

SECTION 01430

**CONSTRUCTION REVIEW AND
ACCEPTANCE PROCESS
SANITARY SYSTEMS**

PART I GENERAL

1.01 PRECONSTRUCTION MEETING

- A. Sequence
 - 1. Prior to Shop Drawings
- B. Prerequisites
 - 1. Final Plan Approval
 - 2. Executed Sewer Service Agreement and Escrow established
 - 3. Linens signed
- C. Notification
 - 1. Authority Engineer notifies all parties.
- D. Participants
 - 1. Authority Staff
 - 2. Authority Engineer
 - 3. Developer
 - 5. Developer's Engineer
 - 6. Contractor(s)
 - 7. Others as required
- E. Distribution of stamped plans - three (3) sets to Authority.

1.02 CONSTRUCTION REVIEW

- A. Sequence
 - 1. Throughout Construction

B. Prerequisite

1. Shop Drawing Approval

C. Notification

1. Notify the following 24 hours in advance (minimum) before commencing construction.
 - a. Notify Authority Engineer as required.
 - b. Notify Authority Manager before connecting to any existing facilities so that a mechanical plug can be installed by Contractor under Authority supervision. Storm water/infiltration or other fluids will not be permitted to enter the sanitary sewer system during or after construction. The plug can only be removed by Contractor in the presence of Authority personnel, and then only after final inspection and approval.

D. Process

1. Engineer shall make visits to the site at intervals appropriate to the various states of construction to observe as an experienced and qualified design professional, the progress and quality of the executed work of Contractor(s) and to determine in general if such work is proceeding in accordance with the approved plans and Authority Standards. Engineer shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of such work. Engineer shall not be responsible for the means, methods, techniques, sequences or procedures of construction selected by contractor(s) or the safety precautions and programs incident to the work of Contractor(s). Engineer's efforts will be directed toward providing a greater degree of confidence for Authority that the completed work of Contractor(s) will conform to the approved plans and Authority standards, but Engineer shall not be responsible for the failure of Contractor(s) to perform the construction work in accordance with the approved plans and Authority standards.
2. During such visits and on the basis of his on-site observations, Engineer shall keep Authority informed of the progress of the work, shall endeavor to guard Authority against defects and deficiencies in Contractor(s)' work and may disapprove or reject work failing to conform to the approved plans and Authority standards.
3. Engineer will submit one copy of all site visit reports to the Authority weekly.
4. Authority may elect to inspect in conjunction with Engineer and advise Engineer of any deficiencies. Authority inspectors shall not make or approve field changes, but rather act in an advisory capacity to Engineer who shall have final say in all such matters.

1.03 TESTING

A. Sequence

1. Follow base paving.

B. Prerequisite

1. All laterals to be installed.
2. Road paving (minimum base only) must be installed for final manhole testing.
3. Testing prior to minimum base paving is at the option of and convenience of Developer/Contractor, **however final testing will take place after paving.**

C. Notification

1. Notify Authority Engineer 24 hours in advance.
2. Engineer will notify Authority Manager.

D. Process

1. Sanitary sewers shall be plugged, and each section tested in accordance with Section 01440, Part 3.03. All laterals must be connected and capped. If leakage is greater than acceptance criteria, repairs must be done, then a retest of the section be performed.
2. Manholes shall be plugged then tested in accordance with Section 01440, Part 3.01. If leakage is greater than acceptance criteria, repairs must be done, then a rest of the manhole be performed.
3. Force mains shall be pressure tested with water in accordance with Section 01440, Part 3.02. If leakage is greater than acceptance criteria, repairs must be done, then a rest of the manhole be performed.
4. Deflection test of PVC pipe shall be performed with a mandrel in accordance with Section 01440, Part 3.04. If a section is found to have excessive deflection the pipe shall be replaced.
5. A punch list will be developed following the testing. The punch list will be prepared by Authority Engineer and submitted to Authority for their concurrence.

