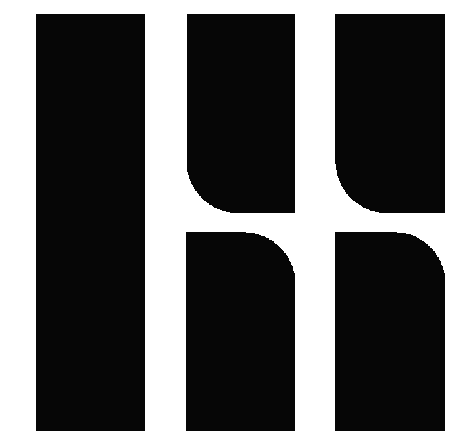




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PROJECT

ROOMS TO GO - PHASE II EXPANSION

901 Rooms To Go Way
Dunn, NC 28334

CONSULTANTS



BASS | NIXON | KENNEDY
CONSULTING ENGINEERS

ENGINEERING FIRM NUMBER: C-0110

6310 CHAPEL HILL ROAD, SUITE 250
RALEIGH, NC 27607
PHONE: 919.851.4422

CLIENT



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Dunn, NC 28334
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DRAWING TITLE

PLAN NORTH - MECHANICAL

REVISIONS

NUMBER	DESCRIPTION	DATE

DRAWN BY

NJS

CHECKED BY

MCC

DATE ISSUED

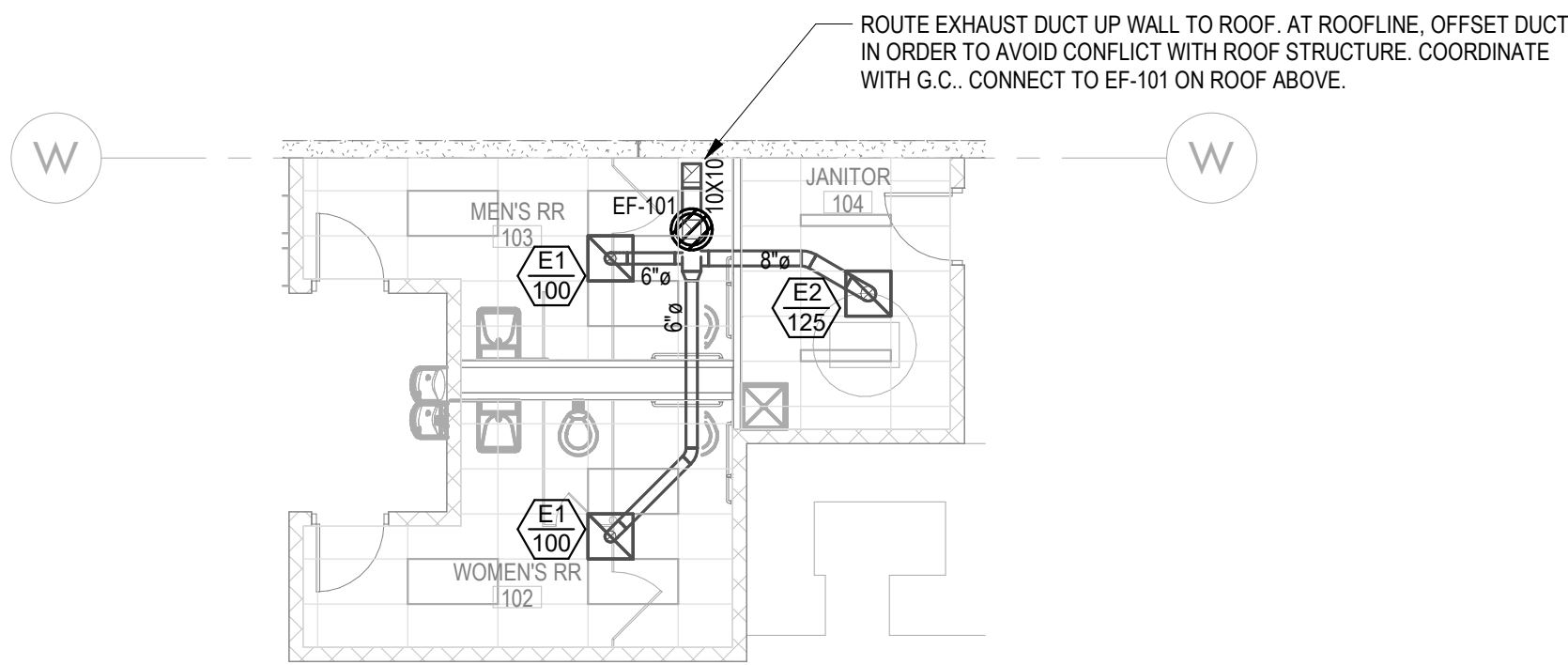
12/18/2023

1 OF 2

M-101



1 PHASE II FLOOR PLAN - PLAN NORTH - MECHANICAL
SCALE: 1" = 20'-0"



2 ENLARGED PLAN - RESTROOM - MECHANICAL
SCALE: 1/8" = 1'-0"

MECHANICAL LEGEND

	NEW CEILING DIFFUSER. SEE SCHEDULE.		NEW WALL MOUNTED THERMOSTAT.
	NEW CEILING RETURN/EXHAUST GRILLE. SEE SCHEDULE.		NEW HVLS FAN ON/OFF SWITCH. MOUNT AT 48" AFF.
	AIR DISTRIBUTION MARK. SEE SCHEDULE.		NEW GAS-FIRED HEATER TEMPERATURE SETBACK SYSTEM. COORDINATE HEIGHT WITH OWNER.
	AIR DISTRIBUTION CFM.		BACKDRAFT DAMPER.
	NEW DUCT RUNOUT WITH A FLEXIBLE AIR DUCT OF 6'-0" MAXIMUM LENGTH.		GAS PIPING.
	NEW SHEET METAL DUCTWORK. INSIDE DIMENSIONS SHOWN. SEE DETAIL.		EXISTING GAS PIPING.
	NEW MECHANICAL EQUIPMENT.		NEW DIRECT GAS-FIRED UNIT HEATER MARK. SEE SCHEDULE.
	NEW DUCT MOUNTED SMOKE DETECTOR. FURNISHED BY E.C. & INSTALLED BY M.C.		NEW HIGH-VOLUME, LOW-SPEED FAN. SEE SCHEDULE.
	N.I.C. NOT IN CONTRACT.		NEW EXHAUST FAN MARK. SEE SCHEDULE.
	KEYNOTE SYMBOL. REFER TO MECHANICAL KEYNOTE LEGEND.		NEW ROOF-MOUNTED GRAVITY HOOD. SEE SCHEDULE.

SEISMIC DESIGN NOTE

SEISMIC DESIGN CATEGORY: C
RISK CATEGORY: II
SITE CLASSIFICATION: D
REFER TO BOOK SPECIFICATIONS FOR COMPLETE SEISMIC DESIGN REQUIREMENTS FOR PIPING, CONDUIT, DUCTWORK, EQUIPMENT, ETC.:
FIRE SUPPRESSION: 21 0548
PLUMBING SECTION: 22 0548
MECHANICAL SECTION: 23 0548
ELECTRICAL SECTION: 26 0548



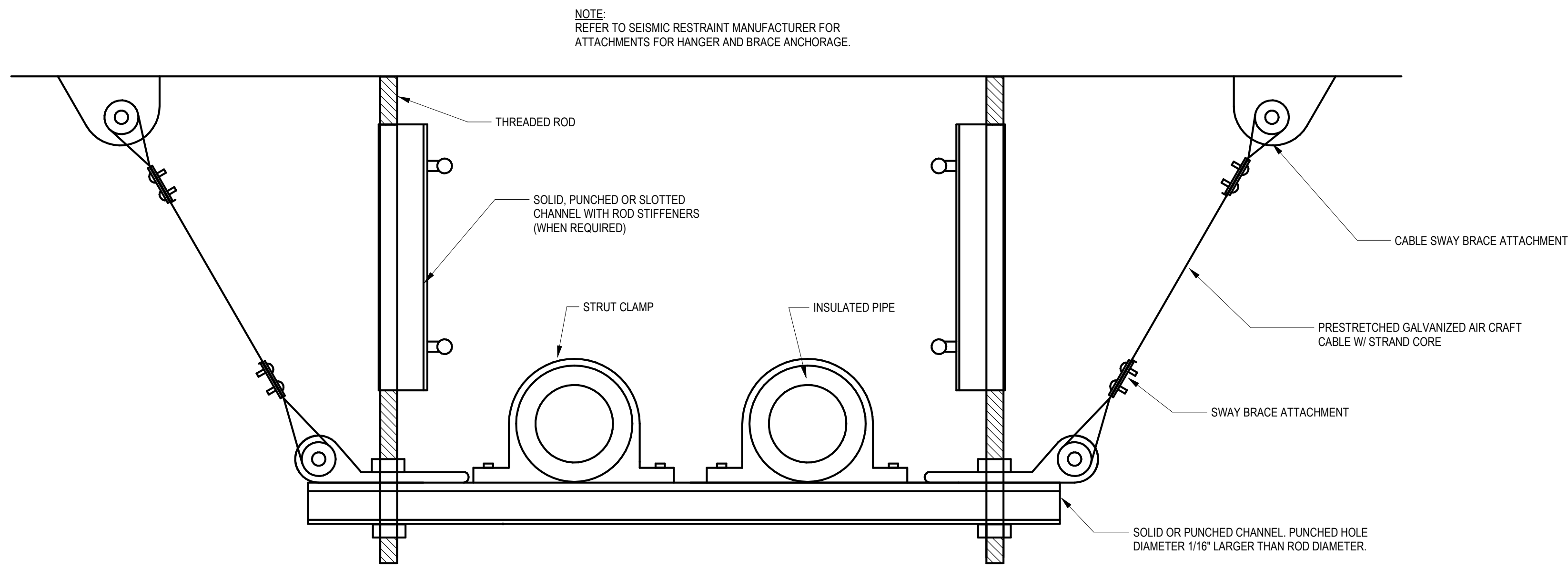
	NEW CEILING DIFFUSER. SEE SCHEDULE.		NEW WALL MOUNTED THERMOSTAT.
	NEW CEILING RETURN/EXHAUST GRILLE. SEE SCHEDULE.		NEW HVLS FAN ON/OFF SWITCH. MOUNT AT 48" AFF.
	AIR DISTRIBUTION MARK. SEE SCHEDULE.		NEW GAS-FIRED HEATER TEMPERATURE SETBACK SYSTEM. COORDINATE HEIGHT WITH OWNER.
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FIRE SUPPRESSION: 21 0548
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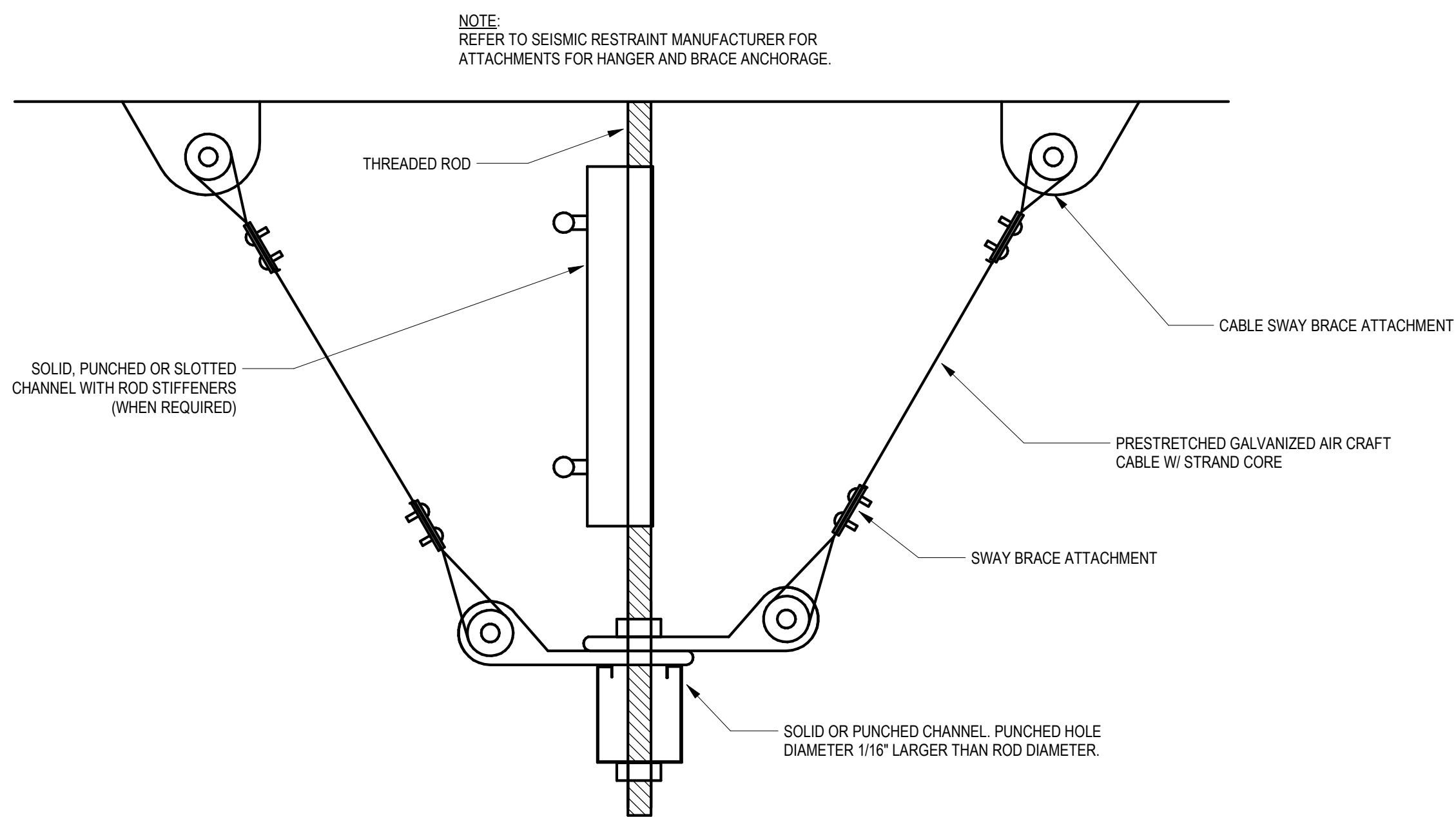
A-102



