

NATURAL RESOURCES CONSERVATION SERVICE

CONSTRUCTION SPECIFICATION

634C – MANURE TRANSFER – PRE-FABRICATED TANKS

1. SCOPE

This work shall consist of furnishing materials and installing the components of the manure transfer system as shown on the drawings or as specified in Section 9.

Prior to commencing construction, public utilities shall be notified in accordance with N.Y.S. Industrial Code 753.

2. MATERIALS

The materials and equipment required for the manure transfer system shall be as shown on the drawings or as specified in Section 9 and shall meet the following requirements.

Septic Tanks

All septic tanks shall meet the quality requirements of the latest version of the N.Y.S. Health Department Code, found in Appendix 75-A, Wastewater Treatment Standards-Individual Household Systems, of the Administrative Rules and Regulations contained in Chapter 11 of Title 10 (Health) of the Official Compilation of Codes, Rules, and Regulations of the State of New York. Tanks shall be watertight and constructed of durable material. At least one access manhole shall be provided. If the tank is multi-compartment, an access manhole into each compartment is required.

Concrete for tanks shall have a minimum compressive strength of 3000 psi. Tanks shall be designed to support a load of 300 psf.

Fiberglass or polyethylene tanks may not be used unless shown on the drawings.

Pre-cast Concrete Structure

Other pre-fabricated tanks shall meet the following quality requirements as appropriate:

ASTM C-913	Pre-cast Concrete Water and Wastewater Structures
ASTM C-478	Pre-cast Reinforced Concrete Manhole Section
ASTM C-789	Pre-cast Reinforced Concrete Box Sections for Culverts, Storm Drains, and Sewers with less than 2 feet of Cover Subjected to Highway Loading
ASTM C-850	Pre-cast reinforced Concrete Box Sections For Culverts, Storm Drains and Sewers

3. EXCAVATION

All trench excavations over 5 feet shall be sloped or shored in accordance with OSHA part 1926 and N.Y.S. Industrial Code 23. When bracing or other supporting is required, the width of the excavation shall be adjusted to allow space for the shoring. The contractor shall furnish, place and subsequently remove such supporting installations as necessary to safeguard work and workers.

All excavations for the tank(s) shall be constructed to the widths, depths, lines, grades, elevations and cross sections as shown on the drawings.

#### 4. FOUNDATION PREPARATION

All tanks shall be set on non-yielding undisturbed soil or compacted material overlain with a minimum of 4 inches of sand or pea gravel.

In the event unexpected water is encountered during foundation preparation and tank installation, a suitable drainage system (temporary or permanent) shall be installed as directed or approved by the project designer or designated representative, in order to prevent flotation during construction.

#### 5. SAFETY

Equipment of the proper size, type and strength shall be used to place the specified tank. This shall include chains, cables and wire.

Personnel shall not be in the excavation when tank is being placed.

#### 6. PLACEMENT

The tank shall be placed using manufacturer's recommended procedures and shall be located at the lines, grades and elevations shown on the drawings.

Connections between tank and pipelines, riser sections, and conduits shall be watertight. Individual tank sections shall be watertight.

All tanks shall be designed to withstand flotation. This can be accomplished by locating the tank above the seasonal high water table, adding a drainage system, adding weight to the tank, or by adding soil cover.

#### 7. BACKFILLING

Prior to backfilling, the tank installation shall be inspected and approved for line, grade, depth, bedding, and placement by the approving official or designated representative. The backfill material shall be as shown on the drawings or as specified in Section 9. Backfill material shall contain no frozen soil, brush, roots, debris or other objectionable material.

Heavy equipment will not be allowed within 2 feet of the tank.

Backfill material shall be placed in uniform layers of not more than 8 inches deep prior to compaction. Compaction of each layer of backfill shall be by 2 passes over the entire surface layer with a vibratory plate, manually directed power compactor or by an approved equivalent method.

8. MEASUREMENT AND PAYMENT

For items of work for which specific lump sum prices are established in the contract, the quantity of pre-fabricated tanks will not be measured. Payment for the pre-fabricated tanks will be made at the contract lump sum price. Such payment will constitute full compensation for all labor, materials, equipment, tools, and other appurtenances necessary and incidental to the completion of the work, including supplying, installing, and backfilling any associated structures.

Compensation for any item of work described in the contract but not listed in the bid schedule will be included in the payment for the item of work to which it is made subsidiary. Such items and the items to which they are made subsidiary are identified in Section 9.

9. ITEMS OF WORK AND ADDITIONAL CONDITIONS: