Purchasing Division
Finance Department

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Addendum 2
Solicitation 24-0500
RFP for Engineering Svcs to Redesign Boiler System for New Fuel

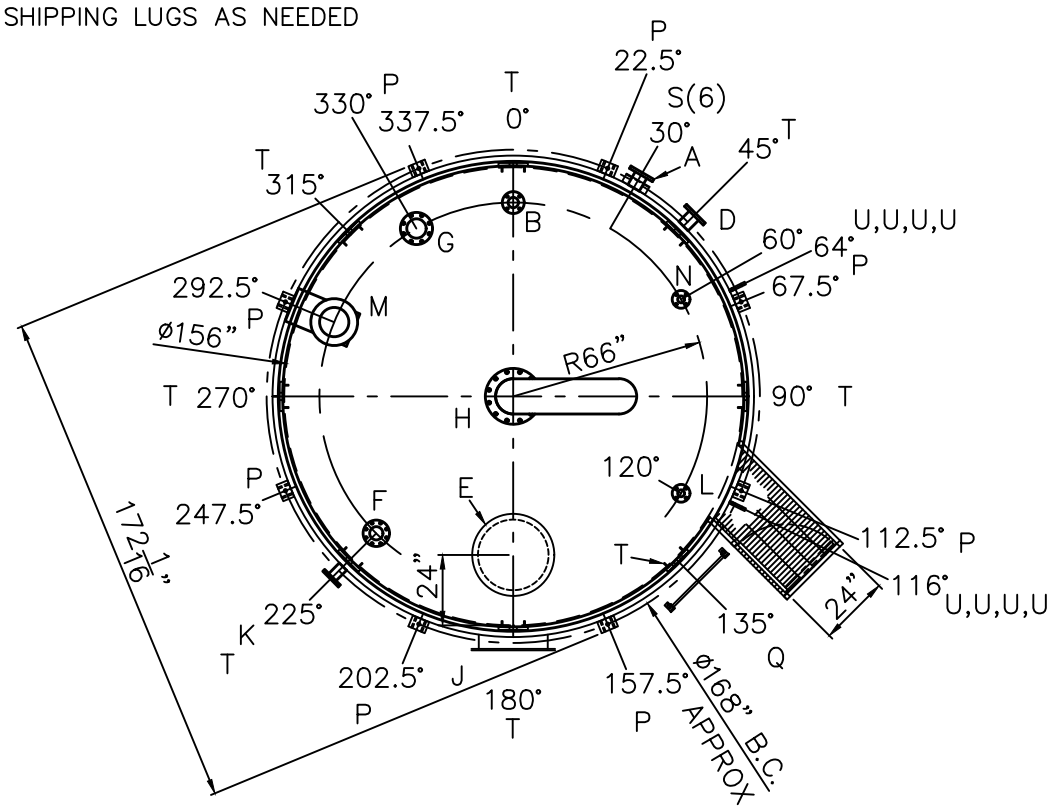
This addendum serves to notify all bidders of the following changes to the solicitation documents:

