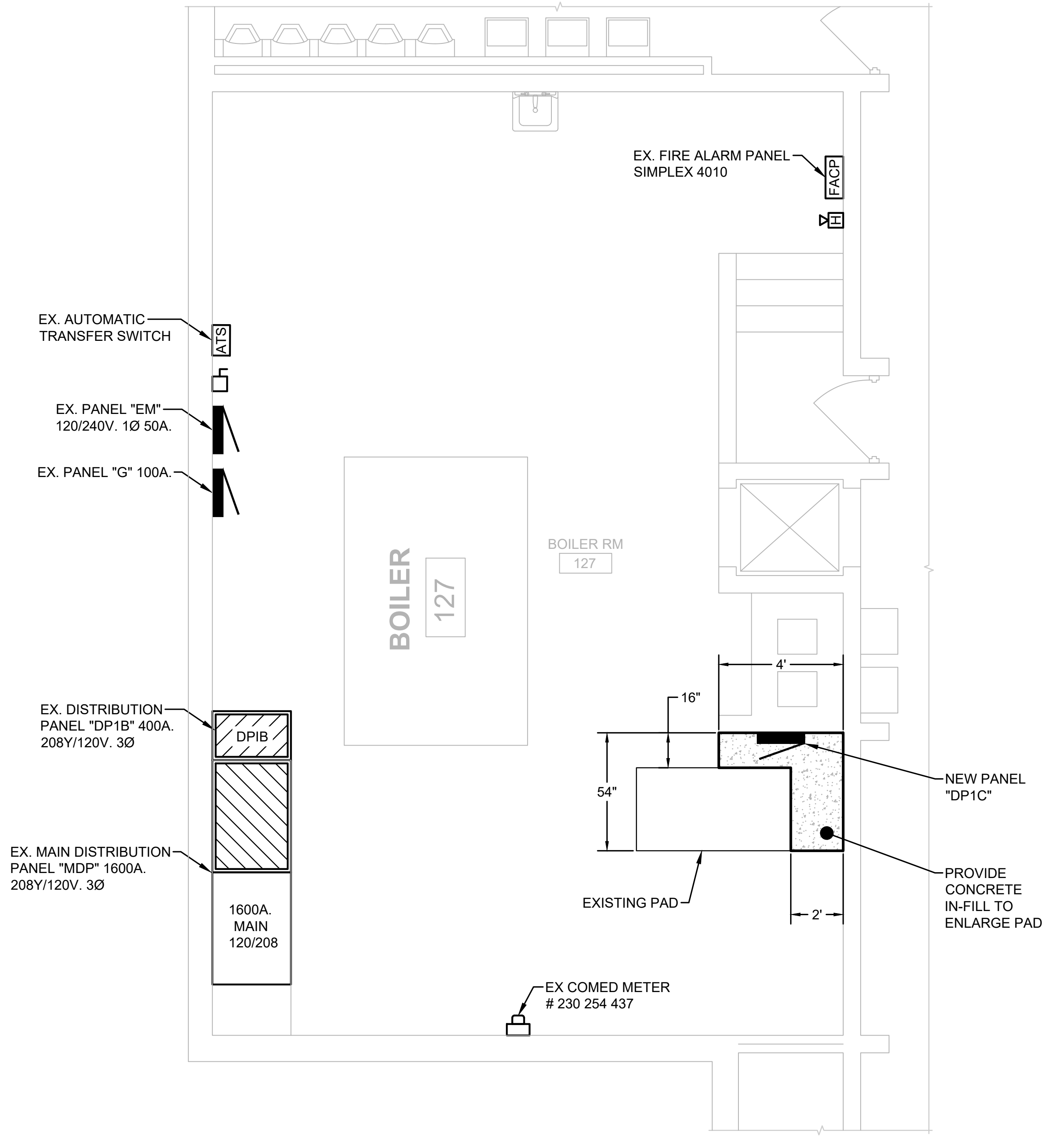
MECHANICAL/ELECTRICAL COORD. NOTES, SCHEDULE, DETAILS
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

ISSUED FOR:	DATE

DATE: 10-11-2022
PROJECT NUMBER
32103-00
SHEET NUMBER
ME1.0

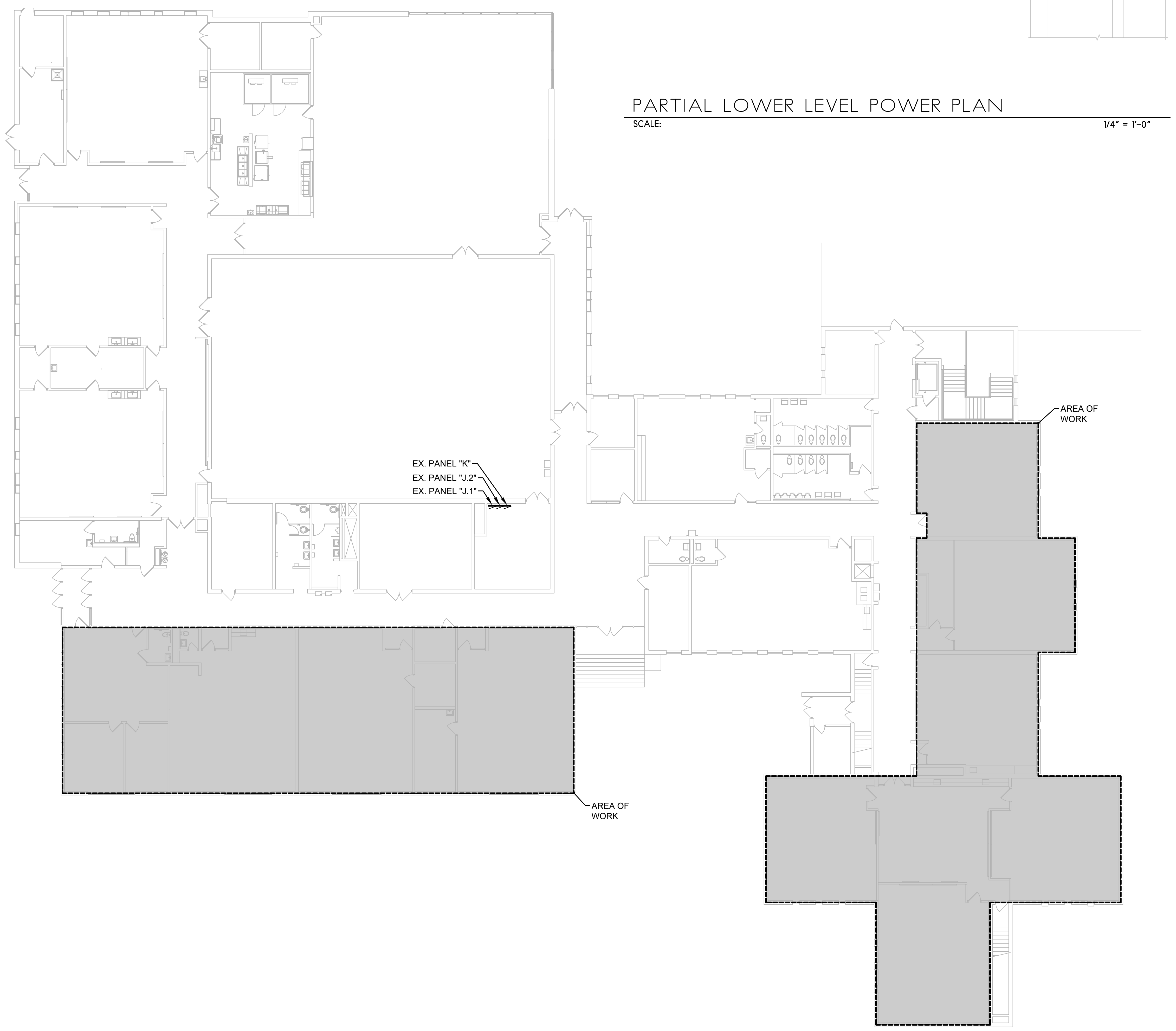
FILE: F:\788-V-1\HV\COMMON\788V1 ME1.0.DWG SAVED BY: MCASTRO DATE: 9/30/2022 TIME: 1:44 PM



