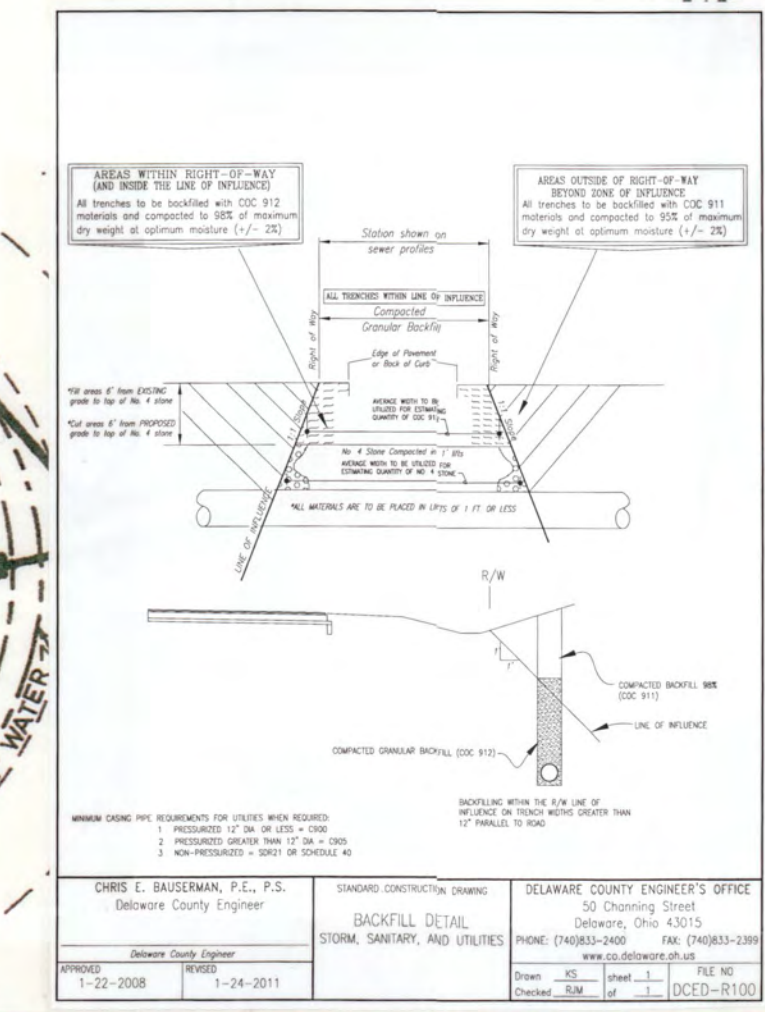
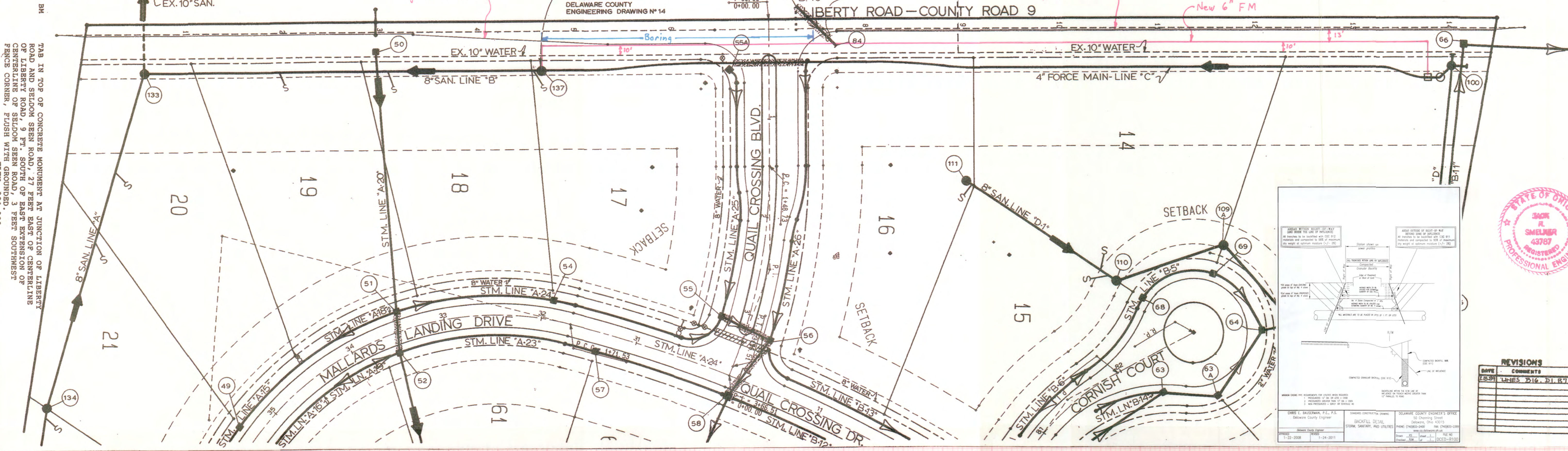