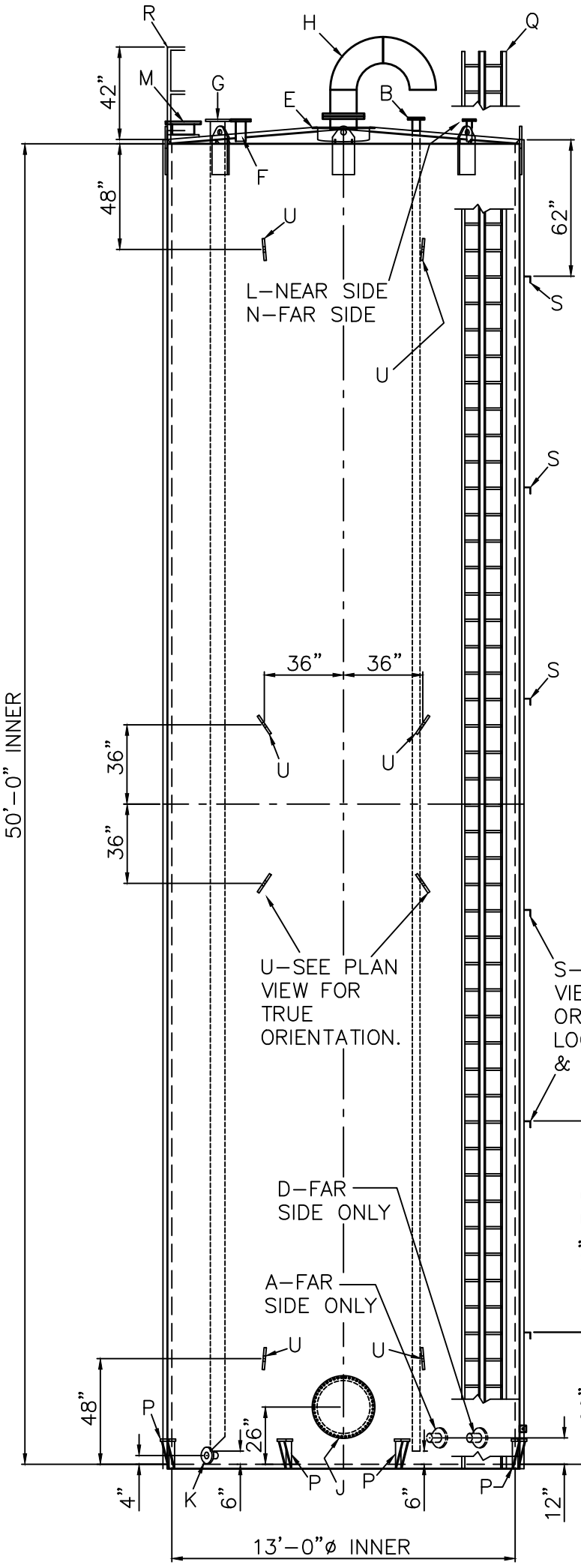
1. To clarify, DES is not an interruptible customer for standard operations. In the event an emergency situation would require an interruption, the system requires a 40,000-gallon stainless steel double-lined tank. That would last 2 days in the winter and likely a week in the summer, depending on customer load. Attached is a drawing that would likely be similar, although it is larger than needed.
2. Attached is a drawing of a current wind box that needs to be changed out with one to allow for better control and a more efficient system.

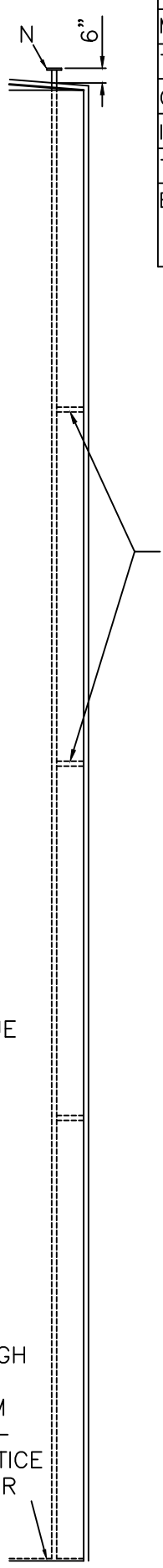
Please acknowledge receipt of this Addendum by including a copy of it with your proposal. The pages included will not count toward any page limitation, if any, identified in the RFP.

Posted: **September 9, 2024**

SHIPPING LUGS AS NEEDED







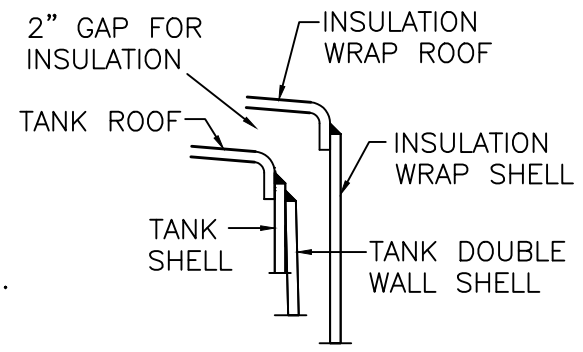
SECTION N—N

DESIGN DATA

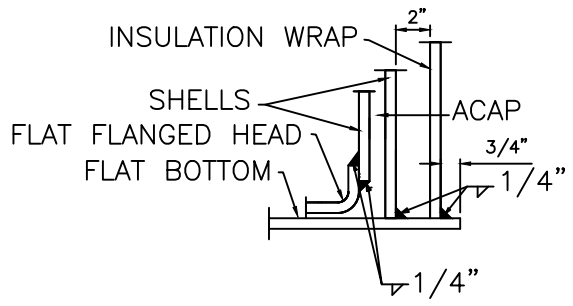
CAPACITY — 49,645 GALLON
TYPE — VERTICAL DOUBLE WALL
NO. REQ. — ONE
OPERATING PRESSURE — ATMOSPHERIC
SPECIFIC GRAVITY = 1.0
INNER TANK MATERIAL — 304 STAINLESS STEEL OUTER TANK MATERIAL — MILD CARBON STEEL * SEE BELOW FOR INSULATION WRAP DESIGN
THICKNESS— TOP — $\frac{3}{8}$" 304 S.S. SHALLOW SLOPE SINGLE WALL THICKNESS—INNER S.S.—SHELL: 3/8"BOTTOM: 3/8" THICKNESS—OUTER CS— SHELL: 1/4" BOTTOM: 1/4" THICKNESS— POUR FOAM CS — SHELL: 3/8" TOP & BOTTOM COURSE
CONSTRUCTION — LAP WELD OUTSIDE ONLY— INNER & OUTER
TANK TEST — INNER: 2 PSIG, OUTER:— 2 PSIG & FULL VACUUM
INT. FINISH — NONE
LABEL — UL 142