PARTIAL LOWER LEVEL POWER PLAN

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

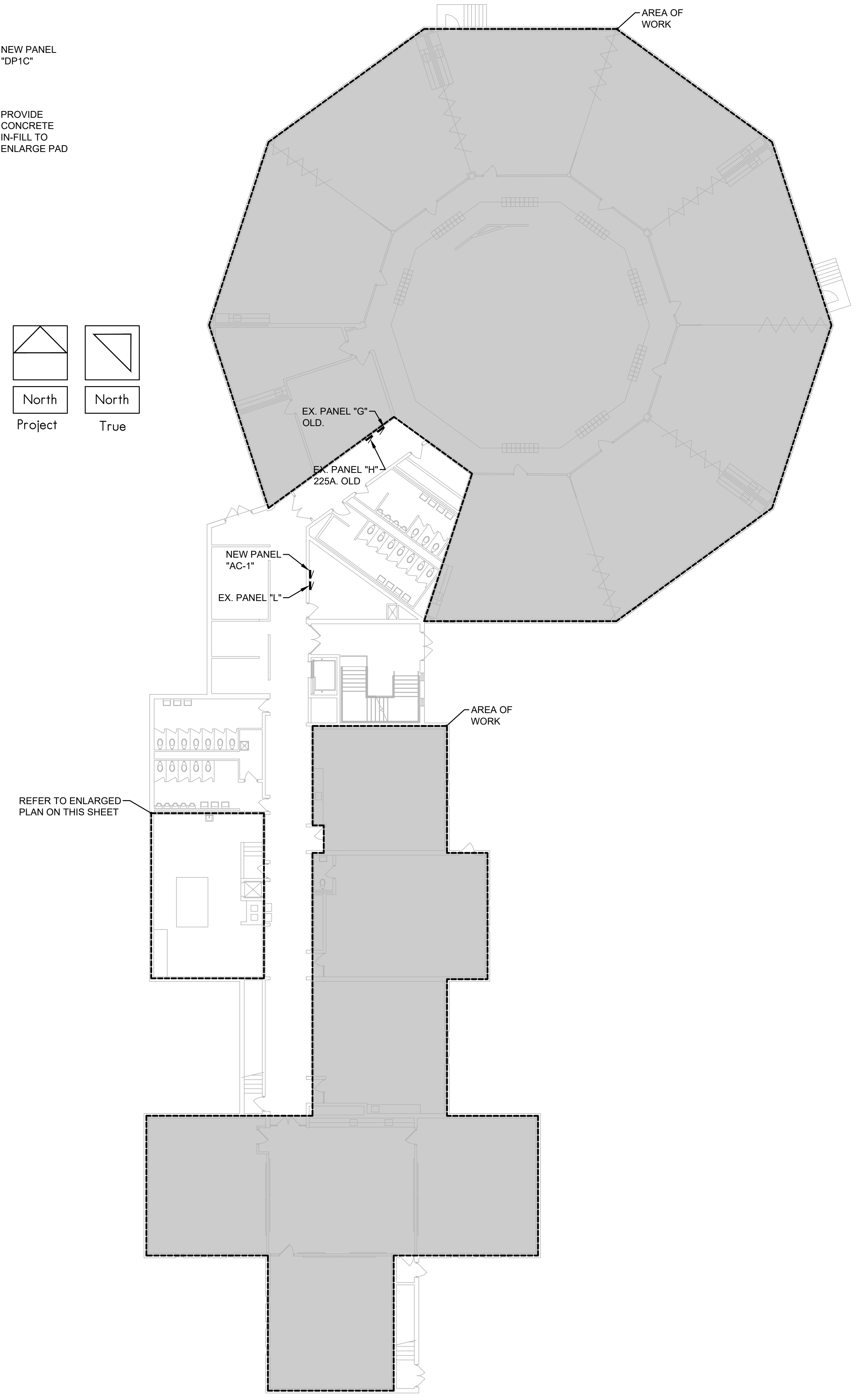
North Project
North True



UPPER LEVEL ELECTRICAL PLAN

SCALE: 1/16" = 1'-0"

North Project
North True



LOWER LEVEL ELECTRICAL PLAN

SCALE: 1/16" = 1'-0"

North Project
North True

FILE: F:\788-V-1\E\HILLMAN.DWG SAVED BY: JROSINSKI DATE: 10/10/2022 TIME: 9:45 AM

Larson & Darby Group
Architecture Engineering Interiors

CS2 DESIGNGROUP LLC
837 Oakton Street
Elk Grove, IL 60007
Tel: 847-981-1880
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www.cs2designgroup.com

HILLMAN ELEMENTARY SCHOOL
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

ISSUED FOR:	DATE

DATE: 10-11-2022
PROJECT NUMBER
32103-01
SHEET NUMBER
E1.0H

DRAWING NOTES:

① ELECTRICALLY DISCONNECT UNIT VENTILATOR FOR REMOVAL. PULL BACK BRANCH CIRCUIT AND EXTEND AS REQUIRED TO NEW UNIT VENTILATOR.

② PROVIDE 30A. 2P. 240V. HEAVY DUTY, FUSIBLE SAFETY SWITCH WITH DUAL ELEMENT FUSES SIZED PER EQUIPMENT MANUFACTURERS RECOMMENDATION, NEMA 3R ENCLOSURE.

③ PROVIDE GFCI TYPE ROOF TOP RECEPTACLE. PROVIDE WITH WEATHER PROOF, FLIP TOP, IN-USE COVER. CONNECT TO LOCAL 120V. PANELBOARD WITH CAPACITY TO ACCEPT LOAD.

④ PROVIDE ELECTRICAL CONNECTION TO NEW ROOF TOP EQUIPMENT. ROUTE ELECTRICAL FEED WITHIN ROOF CURB OR THROUGH APPROVED PIPE PORTAL.

⑤ REPLACE EXISTING MOTOR STARTER WITH VARIABLE FREQUENCY DRIVE (VFD). EXTEND CIRCUIT AS REQUIRED.

GENERAL NOTES:

1. THE MINIMUM WIRE SIZE SHALL BE #12 AWG. THE CONTRACTOR SHALL PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH UNGROUNDED CONDUCTOR IN THE MULTIWIRE BRANCH CIRCUIT. WHERE SHARED NEUTRALS ARE PROVIDED, THE MINIMUM SIZE SHALL BE #10 AWG. AND MULTI-POLE CIRCUIT BREAKERS SHALL BE PROVIDED TO DISCONNECT ALL UNGROUNDED CONDUCTORS OF THE MULTI-WIRE BRANCH CIRCUIT.
2. THE MINIMUM CONDUIT SIZE FOR HOMERUNS AND BRANCH FEEDS TO LIGHTING FIXTURES SHALL BE 3/4". 1/2" CONDUIT SHALL BE ACCEPTABLE FOR BRANCH WIRING FOR SINGLE CIRCUITS ONLY. ALL LIGHTING BRANCH CIRCUITS SHALL TERMINATE AT 20A-1P CIRCUIT BREAKERS IN PANELBOARD INDICATED UNLESS OTHERWISE NOTED. PROVIDE LOCK-ON (HANDLE-BLOCKING) CIRCUIT BREAKER DEVICES FOR ALL EMERGENCY ("NIGHTLIGHTING") LIGHTING CIRCUITS.
3. THE CONTRACTOR SHALL UPSIZE CONDUCTORS AND CONDUITS (OVER 75'-0" IN LENGTH) TO COMPENSATE FOR VOLTAGE DROP.
4. THE CONTRACTOR SHALL PROVIDE ALL PENETRATIONS, SLEEVES AND SEALANT AS REQUIRED THRU PARTITIONS TO ACCOMMODATE ANY CONDUITS/RACEWAYS, FIRE ALARM, PAGING, VOICE, DATA WIRING, ETC... ALL PENETRATIONS THRU RATED WALL ASSEMBLY(IES) MUST MEET THE UL RATING OF THE WALL SYSTEM(S).

MECHANICAL COORDINATION NOTE:

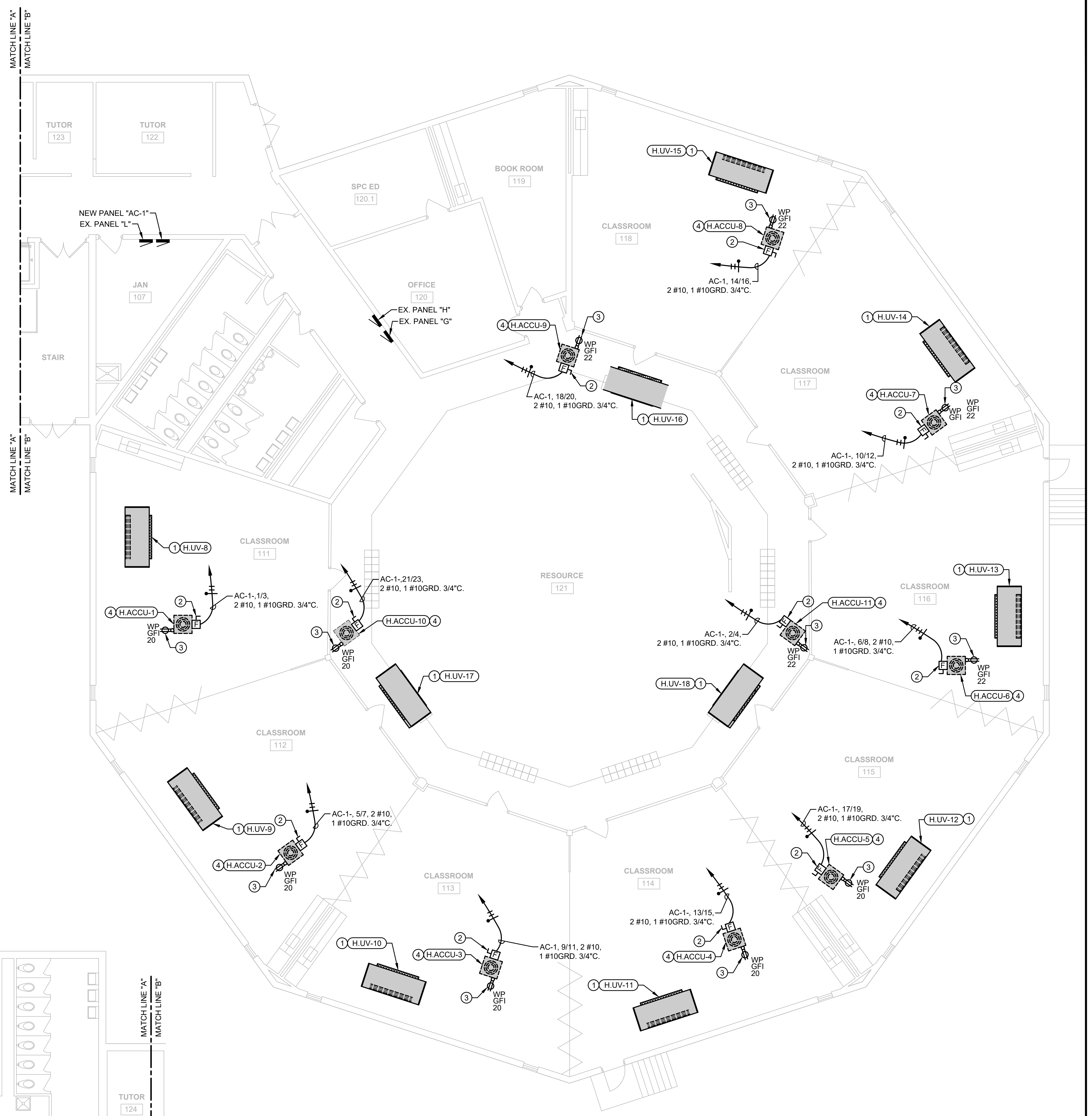
CLOSELY COORDINATE & VERIFY ALL WITH MECHANICAL & PLUMBING CONTRACTOR PRIOR TO ALL WORK. REFER TO MECHANICAL PLANS & SCHEDULES FOR ADDITIONAL INFORMATION. PROVIDE & ADJUST ALL AS REQUIRED FOR COMPLETE & FULLY FUNCTIONAL INSTALLATIONS.

