

CHAPTER 1

PLANNING THE WORK

Scope of Work

The scope of work required for sewer projects is clearly stated in the plans and specifications. Construction Inspectors of a project must interpret these plans and specifications to ensure quality construction, in full compliance with the original designs.

Construction Inspectors verify both workmanship and materials. They must be trained in proper installation techniques for VCP and adhere to project specifications to see that they are fulfilled in every detail. A copy of the plans and specifications must be available at all times.

Each of the following steps in construction must be carefully supervised and inspected and all safety regulations enforced.

- Planning the work
- Pipe specifications & inspection of all construction materials
- Excavation of the trench
- Installation of sheeting or shoring
- Foundation preparation
- Bedding placement under the pipe barrel
- Installation of the pipe
 - Compression joint assembly
 - Haunching
- Installation of sewer connections (lateral connections)
- Initial backfill
- Final backfill of the trench
- Inspection and testing before acceptance

Job Records

A field book or project management program is used to record all important events during each day's construction. These notes provide an accurate record of the project. Typical notations in the field book include, but are not limited to:



Figure 1: Lowering VCP Jacking pipe into the pit

- Weather conditions
- Equipment used each day and number of people employed
- Time of delivery, quantities, dimensions of items such as sewer pipe, manholes, sand, gravel and crushed rock and other delivery inspection notes
- Time and place of encountered unmarked utility lines or other unexpected obstacles
- Trench width, (from dirt to dirt) measured at the top of the pipe
- Conditions of trench, such as dry, wet, flooded, running sand, gravel or crushed rock
- Location of rock and its volume, especially when its excavation is to be paid for as a separate bid item
- Type of sheeting or shoring used and whether or not it is left in place
- Condition of the trench bottom and its suitability as a firm and unyielding foundation to support the pipe, bedding and backfill
- Haunching method utilized during bedding installation
- Type of equipment and method used to achieve specified compaction of backfill
- Location of connections (These locations should be transferred to “as-built” drawings for future reference)
- Any changes to alignment or pipe size should be documented and recorded in the “as-built” drawings

- Location and description of pipe cradles, pipe encasement and other special work
- Accidents and other unusual events
- Results of test(s) as required by the specifications - Set-up notes, dates, times and witnesses of each acceptance test
- Quantity of work completed each day
- Site visits by suppliers or owners

Working Relationships

Cooperation among the owner, the contractor, the crew, the inspector, the engineer and the material supplier is critical to the success of any project.

If adverse construction conditions are encountered or major deviations from plans and specifications are required, the engineer must be consulted and his recommendations followed. All such changes should be documented and communicated to the team.

NCPI offers training for your construction and inspection team to ensure the success of your project. Contact NCPI or your local manufacturer to schedule training before your project breaks ground.



Figure 2: *Inspectors are a vital link between specification and construction.*