

Design Assumptions for
Nebraska Base Drawing NE100-40-004
Concrete Base Metal Pipe Support for 30", 36", 42"
and 48" Diameter Barrels

Revised: 06/04 Replaces: 5001-12

Concrete Base Metal Pipe Support for 30", 36", 42" and 48" Diameter Barrels

Rust Preventative – the following types are considered equal to the specified type:

Zinc coated as per specification, or
Paint System C of paint specification.

Instructions for
Nebraska Base Drawing NE100-40-004
Concrete Base Metal Pipe Support for 30", 36", 42"
and 48" Diameter Barrels

Fill in the following data fields to automatically fill in the necessary data fields on the drawing.

Title block

Title line(s)

Subtitle line

County, State

Sheet number of

Who / When

Designed

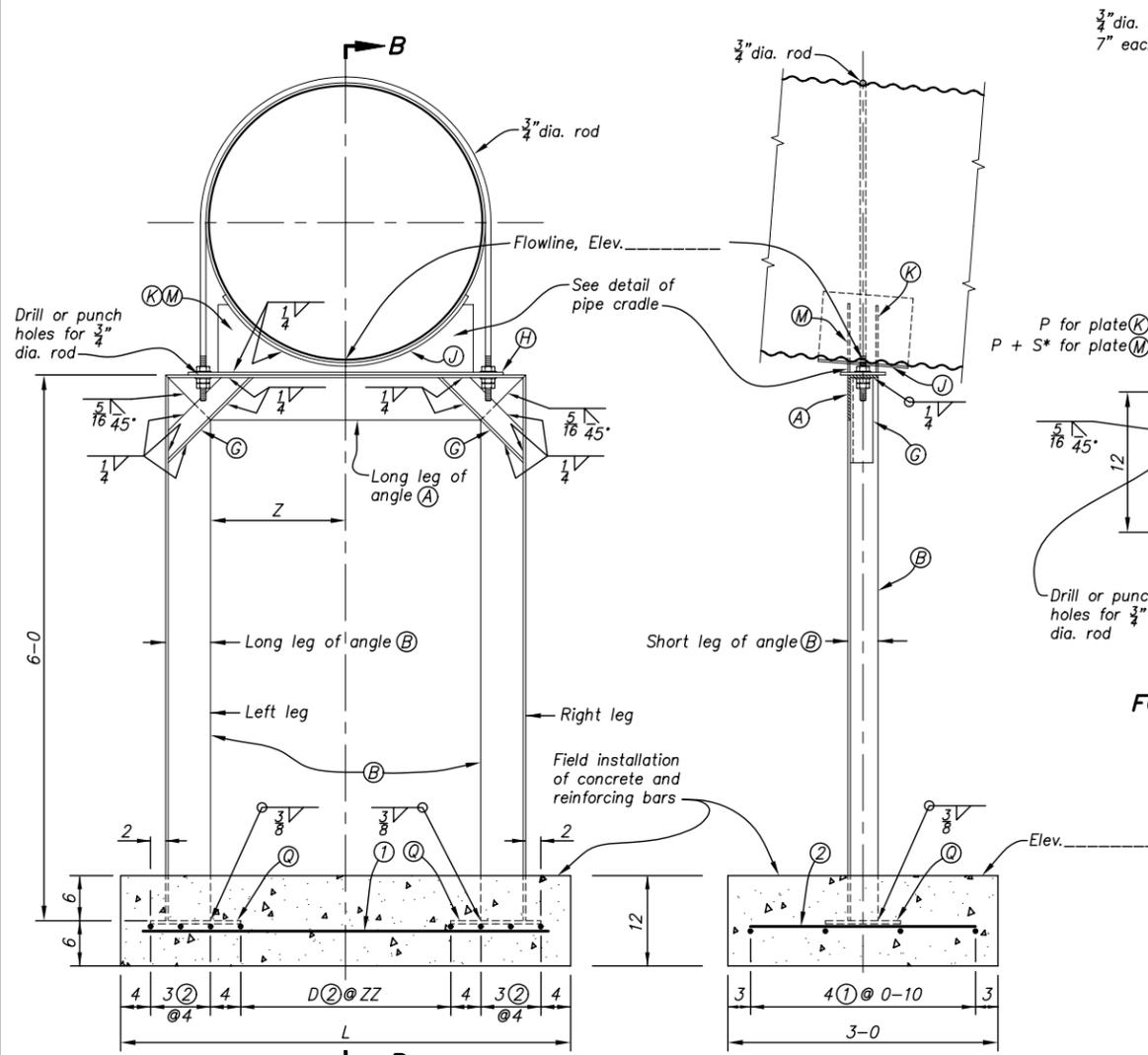
Drawn

Checked

Enter directly on drawing

Left click on yellow boxes on drawing to mark with X as required.

Left click blue data fields on drawing to enter required data.



FRONT ELEVATION
Looking Upstream
PIPE SUPPORT FOR 30" THRU 48" DIA. PIPE BARRELS
DETAIL R

TABLE OF QUANTITIES

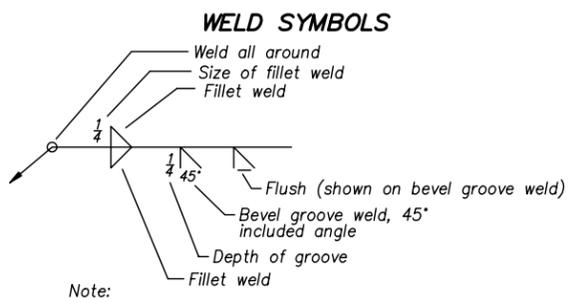
ITEM	UNIT (STEEL)	PIPE BARREL DIAMETER			
		30"	36"	42"	48"
STR. SHAPES	LBS.	253.5	271.8	296.6	373.0
**3/4" DIA. ROD	LBS.	11.6	13.9	15.8	17.7
TOTAL WEIGHT	LBS.	265.1	285.7	312.4	390.7

DIMENSIONS

DIM.	PIPE BARREL DIAMETER			
	30"	36"	42"	48"
L	4-6	5-0	5-6	6-0
P	0-7 1/2	0-9	0-10 1/2	0-12
R	1-3 7/8	1-6 7/8	1-9 7/8	2-0 7/8
T	1-4	1-7	1-10	2-1
Y	1-2	1-5	1-8	1-11
Z	1-3	1-6	1-9	1-11
ZZ	0-11	0-7	0-8 1/2	0-10

TABLE OF QUANTITIES FOR CONCRETE BASE

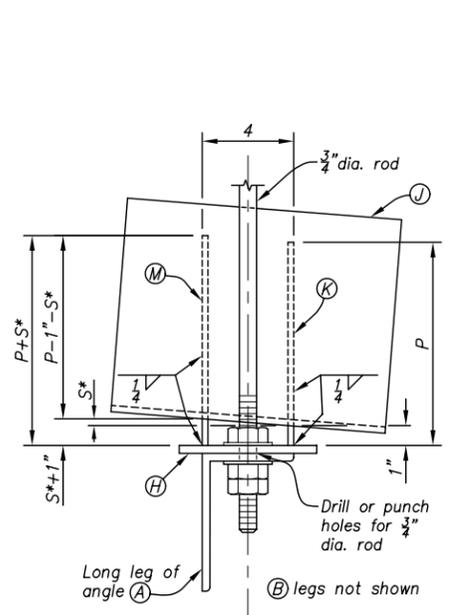
BARREL DIA.	MARK	NO. D BARS REQD.	TOTAL NO. 4 BARS REQD.	LENGTH	TOTAL LENGTH	LBS.	CONCRETE BASE		
							L	W	CU. YD.
30"	1	---	4	4-0	16-0	10.7	4-6	3-0	0.50
	2	3	9	2-6	22-6	15.0			
36"	1	---	4	4-6	18-0	12.0	5-0	3-0	0.55
	2	5	11	2-6	27-6	18.4			
42"	1	---	4	5-0	20-0	13.3	5-6	3-0	0.61
	2	5	11	2-6	27-6	18.4			
48"	1	---	4	5-6	22-0	14.7	6-0	3-0	0.67
	2	5	11	2-6	27-6	18.4			



DETAIL OF PIPE CRADLE FOR 30" THRU 48" DIA. PIPE

"S" DIM. TABLE

PIPE GRADE (%)	* S (INCHES)
0	0
1	1/32
2	1/16
3	3/32
4	1/8
5	5/32
6	3/16
7	7/32



DETAILED END ELEVATION OF PIPE CRADLE

MATERIAL LIST

MARK	DESCRIPTION	30" DIA. BARREL		36" DIA. BARREL		42" DIA. BARREL		48" DIA. BARREL	
		NO. REQD.	LENGTH						
A	6 x 4 x 5/16 ANGLE	1	3-6	1	4-0	1	4-6	---	---
A	7 x 4 x 3/8 ANGLE	---	---	---	---	---	---	1	5-0
B	6 x 4 x 5/16 ANGLE	2	6-0	2	6-0	2	6-0	---	---
B	7 x 4 x 3/8 ANGLE	---	---	---	---	---	---	2	6-0
G	3 x 3 x 1/4 ANGLE	2	1-5	2	1-5	2	1-5	2	1-5
H	6 x 1/4 PLATE	1	3-0	1	3-6	1	4-0	1	4-6
J	12 x 1/4 PLATE	1	2-6	1	3-0	1	3-6	1	4-0
K	1/4" PLATE PER DETAIL	1	---	1	---	1	---	1	---
M	1/4" PLATE PER DETAIL	1	---	1	---	1	---	1	---
**	3/4" DIA. ROD	1	7-9	1	9-3	1	10-6	1	11-9
Q	3/8" x 10" PLATE	2	12	2	12	---	---	---	---
Q	3/8" x 12" PLATE	---	---	---	---	2	12	2	12

** INCLUDING 6 NUTS AND 4 WASHERS. INCREASE LENGTH OF 3/4" DIA. ROD, AS REQUIRED, WHEN HELICAL PIPE IS USED.
3/4" DIA. ROD=1.5 LBS. PER FT.
NO. 4 REINFORCING BAR=1/2" DIA.=0.668 LBS. PER FT.
(ALUMINUM ALLOY=1/3 WEIGHT OF STEEL)

REQUIREMENT TABLE

<input checked="" type="checkbox"/> X In box indicates details which apply to structure
SUPPORT(S) REQUIRED _____
DETAIL R (BARREL DIA.) <input type="checkbox"/> 30" <input type="checkbox"/> 36" <input type="checkbox"/> 42" <input type="checkbox"/> 48"
TYPE METAL <input type="checkbox"/> STEEL <input type="checkbox"/> ALUMINUM ALLOY

- DESIGNERS NOTES:**
- When steel pipe is used, all major component parts shall be of steel. When aluminum alloy pipe is used, all major component parts shall be aluminum alloy.
 - Aluminum alloy will not be used in soils that have a pH greater than 9 or less than 4, or where rapid corrosion of similar metal is known to have occurred.
 - Steel rods, nuts and washers may be used with aluminum alloy only when properly insulated with two (2) thicknesses of 12 mil. (minimum) plastic tape.
- NOTES:**
- All rods, nut and washers to be galvanized.
 - All angles and sheets to be securely welded as shown on the drawings.
 - All welds and heat affected areas on galvanized metal to be treated in accordance with specifications.
 - When materials used are not galvanized, all parts shall be painted according to paint system "C" of paint specifications.
 - The R-1/4 (See detail of pipe cradle) must be adequate for the outside diameter of the pipe, which must include the thickness of the coating.
 - Increase the vertical dimensions of plate (M) by the dimension "S" to place the pipe cradle on the same grade as the outlet pipe (as shown on detailed end plan of pipe cradle). The value of "S" changes with pipe grade according to the X'd value marked in the "S" Dim. table.

Date _____

Designed _____

Drawn _____

Checked _____

Approved _____

File No. _____

CAD Dwg. NE100-40-004.dwg

Sheet _____ of _____

NRCS
Natural Resources Conservation Service

CONCRETE BASE METAL PIPE SUPPORT FOR 30", 36", 42" AND 48" DIAMETER BARRELS