

FOUNDATION LAYOUT ON SHEET 2 OF 2

Northern Natural Gas Co.

APPROVAL
DRAWING

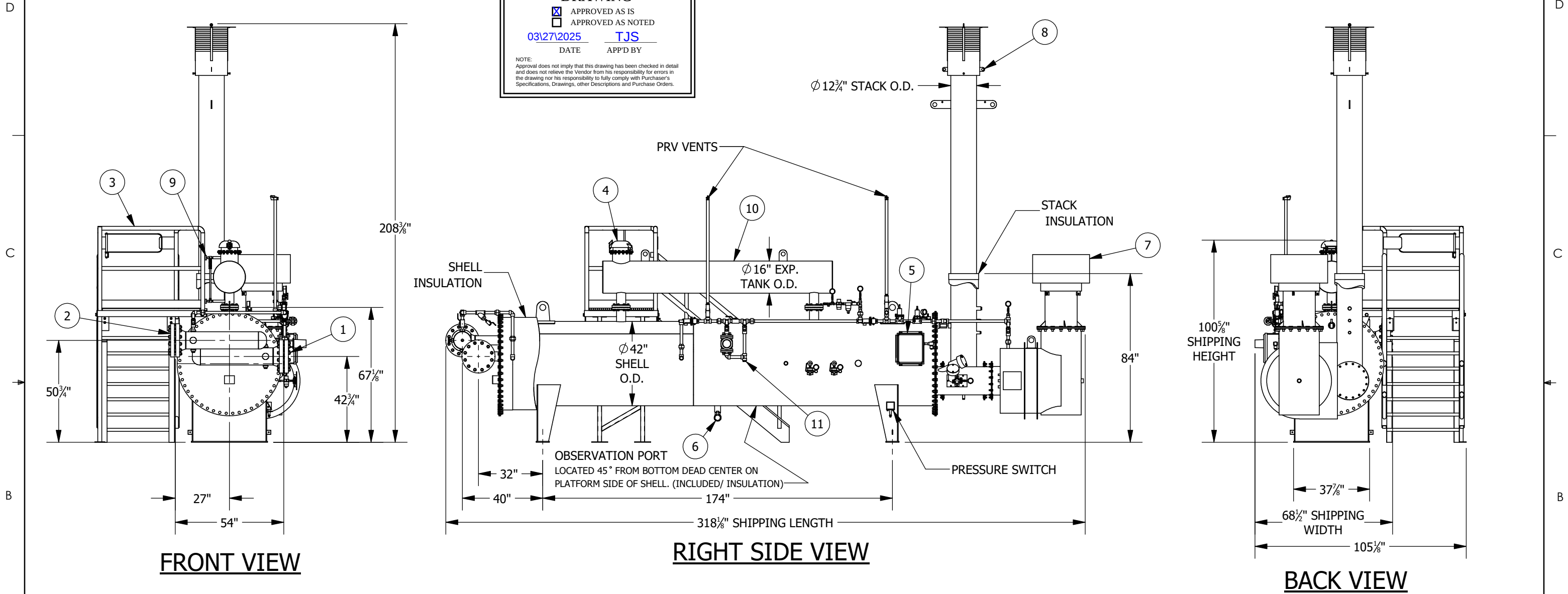
☒ APPROVED AS IS

☐ APPROVED AS NOTED

03/27/2025TJS

DATEAPP'D BY

NOTE:
Approval does not imply that this drawing has been checked in detail and does not relieve the Vendor from his responsibility for errors in the drawing nor his responsibility to fully comply with Purchaser's Specifications, Drawings, other Descriptions and Purchase Orders.

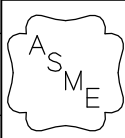


FRONT VIEW

RIGHT SIDE VIEW

BACK VIEW

COIL SPECIFICATIONS	
M.A.W.P:	1,000 PSI @ 200 ° F
MDMT:	-40 ° F @ 1,000 PSI
LIMITED BY:	DESIGN
FINAL HYDROSTATIC TEST:	1,500 PSI BASED ON 1.5 X M.A.W.P.--CHART TEST FOR 8 HRS. CHART TO SHOW PRESSURE AND AMBIENT TEMPERATURE.
HEAT TREAT:	NOT REQUIRED
CORROSION ALLOWANCE:	NONE
RADIOGRAPHY:	100%
NATIONAL BOARD NUMBER REQUIRED:	YES
COIL SURFACE AREA:	120.3 SQUARE FEET
NUMBER OF PATHS AND PASSES:	3 PATH -- 2 PASS



COIL TO BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE 2023 EDITION OF THE ASME PRESSURE VESSEL CODE: SECTION VIII DIVISION 1, AND IS TO BE SO STAMPED. INSPECTED BY NATIONAL BOARD COMMISSIONED INSPECTOR.

NOTES	
HEATER DRY WEIGHT IS APPROXIMATELY 9,800 LBS	
HEATER WET WEIGHT IS APPROXIMATELY 18,150 LBS	
BATH MEDIA VOLUME IS APPROXIMATELY 928 GALLONS	

1	COIL INLET--8IN 600# RFWN FLANGE
2	COIL OUTLET--8IN 600# RFWN FLANGE
3	PLATFORM W/ STAIRWAY
4	FILL HATCH 8IN
5	TOTALARC RELIGHTER, 120VAC WITH 12VDC BATTERY BACK UP
6	2IN DRAIN CONNECTION
7	FLAME ARRESTOR W/ EAS RISER
8	EXHAUST STACK RAIN CAP
9	LEVEL GAUGE
10	EXPANSION TANK
11	FLOW METER

SHIP LOOSE: (FIELD INSTALLED BY OTHER'S)

- (1) PLATFORM, SUPPORT, & STAIRWAY
- (2) PRV VENTS
- (1) STACK WITH RAIN CAP
- (1) TEMPERATURE CONTROLLER (410900) W/ PRESSURE GAUGE (411780) & THERMOWELL (410705)
- (1) EAS RISER & AIR INTAKE HEAD

OGI PROCESS
EQUIPMENT, INC
8939 West 21st St,
Sand Springs, OK 74063
Tel. 918.246.1600
Fax 918.246.1699

GENERAL
ARRANGEMENT
TERI 1000
42IN X 18FT X 14IN
4IN SCH40-3-2

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DRAWN: AJK
CHECKED: LB
APPD: KR
SCALE: ---
CUSTOMER: NNGC - MANKATO #1 TBS

JOB NO: T250307H
DATE DRAWN: 3/15/2025
DWG STATUS: APPROVAL
REVISION NO: A
SHEET 1 OF 2
DWG NO: GA250307

Northern Natural Gas Co.

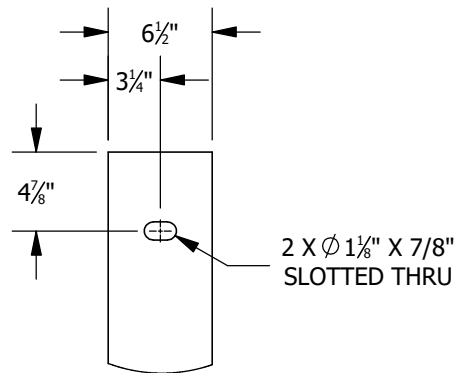
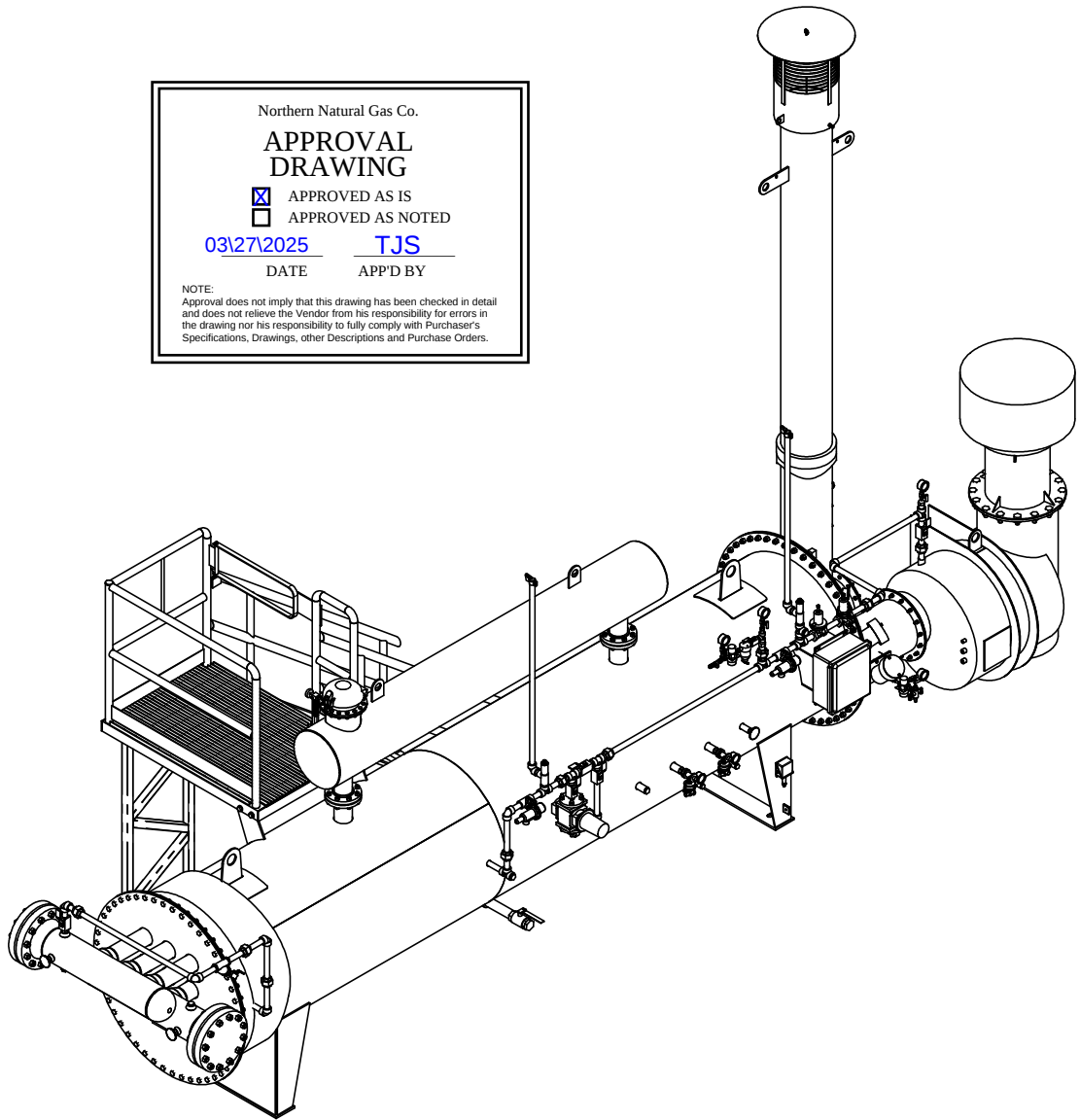
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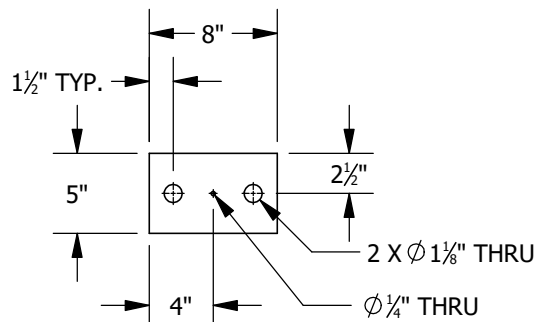
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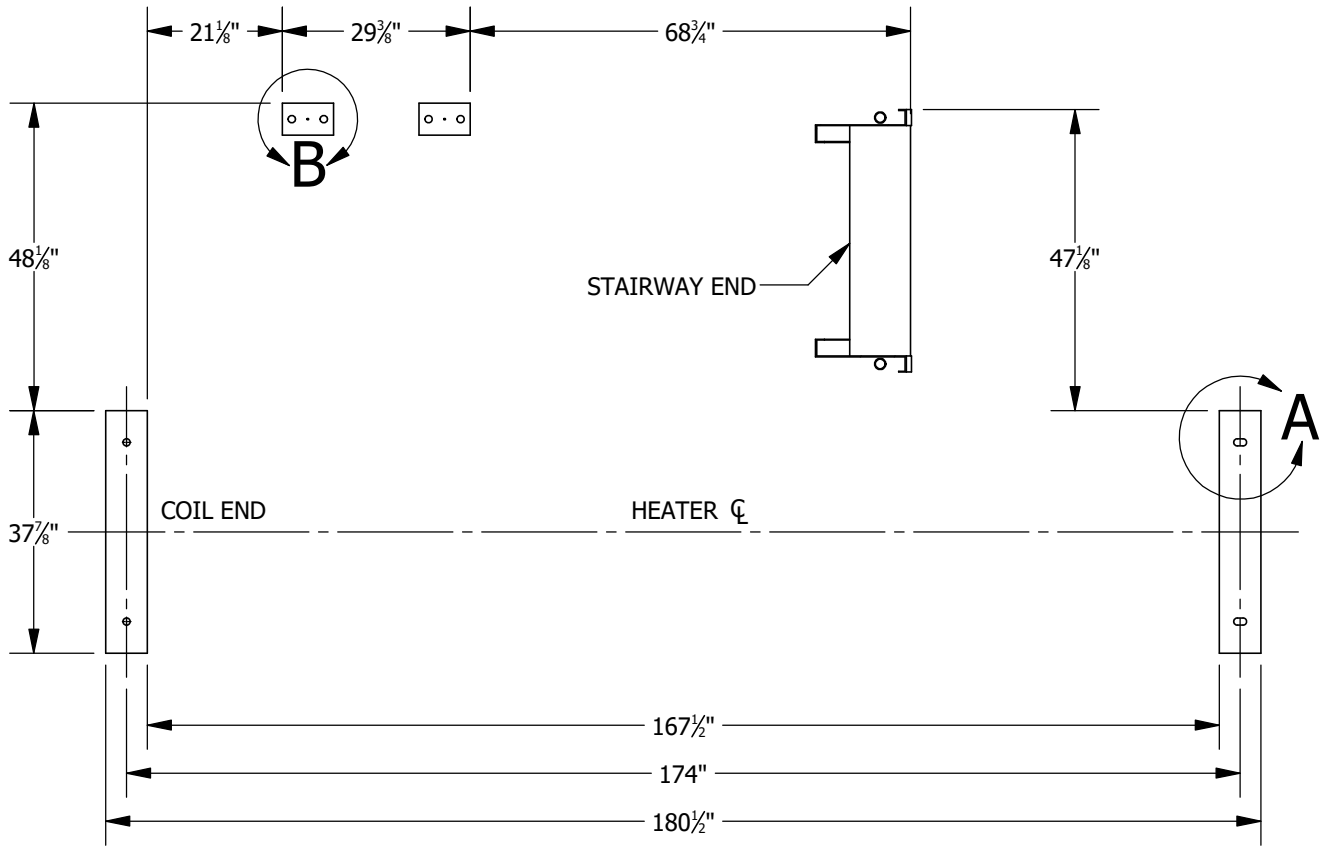


