



# Appendix D

## Plan Notes and Permit Blocks



Raleigh  
Water

## **Permitting in the City of Raleigh**

### **CONTRACTOR STATEMENT**

- Cover sheet
- Utility plan sheet(s)

### **ATTENTION CONTRACTORS**

**The Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Infrastructure Inspections Division and schedule a Pre-construction meeting on the Development Portal prior to beginning any construction.**

**Raleigh Water must be contacted at (919) 996-4540 at least twenty-four hours prior to beginning any work activity around critical water and sewer infrastructure.**

**Failure to notify City Departments in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.**

**Failure to call for Inspection, install a downstream plug, have permitted plans on the jobsite, or any other violation of City of Raleigh Standards will result in a fine and possible exclusion from future work in the City of Raleigh.**

## PERMIT BLOCKS

- Cover sheet
- Utility plan sheet(s)
- Water and Sewer profile page(s)

### **Public**

#### Water Distribution / Extension System

The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh  
Public Utilities Department Permit # \_\_\_\_\_

### **Public**

#### Sewer Collection / Extension System

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh  
Public Utilities Department Permit # \_\_\_\_\_

### **Private**

#### Sewer Collection / Extension System

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh  
Public Utilities Department Permit # \_\_\_\_\_

## INSPECTIONS QUANTITIES TABLE (former Public Improvement table)

- Cover sheet

INFRASTRUCTURE INSPECTIONS QUANTITIES TABLE			
Phase Number(s)	PHASE 1	PHASE 2	PHASE 3
Number of Lot (s)			
Lot Number (s) by Phase			
Number of Units			
Livable Buildings			
Open Space?			
Number of Open Space Lots			
Public Water (LF)			
Private Water* (LF)			
Public Sewer (LF)			
Public Force Main (LF)			
Private Sewer** (LF)			
Public Street (LF) - FULL			
Public Street (LF) - PARTIAL			
Public Sidewalk (LF) - FULL			
Public Sidewalk (LF) – PARTIAL			
Multi-Use Path*** (LF)			
Public Stormdrain (LF)			
Street Signs (LF)			
Water Service Stubs			
Sewer Service Stubs			
Average Daily Flow per phase****			
<p>* Water mains 4" and larger  **Sewer mains and manholes as part of a collection system  *** 10 or 12 ft wide path in lieu of sidewalk or a Multi-Use path as part of a development amenity  ****Entire Project Flow. Based on 75gpd per bedroom for residential (Apartments, single Family dwelling, townhouse, condos), or based on 15A NCAC 02T .0114 Wastewater Design Flow Rates for Commercial and Industrial.</p>			

## **Permitting in Merger Communities**

### **CONTRACTOR STATEMENT**

- **Cover sheet**
- **Utility plan sheet(s)**

### **ATTENTION CONTRACTORS**

The Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Public Utilities Inspector at 919-996-3245 or <https://cityworks.raleighnc.gov/pucontractors/New> and schedule a Pre-construction meeting prior to beginning any construction.

Raleigh Water must be contacted at (919) 996-4540 at least twenty-four hours prior to beginning any work activity around critical water and sewer infrastructure.

Failure to notify the Divisions in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for Inspection, install a downstream plug, have permitted plans on the jobsite, or any other violation of City of Raleigh Standards will result in a fine and possible exclusion from future work in the City of Raleigh.

## PERMIT BLOCKS

- Cover sheet
- Utility plan sheet(s)
- Water and Sewer profile page(s)
- Raleigh Standard Detail sheet(s)

<p style="text-align: center;"><b>Public</b></p> <p style="text-align: center;"><u>Water Distribution / Extension System</u></p> <p>The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.</p> <p>City of Raleigh Public Utilities Department Permit # _____</p>
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<p style="text-align: center;"><b>Private</b></p> <p style="text-align: center;"><u>Sewer Collection / Extension System</u></p> <p>The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.</p> <p>City of Raleigh Public Utilities Department Permit # _____</p>
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<p style="text-align: center;"><b>Public</b></p> <p style="text-align: center;"><u>Sewer Collection / Extension System</u></p> <p>The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.</p> <p>City of Raleigh Public Utilities Department Permit # _____</p>
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## RALEIGH WATER INSPECTIONS QUANTITIES TABLE

- Cover sheet (Subdivision and Site Plans)

<b>RALEIGH WATER INSPECTIONS QUANTITIES (SUBDIVISIONS AND SITE PLANS)</b>			
Phase Number(s)	PHASE 1	PHASE 2	PHASE 3
Number of Lot (s)			
Number of Units			
Public Water (LF)			
Public Sewer (LF)			
Public Force Main (LF)			
Private Sewer* (LF)			
Water Service Stubs (Quantity)			
Sewer Service Stubs (Quantity)			
Average Daily Flow per phase**			
<b>COMMERCIAL PROJECTS WITH SINGLE WATER AND SEWER SERVICE</b>			
Fire Service (Size)			
Domestic Meter Size			
Irrigation Meter Size			
Average Daily Flow per phase**			
<p>*Sewer mains and manholes as part of a collection system  **Entire Project Flow. Based on 75gpd per bedroom for residential (Apartments, single Family dwelling, townhouse, condos), or based on 15A NCAC 02T .0114 Wastewater Design Flow Rates for Commercial and Industrial.  The meter size must match domestic service size (Exemption - 3/4" service tap with 5/8" meter)</p>			

