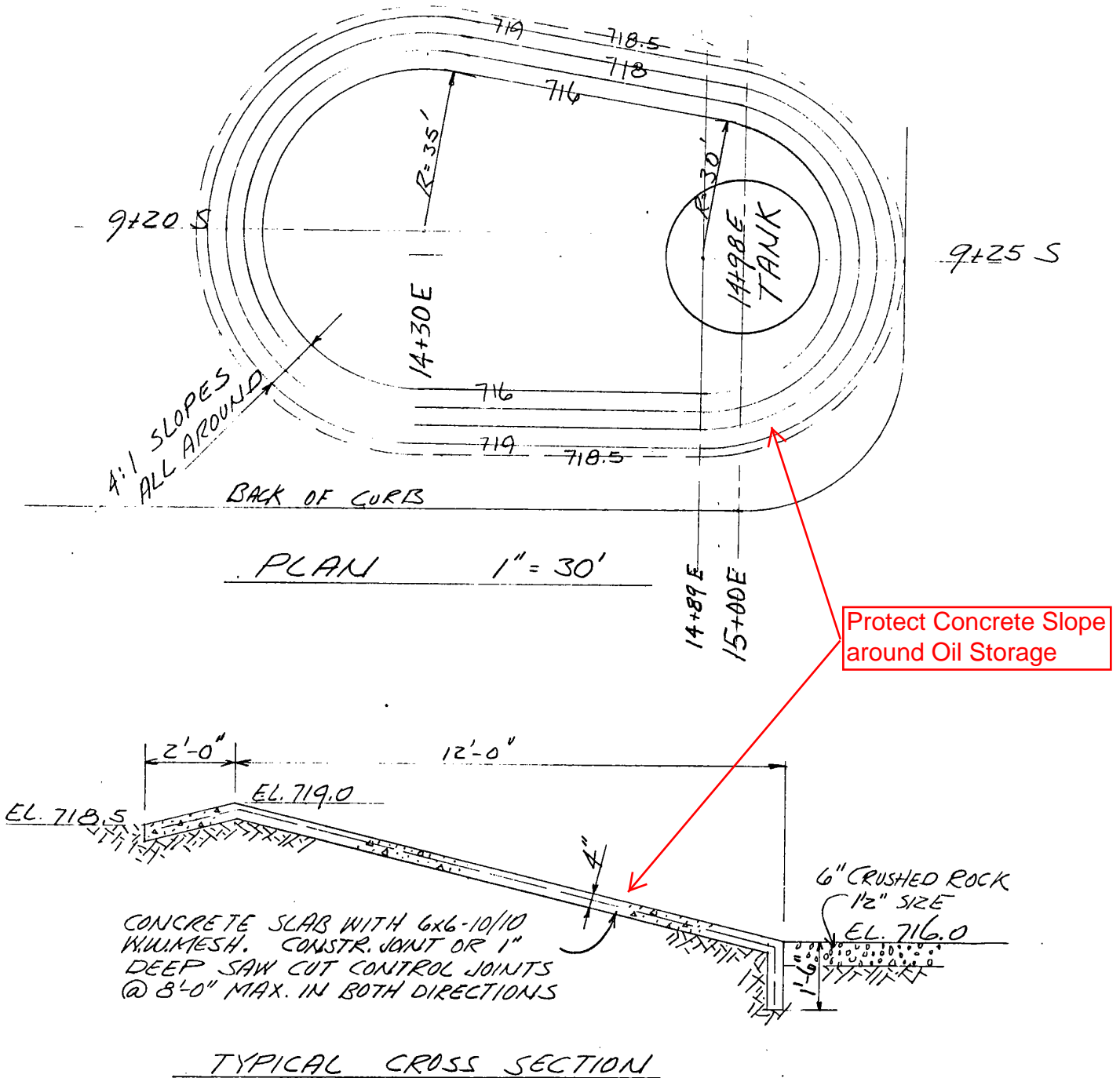


PLANS

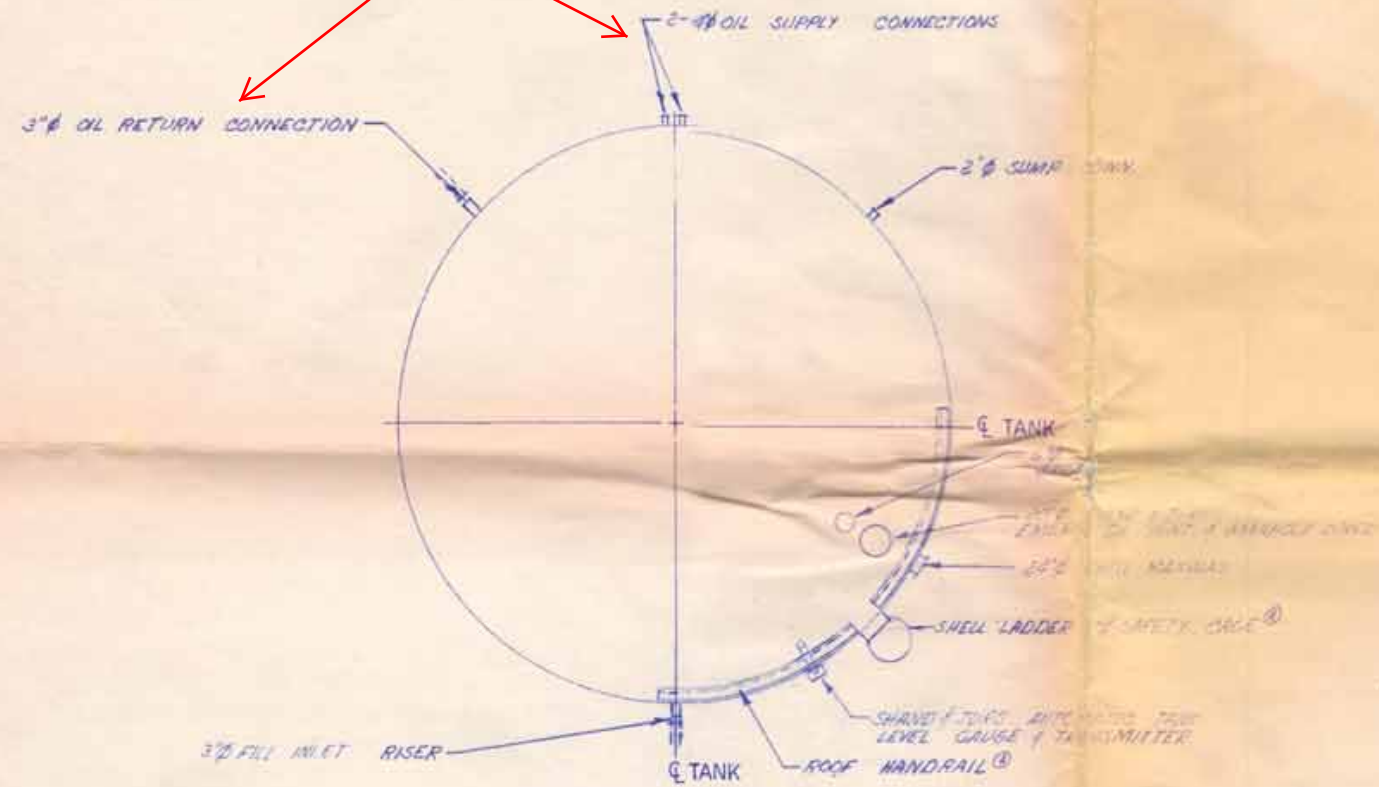
General Section, Plan Sheets G-3, and G-4.

- The diked area around the fuel oil storage tank shall have concrete apron slope 4:1, and shall have a crushed rock bottom as shown on the plans and cross-section below.



CEDAR RAPIDS, IOWA

Oil Return and Supply Piping has been disconnected from the tank and abandoned.

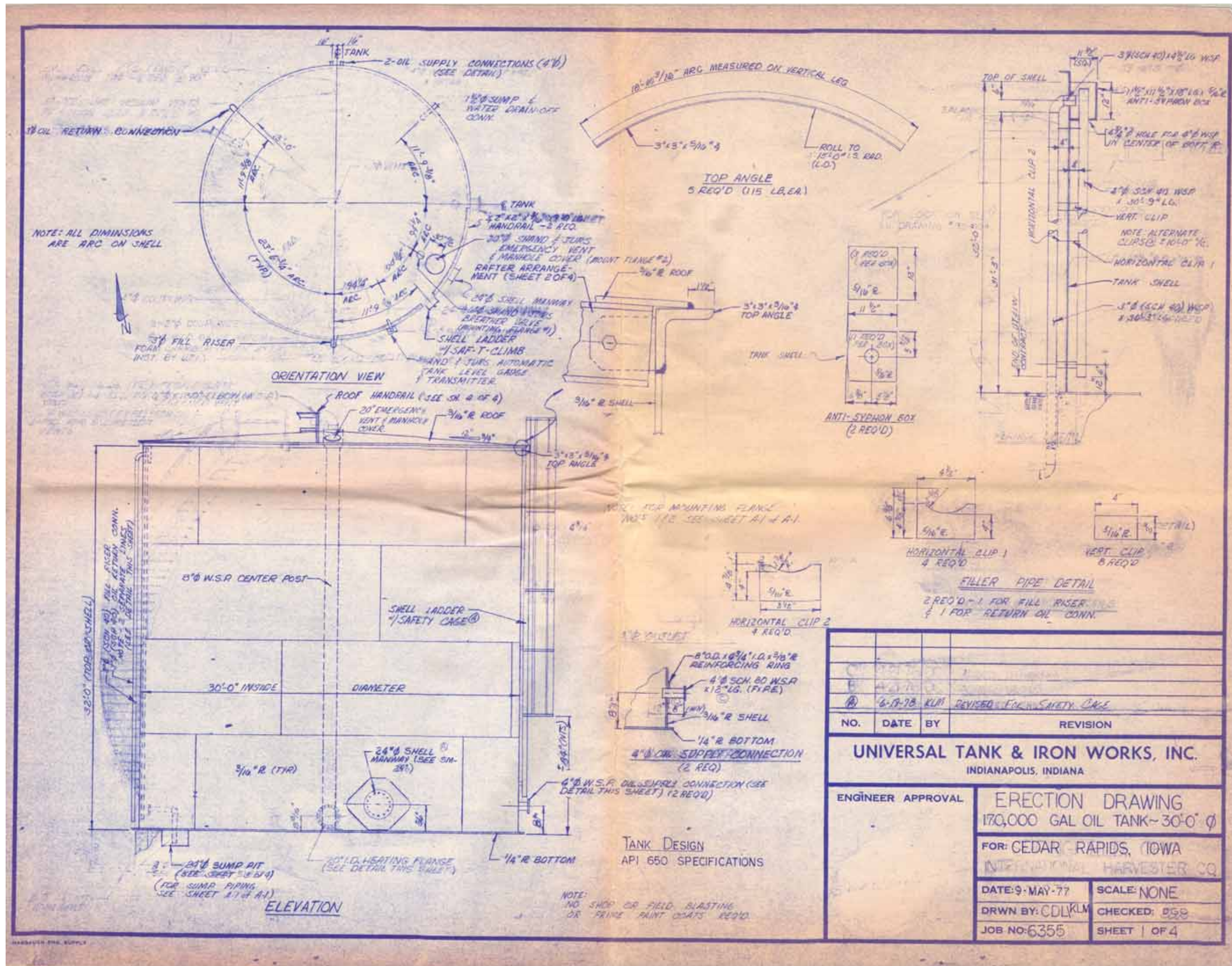


ORIENTATION PLAN VIEW
170,000 GAL. FUEL OIL STORAGE TANK
30'-0" I.D. X 32'-0" TO HIGH LIQUID LEVEL

DRWN BY: KLM/ASD
JOB NO: 6355

Ⓐ 6-19-98 KLM REVISED FOR SAFETY CAGE

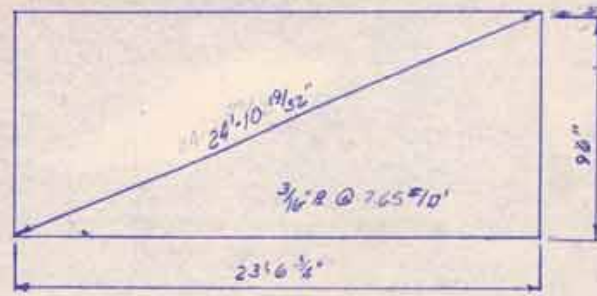
UNIVERSAL TANK & IRON WORKS, INC.
INDIANAPOLIS, INDIANA



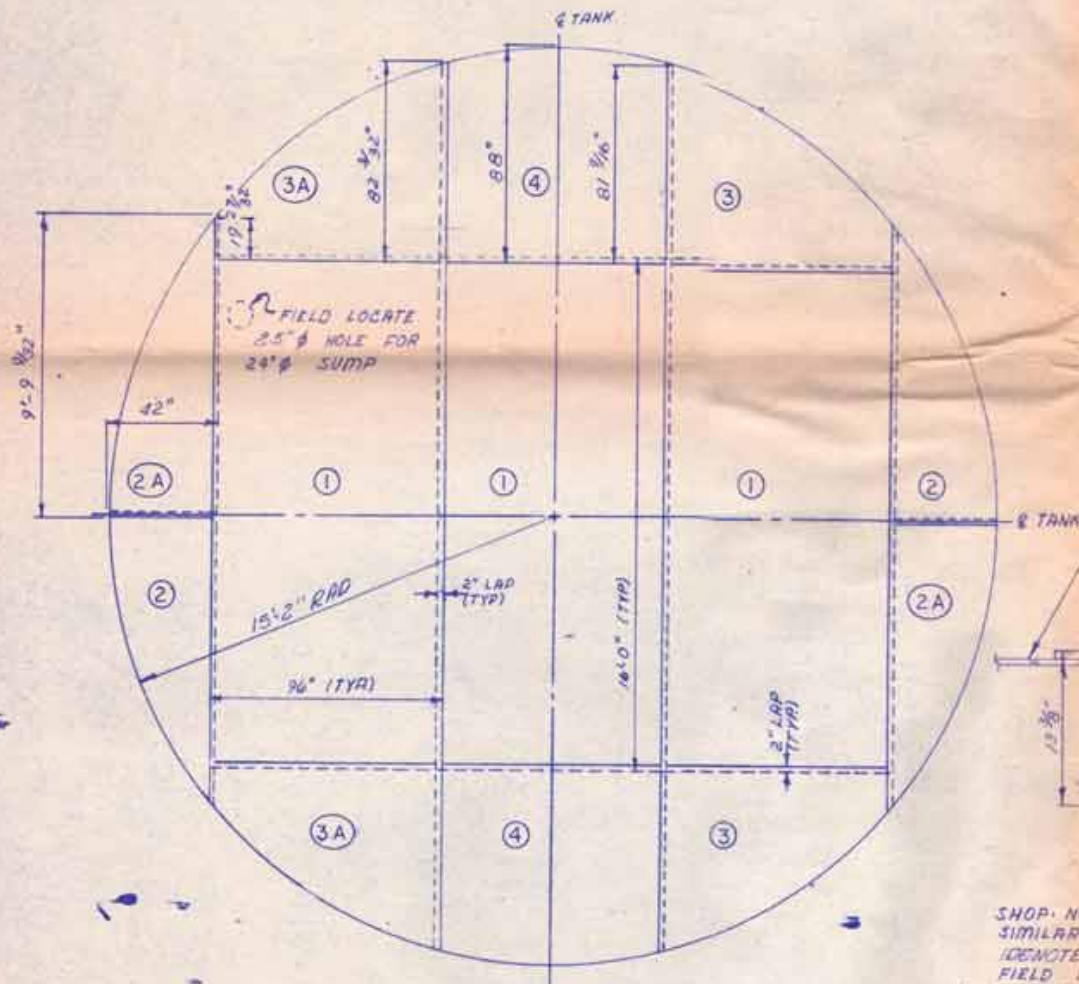
NO.	DATE	BY	REVISION

UNIVERSAL TANK & IRON WORKS, INC.
INDIANAPOLIS, INDIANA

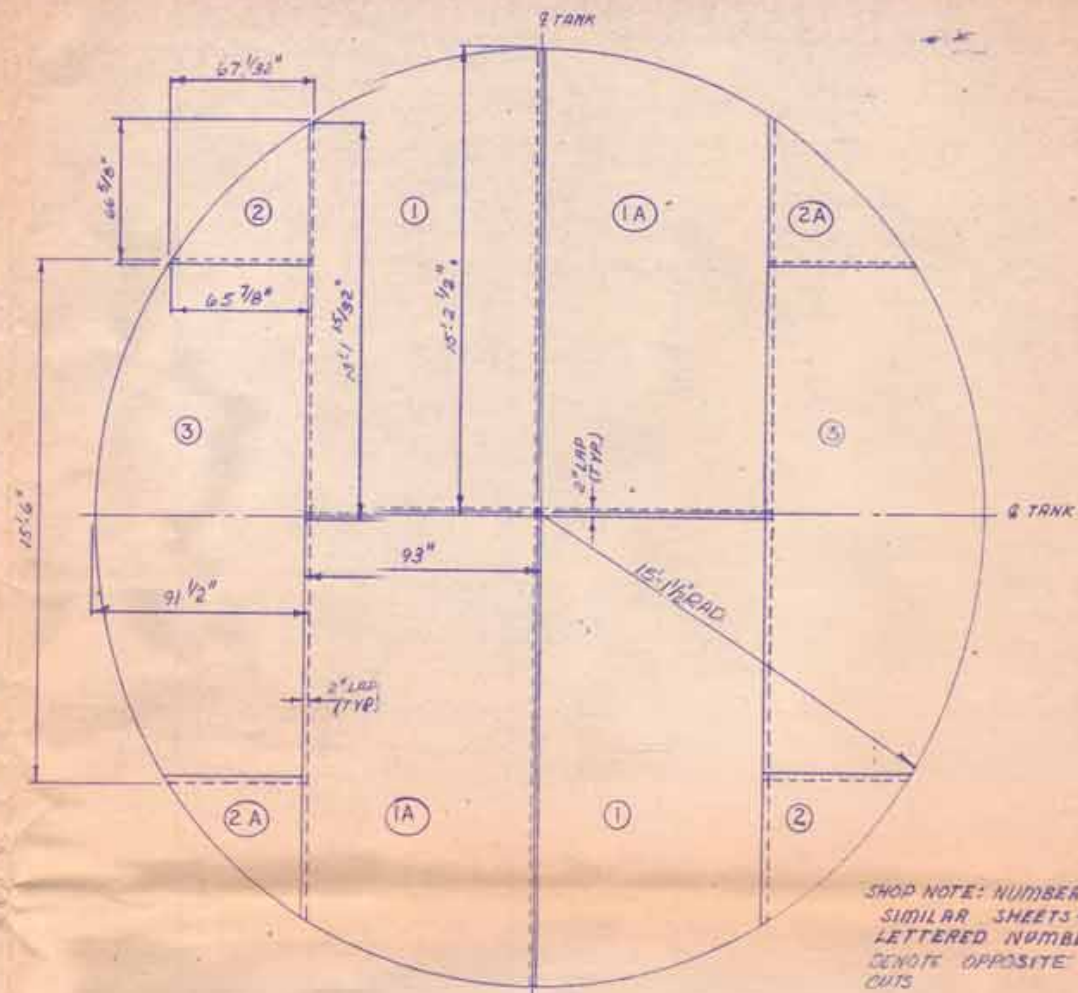
ENGINEER APPROVAL	ERECTION DRAWING 170,000 GAL OIL TANK - 30'-0" Ø
	FOR: CEDAR RAPIDS, IOWA INTERNATIONAL HARVESTER CO
DATE: 9-MAY-77	SCALE: NONE
DRWN BY: CDL/KLM	CHECKED: DGG
JOB NO: 6355	SHEET 1 OF 4



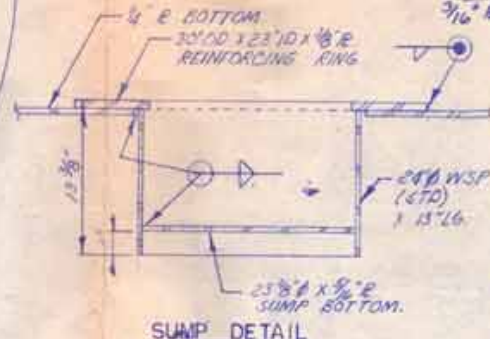
SHELL SHEETS
 16 REQ @ 1450 LBS. EA.
 ROLL TO 15'-0" I.S. RADIUS



BOTTOM PLATE
 1/4" R @ 10.2 #/ft ASTM A283 SR B



ROOF PLATE
 3/16" R @ 7.65 #/ft

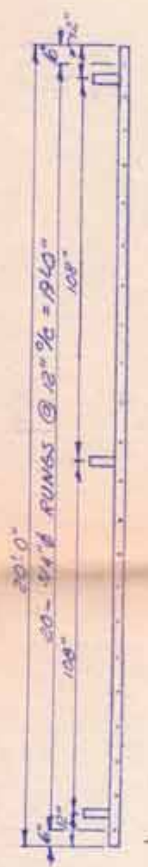


SUMP DETAIL
 SHOP NOTE: NUMBERS DENOTE SIMILAR SHEETS - LETTERED NUMBERS DENOTE OPPOSITE HAND CUTS.
 FIELD NOTE: DO NOT WELD SHEETS NUMBER (1) TO ADJACENT SHEETS UNTIL INSTALLATION OF FIRST SHELL RING IS COMPLETE.
 NO SHOP BLASTING OR PRIMING REQ'D.

SHOP NOTE: NUMBERS DENOTE SIMILAR SHEETS - LETTERED NUMBERS DENOTE OPPOSITE HAND CUTS.
 NO SHOP BLASTING OR PRIMING REQ'D.

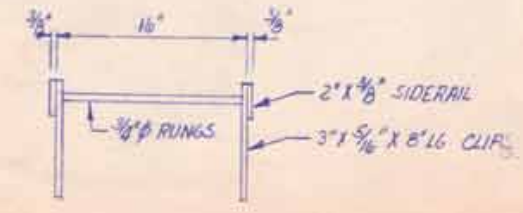
MATL: PLATE-ASTM A283 SR C

NO.	DATE	BY	REVISION
UNIVERSAL TANK & IRON WORKS, INC. INDIANAPOLIS, INDIANA			
ENGINEER APPROVAL		ROOF, BOTTOM & SHELL LAYOUTS 30'-0" DIA G.S.T. 32'-0" HIGH	
FOR: CEDAR RAPIDS, IOWA			
DATE: 9-MAY-77		SCALE: NONE	
DRWN BY: KLM		CHECKED: DSC	
JOB NO: 6355		SHEET 3 OF 4	

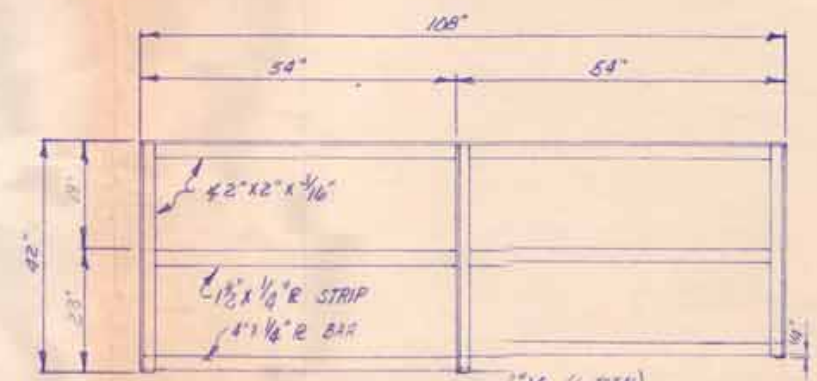


SHELL LADDER
 1/ SAFETY CAGE
 1 REQ'D 20'-0" L6 & 1 REQ'D 13'-0" L6
 FOR SHELL LADDER

NOTE: FOR SAFETY CAGE DETAILS
 SEE SM. SHEET SC-1

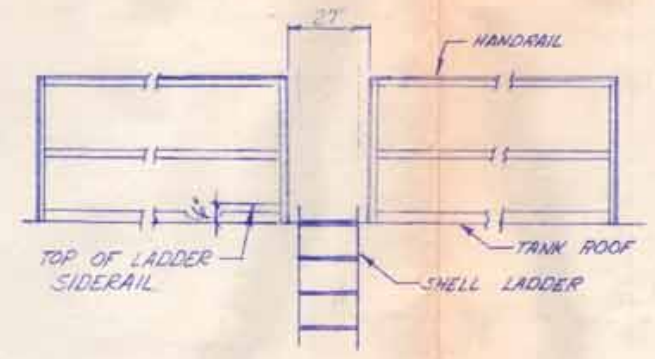
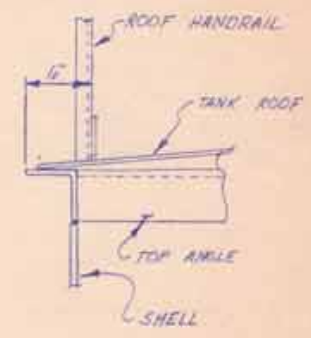


TYP LADDER SECTION



3 POST REQ'D 2" x 2" x 3/16" x 108" L6 (6 TOTAL)
 1 HANDRAIL REQ'D 2" x 2" x 3/16" x 108" L6 (2 TOTAL) ROLL TO 14'-9" IR LEG OUT
 1 MIDRAIL REQ'D 1 1/2" x 1/4" R x 108" L6 (2 TOTAL) - - - RAD.
 1 TIE PLATE REQ'D 4" x 1/4" R x 108"

HANDRAIL DETAIL
 (2 REQ'D)



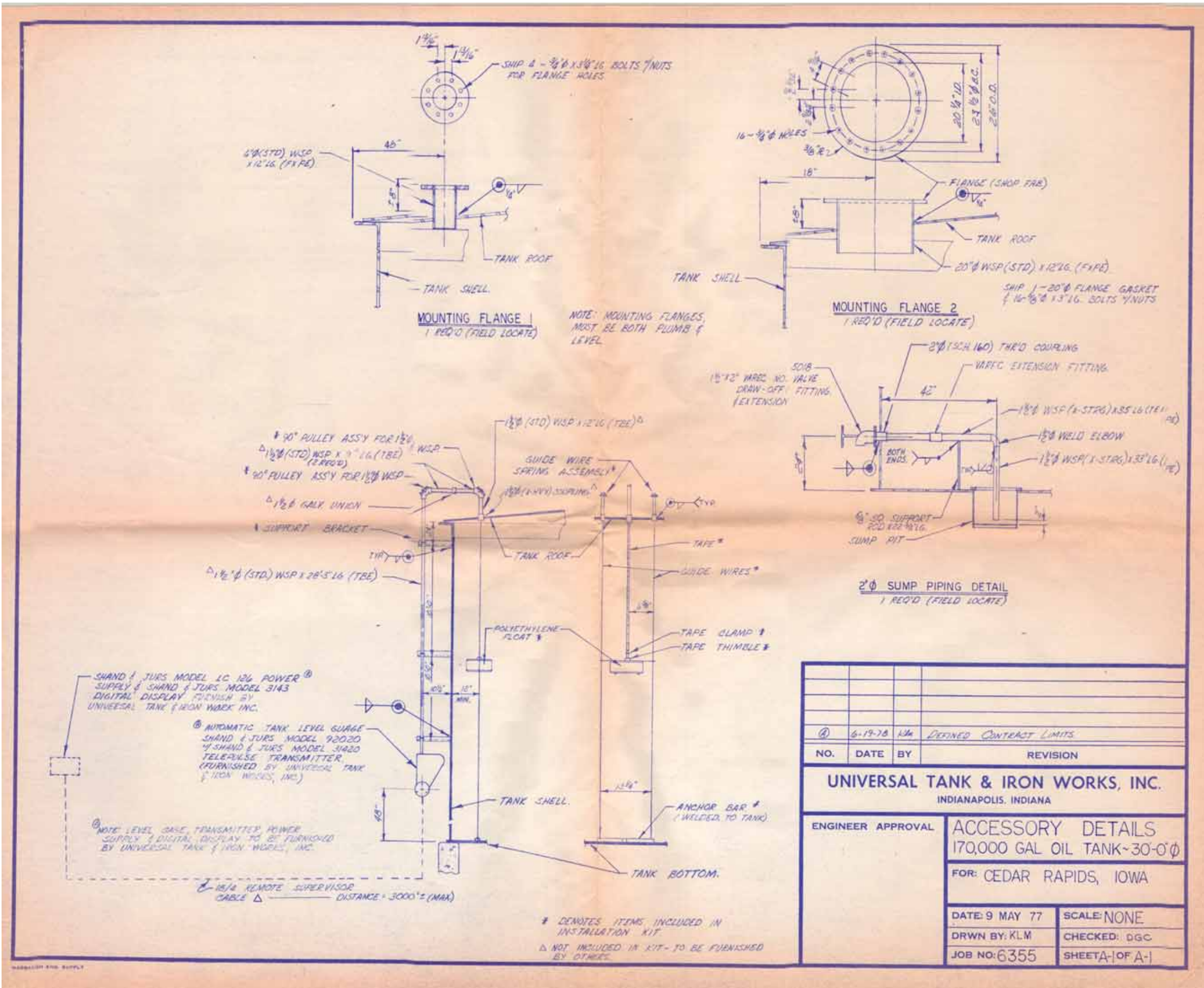
BALCONY & LADDER DETAIL

NOTE: FIELD CREW TO BEND TOP SAFETY
 CAGE HOOPS TO FIT HANDRAIL SPACING.
 TRIM EXCESS BAR.

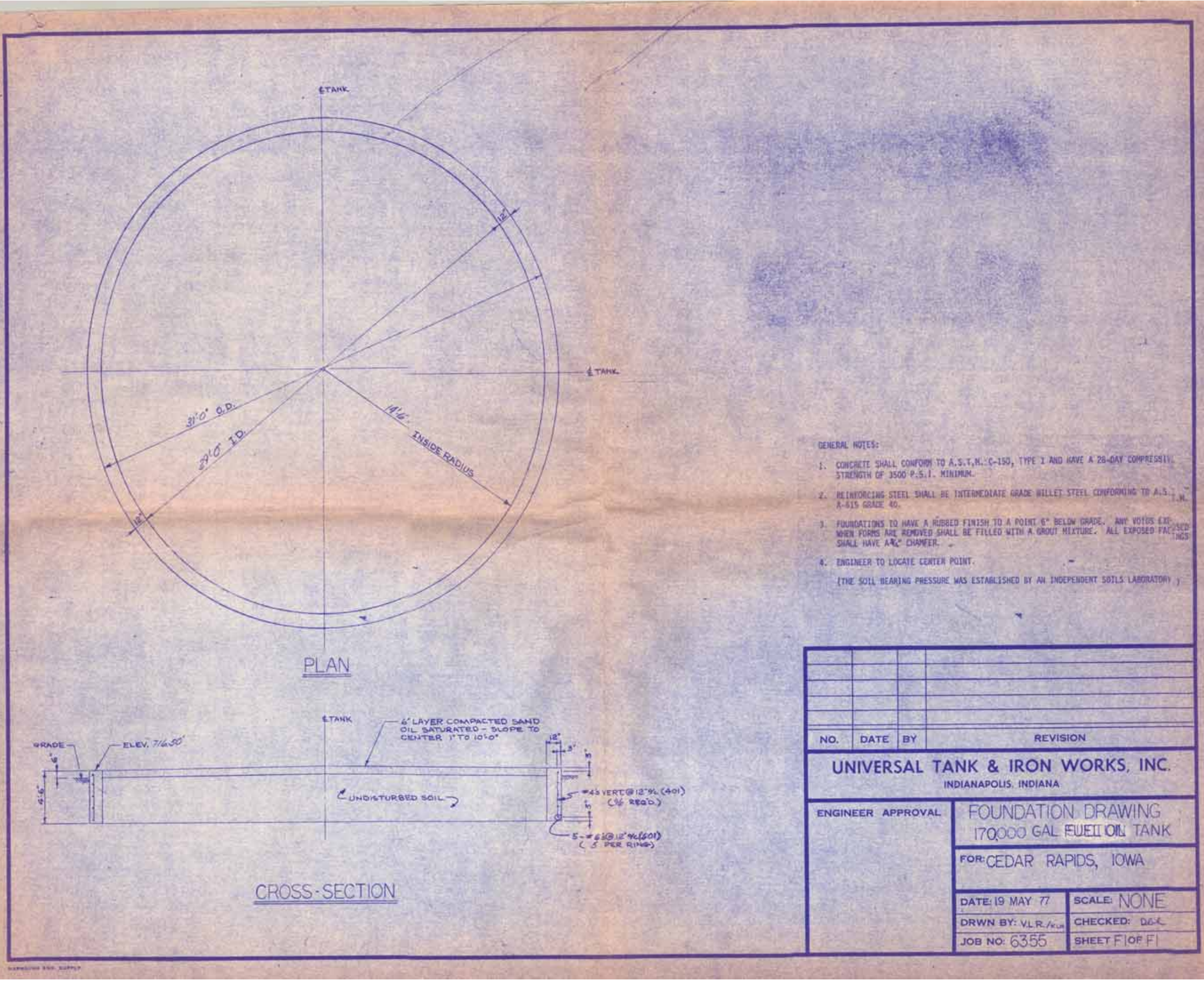
NO.	DATE	BY	REVISION
1	6-17-76	KLM	REVISED FOR SAFETY CAGE

UNIVERSAL TANK & IRON WORKS, INC.
 INDIANAPOLIS, INDIANA

ENGINEER APPROVAL	LADDER & HANDRAIL DETAILS 32'-0" HIGH FOST. 30'-0" DIA
	FOR: CEDAR RAPIDS, IOWA
DATE: 9-MAY-77	SCALE: NONE
DRWN BY: KLM	CHECKED: DGC
JOB NO: 6355	SHEET 4 OF 4



UNIVERSAL TANK & IRON WORKS, INC. INDIANAPOLIS, INDIANA			
ENGINEER APPROVAL		ACCESSORY DETAILS 170,000 GAL OIL TANK ~ 30'-0" φ	
FOR: CEDAR RAPIDS, IOWA			
DATE: 9 MAY 77		SCALE: NONE	
DRWN BY: KLM		CHECKED: DGC	
JOB NO: 6355		SHEET A-1 OF A-1	



- GENERAL NOTES:
1. CONCRETE SHALL CONFORM TO A.S.T.M. C-150, TYPE I AND HAVE A 28-DAY COMPRESSIVE STRENGTH OF 3500 P.S.I. MINIMUM.
 2. REINFORCING STEEL SHALL BE INTERMEDIATE GRADE WILLET STEEL CONFORMING TO A.S.T.M. A-615 GRADE 40.
 3. FOUNDATIONS TO HAVE A RUBBED FINISH TO A POINT 6" BELOW GRADE. ANY VOIDS EXPOSED WHEN FORMS ARE REMOVED SHALL BE FILLED WITH A GROUT MIXTURE. ALL EXPOSED FACED SURFACES SHALL HAVE A 1/4" CHAMFER.
 4. ENGINEER TO LOCATE CENTER POINT.
(THE SOIL BEARING PRESSURE WAS ESTABLISHED BY AN INDEPENDENT SOILS LABORATORY.)

NO.	DATE	BY	REVISION
UNIVERSAL TANK & IRON WORKS, INC. INDIANAPOLIS, INDIANA			
ENGINEER APPROVAL		FOUNDATION DRAWING 170,000 GAL FUEL OIL TANK FOR CEDAR RAPIDS, IOWA	
DATE: 19 MAY 77		SCALE: NONE	
DRWN BY: V.L.R./K.L.H.		CHECKED: D.G.C.	
JOB NO: 6355		SHEET F1 OF F1	

JOB NO. 6355

UNIVERSAL TANK & IRON WORKS, INC.
INDIANAPOLIS, INDIANA

JOB DESCRIPTION FOR FUEL OIL STORAGE TANK
FOR
CEDAR RAPIDS, IOWA

CAPACITY: 170,000 GALLONS
DIAMETER: 30'-0"
HEIGHT TO HIGH WATER LEVEL: 32'-0"

WELDED STEEL TANK
3"Ø FILL RISER
3"Ø OIL RETURN


2-4"Ø OIL SUPPLY CONN.
20 "Ø EMERGENCY RELIEF VENT
& MANHOLE COVER
24 "Ø SHELL MANWAY

DRAWING LIST

<u>JOB NO.</u>	<u>SHEET</u>	<u>DESCRIPTION</u>
6355	1 of 4	Erection Drawing
"	2 of 4	Roof Support System
"	3 of 4	Roof Bottom & Shell Layouts
"	4 of 4	Ladders & Handrail Details
"	A-1 of A-1	Accessory Details
"	F-1 of F-1	Foundation Drawing
"	SM-24	Shell Manway
"	SC-1	SAFETY CAGE DETAILS ^(R)
"	AP-1	API MANWAY ^(R)

TANK IN ACCORDANCE WITH SPECIFICATIONS AS PREPARED BY:

HOWARD R. GREEN COMPANY
417 FIRST ST. S.E.
CEDAR RAPIDS, IOWA 52401

API STD 650		YEAR	1977
NOMINAL DIAMETER	30'-0"	NOMINAL HEIGHT	32'-0"
NOMINAL CAPACITY	4,048.0	BARRELS (42 GAL)	
FABRICATED BY	U.T. & I.W.	CERTIFICATE OF AUTHORITY NO:	650
ERECTED BY	U.T. & I.W.	CERTIFICATE OF AUTHORITY NO	650

UNIVERSAL TANK & IRON WORKS INC
 ENNIS, TEXAS - INDIANAPOLIS, INDIANA

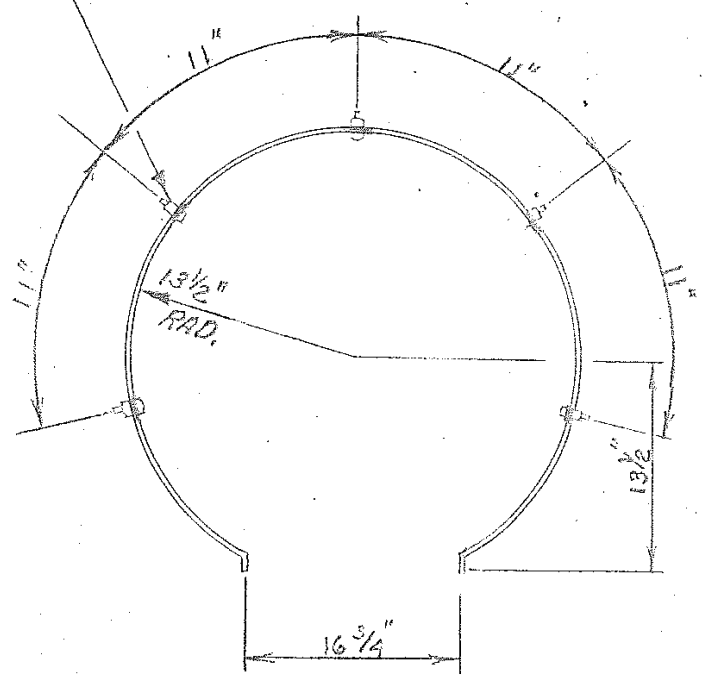
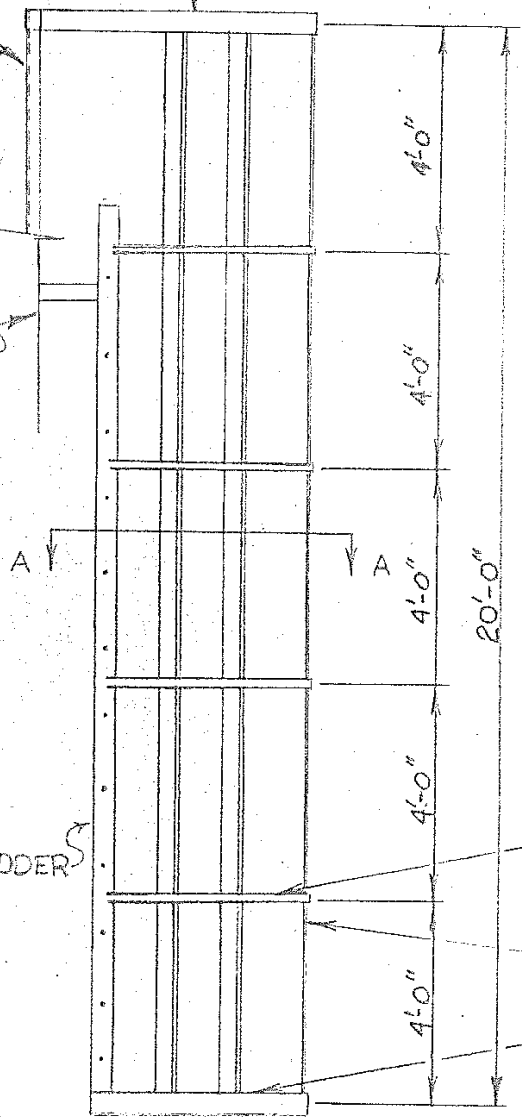
DRWN BY: KLM
 JOB NO: 6355
 SHEET: NP-1