INSULATION WRAP DESIGN DATA

PURPOSE — TO CONTAIN THE INSULATION ONLY; NOT A TRUE DOUBLE WALL TANK
MATERIAL — MILD CARBON STEEL
THICKNESS — 1/4" MIN.
CONSTRUCTION — LAP WELD OUTSIDE ONLY
INSULATION — 2" THICK POURFOAM
TEST — NONE REQUIRED
EXT. FINISH — SP6 BLAST, CHEMPRIME 3001 EPOXY, CHEMTHANE 3300 URETHANE DESERT TAN FINISH



TOP JOINT DETAIL



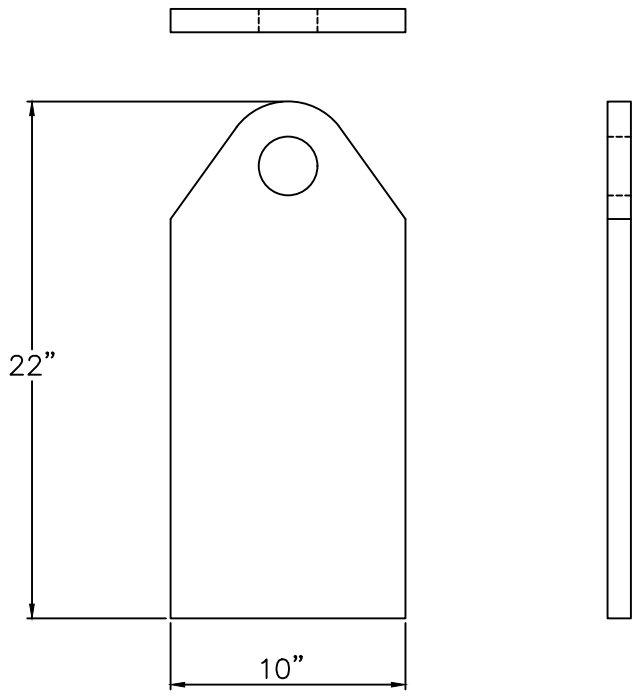
BOTTOM JOINT DETAIL

SHEET 1 OF 3
SHEET 1 — TANK LAYOUT
SHEET 2 — LEGEND, NOTES & HOLD DOWN DETAILS.
SHEET 3 — LADDER DETAILS

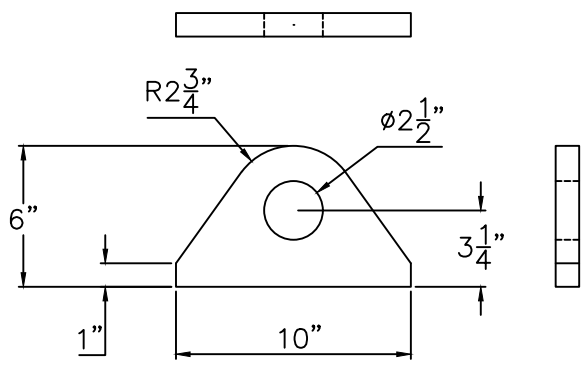
SHIPPING LUGS AS NEEDED

NOTES

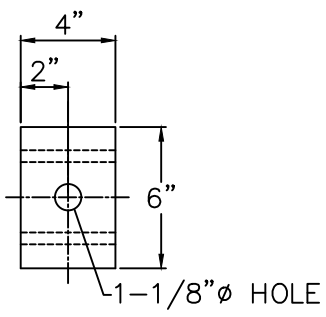
1. SEE PLAN VIEW FOR TRUE ORIENTATION AND LOCATION OF FITTING
2. LIFTING LUGS FOR UNLOADING UNIT & STANDING UNIT UPRIGHT TO BE PLACED AS NEEDED BY FABRICATION SHOP
3. A 3x3x¼" STEEL GROUNDING LUG WITH A ⅝"ø HOLE IN CENTER TO BE PLACED ON SHELL AT BOTTOM OF TANK IN LINE WITH LIFTING LUGS