Scale: 1" = 5' (VERT.)
1" = 50' (HORIZ.)



DATE	REVISIONS
11-25-2008	1.00
01-24-2011	1.01

DATE	BY	NO.

DATE	BY	NO.

Polyethylene (PE) Plastic Pipe: PE plastic material shall conform to the latest ASTM Specifications D1248, with the following classification:
Type: III
Class: C-30 N.M. or less in average particle size
Category: S
Grade: F34
Identification: D1248-III-C3-F34

PE plastic pipe shall be manufactured from the material specified, and shall meet the following design criteria as determined by the latest ASTM Specification D2657.

The Hydraulic Design Basis shall be not less than 1.429 psi.

A manufacturer's certificate that the material was manufactured and tested in accordance with the appropriate ASTM Specification shall be furnished to the ENGINEER prior to installation of the pipe.

The ENGINEER will inspect all pipes or his authorized representative immediately prior to installation and all rejected or damaged pieces must be completely removed from the project. Pipe acceptable to the ENGINEER shall be substituted for rejected or damaged pieces at the CONTRACTOR'S expense.

Pipe Joints: PE pipe joints shall be thermally joined in accordance with the latest ASTM Specification D2657, except when connecting to pipe of a different material where the joints shall be flanged. Flanged joints shall consist of a ductile iron slip on flange, designed to fit behind a thermally joined PE end. Flanges shall be drilled in accordance with the standard 125-pound template shown in the latest ANSI Specification B16.1. Bolts and nuts shall be cadmium plated.

PVC PIPE: PVC pipe material shall conform to the latest ASTM Specification D-1784. The pipe shall conform to AWWA C900 or AWWA C905 for standard dimension ratios and shall be a minimum DR 21.

A manufacturer's certificate that the material was manufactured and tested in accordance with the appropriate AWWA Specification shall be furnished to the ENGINEER prior to installation of the pipe.

All pipes will be inspected by the ENGINEER or his authorized representative immediately prior to installation and all rejected or damaged pieces must be completely removed from the project. Pipe acceptable to the ENGINEER shall be substituted for rejected or damaged pieces at the CONTRACTOR'S expense.

PIPE JOINTS: Joints shall be bell and spigot types with a rubber-sealing ring except when connecting to pipe of a different material where joints shall be flanged or mechanical joints.

FITTINGS PIPES AND LARGER: All fittings (tees, bends, etc.) shall be mechanical joint cast iron with a rubber gasket for steel and PVC pipe. Fittings for all pipe sizes shall be suitable for a working pressure of 250 psi. Fittings shall be coated and lined as specified for cast iron pipe.

PIPES UNDER 3": All fittings (tees, bend, etc.) shall be Socket-Type Poly (Vinyl Chloride) (PVC) plastic pipefitting, Schedule 40, meeting ASTM D2467.

Hydraulic Tests: After the pipe has been laid and back filled, all newly laid pipe, or any valve section thereof, shall be subjected to a hydrostatic pressure and leakage test.