1.04 APPROVAL FOR USE

A. Sequence

1. After testing.
2. Following preparation and completion of punch list.

B. Prerequisite

1. Successful testing of all gravity, pressure lines and manholes.
2. All downstream sewer lines, pumps and other facilities needed to provide service have been approved by Authority.

C. Notification

1. Developer notifies Authority Engineer 14 days prior to request for occupancy permit.
2. Authority Engineer will notify Authority Manager.
3. Authority Engineer will issue recommendation to Authority for acceptance by Authority following successful inspection and completion of punch list items.
4. Authority will issue final acceptance letter.

D. Process

1. Cleaning, Flushing and Patching

- a. After testing and before final inspection all sanitary manholes and sewers shall be cleaned of all debris, grit, and dirt.
- b. All manholes shall be patched so that the inverts are smooth and continuous without holes, gaps or protrusions that could accumulate organics, gritty or stringy material or impede flow. Manhole frames shall be patched to achieve a watertight seal where they join the structure.
- c. After cleaning and patching, all sewers shall be flushed with clean water at a flow rate of not less than 10 gpm for not less than five minutes after the stream flows clear at the last manhole.
- d. The Contractor shall dispose of water at his own expense and not in an existing sanitary sewer system.
- e. Water for flushing shall be obtained by the Contractor and might be obtained from the Authority, if available, with their express permission and supervision.

2. Final Inspection for Temporary or Final CO

- a. All tests and cleaning must be completed satisfactorily before final inspection. However, final inspection may be concurrent with flushing.
- b. Streets must be paved and manholes set in final position.

- c. Contractor shall make and furnish Authority two (2) copies of a VHS Format video recording of all sewers with comments digitally recorded on the screen, including the manhole run numbers.
- d. If final inspection is satisfactory, the Contractor may ask the Authority if he/she may remove the plug to the existing system in the presence of Authority or Engineer.

1.05. RECONSTRUCTION AND ADDITIONS

- A. Pressure and vacuum tests must be repeated if there are any additions or reconstruction.

1.06 APPROVAL FOR DEDICATION

A. Sequence

- 1. Following acceptance of facilities for use.
- 2. Not more than two months prior to date of anticipated dedication or as otherwise provided by state law.

B. Prerequisite

- 1. Acceptance for use.
- 2. Completion of punch list.
- 3. Final paving is in place and all grades are final.

C. Notification

- 1. Developer to notify Authority Manager 45 days prior to date of anticipated dedication or as otherwise provided by state law.
- 2. Authority Manager to notify:
 - a. Authority Engineer

D. Process

- 1. A pre-dedication walk-through will be conducted as follows:
 - a. Coordinated by Authority Engineer.
 - b. Conducted after to final paving.
 - c. Owner will arrange for and have all lines pressure washed and video taped in presence of Authority Engineer.
 - d. Every manhole will be opened by the Developer and inspected by the Authority and Authority Engineer.

- e. All manholes and clean-outs shall be located and set to finish grade.
 - f. Any manhole disturbed during final paving shall be realigned and vacuum tested again.
 - g. Any repair work to sewer line or appurtenances shall be retested once work is completed.
2. Participants will be notified by Authority Engineer and include:
- a. Authority Manager or staff
 - b. Contractor
 - c. Developer
3. Punch List
- a. The Authority Engineer will generate a draft punch list within three days of the walk-through and distribute to all participants as well as Authority Engineer. Comments on the draft list shall be received by Consultant for five (5) subsequent days after which the punch list will be appropriately amended and issued to all participants. Punch List may be amended as deemed necessary by Authority Engineer.
4. Other Requirements
- a. Legal descriptions of all easements and land to be dedicated.
 - b. As-built drawings signed and sealed by Developer's Engineer/Surveyor.
5. Dedication
- a. The Authority Engineer will make a recommendation on dedication to the Authority Manager detailing the punch list in order to comply with Section 510 of the PA Municipal Planning Code. Once all items are completed satisfactorily, Consultant will so notify Authority, with copies to Developer and Contractor.

PART 2 PRODUCTS

(Not Used)

PART 3 EXECUTION

(Not Used)

END OF SECTION