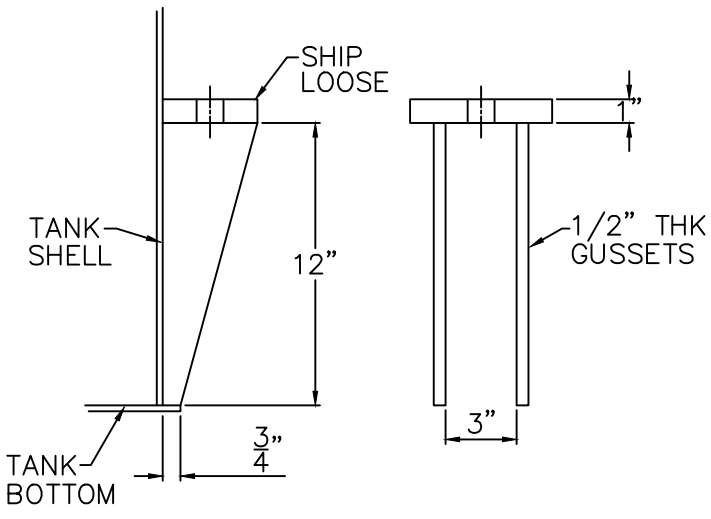


DETAIL T – ROOF LIFTING LUG DETAIL
1" THK. MATERIAL



DETAIL U – SHELL LIFTING LUG 97723 DETAIL
1" THK. MATERIAL



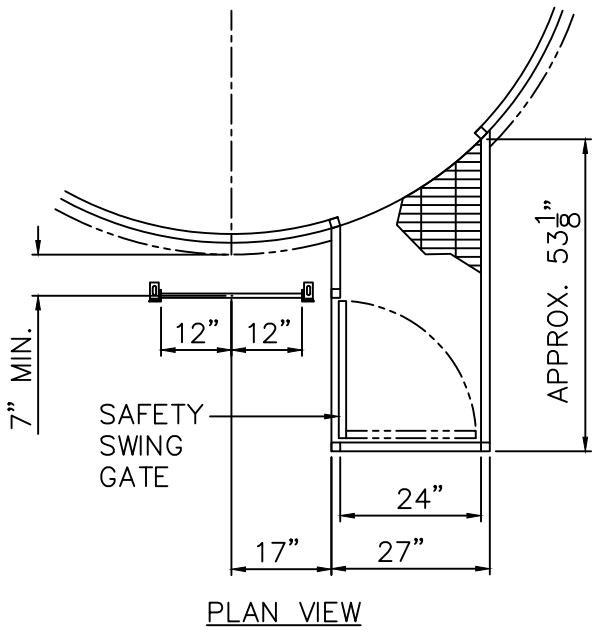


TANK HOLD DOWN LUG AVLUGB

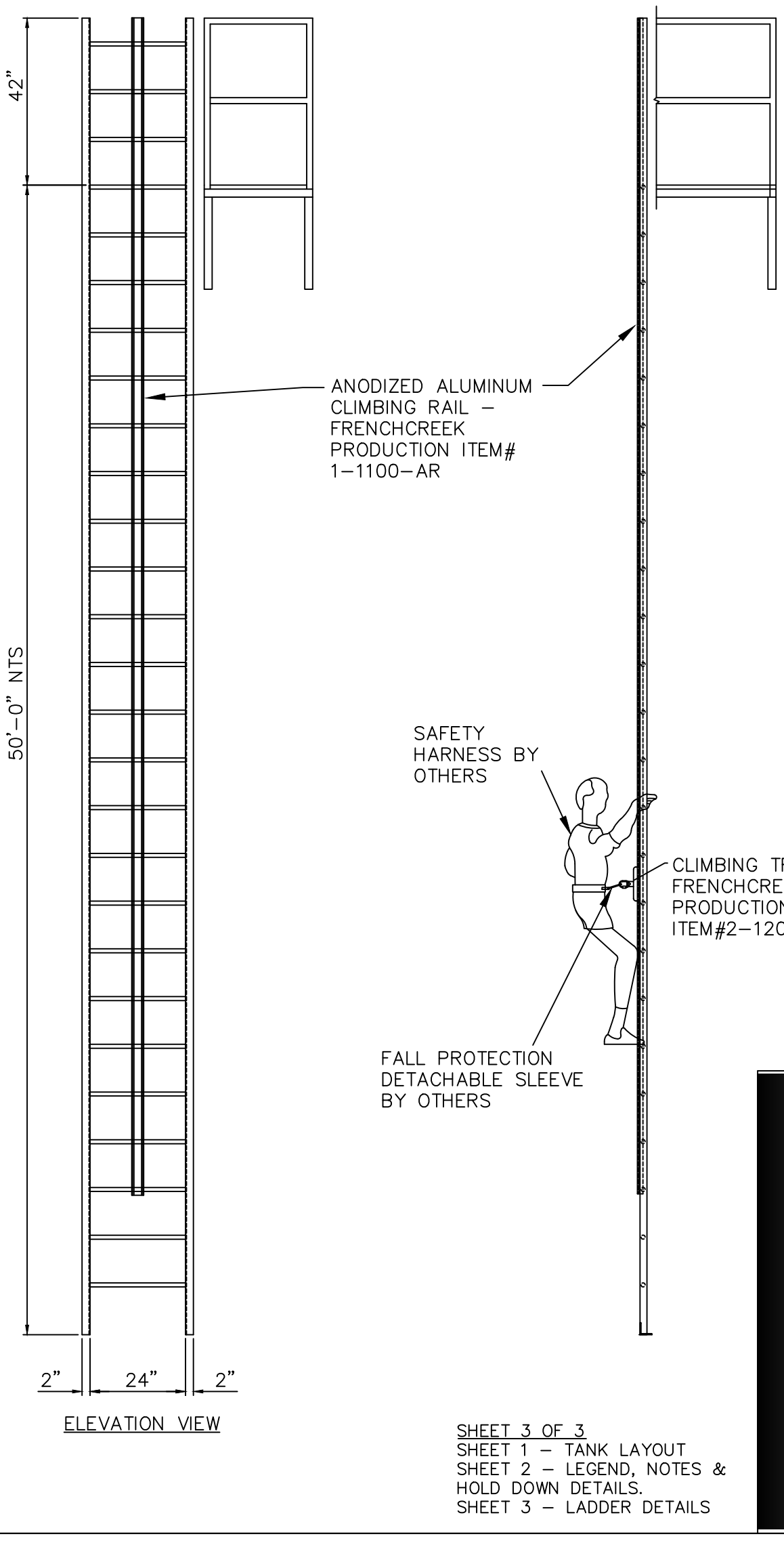
DESIGN DATA
TYPE – B STYLE LUG (7)
NO. REQ. – SEE MAIN DRAWING
MATERIAL – MILD CARBON STTEL
THICKNESS – SEE DRAWING
CONSTRUCTION – GUSSETS WELDED TO TANK TOP PLATE SHIPS LOOSE
EXT. FINISH – SAME AS TANK

LEGEND

A	4" 150# 304 STAINLESS STEEL RFSO FLANGE (PUMP SUCTION)
B	3" 150# 304 STAINLESS STEEL RFSO FLANGE & 3" 304 STAINLESS STEEL DROP PIPE TO WITHIN 6" OF TANK BOTTOM (RECIRC & SRV RETURN)
C	–
D	4" 150# 304 STAINLESS STEEL RFSO FLANGE (LEVEL TRANSMITTER)
E	24"ø LOOSE BOLT 304 S.S. MANWAY w/ 1/8" NEO–CORK GASKET MATERIAL.
F	4" 150# 304 STAINLESS STEEL RFSO FLANGE (EMERGENCY RELIEF & FLAME ARREST)
G	6" 150# 304 STAINLESS STEEL RFSO FLANGE W/ 6" 304 S.S. DROP PIPE TO WITHIN 6" OF TANK BOTTOM, MITER 45° (FILL)
H	12" 150# 304 STAINLESS STEEL RFSO FLANGE (GOOSENECK VENT)