## STANDARD UTILITY NOTES

### • Utility Plan(s) for City of Raleigh and Merger Towns

#### STANDARD UTILITY NOTES:

1. All materials & construction methods shall be in accordance with City of Raleigh design standards, details & specifications (reference: CORPUD Handbook, current edition)
2. Utility separation requirements:
  - a) A distance of 100' shall be maintained between sanitary sewer & any private or public water supply source such as an impounded reservoir used as a source of drinking water. If adequate lateral separation cannot be achieved, ferrous sanitary sewer pipe shall be specified & installed to waterline specifications. However, the minimum separation shall not be less than 25' from a private well or 50' from a public well.
  - b) When installing water &/or sewer mains, the horizontal separation between utilities shall be 10'. If this separation cannot be maintained due to existing conditions, the variation allowed is the water main in a separate trench with the elevation of the water main at least 18" above the top of the sewer & must be approved by the Public Utilities Director. All distances are measured from outside diameter to outside diameter.
  - c) Where it is impossible to obtain proper separation, or anytime a sanitary sewer passes over a watermain, DIP materials or steel encasement extended 10' on each side of crossing must be specified & installed to waterline specifications.
  - d) 5.0' minimum horizontal separation is required between all sanitary sewer & storm sewer facilities, unless DIP material is specified for sanitary sewer
  - e) Maintain 18" min. vertical separation at all watermain & RCP storm drain crossings; maintain 18" min. vertical separation at all sanitary sewer & RCP stormdrain crossings. Where adequate separations cannot be achieved, specify DIP materials & a concrete cradle having 6" min. clearance (per CORPUD details W- 41 & S-49).
  - f) All other underground utilities shall cross water & sewer facilities with 18" min. vertical separation required.
3. Any necessary field revisions are subject to review & approval of an amended plan &/or profile by the City of Raleigh Public Utilities Department prior to construction.
4. Developer shall provide 30 days advance written notice to owner for any work required within an existing City of Raleigh Utility Easement traversing private property.
5. Contractor shall maintain continuous water & sewer service to existing residences & businesses throughout construction of project. Any necessary service interruptions shall be preceded by a 24-hour advance notice to the City of Raleigh Public Utilities Department.
6. SEWER BYPASS PUMPING – A bypass plan sealed by an NC Professional Engineer shall be provided to Raleigh Water prior to pumping operations for approval. The operations and equipment shall comply with the Public Utilities Handbook.
7. 3.0' minimum cover is required on all water mains & sewer force mains. 4.0' minimum cover is required on all reuse mains.
8. It is the developer's responsibility to abandon or remove existing water & sewer services not being used in redevelopment of a site unless otherwise directed by the City of Raleigh Public Utilities Department. This includes abandoning tap at main & removal of service from ROW or easement per CORPUD Handbook procedure.
9. Install water services with meters located at ROW or within a 2'x2' Waterline Easement immediately adjacent. NOTE: it is the applicant's responsibility to properly size the water service for each connection to provide adequate flow & pressure.
10. Inspections of 4" and larger water mains of the private distribution system will be inspected as part of the infrastructure permit.
11. Private sewer mains as part of a collection system are permitted and inspected under the private Infrastructure permit for sewer.
12. Any water or sewer services on private property that will be installed under Construction Drawings may require a Plumbing Utility Permit in the City of Raleigh. Consult with the Engineering Inspection Coordinator during the pre-construction meeting on the necessary permits.
13. Install sewer services with cleanouts located at ROW or easement line & spaced per the current NC Plumbing code.
14. Pressure reducing valves are required on all water services exceeding 80 psi; backwater valves are required on all sanitary sewer services having building drains lower than 1.0' above the next upstream manhole.
15. All environmental permits applicable to the project must be obtained from NCDWQ, USACE &/or FEMA for any riparian buffer, wetland &/or floodplain impacts (respectively) prior to construction.



16. NCDOT / Railroad Encroachment Agreements are required for any utility work (including main extensions & service taps) within state or railroad ROW prior to construction.
17. Grease Interceptor / Oil Water Separator sizing calculations & installation specifications shall be approved by the RW FOG Program Coordinator prior to issuance of a UC and/or Building Permit. Contact (919) 996-4516 or [fog@raleighnc.gov](mailto:fog@raleighnc.gov) for more information.
18. Cross-connection control protection devices are required based on the degree of health hazard involved as listed in Appendix B of the Rules Governing Public Water Systems in North Carolina.
19. The devices shall meet the American Society of Sanitary Engineering (ASSE) standards and be on the University of Southern California approval list.
20. The device and installation shall meet the guidelines of Appendix A – Guidelines and Requirements for the Cross Connection Program in Raleigh's Service Area.
21. The devices shall be installed and tested (both, initial and periodic testing thereafter) in accordance with the manufacturer's recommendations or the local cross connection control program, whichever is more stringent. Contact [Cross.connection@raleighnc.gov](mailto:Cross.connection@raleighnc.gov) for more information.
22. NOTICE for projects that involve an oversized main or urban main replacement. Any City reimbursement greater than \$250,000.00 must undergo the public bidding process.
23. Private sub-metering - No resale of water shall occur without approval of the North Carolina Utility Commission. Sub-metering shall be in accordance with Section 1400 of the "SAFE DRINKING WATER ACT".