PANEL/CIRCUIT NOTE:

PANELS INDICATED ON PLANS ARE FROM FIELD SURVEY AND RESPECTIVE DESIGNATED CIRCUITS BASED ON PANELBOARD SCHEDULES WHICH MAY OR MAY NOT REFLECT ACTUAL FIELD CONDITIONS AND SHALL BE VERIFIED BY ELECTRICAL CONTRACTOR PRIOR TO ALL WORK. IT IS INTENDED TO UTILIZE CIRCUITS MADE AVAILABLE BY DEMOLITION WHERE APPLICABLE, OTHERWISE, REFER TO DRAWING NOTES FOR ADDITIONAL INFORMATION/INSTRUCTIONS. PROVIDE ANY ADDITIONAL CONDUIT, WIRE, RACEWAYS, ETC... AS REQUIRED. ONLY PROVIDE NEW CIRCUITS/CIRCUIT BREAKERS (MATCH EXISTING TYPE) WHERE ABSOLUTELY NECESSARY - VERIFY SPARES AND SPACES IN EXISTING PANELS AND CIRCUIT ACCORDINGLY. VERIFY PANEL LOADING PRIOR TO FINAL CONNECTIONS. IMMEDIATELY NOTIFY CS2 OF ANY DISCREPANCIES AND/OR PROBLEMATIC ITEMS.

PAINTING NOTE:

CONTRACTOR TO PROVIDE ALL PATCHING AND TOUCH-UP PAINTING PAINTING IN AREAS WHERE CONDUITS, SURFACE RACEWAYS AND SIMILAR ELECTRICAL WORK IS ADDED OR REMOVED. PAINT COLORS PROVIDED BY RPS 205.

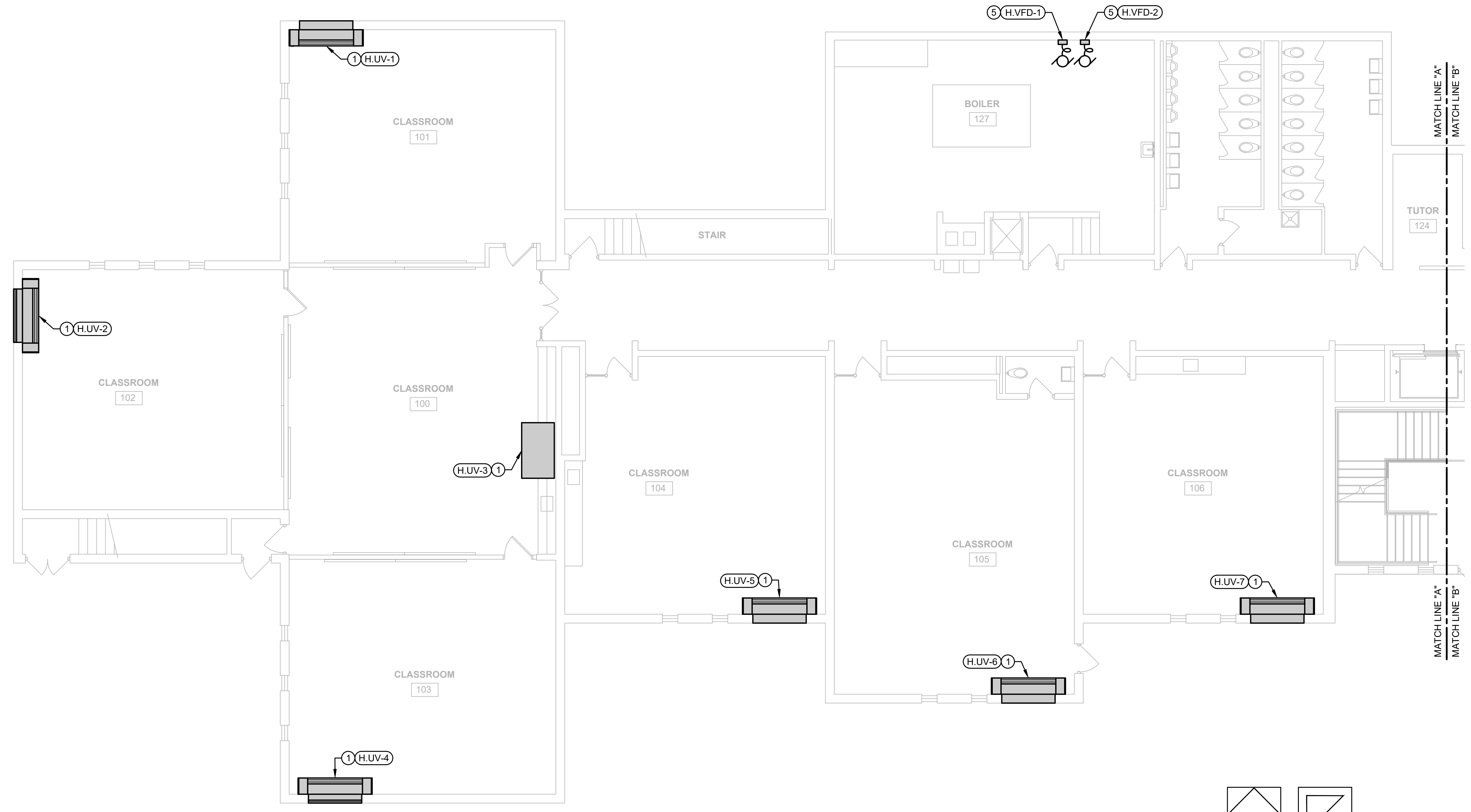


LOWER LEVEL ELECTRICAL PLAN AREA "B"

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

North Project

North True



LOWER LEVEL ELECTRICAL PLAN AREA "A"

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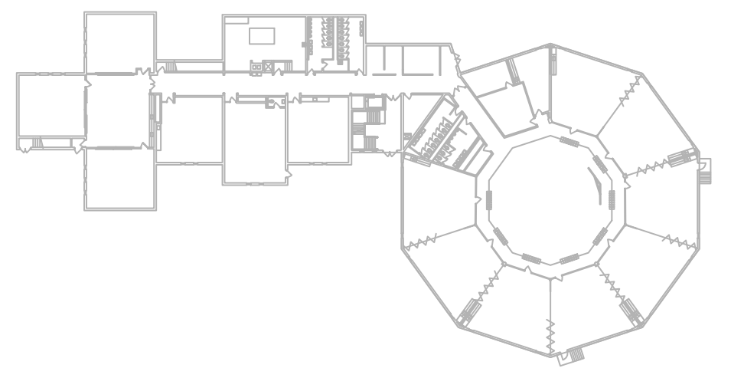

KEY PLAN

SCALE: NO SCALE

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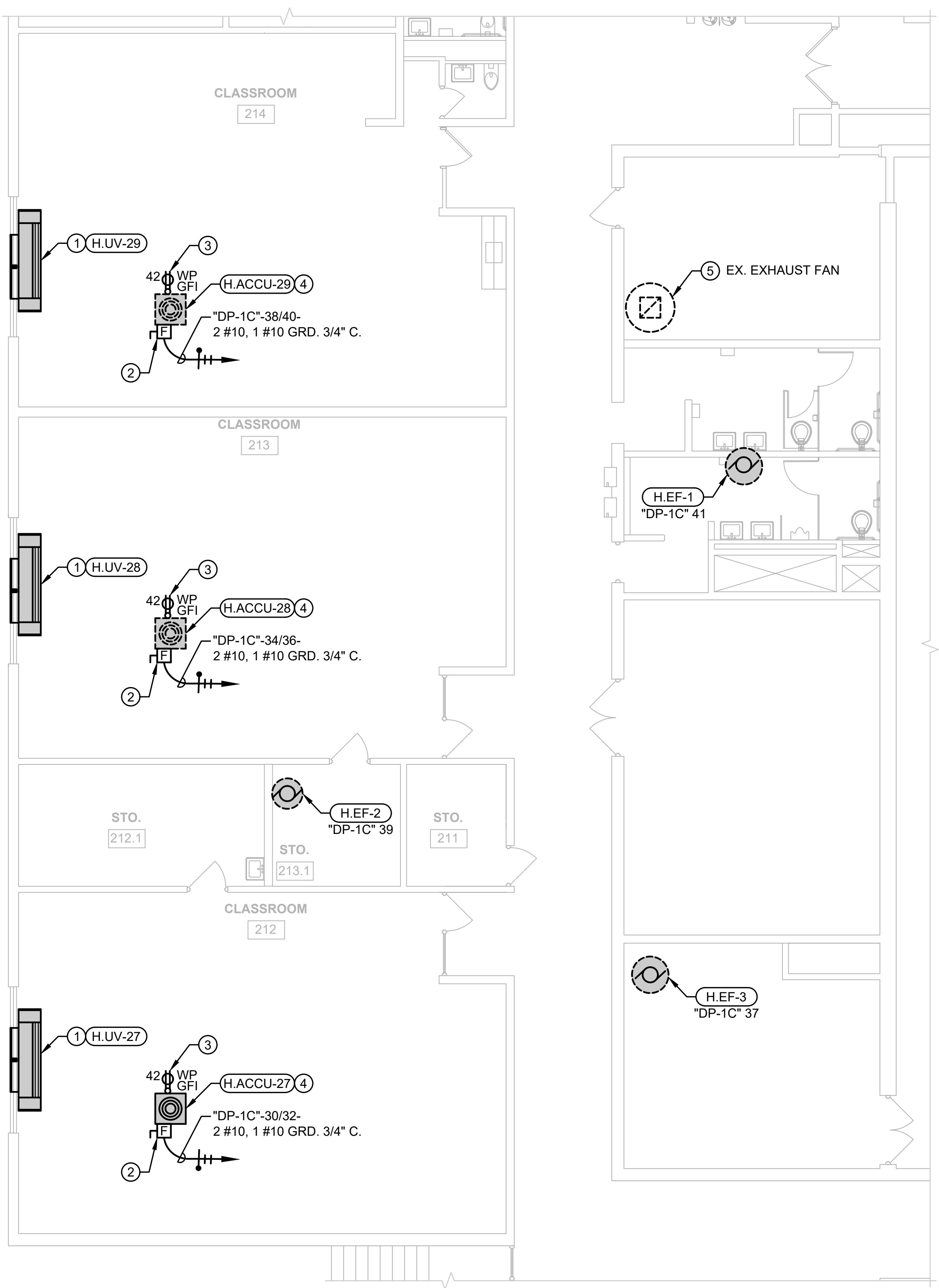

LOWER LEVEL ELECTRICAL PLAN AREA "B"

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

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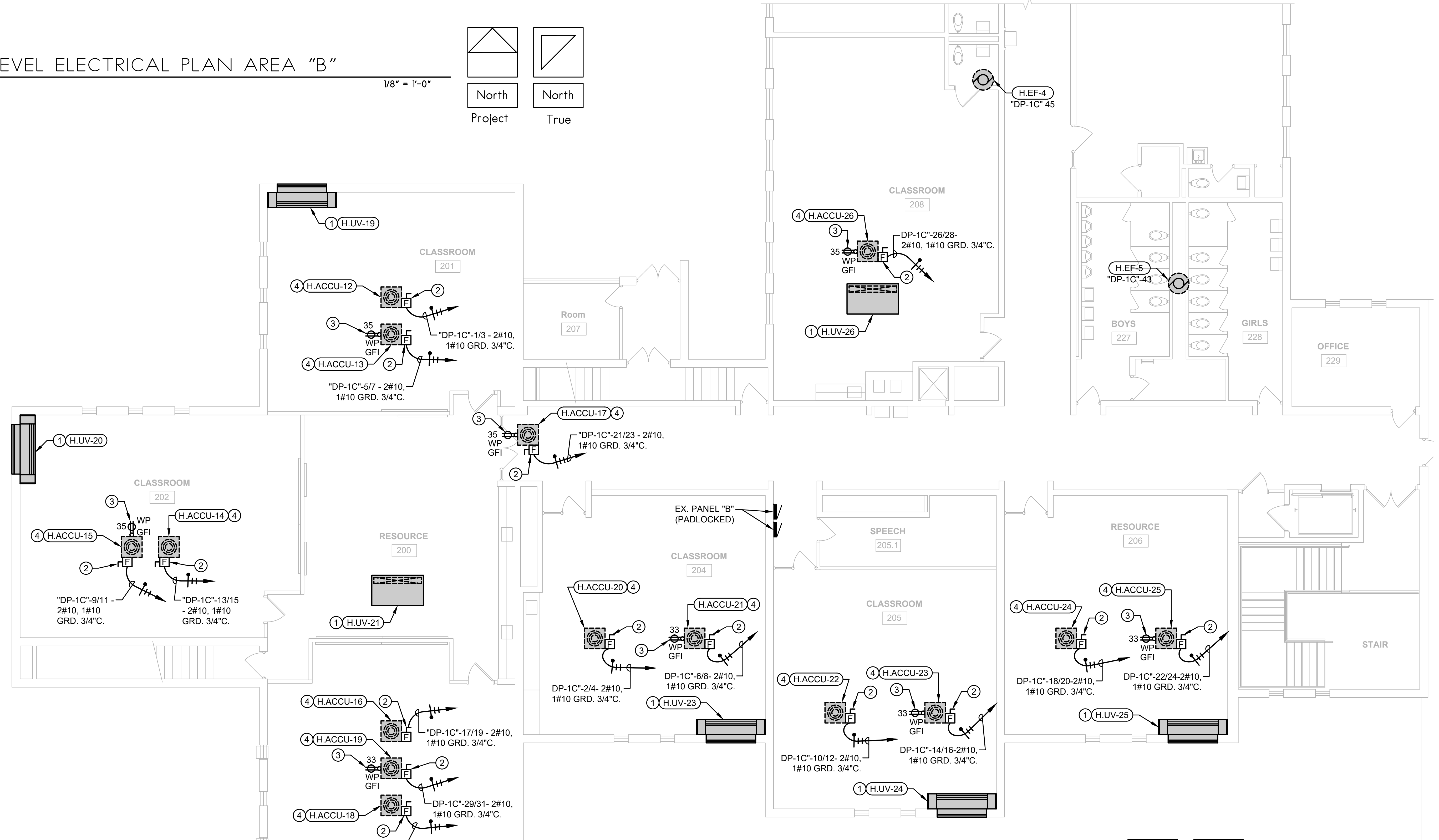
H.EF-4 "DP-1C" 45
CLASSROOM
208
4 H.ACCU-26
3
35 WP GFI
DP-1C"-26/28- 2#10, 1#10 GRD. 3/4"C.
2
1 H.UV-26
H.EF-5 "DP-1C"-43
BOYS
227
GIRLS
228
OFFICE
229
1 H.UV-19
CLASSROOM
201
4 H.ACCU-12
2
3
35 WP GFI
"DP-1C"-1/3 - 2#10, 1#10 GRD. 3/4"C.
4 H.ACCU-13
2
"DP-1C"-5/7 - 2#10, 1#10 GRD. 3/4"C.
Room
207
H.ACCU-17 4
3
35 WP GFI
"DP-1C"-21/23 - 2#10, 1#10 GRD. 3/4"C.
2
1 H.UV-20
CLASSROOM
202
3
35 WP GFI
H.ACCU-14 4
4 H.ACCU-15
2
2
"DP-1C"-9/11 - 2#10, 1#10 GRD. 3/4"C.
"DP-1C"-13/15 - 2#10, 1#10 GRD. 3/4"C.
RESOURCE
200
1 H.UV-21
4 H.ACCU-16
2
"DP-1C"-17/19 - 2#10, 1#10 GRD. 3/4"C.
4 H.ACCU-19
3
33 WP GFI
2
DP-1C"-29/31- 2#10, 1#10 GRD. 3/4"C.
4 H.ACCU-18
2
DP-1C"-25/27- 2#10, 1#10 GRD. 3/4"C.
CLASSROOM
203
1 H.UV-22
EX. PANEL "B" (PADLOCKED)
CLASSROOM
204
H.ACCU-20 4
H.ACCU-21 4
2
33 WP GFI
3
2
DP-1C"-2/4- 2#10, 1#10 GRD. 3/4"C.
DP-1C"-6/8- 2#10, 1#10 GRD. 3/4"C.
1 H.UV-23
SPEECH
205.1
CLASSROOM
205
4 H.ACCU-22
4 H.ACCU-23
2
3
33 WP GFI
2
DP-1C"-10/12- 2#10, 1#10 GRD. 3/4"C.
DP-1C"-14/16-2#10, 1#10 GRD. 3/4"C.
1 H.UV-24
RESOURCE
206
4 H.ACCU-24
4 H.ACCU-25
2
3
33 WP GFI
2
DP-1C"-18/20-2#10, 1#10 GRD. 3/4"C.
DP-1C"-22/24-2#10, 1#10 GRD. 3/4"C.
1 H.UV-25
STAIR

UPPER LEVEL ELECTRICAL PLAN AREA "A"

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④ PROVIDE ELECTRICAL CONNECTION TO NEW ROOF TOP EQUIPMENT. ROUTE ELECTRICAL FEED WITHIN ROOF CURB OR THROUGH APPROVED PIPE PORTAL.

⑤ ELECTRICALLY DISCONNECT HVAC EQUIPMENT FOR REMOVAL. REMOVE ALL CONDUIT, WIRING, AND JUNCTION BOXES BACK TO POINT OF ORIGIN. FIELD VERIFY.

GENERAL NOTES:

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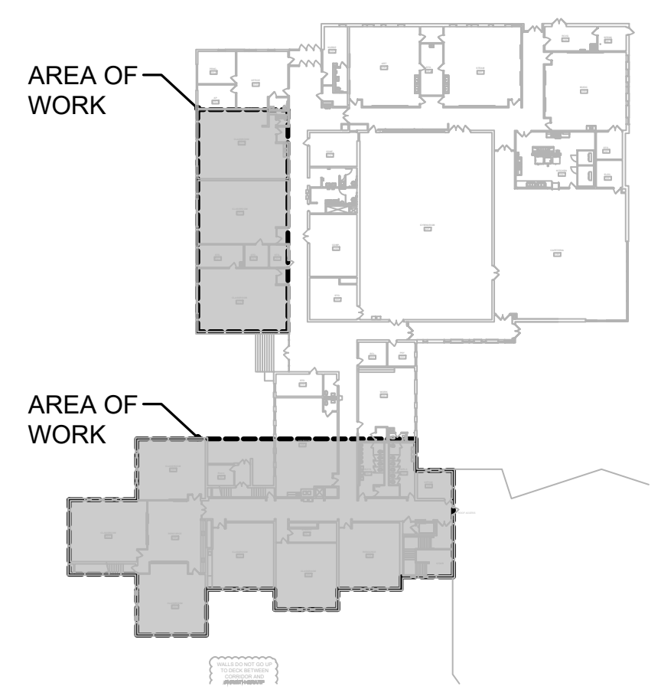

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PANELBOARD SCHEDULE: "AC-1" HILLMAN

MAIN: 200A MLO	VOLTAGE: 208 Y/120V, 3PH, 4W		C/B RATING: - 10 k.A.I.C.
LOCATION: - BOILER ROOM	NEUTRAL: 100%	GROUND: EQUIPMENT	SURFACE
REMARKS: -			TYPE: BOLT-ON

CKT	USE AND/OR AREA SERVED	C/B	TYPE	VA	PH	VA	TYPE	C/B	USE AND/OR AREA SERVED	CKT
1	M.ACCU - 1	30/2	M	2049	A	2049	M	30/2	M.ACCU - 11	2
3			M	2049	B	2049	M			4
5	M.ACCU - 2	30/2	M	2049	C	2049	M	30/2	M.ACCU - 6	6
7			M	2049	A	2049	M			8
9	M.ACCU - 3	30/2	M	2049	B	2049	M	30/2	M.ACCU - 7	10
11			M	2049	C	2049	M			12
13	M.ACCU - 4	30/2	M	2049	A	2049	M	30/2	M.ACCU - 8	14
15			M	2049	B	2049	M			16
17	M.ACCU - 5	30/2	M	2049	C	2049	M	30/2	M.ACCU - 9	18
19			M	2049	A	2049	M			20
21	M.ACCU - 10	30/2	M	2049	B				BUSSED SPACE	22
23			M	2049	C				BUSSED SPACE	24
25	BUSSED SPACE				A				BUSSED SPACE	26
27	BUSSED SPACE				B				BUSSED SPACE	28
29	BUSSED SPACE				C				BUSSED SPACE	30
31	BUSSED SPACE				A				BUSSED SPACE	32
33	BUSSED SPACE				B				BUSSED SPACE	34
35	BUSSED SPACE				C				BUSSED SPACE	36
37	BUSSED SPACE				A				BUSSED SPACE	38
39	BUSSED SPACE				B				BUSSED SPACE	40
41	BUSSED SPACE				C				BUSSED SPACE	42

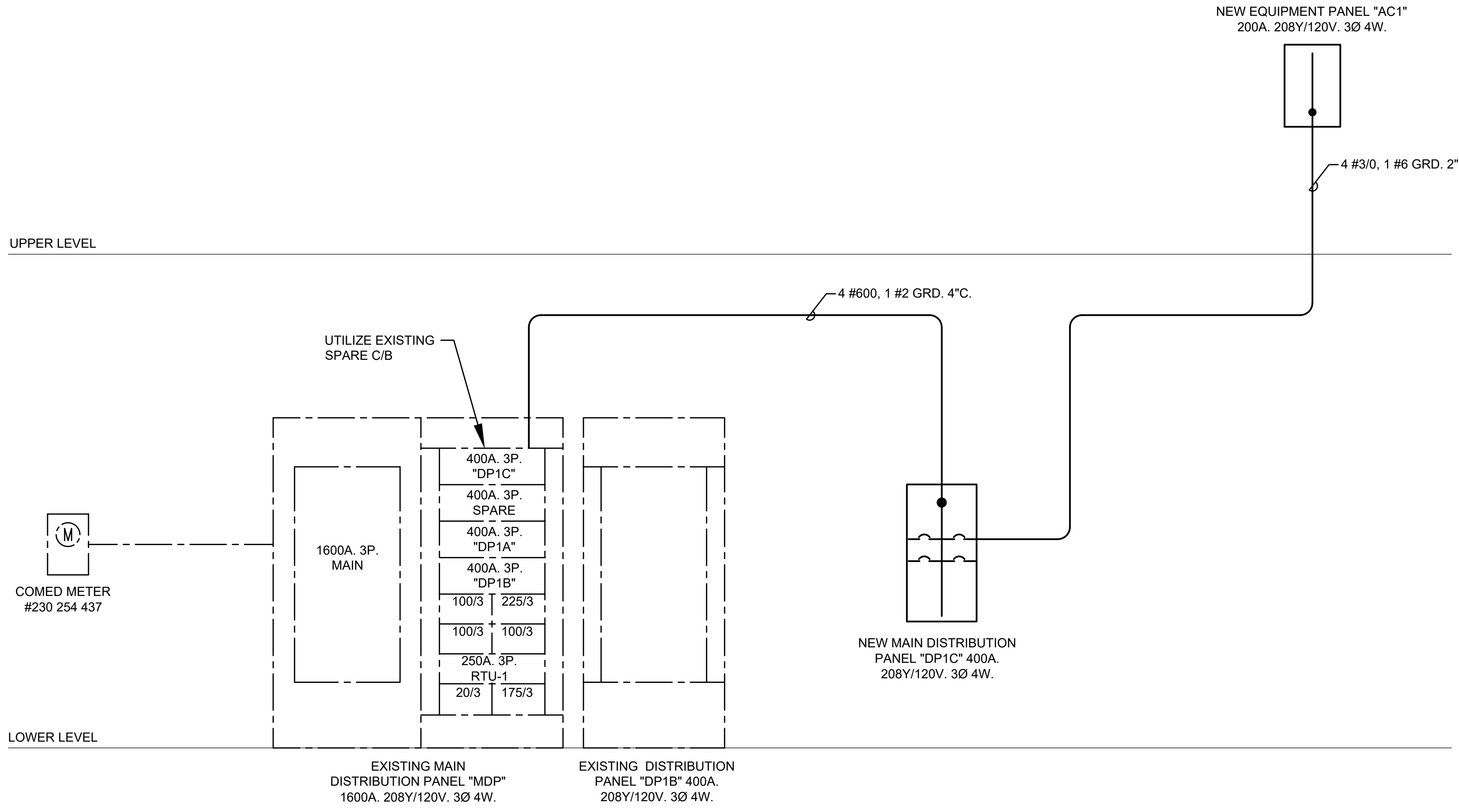
TOTAL LOAD PER PHASE A	16392	CONNECTED LOAD	45078	VA
TOTAL LOAD PER PHASE B	14343	HIGH PHASE AMPS	136.5	A
TOTAL LOAD PER PHASE C	14343			

PANELBOARD SCHEDULE: "DP-1C" HILLMAN

MAIN400A. MLO	VOLTAGE: 208 Y/120V, 3PH, 4W		C/B RATING: - 35 k.A.I.C.
LOCATION: - BOILER ROOM	NEUTRAL: 100%	GROUND: EQUIPMENT	SURFACE
REMARKS: -			TYPE: BOLT-ON

CKT	USE AND/OR AREA SERVED	C/B	TYPE	VA	PH	VA	TYPE	C/B	USE AND/OR AREA SERVED	CKT
1	M.ACCU - 12	30/2	M	2049	A	2049	M	30/2	M.ACCU - 20	2
3			M	2049	B	2049	M			4
5	M.ACCU - 13	30/2	M	2049	C	2049	M	30/2	M.ACCU - 21	6
7			M	2049	A	2049	M			8
9	M.ACCU - 15	30/2	M	2049	B	2049	M	30/2	M.ACCU - 22	10
11			M	2049	C	2049	M			12
13	M.ACCU - 14	30/2	M	2049	A	2049	M	30/2	M.ACCU - 23	14
15			M	2049	B	2049	M			16
17	M.ACCU - 16	20/2	M	1414	C	2049	M	30/2	M.ACCU - 24	18
19			M	1414	A	2049	M			20
21	M.ACCU - 17	20/2	M	1414	B	2049	M	30/2	M.ACCU - 25	22
23			M	1414	C	2049	M			24
25	M.ACCU - 18	30/2	M	2049	A	2049	M	30/2	M.ACCU - 26	26
27			M	2049	B	2049	M			28
29	M.ACCU - 19	30/2	M	2049	C	2049	M	30/2	M.ACCU - 27	30
31			M	2049	A	2149	M			32
33	ROOF RECEPTACLE	20/1	R	720	B	2049	M	30/2	M.ACCU - 28	34
35	ROOF RECEPTACLE	20/1	R	720	C	2049	M			36
37	EF - 3	20/1	M	1176	A	2049	M	30/2	M.ACCU - 29	38
39	EF - 2	20/1	M	1176	B	2049	M			40
41	EF - 1	20/1	M	1176	C	540	R	20/1	ROOF RECEPTACLE	42
43	EF - 5	20/1	M	1176	A				BUSSED SPACE	44
45	EF-4	20/1	M	1176	B				BUSSED SPACE	46
47	BUSSED SPACE				C				BUSSED SPACE	48
49	BUSSED SPACE				A				BUSSED SPACE	50
51	BUSSED SPACE				B				BUSSED SPACE	52
53	BUSSED SPACE				C				BUSSED SPACE	54
55				16392	A				BUSSED SPACE	56
57	PANEL "AC1"	200/3		14343	B				BUSSED SPACE	58
59				14343	C				BUSSED SPACE	60

TOTAL LOAD PER PHASE A	44846	CONNECTED LOAD	124262	VA
TOTAL LOAD PER PHASE B	41368	HIGH PHASE AMPS	373.4	A
TOTAL LOAD PER PHASE C	38048			



PARTIAL ELECTRICAL RISER DIAGRAM

NO SCALE

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ABBREVIATIONS

A	AMPERE
ADDT'L	ADDITIONAL
A.F.F.	ABOVE FINISH FLOOR
C.	CONDUIT
C/B	CIRCUIT BREAKER
CCT	CIRCUIT
CLG	CEILING
DIA	DIAMETER
DED	DEDICATED CIRCUIT
DISC	DISCONNECT
DIST	DISTRIBUTION
E.C.	ELECTRICAL CONTRACTOR
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX OR X	EXISTING TO REMAIN
FLA	FULL LOAD AMPS
FU	FUSE
GFI, GFCI	GROUND FAULT CURRENT INTERRUPTER
GRD	GROUND
HP	HORSEPOWER
IMC	INTERMEDIATE METAL CONDUIT
J-BOX, JB	JUNCTION BOX
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
MTD	MOUNTED
N	NEW
N.I.C.	NOT IN CONTRACT
NL	NIGHTLIGHT
N.T.S.	NOT TO SCALE
PB	PULLBOX
PNL	PANEL
REQ'D	REQUIRED
SWBD	SWITCHBOARD
TYP	TYPICAL
V	VOLTS
VA	VOLTS - AMPERES
W	WATTS OR WIRE
WG	WIRE GUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER
1P	SINGLE POLE
2P	TWO POLE
3P	THREE POLE
Ø	PHASE

NOTE:
ALL SYMBOLS, ABBREVIATIONS, ETC... ARE GENERAL OFFICE STANDARD AND ARE NOT ALL NECESSARILY USED IN THIS PROJECT.

MOUNTING HEIGHT NOTE
REFER TO ARCHITECTURAL FLOOR PLANS FOR ADDITIONAL INFORMATION REGARDING MOUNTING HEIGHTS AND LOCATIONS OF ELECTRICAL DEVICES BEFORE ROUGH-IN.

LIGHTING NOTE:
REFER TO ARCHITECTURAL FLOOR PLANS FOR ADDITIONAL INFORMATION REGARDING MOUNTING HEIGHTS AND LOCATIONS OF ELECTRICAL DEVICES BEFORE ROUGH-IN

ELECTRICAL SYMBOL LIST

LIGHTING

▭	2' X 4' LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED PER LIGHTING FIXTURE SCHEDULE.
▭	1' X 4' LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED PER LIGHTING FIXTURE SCHEDULE.
□	2' X 2' LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED PER LIGHTING FIXTURE SCHEDULE.
▭	4 FT LED LIGHT FIXTURE; WALL, CEILING OR PENDANT MOUNTED PER LIGHTING FIXTURE SCHEDULE.
⊢⊣	4' LED STRIP LIGHT FIXTURE, PER LIGHTING FIXTURE SCHEDULE.
◩	2' X 4' LIGHT FIXTURE ON EMERGENCY CIRCUIT (EM) OR NIGHT LIGHT (NL)
○	WALL MOUNTED FIXTURE PER LIGHTING FIXTURE SCHEDULE.
□	WALL MOUNTED FIXTURE, PER LIGHTING FIXTURE SCHEDULE.
○ □	LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED PER LIGHTING FIXTURE SCHEDULE.
⊗	EMERGENCY EXIT FIXTURE, SURFACE CEILING MOUNTED, SINGLE OR DOUBLE FACE, WITH OR WITHOUT DIRECTIONAL ARROWS PER EXIT SIGN SCHEDULE.
⊗	EMERGENCY EXIT FIXTURE, SURFACE WALL MOUNTED, SINGLE OR DOUBLE FACE, WITH OR WITHOUT DIRECTIONAL ARROWS PER EXIT SIGN SCHEDULE.
◀■▶	EMERGENCY, DUAL HEAD, BATTERY PACK LIGHTING FIXTURE, SURFACE WALL MOUNTED.
▼■▲	EMERGENCY, DUAL HEAD, BATTERY PACK LIGHTING FIXTURE, RECESSED CEILING MOUNTED.
◑	DAYLIGHTING SENSOR

OCCUPANCY SENSOR AND COMPONENTS

$	SELF ADAPTIVE WALL MOUNTED ULTRASONIC AND PASSIVE INFRARED OCCUPANCY SENSOR SWITCH.
▽	SELF ADAPTIVE CEILING MOUNTED ULTRASONIC AND PASSIVE INFRARED OCCUPANCY SENSOR WITH POWER PACK. 2000 SQFT. COVERAGE.
▽	SELF ADAPTIVE CEILING MOUNTED ULTRASONIC AND PASSIVE INFRARED OCCUPANCY SENSOR WITH POWER PACK. 1000 SQFT. COVERAGE.
▽	SELF ADAPTIVE CEILING MOUNTED ULTRASONIC AND PASSIVE INFRARED OCCUPANCY SENSOR WITH POWER PACK. 500 SQFT.

WIRING DEVICES

$	SINGLE POLE 20 AMP 120-277 VOLT TOGGLE SWITCH INSTALLED 48" AFF.
$	THREE WAY 20 AMP 120-277 VOLT TOGGLE SWITCH INSTALLED 48" AFF.
$M	MOMENTARY CONTACT SWITCH.
$D	DIMMING SWITCH
$K	SINGLE POLE 20 AMP 120-277 VOLT KEY OPERATED TOGGLE SWITCH INSTALLED 48" A.F.F. SWITCH SHALL UTILIZE FLAT HEAD KEY ONLY, FORK TYPE SHALL NOT BE ACCEPTABLE, BRYANT TECH-SPEC CATALOG NO. 4901L OR EQUAL.
$T	MANUAL MOTOR STARTER, THERMAL OVERLOAD TOGGLE SWITCH.
$F	MANUAL SINGLE PHASE FUSIBLE DISCONNECT SWITCH W/ PLUG FUSE SIZED PER EQUIPMENT MANUFACTURER'S RECOMMENDATION.
$	TOGGLE SWITCH WITH PILOT LIGHT "ON" WITH LOAD.
$	OCCUPANCY SENSOR SWITCH
$	OCCUPANCY SENSOR SWITCH WITH DIMMING
Φ	20 AMP 2P; 3 WIRE, GROUNDING TYPE, 120 VOLT SPECIFICATION GRADE DUPLEX RECEPTACLE NEMA 5-20R INSTALLED 16" A.F.F. UNLESS NOTED OTHERWISE, WHITE IN COLOR. "GFI" DENOTES RECEPTACLE EQUIPPED WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER.
Φ	20 AMP 2P, 3 WIRE, GROUNDING TYPE, 120 VOLT SPECIFICATION GRADE DUPLEX RECEPTACLE NEMA 5-20R INSTALLED ABOVE COUNTER TOP OR COUNTER TOP BACK SPLASH. "GFI" DENOTES RECEPTACLE EQUIPPED WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER, WHITE IN COLOR.
Φ	TWO 20 AMP 2P; 3 WIRE, GROUNDING TYPE, 120 VOLT SPECIFICATION GRADE DUPLEX RECEPTACLES NEMA 5-20R INSTALLED 16" A.F.F. UNLESS NOTED OTHERWISE, WHITE IN COLOR. "GFI" DENOTES RECEPTACLE EQUIPPED WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER.
Φ	RECEPTACLE MOUNTED IN CEILING.
H	HAND DRYER 120V. 20A. DEDICATED CIRCUIT - VERIFY PRIOR TO ROUGH-IN.

DATA, VOICE AND VIDEO

▽	DATA JACKS, +16" A.F.F UNLESS OTHERWISE NOTED. ("A" DENOTES ABOVE COUNTER HEIGHT.)
▼	VOICE JACK, +16" A.F.F UNLESS OTHERWISE NOTED. "W" DENOTES WALL MOUNTED AT +48" A.F.F.
▼▽	COMBINATION VOICE AND DATA JACK, +16" A.F.F UNLESS OTHERWISE NOTED.
P	PROJECTOR CONTROL OUTLET. PROVIDE 3-GANG EXTRA DEEP FLUSH MOUNTED JUNCTION BOX MOUNTED AT +16" A.F.F.
Φ LCD	CEILING MOUNTED PROJECTOR MOUNTING PLATE WITH DUPLEX RECEPTACLE AND PROJECTOR CONTROL CABLES.
▽	APPROXIMATE LOCATION OF DATA JACK FOR WIRELESS NETWORK, WITH 25'-0" SERVICE LOOP OF CATEGORY 6E CABLE WITH CLEAR MALE JACK. VERIFY EXACT LOCATION WITH OWNER'S REPRESENTATIVE.
LCD	WALL MOUNTED LCD MONITOR.
LCD	CEILING MOUNTED LCD MONITOR.

CLOCK / PAGING / SOUND

S	FLUSH CEILING MOUNTED SPEAKER.
₵	SCHOOL INTERCOM SYSTEM CALL SWITCH, CONTRACTOR TO PROVIDE A FLUSH BACKBOX AT +48"A.F.F. WITH 3/4"C. TO SPEAKER ENCLOSURE.
M	MICROPHONE OUTLET, PROVIDE SINGLE GANG BOX AT +16" A.F.F. WITH 3/4"C. STUBBED INTO ACCESSIBLE CEILING SPACE.
©	WALL MOUNTED CLOCK.
CSC	COMBINATION SPEAKER/CALL-IN SWITCH. PROVIDE THREE GANG BOX AT +48" A.F.F. WITH 3/4"C. STUBBED INTO ACCESSIBLE CEILING SPACE. "WP" DENOTES WEATHERPROOF ENCLOSURE.
CS	CLOCK/SPEAKER ENCLOSING

RACEWAY AND BOXES

J	CEILING JUNCTION BOX.
J	WALL MOUNTED JUNCTION BOX.
J	JUNCTION BOX WITH FLEXIBLE CONDUIT AND FINAL CONNECTION TO EQUIPMENT.
⌒	CONDUIT ROUTED CONCEALED IN WALLS AND CEILING. HASH MARKS DENOTE QUANTITY OF #12 CONDUCTORS OR AS NOTED.
⏢	CONDUIT ROUTED EXPOSED. INSTALL PARALLEL TO WALLS AND CEILINGS. HASH MARKS DENOTE QUANTITY OF #12 CONDUCTORS OR AS NOTED.
⌒	DENOTES CONDUIT CONTAINING A #12 EQUIPMENT GROUND CONDUCTOR OR AS NOTED.
■	SURFACE CONDUIT. WIREMOLD V700 SERIES RACEWAYS OR EQUAL.
Φ ▽ Φ	DENOTES SURFACE MOUNTED RACEWAY BACK FEED FROM WALL, UNLESS NOTED OTHERWISE. WIREMOLD V4000 SERIES OF EQUAL.
☒	DENOTES RECESSED LARGE CAPACITY FLOOR BOX FLUSH WITH FLOOR.

SERVICE AND DISTRIBUTION

□	NON-FUSED SAFETY DISCONNECT SWITCH, AMPERE RATING AND NUMBER OF POLES AS NOTED.
F	FUSED DISCONNECT SWITCH, AMPERE RATING AND NUMBER OF POLES AS NOTED.
☒	COMBINATION MOTOR STARTER WITH FUSED DISCONNECT SWITCH
■	CIRCUIT BREAKER PANELBOARD
▨	DISTRIBUTION PANEL.
○	MOTOR CONNECTION, HORSEPOWER, VOLTAGE AND PHASE AS NOTED.
TVSS	TRANSIENT VOLTAGE SURGE PROTECTOR MOUNTED ADJACENT TO SWITCHBOARD ON PANELBOARD.

FIRE ALARM

F	FIRE ALARM SYSTEM PULL STATION INSTALLED +48" A.F.F. WITH STOPPER II COVER.
SV	FIRE ALARM SYSTEM SPEAKER/VISUAL STROBE INSTALLED +80" A.F.F.
SV	FIRE ALARM SYSTEM CEILING MOUNTED SPEAKER/VISUAL STROBE.
S	WALL MOUNTED FIRE ALARM SPEAKER.
S	CEILING MOUNTED FIRE ALARM SPEAKER.
V	FIRE ALARM SYSTEM VISUAL SIGNAL INSTALLED +80" A.F.F.
V	FIRE ALARM SYSTEM CEILING MOUNTED VISUAL SIGNAL.
H	FA SYSTEM WALL MOUNTED AUDIO/VISUAL SIGNALING DEVICE (HORN/STROBE).
H	FA SYSTEM CEILING MOUNTED AUDIO/VISUAL SIGNALING DEVICE (HORN/STROBE).
CO	FIRE ALARM SYSTEM CARBON MONOXIDE DETECTOR.
HD	FIRE ALARM SYSTEM CEILING HEAT DETECTOR "FT" DENOTES FIXED TEMPERATURE.
SD	FIRE ALARM SYSTEM CEILING SMOKE DETECTOR.
DSD	FIRE ALARM SYSTEM DUCT MOUNTED SMOKE DETECTOR.
$K	DUCT SMOKE DETECTOR REMOTE INDICATING LIGHT WITH KEY OPERATED TEST SWITCH.
MH	FIRE ALARM MAGNETIC DOOR HOLD OPEN DEVICE.
FCP	FIRE ALARM CONTROL PANEL.
FAA	FIRE ALARM ANNUNCIATOR PANEL.
FS	SPRINKLER SYSTEM FLOW SWITCH.
VSS	SPRINKLER SYSTEM VALVE SUPERVISORY SWITCH.
C	FIRE ALARM DOOR CLOSER.
IAM	FIRE ALARM INDIVIDUAL ADDRESSABLE MODULE.
RIAM	FIRE ALARM RELAY INDIVIDUAL ADDRESSABLE MODULE.
ZAM	FIRE ALARM ZONE ADAPTER MODULE.

SPECIAL SYSTEMS

■	DOOR WITH SECURITY SYSTEM CONTACT AND/OR DOOR POSITION SWITCH.
ES	DOOR WITH SECURITY ELECTRIC STRIKE.
CR	CARD READER LOCATION. PROVIDE SINGLE GANG BACKBOX AT +42"A.F.F. WITH 3/4" CONDUIT STUBBED INTO "SAFE-SIDE" CEILING SPACE FOR SECURITY CABLING.
△	CEILING MOUNTED SECURITY MOTION DETECTOR.
▷	WALL MOUNTED SECURITY MOTION DETECTOR.
H	WALL MOUNTED SECURITY SIREN.
K	SECURITY KEYPAD (BOSCH).
RX	REQUEST TO EXIT, SECURITY MOTION BY PASS DETECTOR.
SCP	SECURITY SYSTEM CONTROL PANEL.
IC	ENTRANCE INTERCOM WITH CAMERA
IM	INTERCOM MASTER STATION.
⊕	CAMERA SINGLE DOME 360 DEGREE MULTI-SENSOR CEILING MOUNTED
✣	CAMERA SINGLE DOME 360 DEGREE MULTI-SENSOR CORNER MOUNTED
▷□	CAMERA SINGLE DOME WALLMOUNTED, OUTDOOR
◖□	CAMERA SINGLE DOME WALLMOUNTED, PANORAMIC, OUTDOOR
⊡	CAMERA SINGLE DOME 360 DEGREE FISHEYE, CEILING MOUNTED
⊗	CAMERA SINGLE DOME DUAL, CEILING MOUNTED

LIGHTING FIXTURE SCHEDULE

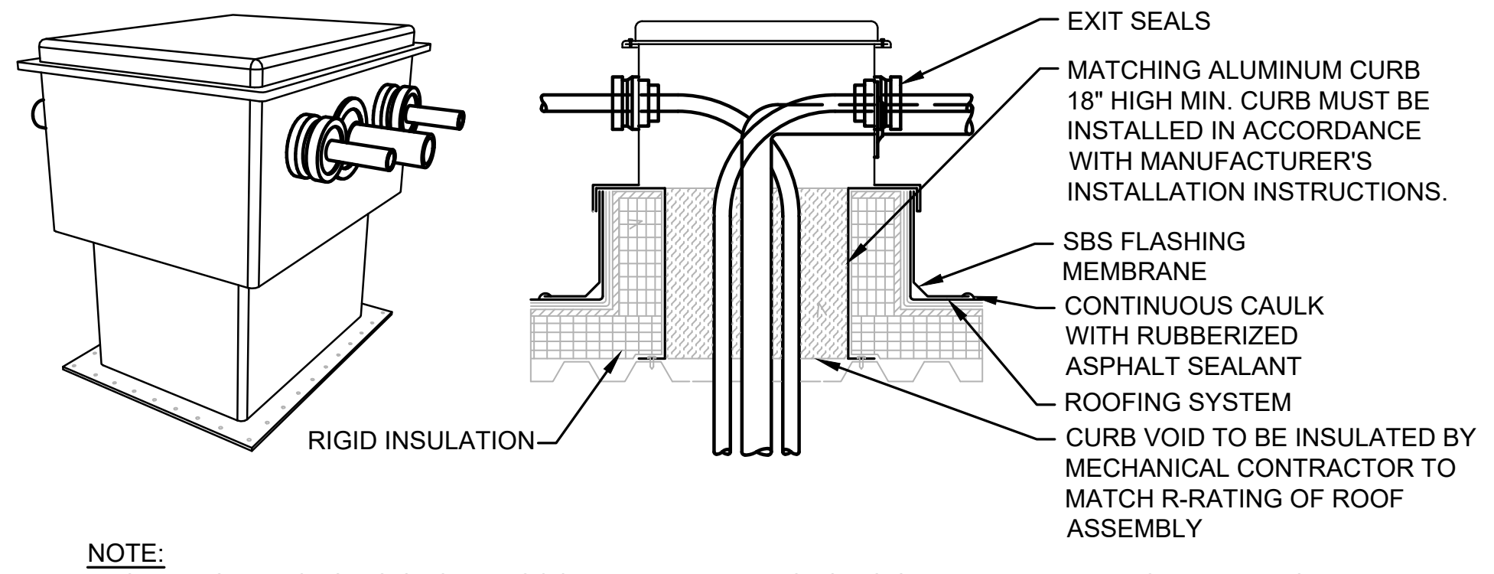
TYPE	DESCRIPTION	MOUNTING	LAMPS	VOLTAGE	MANUFACTURER & CATALOG NUMBER	REMARKS
A	2'X4' LED LIGHTING FIXTURE. LOW PROFILE.	RECESSED GRID	LED 4000K	MVOLT	LITHONIA 2BLT4 RB 48L ADP EZ1 LP840	
B	2'X2' LED LIGHTING FIXTURE. LOW PROFILE.	RECESSED GRID	LED 4000K	MVOLT	LITHONIA 2BLT2 RB 40L ADP EZ1 LP840	
⊗	LED EXIT SIGN	AS REQUIRED	LED	120/277	LITHONIA LMQ S W 3 R 120/277	VERIFY EXACT MOUNTING WITH ARCHITECT; FACES (SINGLE OR DOUBLE) AND ARROWS AS REQUIRED

NOTES:

1. ALL LIGHTING FIXTURES ARE NEW, UNLESS OTHERWISE NOTED.
2. LIGHTING FIXTURES FINISHES, SWITCHES/ DIMMERS SHALL BE AS DIRECTED BY THE ARCHITECT/OWNER.
3. LIGHTING FIXTURES SHALL BE COMPLETE, INCLUDING ALL THE NECESSARY CONDUIT, WIRING, INCLUDING CHAIN, CABLE OR STEM AND HANGING BRACKETS AND ANY OTHER PARTS REQUIRED FOR INSTALLATION.
4. PROVIDE MANUFACTURER'S BRACKET ACCESSORIES FOR NEW LED HEADS INSTALLATION ON ALL EXISTING POLES AS REQUIRED. CONTRACTOR SHALL VERIFY IN FIELD PRIOR TO ORDERING AND INSTALLATION.
5. PROVIDE COLOR TEMPERATURE TO MATCH SCHOOL PREFERENCE AND DISTRICT STANDARD. VERIFY PRIOR TO PURCHASE.
6. ALL LIGHTING FIXTURES ARE DISTRICT STANDARD - NO SUBSTITUTIONS.

CONTACT ALL WEATHER PRODUCTS:
FRED CREED
630-464-6500

COORDINATE ALL ROOF WORK SO AS NOT TO VOID OWNER'S ROOF WARRANTY.


EXIT SEALS
MATCHING ALUMINUM CURB 18" HIGH MIN. CURB MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
SBS FLASHING MEMBRANE
CONTINUOUS CAULK WITH RUBBERIZED ASPHALT SEALANT
ROOFING SYSTEM
CURB VOID TO BE INSULATED BY MECHANICAL CONTRACTOR TO MATCH R-RATING OF ROOF ASSEMBLY
RIGID INSULATION

NOTE:
1. SMALL SIZE HOUSING SHOWN. COORDINATE FINAL HOUSING SIZE WITH FIELD REQUIREMENTS.
2. COORDINATE NUMBER AND EXACT SIZE OF PIPE PENETRATION BUSHING IN FIELD.
3. THIS DETAIL SHALL APPLY TO ROOF TOP UNITS AND DUCT FREE SPLIT SYSTEMS. EXHAUST FANS SHALL BE SERVED VIA THE EQUIPMENT RACEWAY COMPARTMENT.

MECHANICAL AND ELECTRICAL PIPE CHASE PORTAL DETAIL

ELECTRICAL GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH ALL THE APPLICABLE LOCAL, MUNICIPAL AND FIRE CODES. THE WORK SHALL BE IN TOTAL COMPLIANCE WITH THE RULES AND REGULATIONS OF THE AUTHORITIES HAVING JURISDICTION.
2. REVIEW ADOPTED CODES AND CODE AMENDMENTS WITH THE LOCAL GOVERNING AUTHORITIES AND BECOME FAMILIAR WITH THE LOCAL REGULATIONS RELATING TO THE WORK.
3. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTION FEES AS REQUIRED FOR HIS PORTION OF THE WORK.
4. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE RESPECTIVE TRADES AND VERIFY LOCATIONS FROM THE ARCHITECTURAL DRAWINGS, FIELD MEASUREMENTS AND SUPPLIER SHOP DRAWINGS.
5. COORDINATE EQUIPMENT VOLTAGE, PHASE, BREAKER SIZE, AND DISCONNECTING MEANS WITH SUBCONTRACTORS PROVIDING EQUIPMENT PRIOR TO ORDERING AND INSTALLATION OF ANY EQUIPMENT, PANELS, BREAKERS, CONDUIT AND WIRE, ETC.
6. WORK REQUIRED OF ANY TRADE MAY BE SHOWN ANYWHERE ON ANY DRAWING OR IN ANY PART OF THE SPECIFICATIONS.
7. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS OF ALL TRADES AND SHALL INCLUDE ANY ELECTRICAL WORK INDICATED OR REQUIRED BY ANY TRADE. THE CONTRACTOR ACKNOWLEDGES BY SUBMITTING A BID THAT HE HAS REVIEWED THE DOCUMENTS AND HAS VISITED THE SITE AND THAT THE INFORMATION SHOWN AND DESCRIBED IS SUFFICIENT TO ENABLE HIM TO PREPARE A COMPLETE AND ACCURATE BID FOR A COMPLETE, FINISHED PROJECT. ANY CLARIFICATIONS, DISCREPANCIES, OMISSIONS, REQUEST FOR ADDITIONAL INFORMATION, OR UNUSUAL CONDITIONS ARE TO BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR RESOLUTION IN WRITING PRIOR TO SUBMITTING BIDS.
8. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD.
9. CONTRACTOR SHALL COMPLY WITH ALL IDENTIFICATION REQUIREMENTS OF THE NEC.
10. LAYOUT OF EQUIPMENT, ACCESSORIES AND WIRING ARE DIAGRAMMATIC AND DO NOT INDICATE EVERY BOX, CONDUIT, WIRING OR SIMILAR ITEMS FOR A COMPLETE INSTALLATION.
11. CUTTING OF ANY STRUCTURAL MEMBER SHALL BE APPROVED BY THE ARCHITECT IN WRITING PRIOR TO WORK BEING DONE.
12. REMOVE PORTIONS OF EXISTING CEILINGS IN AREAS WHERE ELECTRICAL WORK IS INDICATED AND EXISTING CEILINGS ARE TO REMAIN. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS. REPLACE EXISTING CEILING TILES DAMAGED DURING WORK. PATCH AND PAINT EXISTING DRYWALL CEILINGS.
13. THE CONTRACTOR SHALL VERIFY THE NUMBER OF EXISTING SPARES AND SPACES. CONTRACTOR SHALL PROVIDE AND INSTALL OVER CURRENT DEVICES AS REQUIRED FOR NEW CIRCUITRY.
14. THE CONTRACTOR SHALL MAINTAIN THE ELECTRICAL CONTINUITY OF ELECTRICAL CIRCUITS, EQUIPMENT, AND DEVICES TO REMAIN. REWORK AND RE-CIRCUIT AS NECESSARY TO INSURE THE PROPER FUNCTIONING OF REMAINING CIRCUITS, EQUIPMENT, AND DEVICES.
15. CONTRACTOR SHALL FIELD VERIFY AND CONFIRM THE EXISTING SPARE PANEL CAPACITY TO ACCOMMODATE THE EXISTING AND NEW LOADS. MEASURE AVERAGE POWER DEMAND ON PANEL OVER A 15-MINUTE PERIOD CONTINUOUSLY RECORDED OVER 30 DAY MINIMUM AND ADD NEW ADDITIONAL LOAD TO MAXIMUM RECORDED LOAD PER NEC. NOTIFY ENGINEER IF 125% X EXISTING MAXIMUM DEMAND + NEW LOAD EXCEEDS PANEL OR WIRE/CABLE RATING.
16. ALL ELECTRICAL OUTLETS, DEVICES, FIXTURES, ETC. NOT BEING RE-USED SHALL BE REMOVED. OUTLETS SHALL RECEIVE BLANK COVER PLATES. ALL WIRING SHALL BE REMOVED COMPLETELY. ALL ABANDONED CONDUIT, OUTLET BOXES, AND DEBRIS SHALL BE COMPLETELY REMOVED. EXISTING FIXTURES AND EQUIPMENT NOT BEING RE-USED SHALL BE REMOVED FROM SITE OR SHALL BE RETURNED TO OWNER AT OWNER'S DISCRETION.
17. EXISTING ELECTRICAL CIRCUITS WHICH ARE TO REMAIN AND HAVE BEEN DISCONNECTED DURING DEMOLITION SHALL BE RECONNECTED TO NEW OR EXISTING SOURCE.
18. ALL ABANDONED AND/OR UNUSED COMPONENTS CREATED OR EXPOSED DURING CONSTRUCTION, INCLUDING- BUT NOT LIMITED TO CABLES, PIPING, WIRING, AND ASSOCIATED SUPPORTS AND/OR ATTACHMENTS SHALL BE REMOVED.
19. CIRCUIT NUMBERS GIVEN ON DRAWINGS ARE FOR CIRCUIT IDENTIFICATION ONLY. THE CONTRACTOR SHALL INSTALL CIRCUITRY AS GOVERNED BY FIELD CONDITIONS. HE SHALL KEEP A TYPED RECORD CORRELATING TO THE GIVEN AND ACTUAL CIRCUIT NUMBERS AND PROVIDE THIS INFORMATION ALONG WITH THE TYPED WRITTEN PANEL DIRECTORIES.
20. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THE OTHER CONTRACTORS AND WITH THE EXISTING JOB SITE CONDITIONS. HE SHALL RELOCATE EQUIPMENT AS REQUIRED TO AVOID CONFLICT WITH OTHER TRADES. ALL DEVIATIONS SHALL BE APPROVED IN WRITING BY THE ARCHITECT / OWNER PRIOR TO THE EXECUTION OF THE WORK.
21. RACEWAYS SHALL BE A MINIMUM 3/4" EMT FOR LIGHTING AND APPLIANCE BRANCH CIRCUITRY AND MINIMUM 1" EMT FOR TELEPHONE AND DATA.
22. PROVIDE PULL WIRE IN ALL EMPTY CONDUITS.
23. ALL BRANCH CIRCUITS SHALL BE GROUPED INTO PHASE BALANCED MULTIPLE CIRCUIT HOME RUNS. A MAXIMUM OF 4 CIRCUITS PER SINGLE HOME RUN.
24. THE CONTRACTOR SHALL PROVIDE A COMPLETE CONDUCTOR AND RACEWAY SYSTEM FOR ALL CIRCUIT DEVICES INDICATED ON THE PLANS EVEN THOUGH NOT DELINEATED.
25. WIRES FOR 120 VOLT BRANCH CIRCUITS THAT EXCEED 75 FEET IN LENGTH FROM PANEL TO CENTER OF LOAD SHALL NOT BE SMALLER THAN #10 AWG.
26. INSTALLATION OF ALL LIGHTING FIXTURES SHALL INCLUDE ALL NECESSARY CONDUIT (SOLID OR FLEXIBLE), WIRING, JUNCTION BOXES, ETC., FOR CIRCUIT DEVICES.
27. VERIFY ALL CEILING SYSTEM TYPES PRIOR TO ORDERING LIGHTING FIXTURES AND PROVIDE REQUIRED HARDWARE AND FRAMES REQUIRED FOR CEILING TYPE.
28. PENDENT-HUNG LIGHTING FIXTURES SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE USING NO LESS THAN NO. 9-GAUGE WIRE OR AN APPROVED ALTERNATIVE SUPPORT. THE CEILING SUSPENSION SYSTEM SHALL NOT PROVIDE ANY DIRECT SUPPORT. RIGID CONDUIT SHALL NOT BE USED FOR ATTACHMENT OF THE FIXTURES.
29. ALL CEILING MOUNTED DAYLIGHT SENSORS, CEILING MOUNTED OCCUPANCY/VACANCY SENSORS, AND/OR WALL MOUNTED DIMMER SWITCHES AND OCCUPANCY/VACANCY SENSORS TO BE COMPATIBLE WITH THE FIXTURES INDICATED TO BE CONTROLLED AND SHALL BE INSTALLED AND WIRED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
30. ALL NEW MATERIALS AND EQUIPMENT SHALL BE LISTED AND/OR LABELED BY U.L OR ANOTHER RECOGNIZED TESTING LAB.
31. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS.
32. COORDINATE WITH OTHER TRADES FOR EXACT LOCATIONS OF MOTORS AND OTHER EQUIPMENT REQUIRING POWER.
    a. FINAL CONNECTIONS TO EQUIPMENT SHALL BE MADE WITH "LIQUID TIGHT" FLEXIBLE STEEL CONDUIT, 3/4" MINIMUM.
    b. PROVIDE LOCAL DISCONNECT FOR ALL MOTORS. VERIFY MANUFACTURE'S RECOMMENDED DISCONNECT SIZE PRIOR TO ORDERING AND INSTALLATION.
    c. PROVIDE STARTERS FOR ALL MECHANICAL EQUIPMENT WHICH REQUIRES INTERLOCKING. COORDINATE SIZE AND LOCATION OF STARTERS WITH MECHANICAL CONTRACTOR.
    d. FOR ALL AC MOTORS NOT PROVIDED WITH BUILT-IN THERMAL OVERLOAD PROTECTION, PROVIDE MANUAL MOTOR STARTERS WITH OVERLOAD HEATER ELEMENTS SIZED TO THE NAMEPLATE CURRENT RATING OF THE MOTOR. SMALL AC MOTORS WITH BUILT-IN THERMAL OVERLOAD PROTECTION, PROVIDE HORSE POWER RATED TOGGLE TYPE DISCONNECT SWITCH.

32. NEW BREAKERS IN EXISTING SERIES RATED ELECTRICAL PANELS AND DISTRIBUTION BOARDS SHALL BE SAME MANUFACTURE AS PANEL AND LISTED BY MANUFACTURE AS MAINTAINING SERIES RATED COMBINATION WITH PANEL. FIELD VERIFY EXISTING PANEL LABEL OR MANUFACTURE'S REFERENCE BULLETIN. BREAKER AIC RATING SHALL MATCH PANEL OR DISTRIBUTION BOARD AIC RATINGS FOR FULLY RATED EQUIPMENT.

33. ALL 120 VOLT CIRCUITS SHALL HAVE A DEDICATED NEUTRAL
34. THE CONTRACTOR SHALL PROTECT THE EXISTING FACILITY AND SHALL EXERCISE CARE NOT TO DAMAGE ANY EXISTING CONSTRUCTION TO REMAIN. ALL WORK DAMAGED BY THE CONTRACTOR MUST BE RESTORED SO AS TO MATCH EXISTING AND AS APPROVED BY THE ARCHITECT. ANY SUCH CORRECTIVE WORK MUST BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.

Larson & Darby Group
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MECHANICAL SCHEDULES
RPS DISTRICT 205 PROJ #: 2400
4820 CAROL CT. ROCKFORD, IL 61108

ISSUED FOR:	DATE

DATE: 10-11-2022
PROJECT NUMBER
SHEET NUMBER
E3.0

ILE: F:\768-V-1\E\768V E3.0.DWG SAVED BY: JROSINSKI DATE: 10/3/2022 TIME: 8:25 AM