J	24"ø CLOSE BOLT MANWAY w/ 1/4" NECK, ½" FLANGE AND ⅝" COVER PLATE & 1/8" NEO–CORK GASKET MATERIAL.
K	3" 150# 304 STAINLESS STEEL RFSO FLANGE (DRAIN)
L	2" 150# 304 STAINLESS STEEL RFSO FLANGE (LEVEL ALARM)
M	10" RFSO 150# CARBON STEEL FLANGE, SECONDARY EMERGENCY VENT IN INTERSTICE EXTENSION BOX, MARK w/ SPECIAL WARNING LABEL
N	2" 150# 304 STAINLESS STEEL RFSO FLANGE AND 304 STAINLESS STEEL INTERNAL PIPE TO CONTAINMENT (LEAK MONITOR PIPE)
P	CARBON STEEL AVLUGB TANK HOLD DOWN LUG PER DETAIL P ON SHEET TWO
Q	24" WIDE STRAIGHT LADDER & PLATFORM PER OSHA REGULATIONS, PAINT: SAFETY YELLOW, SHIP LOOSE, INSTALLATION ON SITE BY OTHERS. HARDWARE INCLUDED (EXCEPT ANCHOR BOLTS). INCLUDES SAFETY SWING GATE
R	42" HIGH PERIMETER HANDRAIL w/ TOP RAIL, MID RAIL & TOE PLATE PER OSHA REGULATIONS, PAINT: SAFETY YELLOW, SHIP LOOSE, INSTALLATION ON SITE BY OTHERS. HARDWARE INCLUDED.
S	ANGLE – 3" x 3" x ¼" x 9" LONG (6 REQ'D @ 30°)
T	ROOF LIFTING LUGS, SEE DETAIL T
U	SHELL LIFTING LUGS, SEE DETAIL U



PLAN VIEW



ELEVATION VIEW

SHEET 3 OF 3
SHEET 1 – TANK LAYOUT
SHEET 2 – LEGEND, NOTES & HOLD DOWN DETAILS.
SHEET 3 – LADDER DETAILS

NOTES:

1. ALL EXTERNAL CARBON STEEL SURFACES INCLUDING: BURNER, WINDBOX, IGNITER, AND OIL UNIT TO BE SURFACE PREPPED PER SSPC-SP-6 AND PAINTED WITH BASE COAT Sherwin Williams MACROPOXY 646 FAST DRY EPOXY 646 (5.0-10.0 Mils DFT (125-250 Microns)). TOP COAT (LIGHT BUFF) with Sherwin Williams ACROLON 218HS ACRYLIC POLYURETHANE (3.0-6.0 Mils DFT (75-150 Microns.)) OR EQUAL. IGNITER AND OIL UNIT COLOR: RAL 9011 Graphite Black; Windbox color: RAL 7026 Granite Gray; BURNER COLOR: RAL 2004 Reinorange

2. ALL INTERNAL CARBON STEEL SURFACES (INCLUDING INTERNAL OIL UNIT AND IGNTIER) TO BE SURFACE PREPPED PER: SSPC SP-1 AND PAINTED WITH 1 COAT (1.0 MILS DFT (25 MICRON)) OF DAMPNEY COMPANY INC. THURMALOX 270M (METALLIC CHARCOAL) OR EQUAL.

3. ALL FIELD WELDED INTERFACE POINTS (I.E. FRONT PLATE ALIGNMENT WELDS, BOILER MOUNTING FLANGE) TO BE SURFACE PREPPED PER: SSPC SP-1 AND PAINTED WITH 1 COAT OF DEOXALUMINITE (OR EQUAL) ALUMINUM BASED ORGANIC WELDING PAINT PRIMER SUITABLE FOR USE IN PRIMING METAL PRIOR TO WELDING.

4. AIR SEAL REQUIREMENTS AT EACH CONNECTION TO BE 75 scfm @ 25 psig AND IS ONLY REQUIRED DURING EQUIPMENT REMOVAL IF BURNER IS OPERATING.

5. POSITION FOR SWIRLER, IGNITER, OIL UNIT, ETC. ARE SHOWN IN INITIAL "FACTORY" SETTINGS AND MAY REQUIRE ADJUSTMENT DURING COMMISSIONING TO ACHIEVE OPTIMUM PERFORMANCE. FINAL POSITIONS SHOULD BE MARKED AND NOTED FOR FUTURE REFERENCE.

6. BOILER FRONT PLATE TO BE FLAT, SQUARE AND TRUE WITH BURNER CENTERLINE AND PROPERLY STIFFENED TO SUPPORT WEIGHT OF WINDBOX AND BURNER. BURNER TO BE INSTALLED WITH A CONCENTRICITY OF ± 1/8" BETWEEN BURNER FRONT PLATE DIAMETER AND BOILER FRONT PLATE OPENING.

7. WINDBOX IS TO BE SEAL WELDED TO BOILER FRONT WALL BY OTHERS.

8. BURNER THROAT TRAILING EDGE TO BE SHARP NOT ROUNDED.

9. BURNER REFRACTORY THROAT AND REFRACTORY ANCHORS TO BE SUPPLIED AND INSTALLED BY OTHERS. PLASTIC REFRACTORY THROAT: 70% ALUMINA (AIR CURE) PLASTIC. INSTALL AND CURE PER MANUFACTURERS INSTRUCTIONS. QUARL FORMING TOOL SUPPLIED BY ZEECO. △2

10. DO NOT SCALE THIS DRAWING. DIMENSIONS SHOWN ARE IN INCHES.

11. FOR COMPONENT DETAILS AND MATERIAL SPECIFICATIONS, REFER TO THE ZEECO POWER BURNER MECHANICAL/INSTRUMENT DATA SHEETS.

12. ADDITIONAL LOAD MUST NOT BE PLACED ON WINDBOX BY SUPPORTING EQUIPMENT OTHER THAN SHOWN.

13. ALL INTERCONNECTING PIPING TO BE SUPPLIED & INSTALLED BY OTHERS.

14. ALL EXISTING EQUIPMENT SHOWN IN PHANTOM FOR CLARITY.

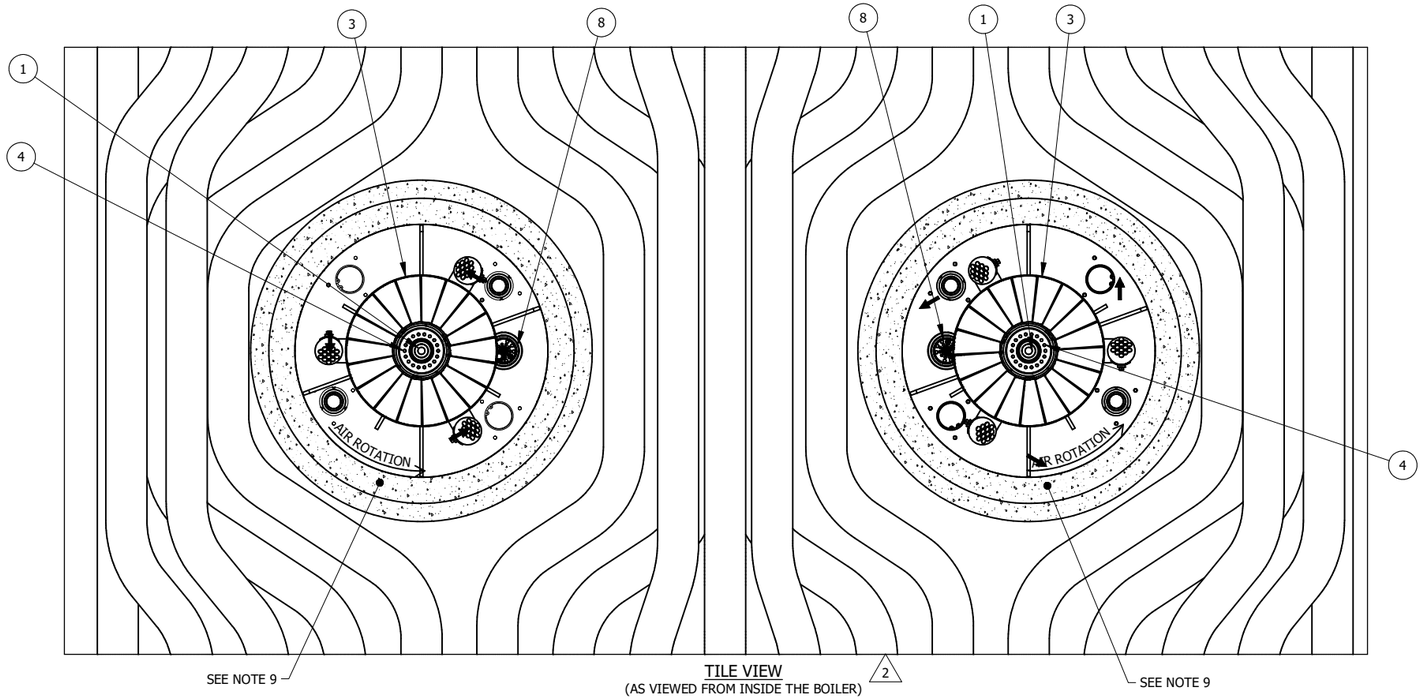
15. FOR BURNER DESIGN SPECIFICATIONS SEE ZEECO POWER BURNER DESIGN DATA SHEET.