DETAIL A



DETAIL B

- NOTES:**
- A. INSULATION-**
1. THE SHELL WILL HAVE 2IN THICK CALCIUM SILICATE INSULATION WITH ALUMINUM JACKET AND STAINLESS STEEL BANDS.
 2. STACK INSULATION 1IN THICK 7FT ABOVE GRADE.
- B. PAINT-**
1. PLEASE REFERENCE OGI PAINT SPECIFICATION PS-0007 FOR BLASTING PROCEDURES, COATING PROCEDURES, AND PAINT TYPE.
- C. TEST PRESSURES-**
1. COIL TO BE HYDROSTATIC TESTED AT 1,500 PSIG BASED ON 1.5 X M.A.W.P.
- CHART TEST FOR 8 HOURS. CHART TO SHOW PRESSURE AND AMBIENT TEMPERATURE.
 2. HEATER SHELL TO BE AIR TESTED AT 10 PSIG FOR 60 MINUTES.
 3. HEATER FIRETUBE TO BE AIR TESTED AT 10 PSIG FOR 60 MINUTES.
 4. COIL TO BE NITROGEN PURGED AND BLIND FLANGES PLACED ON COIL FOR SHIPPING.



 OGI PROCESS EQUIPMENT, INC 8939 West 21st St, Sand Springs, OK 74063 Tel. 918.246.1600 Fax 918.246.1699	GENERAL ARRANGEMENT TERI 1000 42IN X 18FT X 14IN 4IN SCH40-3-2				JOB NO: T250307H
					DATE DRAWN: 3/15/2025
					DWG STATUS: APPROVAL 3/15/2025
					REVISION NO: A
					SHEET 2 OF 2
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		CUSTOMER: NNGC - MANKATO #1 TBS			DWG NO: GA250307