ROOF HANDRAIL

4" X 1/4" X 94 3/4" LG. HOOP
(RIVETED IN HALF CIRCLE)

1/2" Ø x 1" LG. BOLT w/ NUT
30 REQ'D

TANK SHELL



SECTION A-A

1/2" X 1/4" X 70 3/4" LG HOOPS
(4 REQ'D)

1/2" X 1/4" X 20'-0" LG. STRIP
(5 REQ'D)

4" X 1/4" X 70 3/4" HOOP

STD. SAFETY CAGE SECTION (A)

(A) 6-19-76 KLM ADD THIS SHEET

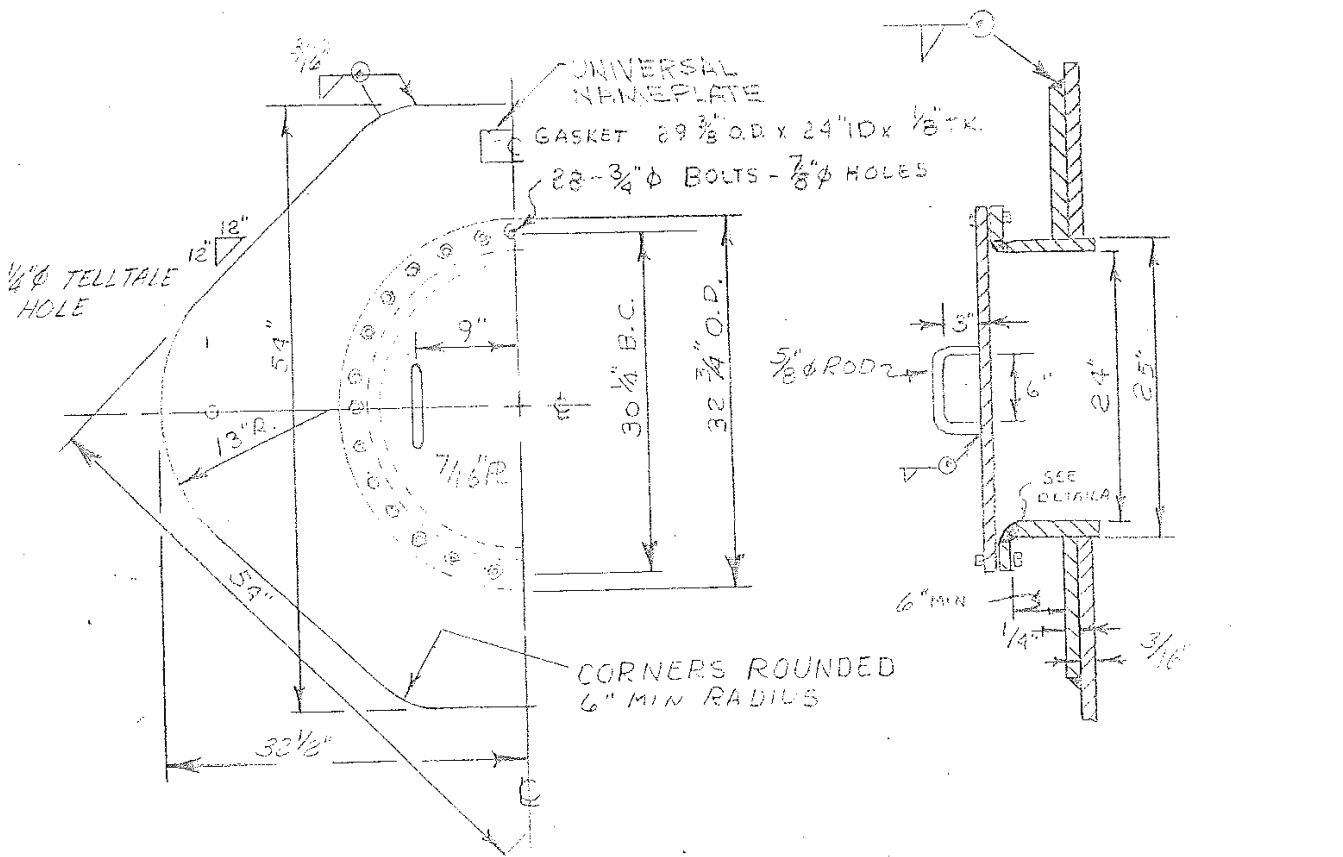
UNIVERSAL TANK & IRON WORKS

(1 ~ 20'-0" REQ'D)
(1 ~ 11" REQ'D)

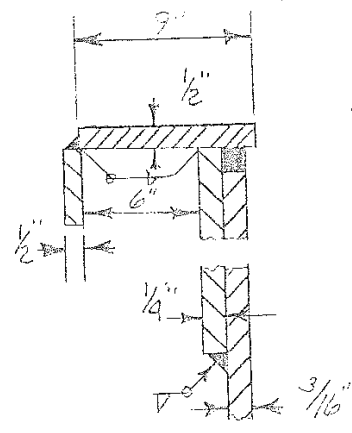
STD. DWS.

BY DC

SC-1



REINFORCING R 65" WIDE



DEVELOPED LENGTH
 76 19/16"

DETAIL A

SHIP 28 - 3/4" AS 16 BOLTS
 4" NUTS.

JOB # 6355

UNIVERSAL TANK & IRON WORKS,
 INC.

24" SHELL MANWAY
 SHEET 1 OF 1
 PM 24