16. INSTALL ALL HOSES WITHOUT UNDUE TENSION OR KINKS.

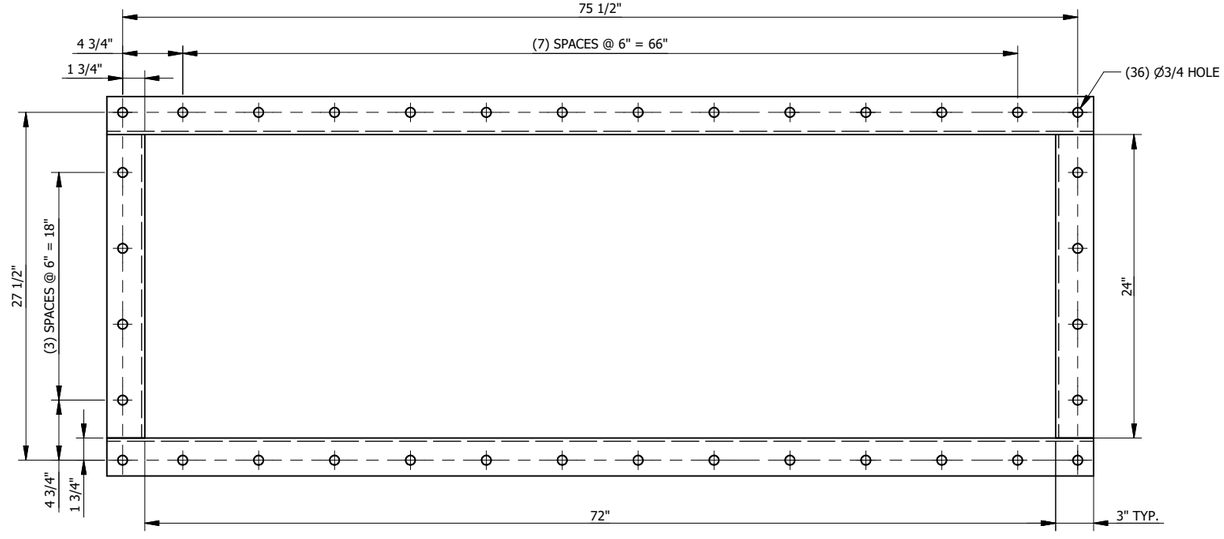
17. ALL FLANGE BOLT HOLES TO STRADDLE NORMAL CENTERLINES.

18. DEPTH FROM BOILER MOUNTING FLANGE TO REFRACTORY SURFACE IS CRITICAL TO BURNER OPERATION. ENSURE DEPTH IS MAINTAINED.

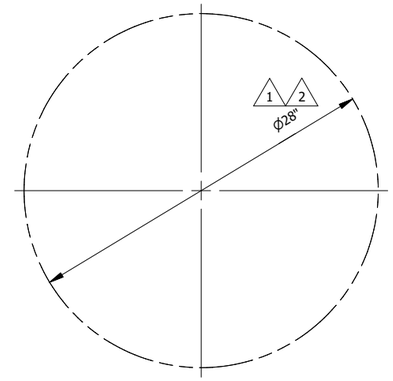
19. APPROX. WEIGHT: 4,800lbs. FOR THE COMPLETE ASSEMBLY PER BOILER



TILE VIEW
(AS VIEWED FROM INSIDE THE BOILER) △2



WINDBOX COMBUSTION AIR INLET DETAIL



BOILER WALL OPENING △2
(3/8" CASING PLATE)

MANUFACTURING TOLERANCE AND INSTALLATION LEGEND GEN.
FABRICATION DIM: ±1/8"(3mm)
PIPING CONN. DIM: ±1/2"(13mm)
BOLTING DIM: ±1/8"(3mm)
TILE DIM: ±1/8"(3mm)
FUEL PORT ANGLE: ±2°
PIPING AND AIR CONNECTIONS DESIGNED FOR ZERO LOADING

THIS INFORMATION IS TO BE REVIEWED AND CONFIRMED BY THE CLIENT TO ENSURE PROPER INTERFACING OF THE ZEECO EQUIPMENT TO THE EXISTING EQUIPMENT.

SEE DWG. 38002-G006A-100 FOR PARTS LIST & HEAT RELEASE INFO
SEE DWG. 38002-G006A-102 FOR WINDBOX & INLET PIPING DETAILS

NO.	DATE	REVISION DESCRIPTION	BY	CKD.	APP.
2	13MAR19	REVISED PER CUSTOMER COMMENTS WHERE NOTED	DSM	DSM	JDY
1	21FEB19	REVISED BOILER WALL OPENING	CTD	DSM	JDY
0	11FEB19	ISSUED FOR CUSTOMER APPROVAL	CTD	DSM	JG

CUSTOMER: LOCKE AMI LLC
JOBSITE: ST. PAUL, MN
END USER: DISTRICT ENERGY
P.O. NO.: 3190040PM1

STATUS: Released
3 RD ANGLE PROJ
DIMS IN INCHES, UNLESS OTHERWISE STATED.

ZEECO, INC.
22151 EAST 91st STREET
BROKEN ARROW, OK 74014
PHONE: (918) 258-8551
FAX: (918) 251-5519
www.zeeco.com
sales@zeeco.com

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GB-20 BURNER
GENERAL ARRANGEMENT
(2 - Required)

DRAWN	DATE
CTD	11-Feb-19
CHK	APP
DSM	JG
SCALE	SHEET NO.
NONE	1 OF 1

S.O. NO.	DWG. CAT.	SUB CAT.	SYSTEM NO.	DWG. NO.	REV. NO.
38002	G	006	A	101	2