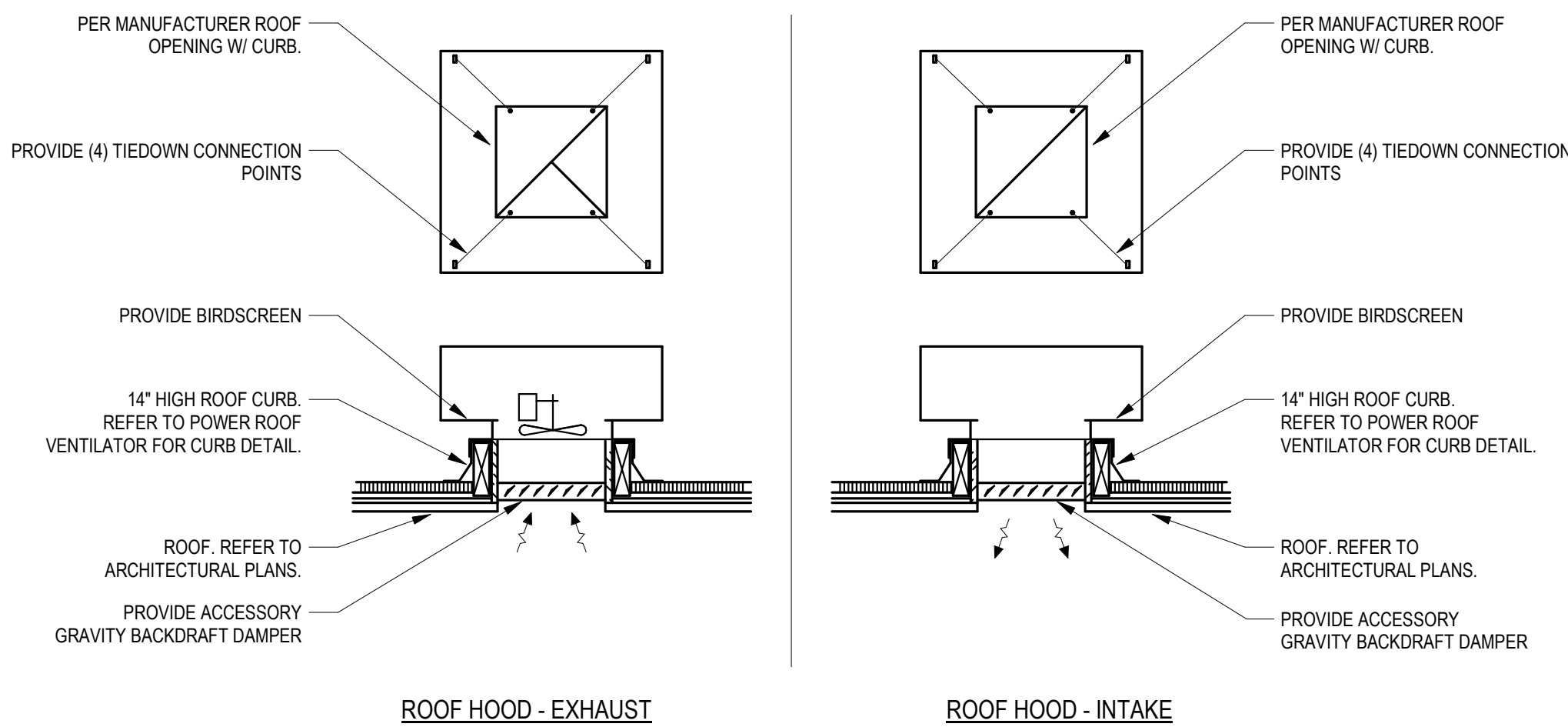
TRANSVERSE BRACING

REFER TO BOOK SPECIFICATIONS FOR COMPLETE SEISMIC DESIGN NOTES.

