



Gravity Sewer Extension Permit

Submit this **original**, 2 sets of approved plans and fee of \$450.00, in check form, made payable to the City of Durham. Note: If the proposed system contains public and private sewer mains, separate permit forms, fees, and approved plans must be provided (i.e. one application, \$450.00 check, 2 sets of approved plans for public and one application, \$450.00 check, and 2 sets of approved plans for private).

Date: _____ Permit #: _____ (Assigned by the City)

Project Information

1. _____
(Project Name)
2. _____
(Project Tax Map Number)
3. _____
(Project Address)
4. _____
(Pin#)
5. Public: Private:

Developer Information

6. _____
(Developer's Company Name)
7. _____
(Developer's Address)
8. _____
(Developer's Telephone Number, include area code)
9. _____
(Developer's Fax Number, include area code)
10. _____
(Print or Type Name of Developer's Representative)
11. _____
(Title)
12. _____
(Signature)
13. _____
(Date)

Engineer Information

The undersigned engineer certifies that said plans and specifications have been prepared in compliance with all applicable requirements.

14. _____
(Engineer's Name)
15. _____
(Engineer's Company Name)
16. _____
(Engineer's Company Address)
17. _____
(Engineer's Telephone Number, include area code)
18. _____
(Engineer's Fax Number, include area code)
19. _____
(Engineer's Email)

Permit Information

20. Project is New; Renewal; Modification.

If Renewal or Modification, existing Permit No.: _____ Issue Date: _____
(Contact Water & Sewer Engineering at (919) 560-4326 for proper procedure.)

21. Project is: Public; Private.
If private, applicant will be: Retaining Ownership Selling Units (provide DWQ DEV 02/03 Form*)

22. Water Reclamation Facility: North Durham, Facility No. NC 0023841
 South Durham, Facility No. NC 0047597

23. Volume of wastewater generated by this project: _____ Gallons per day.
 _____ % Domestic _____ % Commercial _____ % Industrial
 _____ % Other (specify): _____

24. Explanation of how wastewater volume and makeup was determined: _____

25. If wastewater is other than domestic in nature, has a pretreatment application been approved by the City of Durham Department of Water Resources? Yes No

Design Information

26. Brief project description: _____

27. Summary of sewer pipe by diameter and pipe material. Indicate here whether C factor or N factor is used and circle C or N below: Note length in this table is the total length of sanitary sewer lines of a specific size and material. (i.e., 2000' of 8" PVC main, 400' of 8" DIP)

Diameter (in.)	Length (ft.)	Pipe Material	C or N Factor	Minimum Slope %	Maximum Slope %	Max. Vel. (fps)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

Note: The minimum velocity must not be less than 2.5 fps, the minimum diameter for public sewer mains is 8-inches, and the minimum slope for 8-inch diameter mains is 0.5%.

28. Anchors shall be provided for sewers with slopes greater than 20%. The anchor spacing shall be as follows:
 a. 36 foot separation for slopes of 21% to 35%.
 b. 24 foot separation for slopes of 36% to 50%.
 c. 16 foot separation for slopes of 51% or greater.

For velocities greater than 15 fps, erosion control measures must be specified to protect the sewer lines and manholes.

If required, have anchors and/or erosion control measures been specified and detailed on these plans?
 Yes No

29. Is sewer subject to existing or planned traffic bearing loads? Yes No
 If yes, have measures been taken to enable sewer to withstand the loads? Yes No

30. Maximum sewer reach length between manholes is _____ lineal feet (400' max.)
 Does the owner/operator have the ability to clean this length? Yes No

31. Does minimum cover for sewer mains and/or outfalls satisfy the following requirements?
 a. 4 ft. minimum cover over all sewer outfalls? Yes No

- b. 5 ft. minimum cover over all sewer mains? Yes No
 - c. 3 ft. minimum from rim to finished grade. Yes No
- (except in floodplain or maintained areas as determined by City of Durham Engineering Division).

32. Are all manhole invert in and out elevations, as well as rim or top elevations, shown on the plans? Yes No

33. Are all inverts in and out within 0.5 feet maximum difference? Yes No

34. Are outside drop manholes provided where invert separations exceed 0.5 feet? (minimum vertical separation for 8-inch drop connections is 2.0 feet) Yes No
 Have the manholes been identified clearly on the dwgs. and details submitted Yes No

35. Maximum allowable infiltration/exfiltration test rate must not exceed 100 GPD/pipe diameter inch/mile. Does this project meet this requirement? Yes No

36. Minimum separation distances as shown on the plans or addressed in the specifications.

a. 100 foot horizontal separation from wells or other water supplies. Yes No

b. 12-inch vertical separation from storm sewer OR ferrous pipe sanitary sewer specified. Yes No
 Yes No

c. 10-foot horizontal separation from water mains OR 18-inch vertical separation OR ferrous pipe sanitary sewer specified. Yes No
 Yes No
 Yes No

37. Are manholes subject to flooding? Yes No

If yes, are manhole rim elevations 2.0 feet above the 100-year flood level? Yes No
 OR are the manholes vented and water tight? Yes No

If yes, is 100-year flood level shown on plans? Yes No

38. Does this project have any stream crossings? Yes No

If yes, have precautions or special features been utilized to ensure protection of the sewer line and not restrict flow? Identify the sheet of the plans and station number where stream crossings are located: _____

Certification

Applicant's Certification

I, _____, attest that this application for _____

has been reviewed by me and is accurate and complete to the best of my knowledge. I understand that if all required parts of this application are not completed, and that if all required supporting information and attachments are not included, this application package will be returned as incomplete.

Signature _____ Date _____

Professional Engineer's Certification

I, _____, attest that this application for _____

_____ has been reviewed by me and is accurate and complete to the best of my knowledge. I further attest that to the best of my knowledge the proposed design has been prepared in accordance with the applicable regulations. Although certain portions of this submittal package have been developed by other professionals, inclusion of these materials under my signature and seal signifies that I have reviewed this material and have judged it to be consistent with the proposed design.

Name of Engineer (please print): _____

North Carolina Professional Engineer's Registration Number: _____

Seal and Signature: _____ Date _____



Seal

PERMIT

This section to be completed by the City of Durham

The plans and specifications cited in the foregoing application are hereby approved pursuant to Article IX of Chapter 23 of the Durham City Code, under the authority granted by the certification of the City of Durham's permitting program by the North Carolina Department of Environmental, Health and Natural Resource.

By: _____ Title: _____ Date: _____