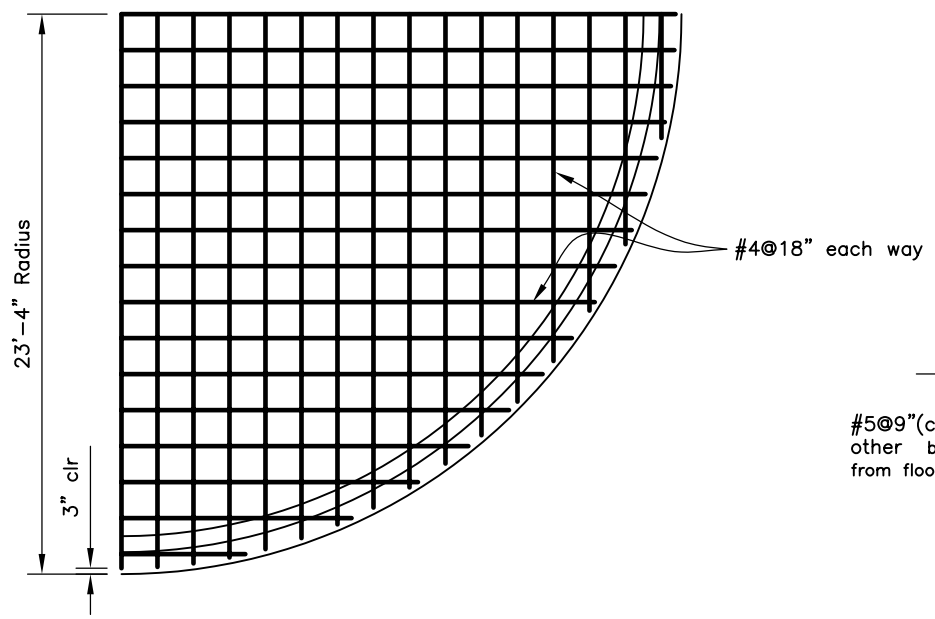
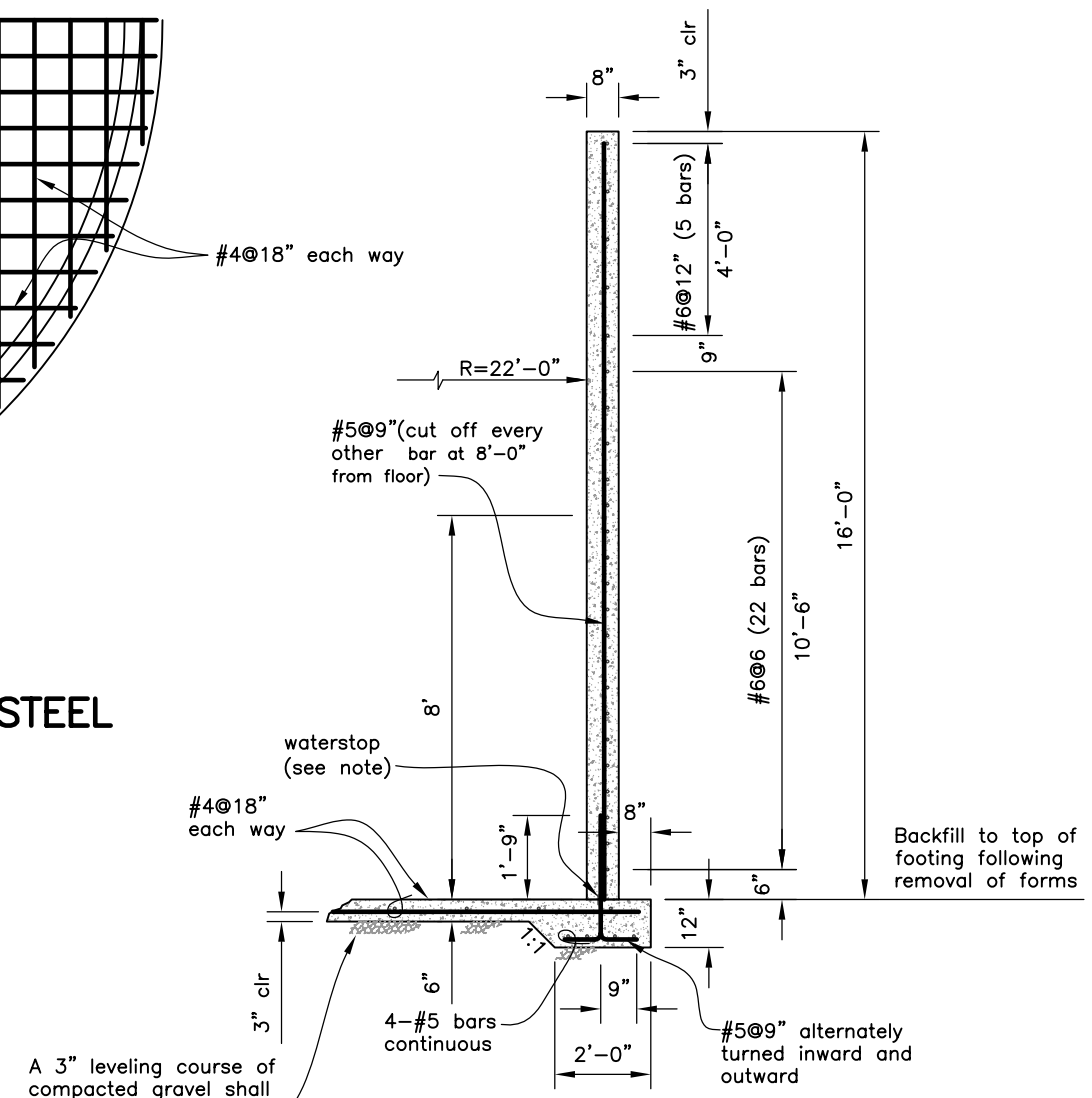


QUARTER PLAN OF FLOOR STEEL

0 8
Scale in feet



TYPICAL WALL SECTION

0 4
Scale in feet

UTILITY NOTE:

NRCS makes no representation as to the existence or non-existence of utilities. It is the responsibility of landowners or operators and contractors to comply with the provisions of ORS 757.541 to 757.571. Landowners or operators and contractors will be liable for any damage resulting from disruption of service caused by construction activities.

LANDOWNER ACKNOWLEDGMENT STATEMENT

I have reviewed the drawings and applicable specifications and understand their construction requirements.

Landowner/Operator _____ Date _____

LAP SPLICE LENGTHS

bar size	lap length
#4	17"
#5	22"
#6	34"

All laps in the horizontal wall steel shall be staggered at least one lap length.

ESTIMATED QUANTITIES

Concrete (to neat lines)	
Item	Volume (cy)
Floor & Footing	37.5
Walls	55.4
Total	92.9

Steel Reinforcement (including splices)		
Bar No.	Length (ft)	Weight (lbs)
4	2,454	1,640
5	3,463	3,612
6	4,487	6,739

CONCRETE SPECIFICATIONS

1. The concrete shall have a minimum compressive strength at 28 days of 3000 psi. Minimum cement content shall be 6 bags/cy and maximum net water content shall be 5.2 gal/bag. The slump shall be 2 to 4 inches and the air content shall be 5 to 8% of the volume of concrete.
2. Forms shall be mortar tight, substantial and unyielding and shall be constructed so that the finished concrete will conform to the specified dimensions. Metal ties within the forms shall be equipped with a device that permits their removal to a depth of at least 1 inch without injury to the concrete.
3. The concrete shall be deposited as closely as possible to its final position in the forms and around all reinforcement. Immediately after placement the concrete shall be consolidated by vibrating.
4. Waterstops shall be held firmly in correct position as the concrete is placed.
5. Unless otherwise shown, the concrete cover over reinforcement shall be 3" for concrete cast against earth or gravel and 2" for concrete cast against forms.
6. Adjustments to the reinforcing steel around embedded fittings shall be approved in advance by the Engineer.
7. Forms shall not be removed before 24 hours after placement of concrete.
8. Holes produced by the removal of form ties, cone bolts, etc., shall be cleaned, wetted, and filled with dry pack mortar.
9. Construction joints shall be left rough and shall be thoroughly cleaned and wetted prior to placing the subsequent lift of concrete. Construction joints shall be moist cured without curing compound, or curing compound shall be removed by sand blasting or high pressure washing.
10. Concrete shall be prevented from drying for a curing period of at least 7 days after it is placed. The slab and footings shall be kept continuously moist for the entire period or until curing compound is applied. Moisture shall be maintained by sprinkling, flooding, covering with plastic sheeting, continuously moistened canvas, cloth mats, straw, or other approved material. The walls shall be thoroughly wetted immediately after forms are removed and shall be kept wet until patching and repairs are made. After patching and repairs are made, curing compound may be applied in lieu of wetting. Curing compound shall meet the requirements of ASTM C 309, Type 2.
11. Concrete shall not be dropped more than 5 feet vertically unless suitable equipment is used to prevent segregation.
12. Concrete shall be protected from freezing for the first 72 hours after placement.

DESIGN AND CONSTRUCTION NOTES

1. Waterstops shall be a non-metallic waterstop of vinyl chloride polymer or copolymer 5" wide, 3/16-inch thick, double-bulbed shaped, or similar. If wall is poured in more than one lift, a waterstop shall be used at each construction joint.
2. Foundation is to be field investigated to determine adequacy to support structure. Footing bearing pressure used in design is 1300 psf.
3. Reinforcing steel shall meet the requirements of ASTM A 615, Grade 60. The vertical reinforcing steel in the wall shall be centered in the section.
4. The structure is designed for an internal hydrostatic load of 65 psf/ft of depth and an external wind load (net) of 10 psf.
5. Warning signs, ladders, ropes, bars, rails, and other devices shall be provided as appropriate to insure the safety of people operating pumping equipment, etc.
6. Frost heave potential should be considered on a site-by-site basis. Additional free-draining rock or other protection methods should be provided as needed.
7. If backfill is to be placed against this structure, it shall be done in accordance with Oregon Backfill Detail Drawing (filename: or_awm_above_circular_backfill.dwg).
8. Design folder is available at: USDA – NRCS
   1201 NE Lloyd Blvd., Suite 900
   Portland, Oregon 97232
   Attn: State Conservation Engineer

STANDARDIZED DESIGNS
Must Be Adapted To The Specific Site

Practice Code _____ Job Class _____

		Date
Designed	Ben Doerge	11/98
Drawn	LLK / KLY	1/99
Checked	Ben Doerge	9/2000
Approved	Dave Dishman	9/2000
Title	State Conservation Engineer	

WASTE STORAGE TANK
ABOVE GROUND CIRCULAR CONCRETE
16' HIGH X 44' DIA. - 24,328 Cu Ft.

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

File Name
or_awm_above_16h44dia.dwg
Drawing No.

Sheet 1 of 1

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