1 RIGID BRACING FOR PIPING/CONDUIT DETAIL
SCALE: NONE



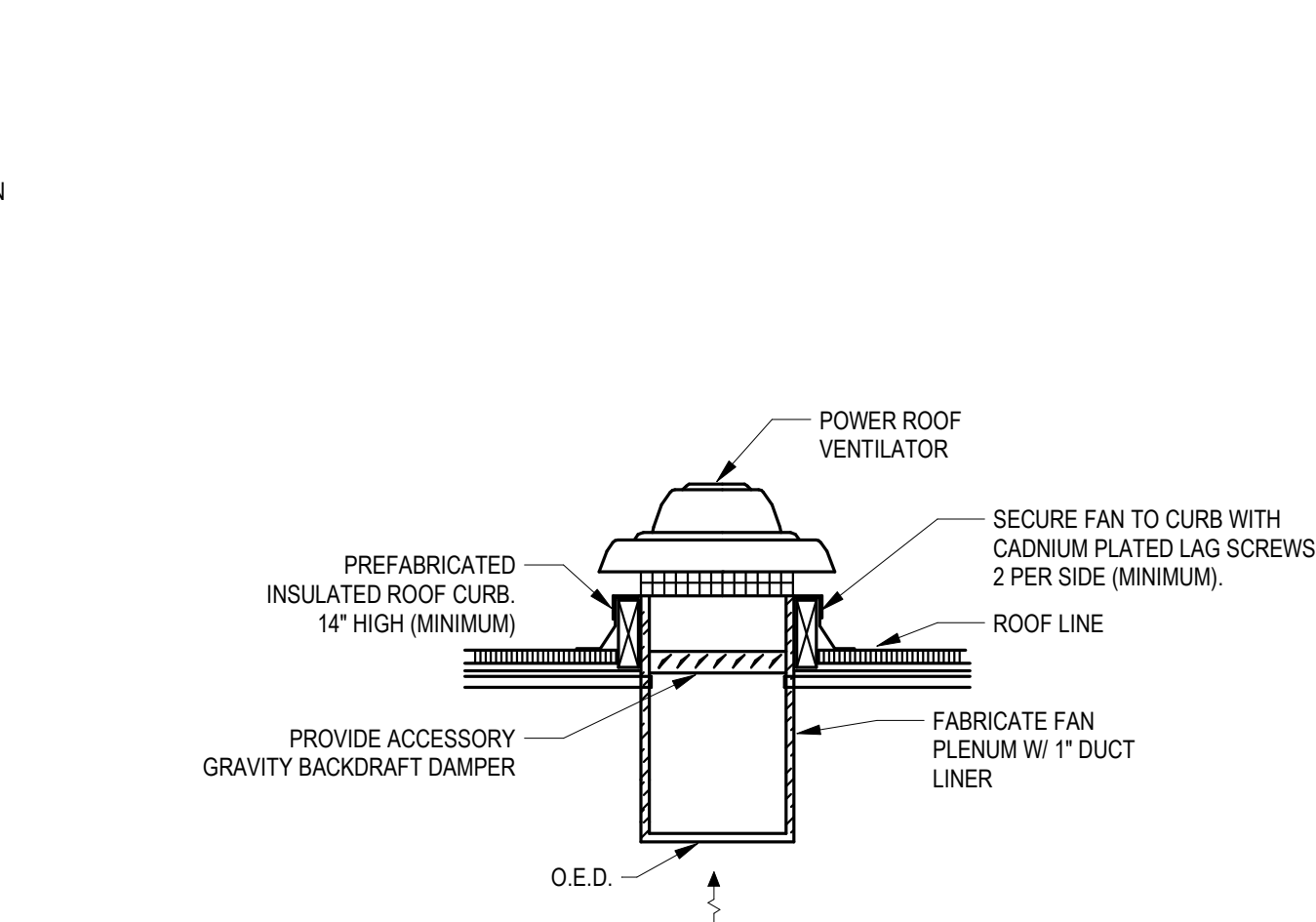
LONGITUDINAL BRACING



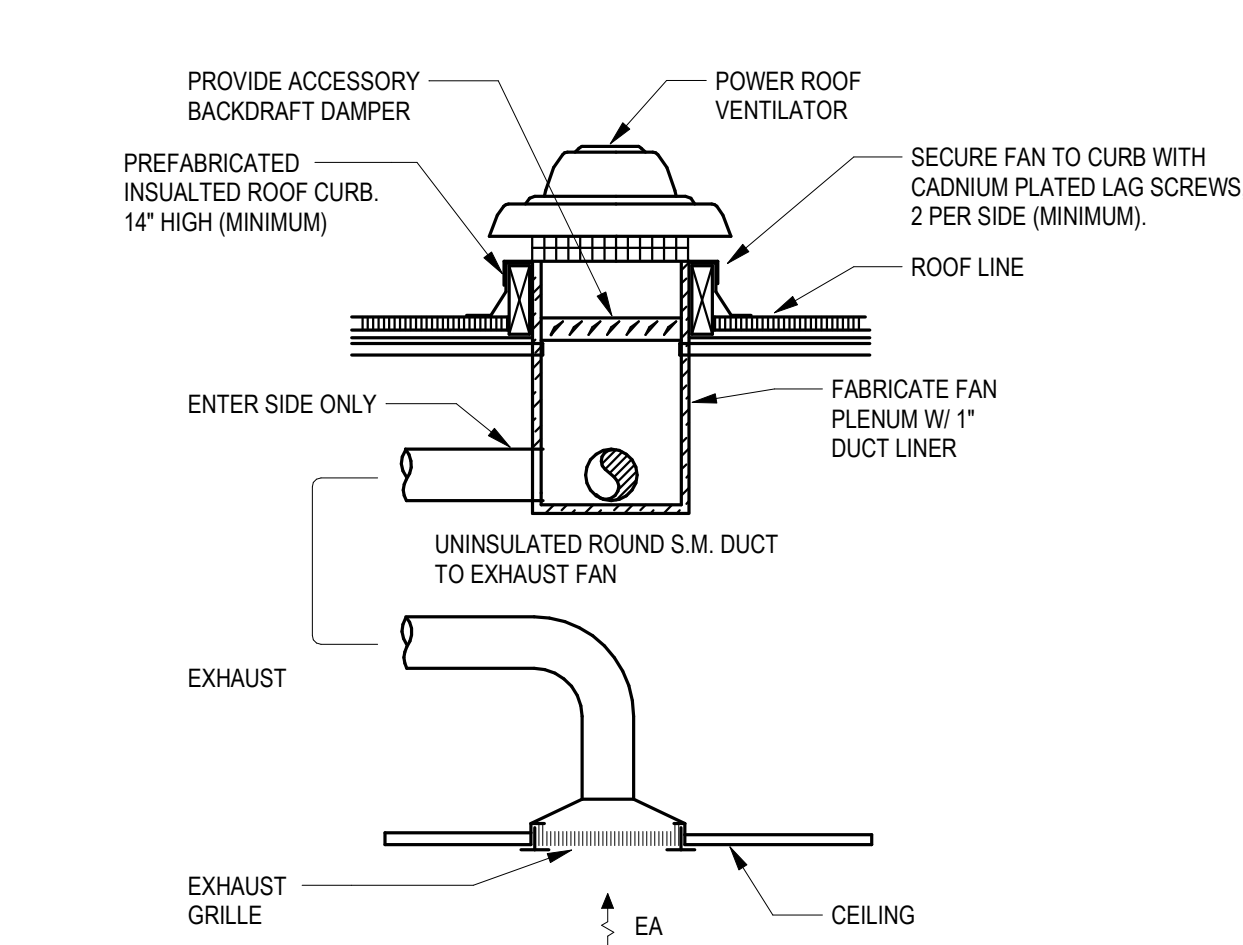
ROOF HOOD - EXHAUST

ROOF HOOD - INTAKE

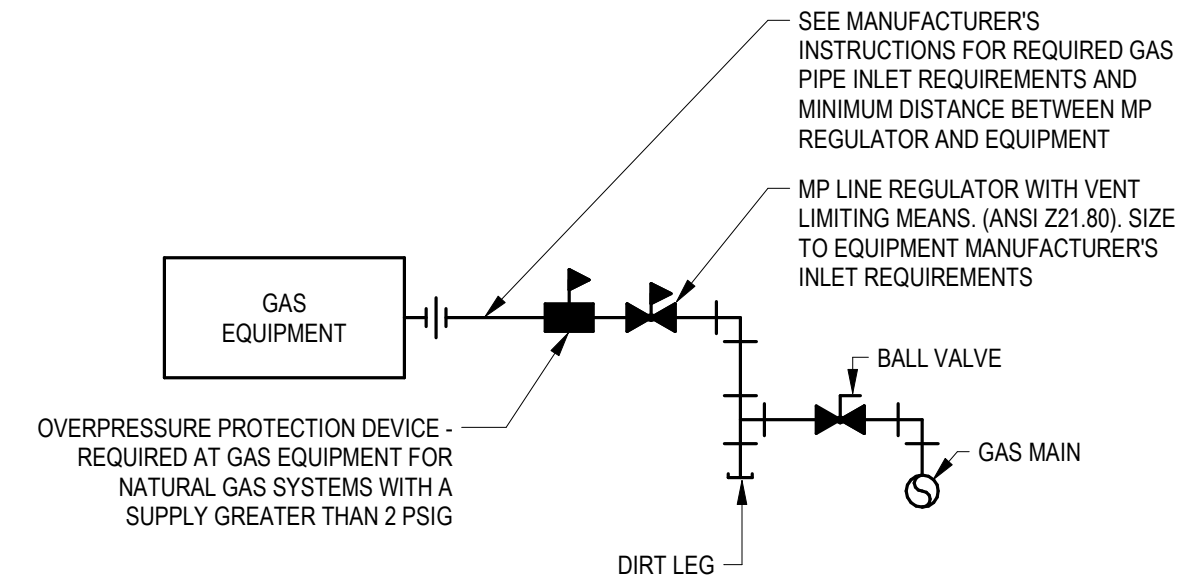
2 ROOF HOOD DETAIL
SCALE: NONE



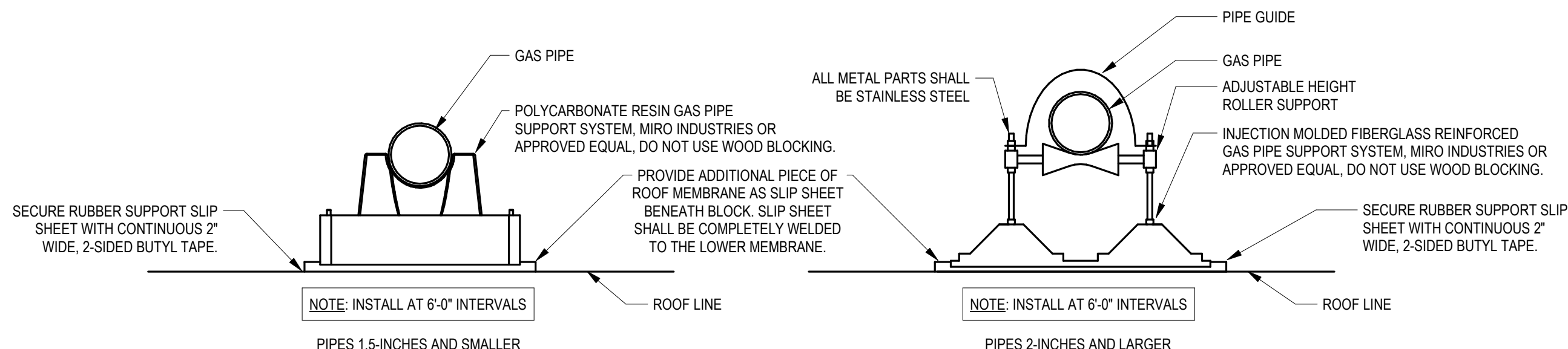
3 POWER ROOF VENTILATOR (O.E.D.) DETAIL
SCALE: NONE



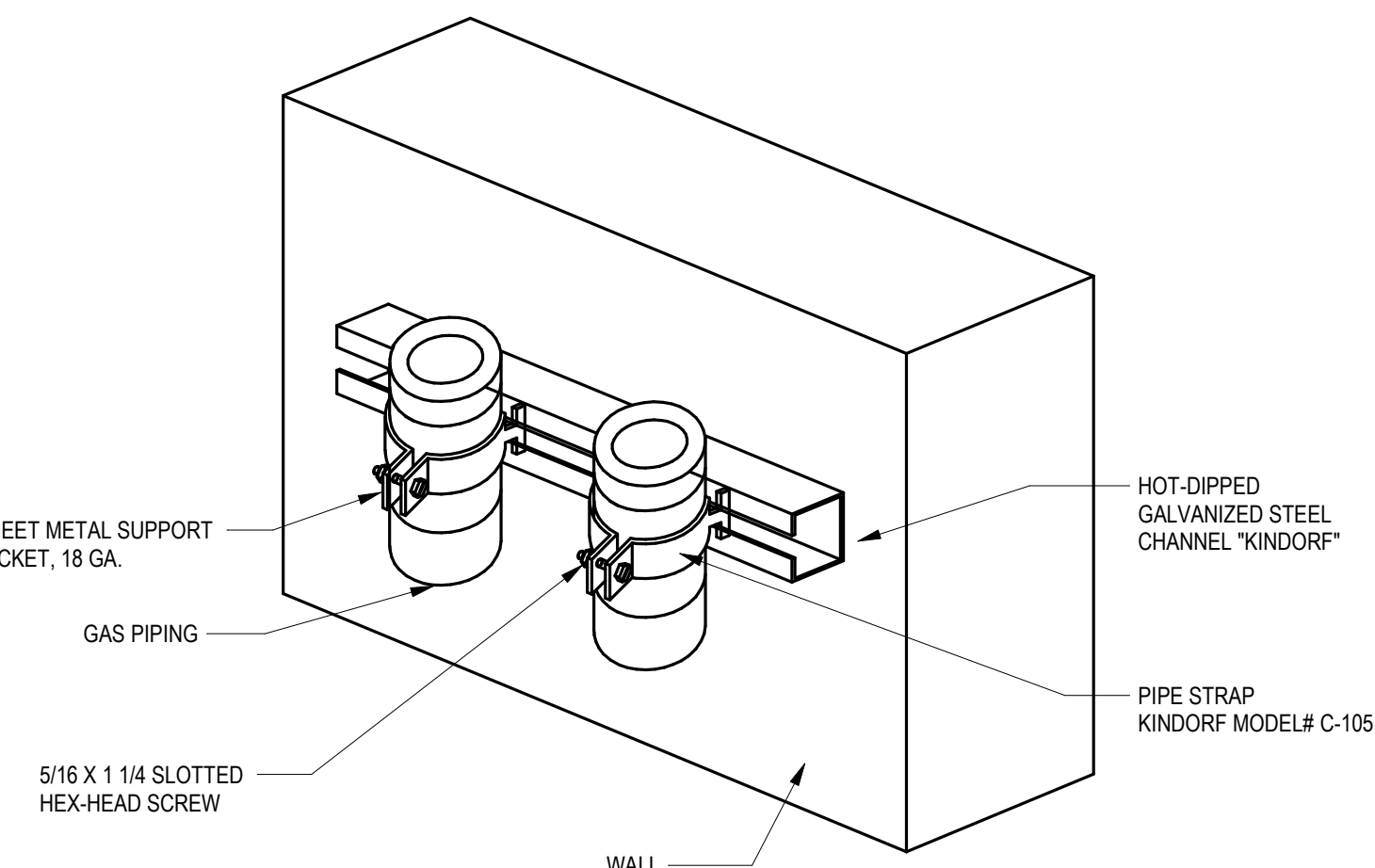
8 POWER ROOF VENTILATOR (DUCTED) DETAIL
SCALE: NONE



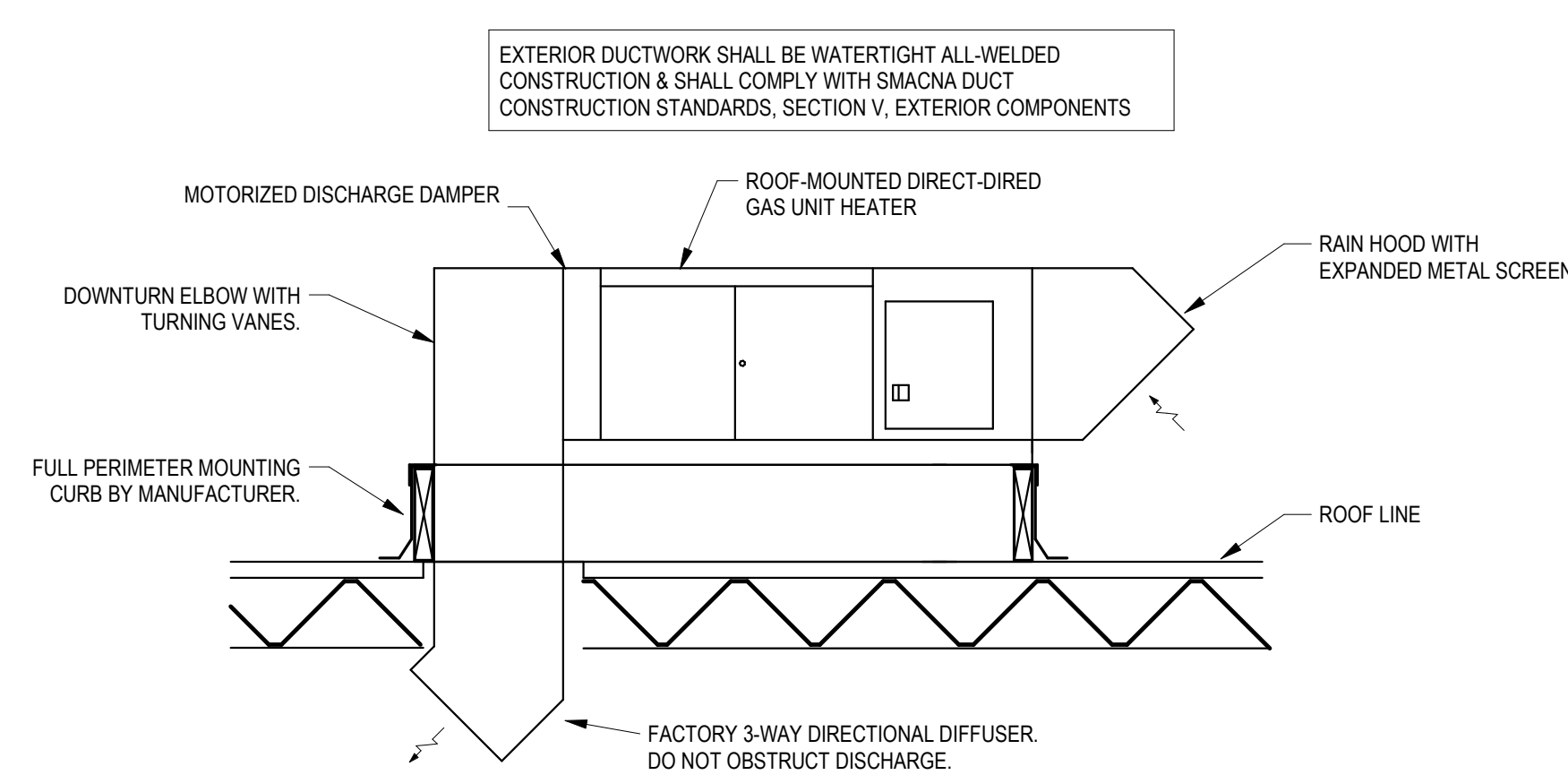
4 GAS CONNECTION DETAIL
SCALE: NONE



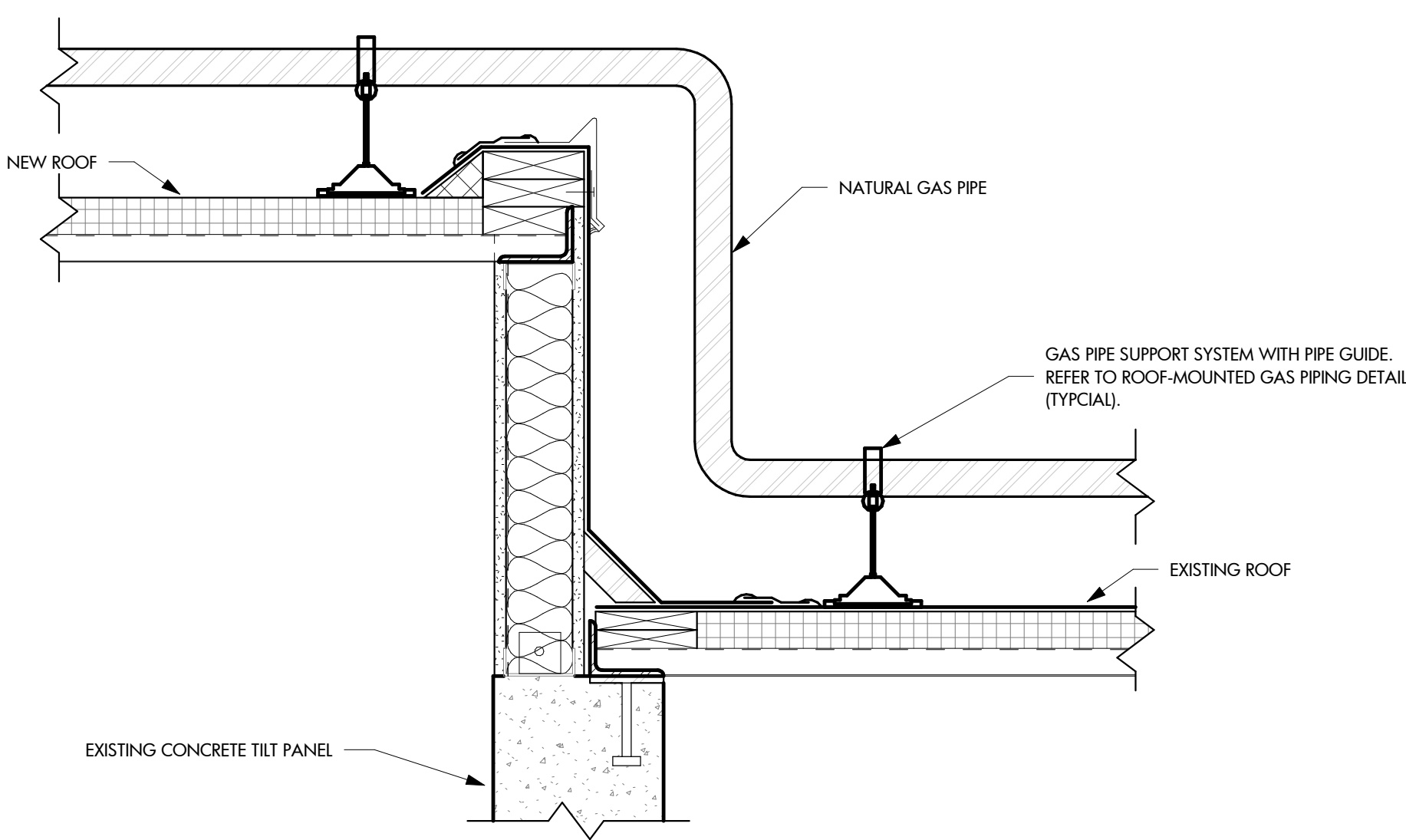
7 ROOF-MOUNTED GAS PIPING DETAIL
SCALE: NONE



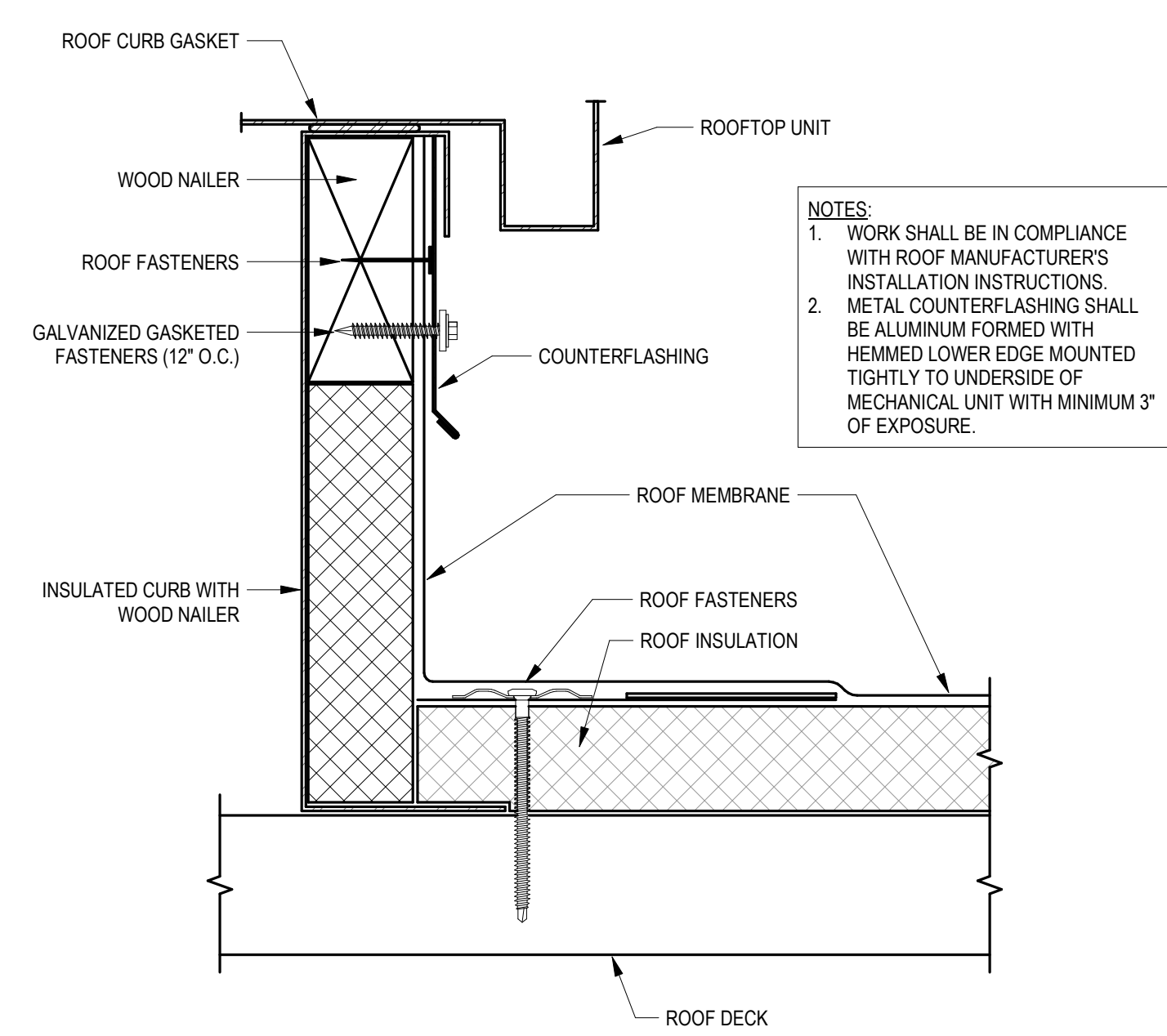