Each valve section of pipe shall be slowly filled with water and the specified test pressure shall be applied by means of a pump connected to the pipe in a manner satisfactory to the ENGINEER. The CONTRACTOR shall furnish the pump, pipe connections, and all other necessary apparatus and assistance to conduct the test. Gages for the test shall be furnished by the CONTRACTOR or by the OWNER, at the OWNER'S expense. The pipe shall be tested in maximum lengths of 5,000 feet.

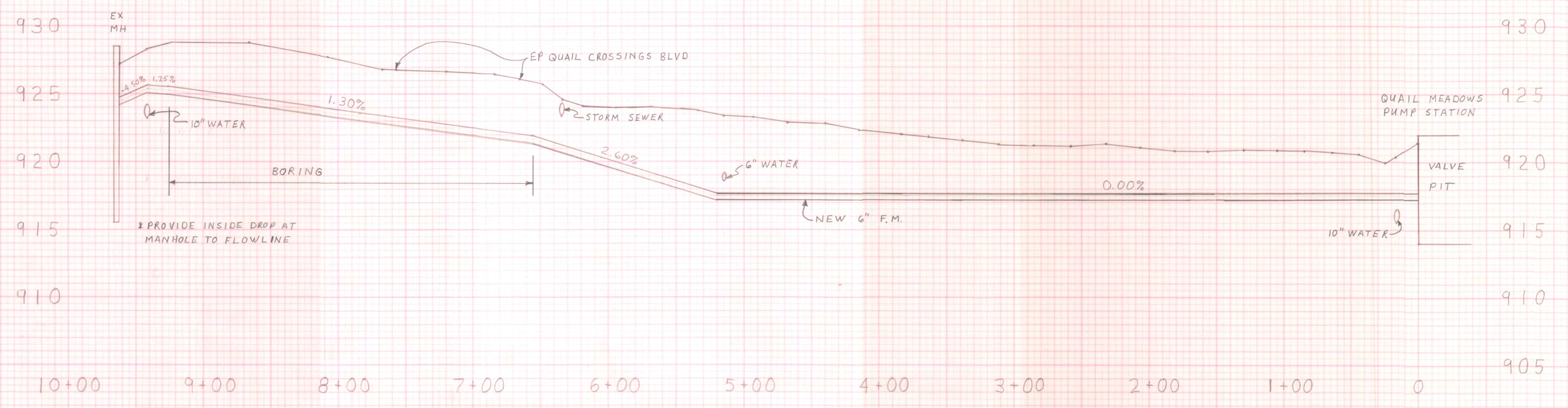
Before applying the specified test pressure, all air shall be expelled from the pipe. The duration of test pressure and leakage test shall be two hours. During the test, the main shall be subjected to a hydrostatic pressure of 150 lbs. per square inch at the lowest elevation.

Leakage is defined as the quantity of water to be supplied into the newly laid pipe, or any valve section thereof, necessary to maintain the specified leakage test pressure after the pipe has been filled with water and the air expelled.

No pipe installation will be accepted until the leakage is not in excess of 20 gallons per inch diameter per mile of pipe per 24 hours. Should any test of pipe laid disclose leakage greater than that specified, the CONTRACTOR shall at his own expense locate and repair the defective joints, pipes, fittings, or the like until the leakage is within the specified allowance, and the line again tested until proven satisfactory to the ENGINEER.

* Roof drains, foundation drains, and other clean water connections to the sanitary sewer system are prohibited

ADDRESS: QUAIL MEADOWS PS
8431 LIBERTY ROAD NORTH
POWELL, OHIO 43065



QUAIL MEADOWS FORCE MAIN REPLACEMENT

Liberty Township, Delaware County, Ohio
Designed By: Delaware County Sanitary Engineer
50 Channing Street
Delaware, Ohio 43015

QUAIL MEADOWS-SANITARY PLAN & PROFILE (LINES; 'B' & 'C')