

APPROVAL PROCESS FOR NEW SEWER SYSTEMS & LINE EXTENSIONS

Preliminary Plan Approval

Owner/Developer Submits the Preliminary Maps to County/Town to identify the location of the nearest sewer line to the proposed project site.

Owner/Developer Submits the Preliminary Maps and Plans to the Planning Board for the Initial Approval to proceed with project.

Design of Sewer System

Owner/Developer contracts a Registered Professional Engineer (P.E.) to design the Sewer System or Subdivision Utilities

The Registered Professional Engineer (P.E.) designs the Sewer System or Subdivision Utilities in accordance with standards established by the North Carolina Department of Environment and Natural Resources – Division of Water Quality (NCDENR-DWQ) and all federal, state, county, and town regulations.

Submission to County/Town of Application, Plans, Specifications, Engineer's Report

The Registered Professional Engineer (P.E.) submits the Application for Approval of Engineering Plans and Specifications for Sewer Supply Systems, copies of the Engineer's Report and Specifications, along with the Plan & Profile to County/Town for review & subsequent approval. Any construction that will require digging or trenching in or along the North Carolina Department of Transportation (NCDOT) right-of-way (ROW), then the Owner/Developer must enter into a three (3) party encroachment agreement with the County/Town and the NCDOT. The Engineer will normally attach one (1) original and five (5) copies of a North Carolina Department of Transportation (NCDOT) Encroachment Agreement [Form R/W 16.6] signed by the Owner/Developer along with the Plans and Specifications to be reviewed. The County/Town will endorse the Encroachment forms and return them to the Engineer. The Engineer will submit all 6 copies of the signed NCDOT Encroachment form to the NCDOT Division Engineer for approval. The NCDOT Encroachment Agreement must be signed by the Owner/Developer along with one witness, by the County/Town along with one witness and approved by the NCDOT Division Engineer.

Plan Review by County/Town

County/Town reviews the Plan & Profile, Engineer's Report, and the Project Specifications for compliance with the established standards, ordinances, rules and regulations.

County/Town returns a Plan Review Comment Letter to the Registered Professional Engineer (P.E.) to discuss findings of the Plan Review and request changes, revisions and corrections as necessary to satisfy the established standards, ordinances, rules and regulations.

Plan Revisions

The Registered Professional Engineer (P.E.) will then make the revisions necessary to incorporate any and all required changes necessary into the Plan & Profile, Specifications, and Engineer's Report as directed by the Plan Review Comment Letter issued by the County/Town.

Submission to NCDENR-DWQ of Fast Track Application

The Registered Professional Engineer (P.E.) will submit at least three (3) copies of the Fast Track Application for Gravity sewers, Pumps Stations and Force Mains along with a check for \$400.00 processing fee to the North Carolina Department of Environment & Natural Resources – Division of Water Quality (NCDENR-DWQ) for review & subsequent approval.

NCDENR-DWQ assigns a permit number to the project and approves the Fast Track Application by issuing the sewer permit to the County/Town or requests that the Professional Engineer (PE) provide additional information for appropriate consideration.

If the Registered Professional Engineer (P.E.) receives a Comment Letter from NCDENR-DWQ, then the Registered Professional Engineer (P.E.) must respond to NCDENR-DWQ and take the appropriate steps to satisfy all issues outlined in the Comment Letter in order to obtain the necessary approval on the permit.

Acquire the PERMIT

Once approved by the state, NCDENR-DWQ will issue a Sewer Permit for the construction and operation of the proposed sewer improvements. Project construction may begin once the sewer permit has been issued.

Once the sewer permit has been issued then the Owner/Developer may then hire a Licensed Utility Contractor to install the sewer system. The Licensed Utility Contractor shall provide least forty-eight (48) hours notice to the County/Town prior to the commencement of construction, and schedule a pre-construction meeting with the County/Town. In addition, Licensed Utility Contractor should submit all the necessary documentation to the County/Town on the materials to be used in construction of the approved project. The material submittals demonstrate that the materials will meet all specifications as outlined in the approved plans.