5 GAS PIPE WALL HANGING SUPPORT DETAIL
SCALE: NONE



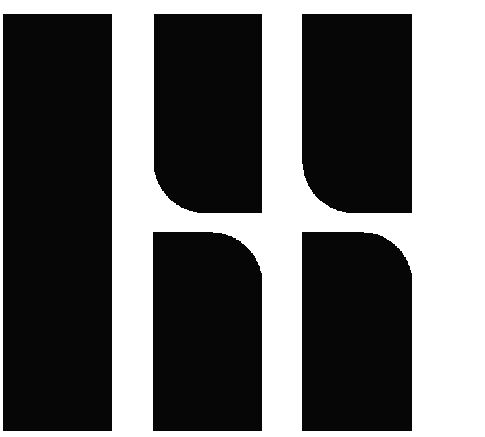
6 GAS FIRED HEATER DETAIL
SCALE: NONE



9 ROOF CONNECTION DETAIL
SCALE: NONE



10 ROOFTOP UNIT CURB DETAIL
SCALE: NOT TO SCALE



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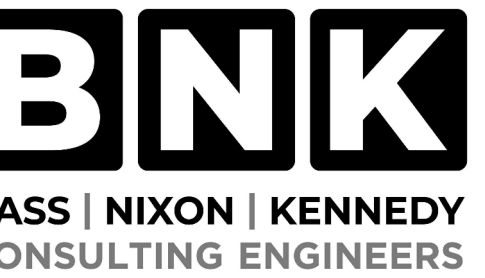
Matthew C. Carmona
12/17/2023

PROJECT

ROOMS TO GO -
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EXPANSION

901 Rooms To Go Way
Dunn, NC 28334

CONSULTANTS



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CONSULTING ENGINEERS

ENGINEERING FIRM NUMBER: C-0110

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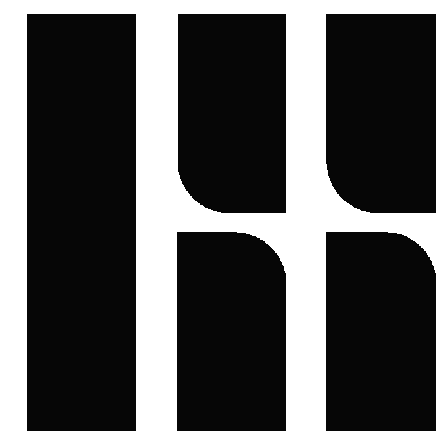
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MECHANICAL DETAILS

REVISIONS		
NUMBER	DESCRIPTION	DATE

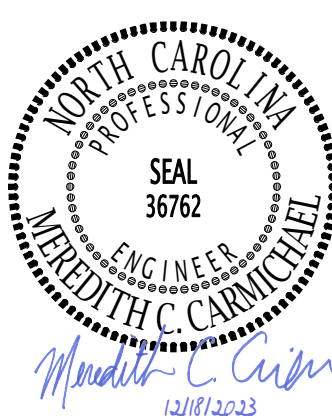
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DATE ISSUED: 12/18/2023 3 OF 7



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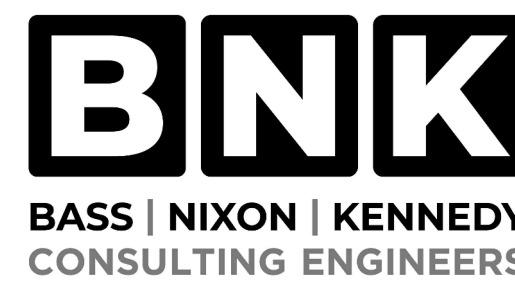


PROJECT

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ENGINEERING FIRM NUMBER: C-0110

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DRAWING TITLE

NATURAL GAS RISER

REVISIONS

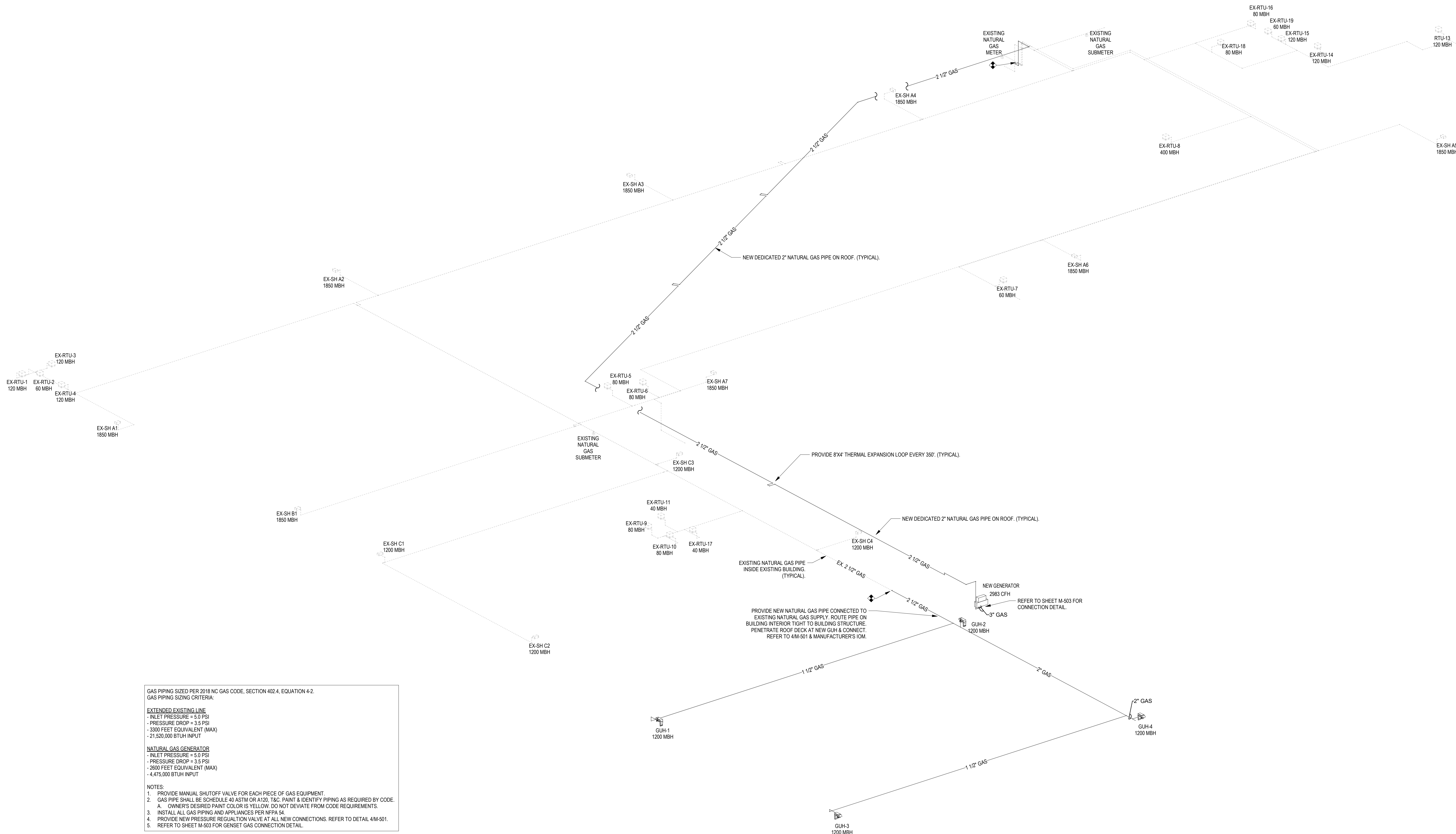
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M-502



