

NATURAL RESOURCES CONSERVATION SERVICE

CONSTRUCTION SPECIFICATION

574 - SPRING DEVELOPMENT

1. SCOPE

This work shall consist of furnishing materials, fabricating structures, excavating, trenching, backfilling, and installing the spring development system. This work may include but is not limited to the collection system, water storage facility, pipeline conveyance system, watering tank or structure, drainage system, and other related appurtenances. including final site grading and cleanup. These items shall be installed as shown on the drawings and as specified herein.

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

2. MATERIALS

The materials required for the spring development system shall be as shown on the drawings or as specified in Section 8. The materials specified shall meet the quality requirements as specified on the drawings or according to the latest revision of the ASTM specification.

3. SAFETY

The contractor shall abide by all local, state and federal rules or regulations that apply to construction of this practice.

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.

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.

4. COLLECTION SYSTEM

Collection trenches, perforated pipelines, sumps, spring boxes, and crushed stone or clean gravel shall be constructed to the lines, grades, and elevations as shown on the drawings. Excess soil from excavations for the collection trenches and spring box or storage tanks as well as all loose rock, sediment, and organic materials shall be removed and disposed of by placing and grading soil so that the spring development will not be endangered by its disposal. The perforated pipeline, spring box or storage tank, crushed stone or clean gravel, or other collection appurtenances for the collection system shall meet the requirements as shown on the drawings or as specified in Section 8.

5. PIPELINE

The trenches for pipeline placement shall be excavated to the lines, grades and elevations as shown on the drawings. The trench width shall be the width necessary to safely and properly place the pipeline and associated appurtenances unless a trench width is shown on the drawings as minimum. Soil from the trench excavation shall be used for backfilling the trench as needed with excess being spread next to the trench unless otherwise shown on the drawings or as specified in Section 8.

The pipeline for water distribution from the spring box or water storage tank to the watering device shall be the size, type, and grade as shown on the drawings or as specified in Section 8. All pipe joint connections shall be watertight. All joints and connections with the spring box or water storage tank or the watering device shall also be watertight. The pipeline shall be tested for 15 minutes at the working pressure prior to backfilling the pipeline trench.

When plastic pipe is used for the pipeline and no pipe bedding is specified, the pipe shall not be placed on sharp exposed rock or stone edges in the trench. Initial backfill shall be with selected site material free of rocks or other sharp edged material that would damage the pipe. If the pipe is placed with at least 3 inches of bedding material under and over the pipe, then backfilling can be accomplished without initial backfill operations first. If bedding material is required it shall be as shown on the drawings or as specified in Section 8.

After pipe placement and initial backfilling, final backfilling can be performed being careful not to displace or damage the pipe with large rocks or foreign objects.

Backfill of the pipeline trench shall extend at least 6 inches above the finished ground surface and shall be well rounded over the trench, unless the backfill has been compacted in layers during the backfill operations.

Where pipe trenches cross roads, barnyards, or at other designated locations on the drawings, the blinding and backfill shall be placed in successive layers. The maximum lift thickness and compaction method shall be as specified in Section 8, or as shown on the drawings.

6. WATERING DEVICES

The contractor shall furnish and install the watering devices at the location shown on the drawings. The area where the watering device is to be placed shall be cleared, grubbed and graded to the elevation, width and length shown. A sub-base material, when specified, shall be placed prior to placing the watering device. The sub-base material shall meet the requirements as shown on the drawings or as specified in Section 8. The sub-base material shall be installed to the thickness and extent as shown on the drawings. When a drainage system for the watering device is required it shall be as shown on the drawings or as specified in Section 8.

If the watering device is a frost free hydrant, the backfill around the hydrant shall be placed in successive layers and hand compacted.

7. MEASUREMENT AND PAYMENT

Payment for the spring development 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.

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 8.

8. ITEMS OF WORK AND ADDITIONAL CONDITIONS: