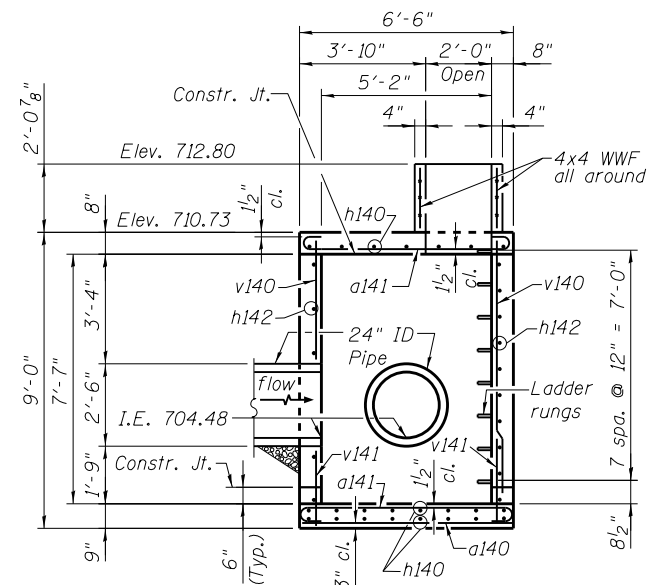


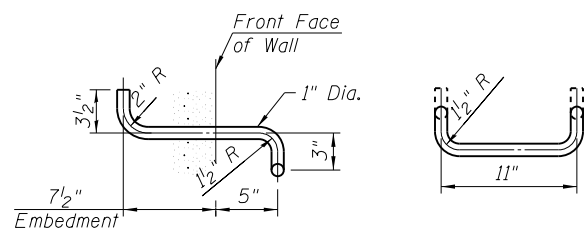
SECTION A-A

For bars around 24" pipe openings, see West elevation

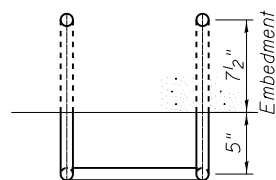


SECTION B-B

1. Additional bars around top opening not shown for clarity, see Top plan
2. Trim bars to fit opening around 24" ID pipe



SIDE VIEW FRONT VIEW
TYPE Z LADDER RUNG ELEVATIONS



TYPE Z LADDER RUNG PLAN

1. The ladder rungs shall be aluminum, conforming to ASTM B361-Alloy 6061-T6 or shall be ductile iron. Aluminum ladder rungs shall receive a heavy coat of bituminous paint or cold applied asphaltic mastic for the portion embedded in concrete. The coating must extend beyond the embedment at least two inches.
2. The contractor may submit an alternative ladder rung detail for Engineer's approval.

Note: All costs for compacted subbase or CLSM, ladder rungs and all other appurtenances required to complete this work shall be included in the item "Concrete Structures."

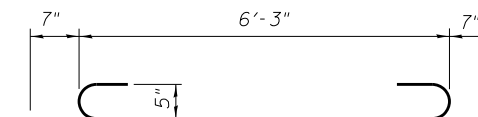
DESIGN STRESSES

$f_y = 60,000 \text{ psi}$
 $f'_c = 3,500 \text{ psi}$

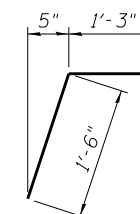
Notes:
Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a140	6	#5	6'-3"	—
a141	22	#5	7'-5"	U
h140	31	#5	9'-9"	—
h141	8	#5	2'-9"	—
h142	18	#5	9'-9"	—
v140	44	#5	7'-6"	—
v141	44	#5	2'-4"	—
Structure Excavation			Cu. Yd.	50
Concrete Structures			Cu. Yd.	8.4
Reinforcement Bars			Pound	1,190



BAR a141



BAR h141