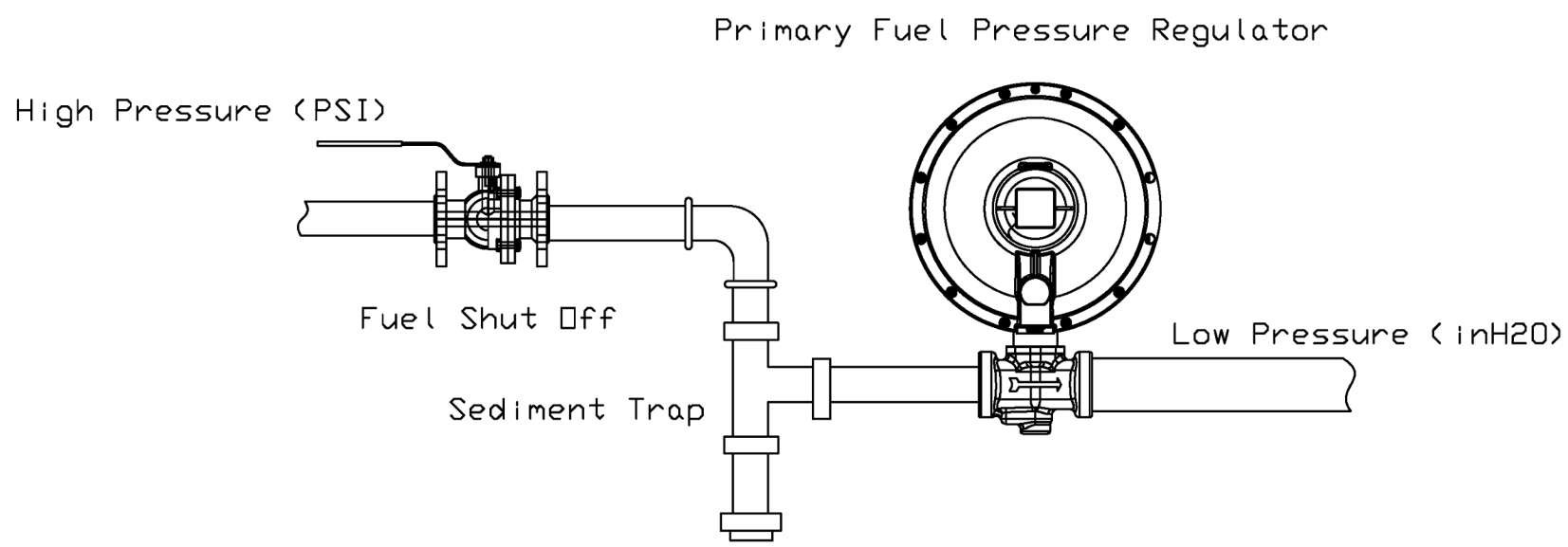
NATURAL GAS RISER LEGEND

— GAS —	NEW GAS PIPING.
---	EXISTING GAS PIPING.
GUH#	NEW DIRECT GAS-FIRED UNIT HEATER MARK. SEE SCHEDULE.
EX-#	EXISTING EQUIPMENT TO REMAIN.

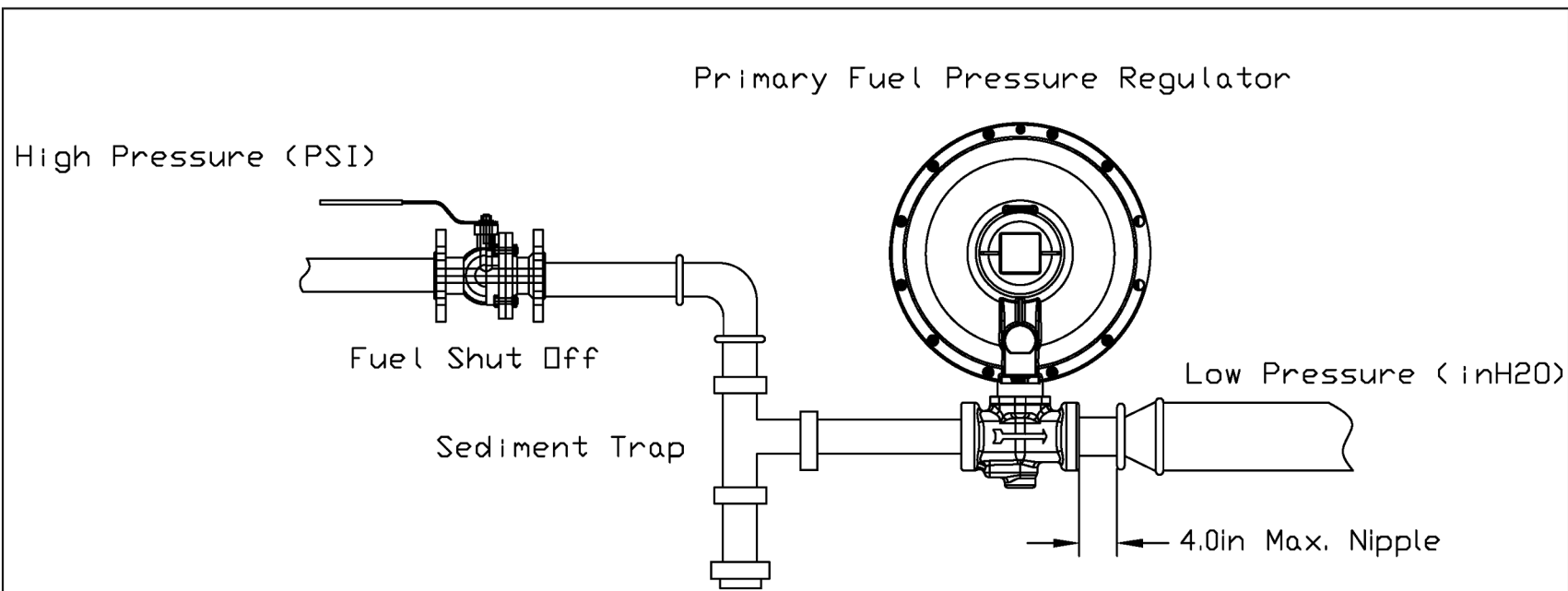
1 NATURAL GAS RISER

SCALE: NONE

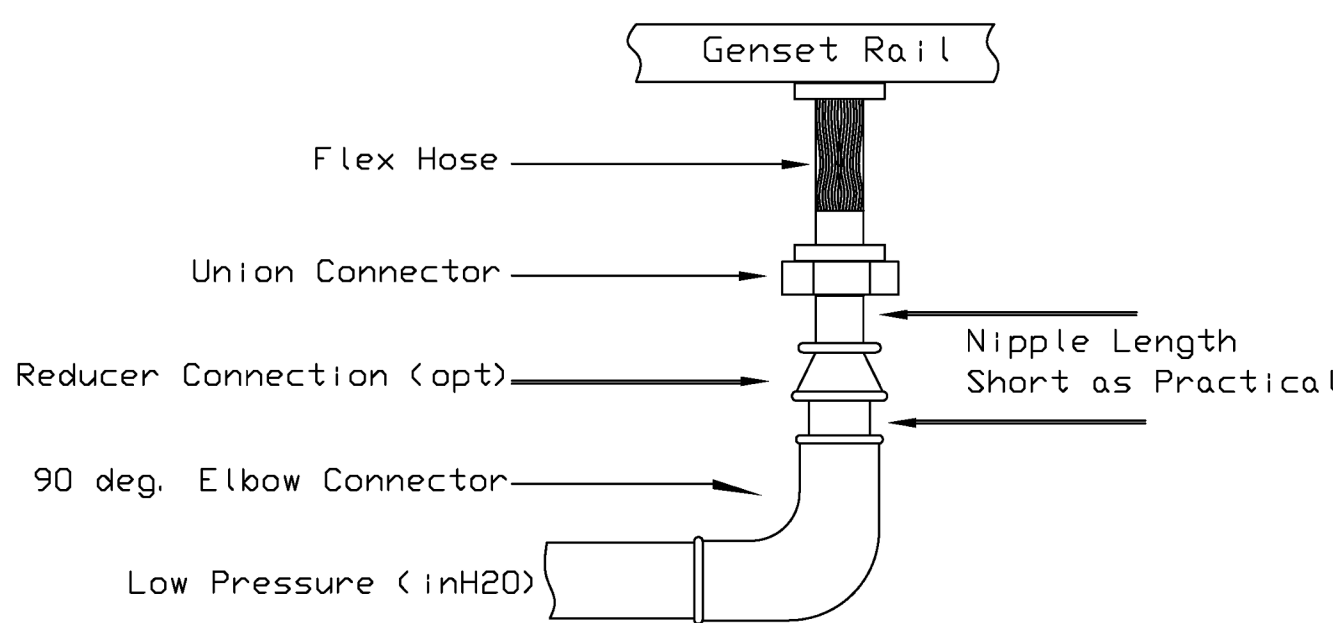
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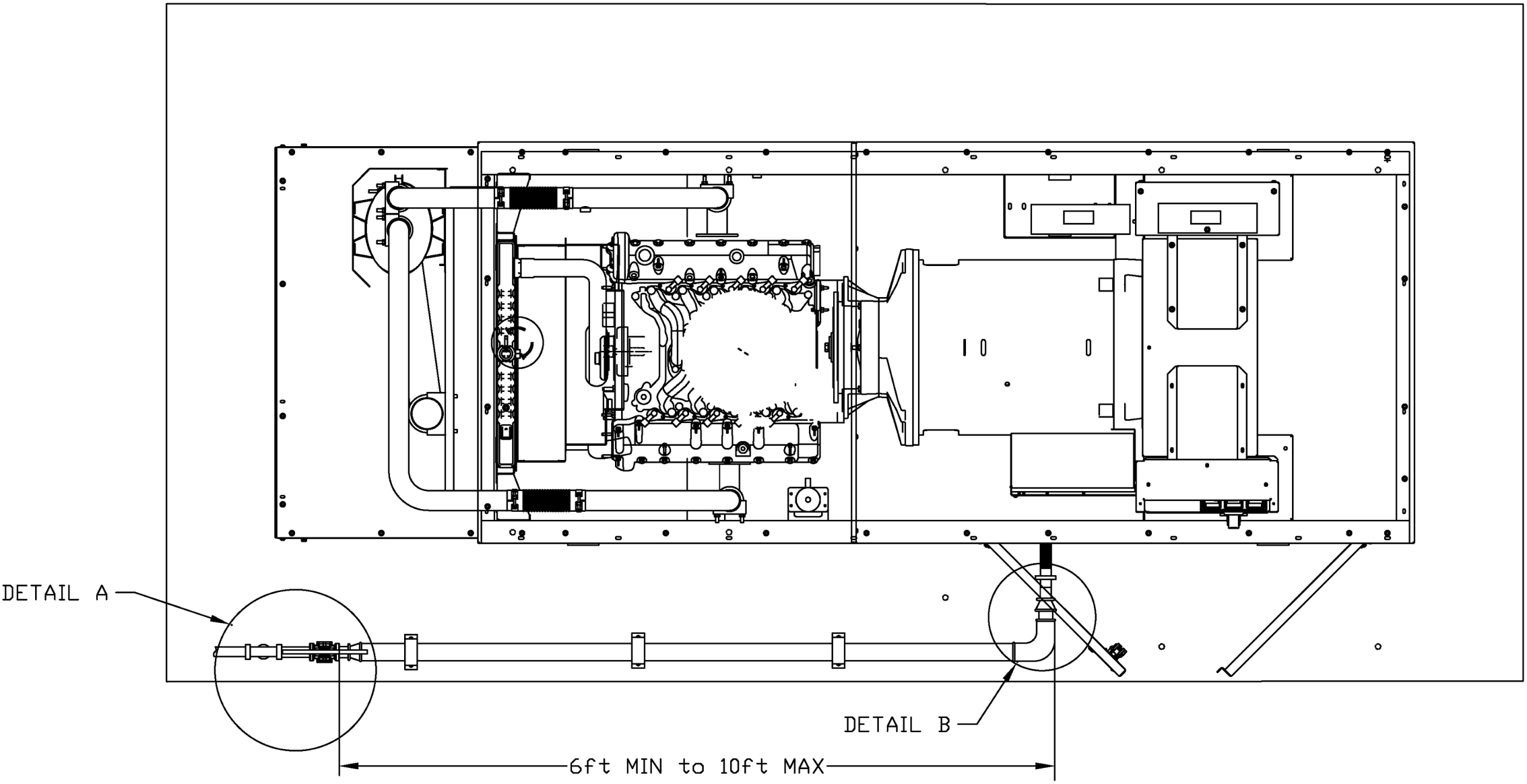
DETAIL A
Straight Pipe Run



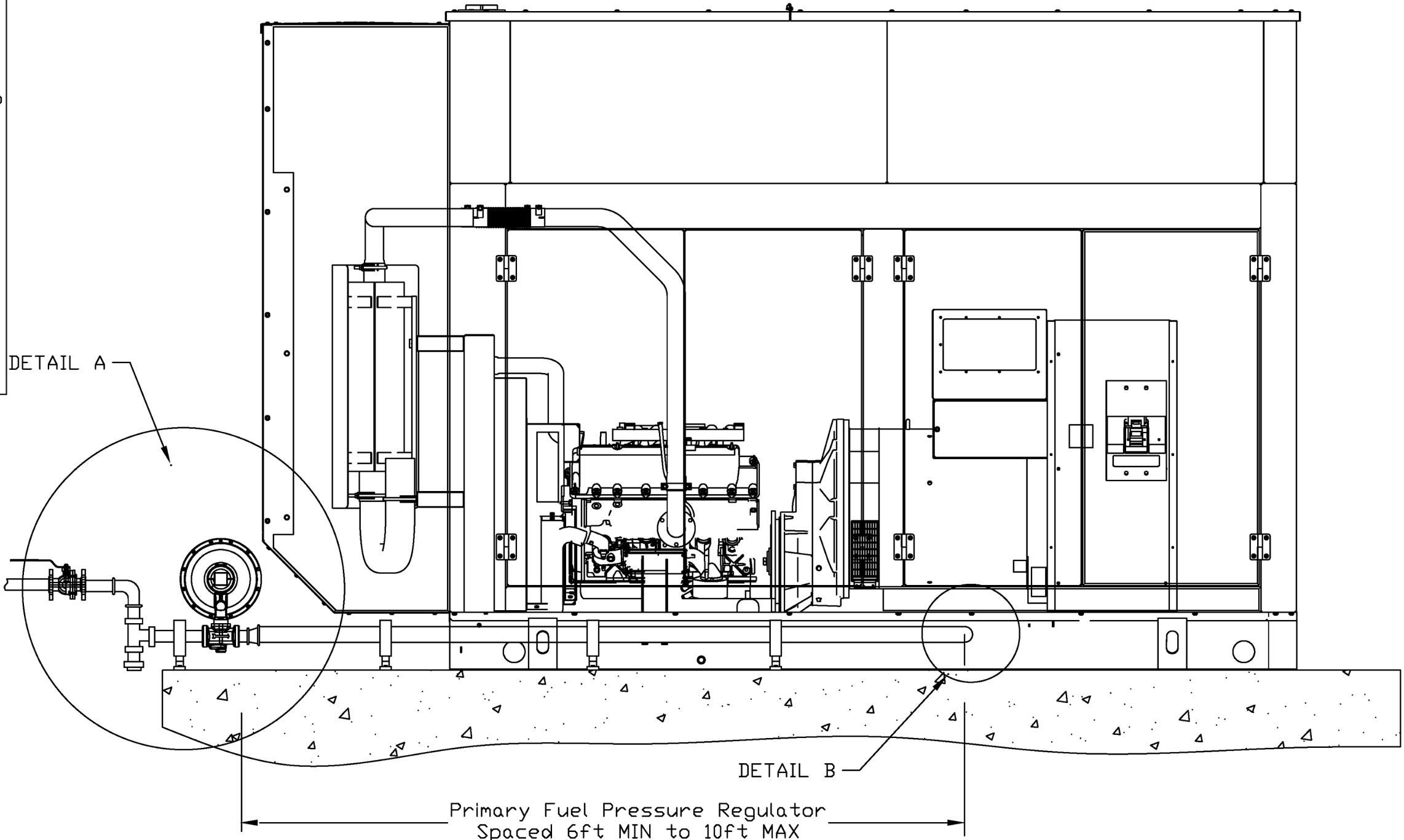
DETAIL A-1
Bell-Up Pipe Run



DETAIL B
Flex Hose Connection



TOP VIEW



SIDE VIEW

FUEL SYSTEM REQUIREMENTS

Utility High Pressure Fuel Supply
Less than 300kW-
Absolute MIN 2.0 PSI, Optimum 5.0 PSI, MAX 10.0 PSI
Greater than 300kW-
Absolute MIN 5.0 PSI, Optimum 10 PSI, MAX 15.0 PSI

Primary Fuel Pressure Regulator
Commercial/Industrial Rated.

Shall be rated for Engine/Mechanized application.
2.0in Connectors (Inlet & Outlet).

Minimum CFH Rating of 1.5x Greater Than
the 100 percent Required Fuel Flow
Rating of the Genset. Calculated using
a Specific Gravity of 0.65 NG,
1.6 LPG-V.

6inH2O to 14inH2O Spring Rate.

Orifice Size dependent upon CFH
Flow Rate requirement of Genset.

Output Pressure to be set at
13.0inH2O.

Maximum Allowable Pressure Drop
from a static condition to full
load, shall not be equal to or
greater than 2.0inH2O.

Installed 6 to 10ft. from flex hose
connection, on the same side as the
flex hose connection.

The Diaphragm case shall be orientated
in a Vertical Plane.

Flex Hose Connection
The flex hose shall be directly
connected to the genset inlet connector.

The flex hose shall be installed in a
straight line perpendicular to the
generator set rail with no bends or
kinks.

Sediment Trap and Fuel Shut Off Valve
A sediment trap shall be installed on the high
pressure side (inlet) of the Primary Fuel
Pressure Regulator.

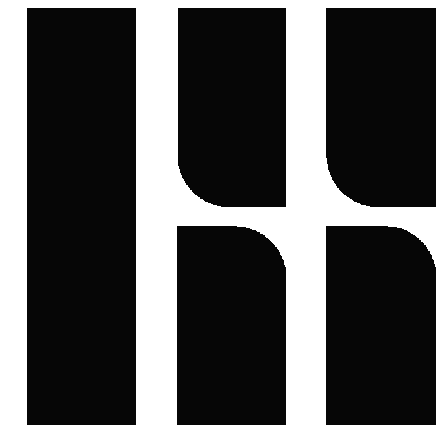
A fuel shut off valve shall be installed on
the high pressure side (inlet) of the Primary
Fuel Pressure Regulator.

FUEL SYSTEM LAYOUT REQUIREMENTS

Caterpillar, Inc.			
CAT Compact Retail Gensets			
NG or LPG-V FUEL TYPES	FILE NAME 020816C.DWG	SIZE B	
SINGLE FUEL SYSTEM LAYOUT	SCALE NA	FIRST USE CAT Compact	
ISSUE DATE 05/06/2019	DWG NO. 020816C	REV C	

DETAIL PROVIDED BY GENERATOR MANUFACTURER - FOR REFERENCE ONLY.

CONNECT GAS PIPING TO GENERATOR PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE WITH E.C.



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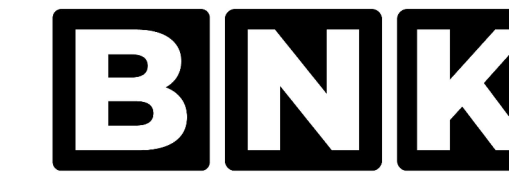


PROJECT

**ROOMS TO GO -
PHASE II
EXPANSION**

901 Rooms To Go Way
Dunn, NC 28334

CONSULTANTS



BASS | NIXON | KENNEDY
CONSULTING ENGINEERS

ENGINEERING FIRM NUMBER: C-0110

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DRAWING TITLE

**NATURAL GAS GENSET CONNECTION
DETAIL**

REVISIONS

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NJS

CHECKED BY

MCC

DATE ISSUED

12/18/2023

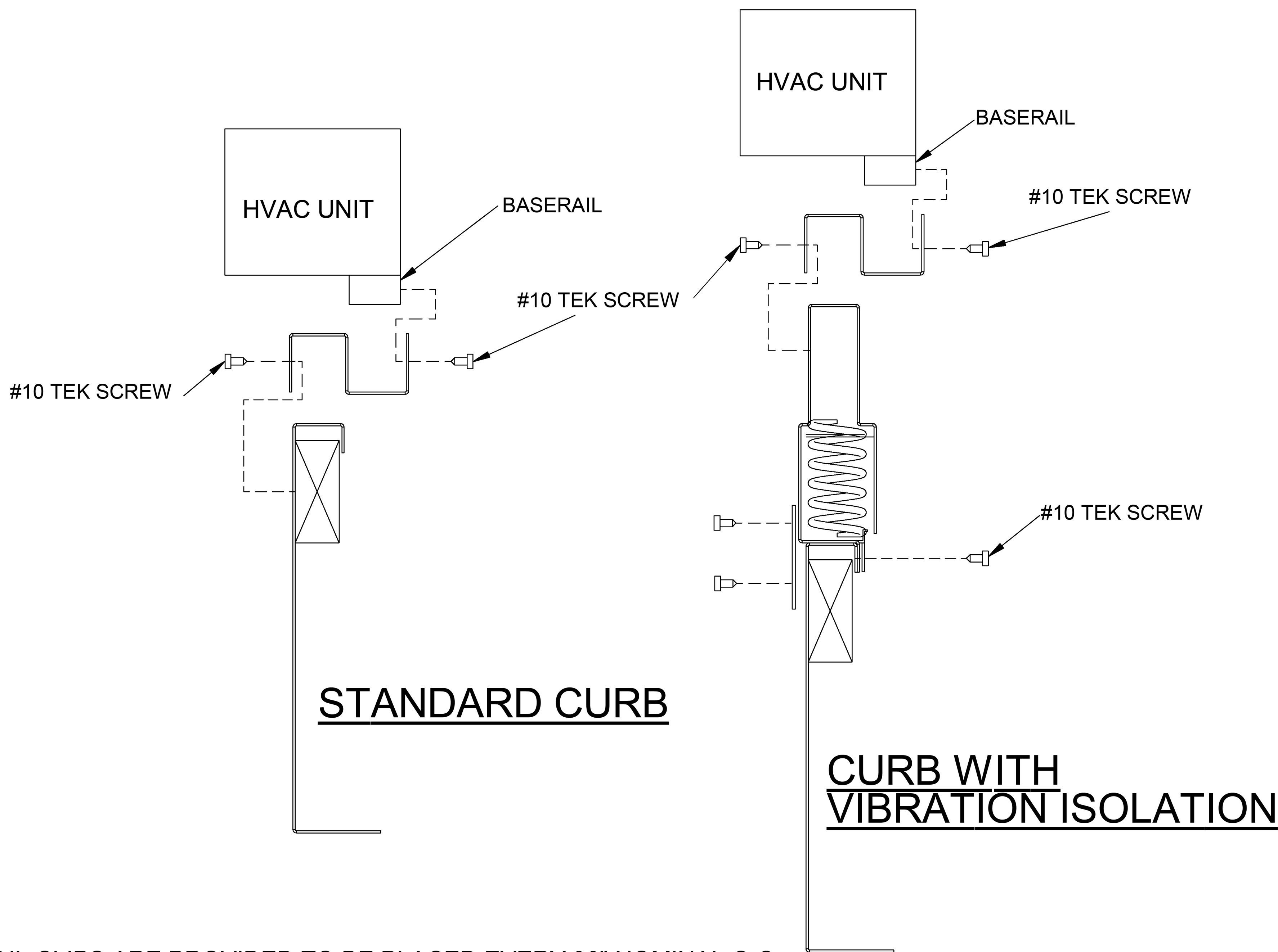
5 OF 7

M-503

WIND/SEISMIC RESTRAINT INSTALLATION INSTRUCTIONS

MUST INSTALL WIND/SEISMIC CLIPS BEFORE SETTING EQUIPMENT

INSTALLATION SCREWS TO BE PROVIDED BY THE INSTALLING CONTRACTOR



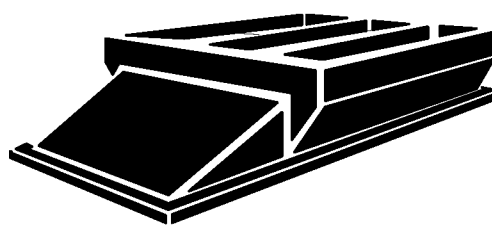
HOLD DOWN STRAPS AND ISO-RAIL CLIPS ARE PROVIDED TO BE PLACED EVERY 36" NOMINAL O.C. AVOID OBSTRUCTIONS AND DOOR OPENINGS THAT CAN BE BLOCKED BY THE STRAPS. HOLD DOWN STRAPS AND ISO-RAIL CLIPS WILL BE PROVIDED 1 TO 1.

ATTACHMENT TO STRUCTURE:

MGM RECOMMENDS FULL PERIMETER SUPPORT FOR ALL SEISMIC RATED CURBS
IF FULL PERIMETER SUPPORT - #12 TEK SCREW OR 1/2" STITCH WELD MINIMUM, (1) IN EACH CORNER PLUS 24" O.C.
IF CROSS PURLIN SUPPORT ONLY - #12 TEK SCREW OR 1/2" STITCH WELD MINIMUM, (1) IN EACH CORNER PLUS 18" O.C.

CONCRETE ATTACHMENT:

24" O.C. WITH MINIMUM 1/4" DIAMETER TAPCON SCREWS



MGM PRODUCTS, INC.

1080 CULPEPPER DRIVE CONYERS, GA 30094
PHONE: (770) 483-0055; (800) 341-3536 FAX: (770) 483-0130
WWW.MGMPRODUCTS.COM

TITLE			WIND/SEISMIC RESTRAINT INSTALLATION
	NAME	DATE	
DRAWN	A.B.	5/7/2015	
WEIGHT			
SHEET	SHEET 1 OF 1		
FILE NAME	SEISMIC INSTALLATION INSTRUCTIONS.DFT		

DETAIL PROVIDED BY RESTRAINT MANUFACTURER - FOR REFERENCE ONLY.
DO NOT DEVIATE FROM MANUFACTURER'S INSTALLATION INSTRUCTIONS.



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PROJECT

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PHASE II
EXPANSION

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CONSULTANTS



BASS | NIXON | KENNEDY
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ENGINEERING FIRM NUMBER: C-0110

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DRAWING TITLE

WIND/SEISMIC CLIP DETAIL

REVISIONS

NUMBER	DESCRIPTION	DATE

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ROOMS TO GO - PHASE II EXPANSION

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ROOMS TO GO▶

MECHANICAL SCHEDULES

[illegible]

M-601

NOTES

1. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR MOUNTING TO ROOF STRUCTURE BAR JOISTS.
2. FAN SHALL BE AT LEAST 3' AWAY, IN ALL DIRECTIONS, FROM POSSIBLE OBSTRUCTIONS. FIELD VERIFY EXACT LOCATION.
3. EXTENSION TUBES 4' OR LONGER SHALL BE INSTALLED WITH GUY WIRES PER THE MANUFACTURER'S INSTALLATION REQUIREMENTS.
4. PROVIDE WITH FACTORY WALL SWITCH FOR POWER, DIRECTION, & SPEED AT LOCATIONS SHOWN ON PLANS. COORDINATE CONTROLLER HEIGHT WITH OWNER
5. UPON ACTIVATION OF FIRE ALARM, FAN SHALL SHUTDOWN. COORDINATE WITH E.C.

NOTES

1. PROVIDE GRAVITY BACKDRIFT DAMPER.
2. PROVIDE 1/2" NPT MOTOR STARTER PROVIDED BY M.C. COORDINATE TYPE OF STARTER WITH E.C. PRIOR TO ORDERING TO CONFIRM FIT & PROPER OPERATION WITH MOTOR CONTROL CENTER & SWITCHGEAR E.C. TO CONNECT TO MOTOR CONTROL CENTER. REFER TO ELECTRICAL PLAN & COORDINATE WITH THE E.C.
3. PROVIDE 14 FACTORY ROOF CURBS WITH SEISMIC CERTIFICATION. MATCH ROOF CANT. USE CURB ASSEMBLY GFF.
4. PROVIDE ALUMINUM BRESSERES.
5. PROVIDE SAFETY BASKET GUARDS.
6. PROVIDE EXTENDED GROUND LINES.
7. FAN SHALL SHUT DOWN 30 SECONDS FROM FACP. COORDINATE WITH FAN CONTRACTOR.
8. THROAT OPENING SHALL BE 54"X36" (MAXIMUM) TO ALLOW ROOF OPENING BETWEEN ROOF JOISTS.
9. CONNECT TO HYDROGEN DETECTION SYSTEM.
10. PROVIDE WITH VARGREEN MOTOR.
11. FAN SHALL SWITCH WITH LIGHTS.
12. FAN SHALL OPERATE CONTINUOUSLY.

OUTSIDE AIR SCHEDULE

ROOF HOOD SCHEDULE

- ## NOTES

1. PROVIDE ALUMINUM BIRD & INSECT SCREEN.
2. PROVIDE 1" HOOD & CURB INSULATION.
3. PROVIDE COUNTERWEIGHT BACKDRAFT DAMPER.
4. PROVIDE HINGED ACCESS.
5. ROOF OPENING SHALL SPAN A MAXIMUM OF (2) JOISTS. COORDINATE WITH ROOF STRUCTURE

GAS-FIRED UNIT HEATER SCHEDULE

- ## NOTES

1. PROVIDE FACTORY ACCESSORY 3-WAY DISCHARGE DEFUSER W. 45° ELBOW.
2. PROVIDE FACTORY DISCHARGE DAMPER WITH END SWITCH.
3. PROVIDE WITH FACTORY AIRFLOW SWITCH.
4. PROVIDE WITH FACTORY FULL PERIMETER INSULATED MOUNTINGS CURB & COUNTER FLASHING.
5. PROVIDE FACTORY LOCKABLE TEMPERATURE SETBACK SYSTEM (TSS). TSS CONTAINS INTERLOCK, THERMOSTAT, PROGRAMMABLE TIMELOCK, & INDICATOR LIGHTS FOR BLOWER OPERATION, BURNER OPERATION, & RESET.
6. PROVIDE FACTORY DISCONNECT SWITCH.
7. PROVIDE INTEGRAL STARTER WITH THERMAL OVERLOADS.
8. PROVIDE WITH FACTORY FIRE PROTECTION INTERLOCK. UNIT SHALL SHUTDOWN ON ALARM.
9. PROVIDE WITH FACTORY EXD. TEMPERATURE CONTROL UTILIZING MAXIMTRON, SERIES 14 MODULATION CONTROLS.
10. PROVIDE FACTORY ROOF TOP RAIN HOOD WITH BIRDSCREEN.
11. PROVIDE WITH FILTER SCREEN.
12. COORDINATE ROOF SUPPORT(S) WITH SEISMIC DESIGNER.
13. SUE TO MAINTAIN SIFT.

AIR DISTRIBUTION SCHEDULE

- ## NOTES

1. PROVIDE TRANSITIONS AT NECK AS REQUIRED.
2. THIS CEILING IS NOT PART OF A RATED ASSEMBLY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT METHOD OF COMPLIANCE

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT METHOD OF COMPLIANCE

PRESCRIPTIVE (X) ENERGY COST BUDGET ()

PROJECT NAME: ROOMS TO GO - PHASE II ADDITION, DUNN, NC

THERMAL ZONE: HARNETT COUNTY - CLIMATE ZONE 14A

EXTERIOR DESIGN CONDITIONS: 2017 ASHRAE FUNDAMENTALS HANDBOOK CLIMATIC DATA

WINTER DRY BULB - 20.4 DEG. F.

HEATING LOAD: 3530 MB

COOLING LOAD: N/A

MECHANICAL SPACE CONDITIONING SYSTEM

GAS-FIRED HEATERS

BOILER - NOT APPLIC

EQUIPMENT EFFICIENCIES: SEE MECHANICAL SCHEDULE.

EQUIPMENT SCHEDULES WITH MOTORS: MULTISPEED MOTORS ARE USED ON THIS PROJECT AND ARE INCLUDED IN THE EFFICIENCY RATING OF THE UNIT. SEE DRAWINGS FOR UNIT EFFICIENCIES.

DESIGNER STATEMENT: TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA STATE ENERGY BUILDING CODE.