North Carolina One Call Center

Prior to digging and trenching, all contractors are required by state law to notify the North Carolina One Call Center at **1-800-632-4949** in order to request locators from each utility company to make an on-site visit for the purpose of locating all existing underground utilities. The Licensed Utility Contractor is responsible to ensure that all sub-contractors follow this requirement. Failure to follow this procedure can result in property damage, service outages, and possibly life threatening hazardous conditions.

Pre-Construction Meeting

A pre-construction meeting is scheduled between the Licensed Utility Contractor, the Registered Professional Engineer (P.E.) and the Owner/Developer to discuss the scope of the project, materials, safety, and any additional site requirements that must be addressed prior to construction. The utility contractor is responsible to ensure that all sub-contractors follow the approved plans and all requirements of the County/Town and the State as outlined in the permit requirements. Failure to follow the permit requirements will result in delays, work stoppages and possible civil penalties and fines.

Construction

Following the pre-construction meeting with the County/Town, the Licensed Utility Contractor may begin construction in accordance with the approved plans. All underground utilities must be inspected by the County/Town prior to being buried. Every sewer line shall be installed with at least three (3') feet of cover along with all required blocking, reinforcement and proper backfilling of suitable soils. Each sewer force main shall be marked and identified by installing a tracer wire (12 gauge insulated copper conductor) that is run along side the water main and it shall be terminated by rolling up approximately three (3') feet of wire at each end in the associated air release valve, valve box and/or manhole. The underground utilities are normally installed along the North Carolina Department of Transportation (NCDOT) right-of-way (ROW). Property owners shall provide an easement to the County/Town for any underground utilities that are not installed along the North Carolina Department of Transportation (NCDOT) right-of-way (ROW) in order to provide legal access to the underground utilities for the purposes of operation, maintenance, testing, and repairs.

Field Changes

If the project work site requires any field changes, then all such change orders must be reported to the Registered Professional Engineer (P.E.) of record. The Registered Professional Engineer (P.E.) will then determine if the change orders are major or minor. Major change orders must be addressed by re-submitting the revised Engineering Plans to the County/Town and NCDENR-DWQ for the necessary approval. Minor change orders may be documented on the As-Built Record Drawings once the construction is completed as long as the changes will not increase or decrease the length of the sewer line extension by more than ten (10%), will not change the diameter of the sewer lines, or change the location of the sewer lines. Any revisions that will increase or decrease the length of the sewer line extension by more than ten (10%), will not change the diameter of the sewer lines, or change the location of the sewer lines will require that the Registered Professional Engineer (P.E.) resubmit the revised plans and Fast Track Applications to the County/Town for approval and then resubmit the entire package to the Regional NCDENR-DWQ office for approval.

On-Site Field Inspection

The Field Liaison or Utility Construction Inspector for the County/Town will conduct on-site visits to inspect the quality of work throughout the course of the project. The quality and workmanship of each project shall meet the established standards of the American Water Works Association (AWWA), the County/Town, state and federal governments. After the sewer system has been installed and inspected by the County/Town, a pressure test is performed on the gravity sewer lines and the sewer force main(s) and a mandrel test is performed on the gravity sewer systems in accordance with established requirements outlined in the County/Town rules, regulations and AWWA standard C-600.

Pressure Testing

Sections to be pressure tested shall be between valves not to exceed 2,000 feet per test. Duration for all pressure tests will not be less than 2 hours. All force mains shall be air tested at 35-40 psi. Allowable leakage shall not exceed 10 gallons/inch diameter/ mile/24 hours. Water for testing and blow-off may be obtained from existing water main. The contractor is responsible for any cost of water used during cleaning, flushing and testing.

Mandrel Testing and Video Camera Examinations

Following the successful completion of the pressure test, the gravity sewer system shall be tested using an approved mandrel that will be pulled through the sewer main from one manhole to the next until it reaches the end of the gravity sewer line. All sewer lines installed in County/Town are subject to video camera inspections if the County/Town feels it may be necessary. Any leakage or damage noted by the video camera inspections will be repaired and corrected by the contractor before the new sewer system is placed into service.

The Licensed Utility Contractor shall pump dry and dispose of all extraneous ground water, and other sand, gravel and foreign objects within the sewer main. Such material shall not be flushed into the existing operating sewer mains, pump stations or pertinent facilities. Flushing of new water main lines under construction into existing sewer main lines is prohibited. Water for flushing and cleaning shall be provided by the County/Town upon payment of the appropriate fees for a fire hydrant meter in accordance with established standards, rates and regulations.

Final Inspection

A Final Inspection is performed by the County/Town Field Liaison or Utility Construction Inspector. This Final Inspection will be required for the project to be approved by the County/Town. Upon acceptance of the new sewer system, the Registered Professional Engineer (P.E.) of record will complete a thorough review of the entire project including all field changes and all final adjustments.

Request for Final Documents

Following the Final Inspection(s), the County/Town will send a letter to the Registered Professional Engineer (P.E.) of record requesting the Engineer's Certification, the Cost of the System, along with the As-Built Record Drawings record in three (3) formats: Blueprints, Mylars, and Digital Drawings.

As-Built RECORD Drawings & Engineer's Certification

As-Built RECORD Drawings are produced by the Registered Professional Engineer (P.E.) of record in three (3) formats: Blueprints, Mylars, and Digital Drawings. The Engineer of record will submit the As-Built RECORD Drawings in all three (3) formats above along with the Registered Professional Engineer (P.E.) Certification and the Cost of the System to the County/Town that will assume ownership of the system.

Final Certifications

Upon receipt of the Engineer's Certification, the Cost of the System, along with the As-Built Record Drawings record in three (3) formats: Blueprints, Mylars, and Digital Drawings the County/Town will require that the Registered Professional Engineer (P.E.) of record will submit copies of the Engineer's Certification to NCDENR-DWQ for Final Approval by the State of North Carolina in accordance with requirements of the sewer permit. At this point, the Registered Professional Engineer (P.E.) of record is certifying to the State of North Carolina that all requirements have been completely satisfied and the County/Town is prepared to accept the new system and tie it into the existing sewer system. The NCDENR – Division of Water Quality will issue a sewer collection permit to the County/Town based upon approval of the Fast Track application submitted to their office. The new sewer system cannot be placed into service until the sewer collection permit has been issued to the County/Town and all final certifications have been approved by NCDENR – Division of Water Quality.

Warranty Period

The County/Town will accept the new sewer system and allow it to be activated once NCDENR – Division of Water Quality has issued the Final Approval. The Owner/Developer will provide the necessary documents to the County/Town to transfer ownership of the new sewer system along with all necessary easements when the Plat or Final Map is recorded with the Harnett County Register of Deeds Office. The Owner/Developer will then turn over the control and ownership of the new sewer system to the County/Town with a one (1) year warranty.

The County/Town will then accept the new sewer system with a one (1) year warranty period beginning on (date), and ending on (date). This subdivision or new sewer system will be serviced through the appropriate Water and Sewer District of the County/Town. A final inspection will be conducted by the County/Town Field Liaison or Utility Construction Inspector at the end of the one (1) year warranty period.

Note:

The warranty period shall begin at the discretion of the County/Town. However, once the County/Town accepts all the applicable capacity fees, taps, fees, meter fees and places the first meter into service, then this action should imply acceptance of the new water and/or sewer system.

Final Inspection & End of Warranty Period

At the time of final acceptance, the County/Town will send the Owner/Developer a letter to inform the Owner/Developer when the warranty period shall end. The County/Town will conduct a final warranty inspection of the new sewer system. The new sewer system is now considered complete and is accepted as part of the appropriate Water & Sewer District of the County/Town. The County/Town will now be responsible for the operation and maintenance of this new sewer system once the warranty period ends.