Preface

The purpose of this manual is to provide guidelines for the planning, design, and installation of water and sewer systems in an effort to meet the growing needs of the development community in the CFPUA service area. These guidelines were written to accommodate the individuality of each project, while maintaining high standards and consistent procedures. These guidelines are to be used in conjunction with CFPUA specifications, design details, and ordinances. Each project must be handled in a professional manner such that system design and construction standards are met. Adherence to these standards is imperative to ensure that the infrastructure installed will provide years of low cost maintenance and uninterrupted service to our customers.
These procedures shall be followed by developers who plan, design and construct water and/or sewer services that will be conveyed to CFPUA upon completion of the associated work within a development. Depending upon the size and scope of the proposed project, some procedures may be modified by CFPUA. Administrative fees will be charged in accordance with the fee rates and charges outlined in the CFPUA Rates & Fees Schedule.

**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>PROCESS FLOW CHART</th>
<th>PAGE #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 DUE DILIGENCE</td>
<td>3</td>
</tr>
<tr>
<td>2.0 PRELIMINARY PLAN</td>
<td>5</td>
</tr>
<tr>
<td>2.1 Developers Concept Plan</td>
<td>6</td>
</tr>
<tr>
<td>2.2 Master Plan Review</td>
<td>6</td>
</tr>
<tr>
<td>2.3 City/County Technical Review Committee (TRC)</td>
<td>7</td>
</tr>
<tr>
<td>2.4 Utility Concept Plan Approval</td>
<td>7</td>
</tr>
<tr>
<td>2.5 Capacity &amp; Availability Letter (upon request)</td>
<td>7</td>
</tr>
<tr>
<td>3.0 PLAN APPROVAL</td>
<td>9</td>
</tr>
<tr>
<td>3.1 Professionally Engineered Plans Submitted to CFPUA</td>
<td>10</td>
</tr>
<tr>
<td>3.2 CFPUA Review</td>
<td>17</td>
</tr>
<tr>
<td>3.3 Utility Plan Approval by CFPUA</td>
<td>17</td>
</tr>
<tr>
<td>4.0 PERMITTING</td>
<td>19</td>
</tr>
<tr>
<td>4.1 Application Submittals to CFPUA</td>
<td>20</td>
</tr>
<tr>
<td>4.2 Developer Signature on CFPUA Flow Letter(s)</td>
<td>20</td>
</tr>
<tr>
<td>4.3 Applications forwarded to State Agencies</td>
<td>20</td>
</tr>
<tr>
<td>4.4 State Agency Review</td>
<td>21</td>
</tr>
<tr>
<td>4.5 Permit Issuance</td>
<td>21</td>
</tr>
<tr>
<td>5.0 CONSTRUCTION &amp; TESTING</td>
<td>23</td>
</tr>
<tr>
<td>5.1 Construction Drawing &amp; CFPUA Specifications Submittal</td>
<td>24</td>
</tr>
<tr>
<td>5.2 Pre-construction Conference</td>
<td>26</td>
</tr>
<tr>
<td>5.3 Construction Period</td>
<td>27</td>
</tr>
<tr>
<td>5.4 Inspections</td>
<td>28</td>
</tr>
</tbody>
</table>
5.5 Testing & Gravity Sewer Video 29
5.6 As-Built Drawings 32
5.7 Substantial Construction Completion 33

6.0 CERTIFICATION & CONVEYANCE 35
6.1 As-Built Mylar & CD 36
6.2 Plat Requirement 36
6.3 Conveyance Documents 36
6.4 Engineer’s Certification 38
6.5 Owner Certification and Acceptance 38
6.6 State Approval 38
6.7 Activation 38

7.0 PLATS 39
7.1 Mylar Plat Approval by CFPUA 40
7.2 COW/NHC Plat Approval 40
7.3 Recorded Plat 40

8.0 UTILITY ACCOUNTS and BUILDING PERMITS 41
8.1 CFPUA Utility Service Application 42
8.2 Fees Paid and Building Permit Sign-Off 42
8.3 Backflow 43
8.4 Meter Set 43
8.5 CFPUA Sign Off for C.O. 44

9.0 UTILITY BOND OR LETTER OF CREDIT - NHC ONLY—ALTERNATE ROUTE 45
9.1 Permitting Complete 46
9.2 Professional Engineer’s Sealed Estimate of Completion of Construction 46
9.3 CFPUA Engineering Review 47
9.4 NHC Bond Acceptance 47

SUPPLEMENTAL DOCUMENTS SECTION 49

CFPUA ENGINEERING DEPARTMENT DEVELOPMENT SERVICES STAFF  Back Page
1.0 Due Diligence

Realtors, investors, developers and engineers are encouraged to contact CFPUA through master.planning@cfpua.org during the due diligence phase of any land purchase for residential or commercial development. Detailed information on CFPUA’s Master Planning for water and sewer service is typically provided on a scaled map with master planned connection points to the existing water and sewer system. This process provides potential buyers with the most current and accurate information available.

Obtaining this information in advance of project commitment is highly beneficial since the cost of providing water and sewer service to any given tract of land depends upon distance from existing mains, topography, and capacity available in the system. Land which appears to be easy to serve with a sewer extension may actually require installation or upgrade of a sewer pump station. It is best for all involved that these factors be known as far in advance as possible.

Master planning information from CFPUA is no substitute for land surveys, engineered design plans, and the permitting process. Rather, this process informs real estate professionals, investors, developers and engineers so that water and sewer infrastructure requirements for any given tract are better understood prior to purchase.

A decision must be made at this time whether the water and/or sewer utilities will be a public (CFPUA) or a private system.

The completion of a Request for Information (RFI) Form as referenced in Section 2.5.2 is recommended.

Inquiries to master.planning@cfpua.org as described in Section 2.2 Master Plan Review have a typical turn-around time up to ten (10) business days depending upon project complexity and staff work load.
2.0 Preliminary Plan

2.1 Developers Concept Plan

2.2 Master Plan Review

2.3 City/County TRC*

2.4 Utility Concept Plan Approval

2.5 Capacity & Availability Letter
   
   Upon request at any point during the Preliminary Planning Stage

* TRC—Technical Review Committee is independent of Utility Plan Review
2.1 Developers Concept Plan

2.1.1 Site Plan
Provide a site plan to CFPUA, City of Wilmington (COW) and/or New Hanover County (NHC)
- Vicinity map
- Parcel Identification Numbers
- Addresses
- Buildings
- Number of residential units and/or employees
- May be hard copied or emailed as a PDF file to development.services@cfpuua.org
- Identify public and private utilities

2.2 Master Plan Review

2.2.1 Master Planning and Capacity Management
For detailed information on CFPUA’s Master Planning to accommodate a parcel or a group of parcels email master.planning@cfpuua.org. Include:
- Your name
- Your company name
- Phone number
- Email address
- A screenshot or .pdf map that identifies the subject parcel(s)
- The parcel ID number(s), i.e. R02200-001-001-000
- Type of development
- Anticipated sewer flows (for available capacity)

Typical turnaround time is up to ten (10) business days, depending on project complexity and staff work load. If you are presently working with a CFPUA Development Services Project Manager, copy them on your email to master.planning@cfpuua.org
2.3 City/County TRC

2.3.1 Technical Review Committee

COW and NHC Planning Departments are available to review preliminary plans for large and small projects. A formal process known as the “Technical Review Committee” is utilized by each planning department for the purpose of providing written review comments from multiple agencies. For more information, contact COW Planning, Development & Transportation Department at 910-254-0900 and NHC Planning Department at 910-798-7441 or 910-798-7444.

2.4 Utility Concept Plan Approval

2.4.1 Utility Plan Concept

Comments will be forwarded to the applicant, including any concerns and conditions of the approval. Allow up to ten (10) business days for a single lot residential parcel. More time may be necessary for commercial, large (greater than one acre), and multiple parcel developments. TRC is not a pre-requisite for the Utility Concept Plan.

2.5 Capacity & Availability Letter

*Upon request at any point during the Preliminary Planning Stage*

CFPUA owns, operates and maintains over a thousand miles of water and sewer pipelines throughout the City of Wilmington and New Hanover County. However, there are some areas where service is not yet available. Potential purchasers should request information on the availability of water and/or wastewater while performing due diligence, (Section 1.0) prior to purchasing a parcel or tract of land for development.

2.5.1 Water and Sewer Availability Request

Some financers require that a Water and Sewer Availability Letter be provided prior to the financer’s approval of a loan. This letter identifies whether there is water and/or sewer available to the project site. Per the CFPUA Ordinances, utilities are considered available if a lot that abuts a right-of-way where CFPUA facilities can be found, or have legal access to said right-of-way via a private utility easement, within five hundred feet (500’) of CFPUA facilities that lie within the same sewershed basin/water service area of the development, as defined by CFPUA.
This letter only advises you that water and/or sewer mains are available to service this project. This is not an approval to connect to these facilities or a certification that there is adequate capacity in the system to serve the proposed development. Capacity is issued on a first-come, first-service basis. Therefore, capacity cannot be guaranteed until a complete set of plans has been received and approved by CFPUA and a permit is approved by the State.

2.5.2 **Water and Sewer Availability Letter**

Those requesting availability must submit a CFPUA Water and Sewer Request For Information (RFI) form. Please send your letter request to residential.requests@cfpu.org or CFPUA Engineering Department, 235 Government Center Drive, Wilmington, NC 28403. There are no fees for this service. An example of the CFPUA Water and Sewer Request For Information (RFI) form is included in the Supplemental Documents Section of this guidance manual.

2.5.3 **Water and Sewer Availability Request Response**

CFPUA will issue a Water and Sewer Availability Letter on CFPUA letterhead indicating water and/or sewer availability within ten (10) business days of receipt of the completed RFI form.

2.5.4 **Capacity Reservation**

A standard sewer allocation is 20,160 gallons per day for a residential subdivision. This equates to 56 single family homes. When building permits have been obtained for 50% of the homes (28) then the next allocation may be obtained. Large subdivisions are typically phased to receive the allocations necessary for completion.

CFPUA may, through the provisions of a Capacity Reservation Agreement, accept payment to reserve sewer capacity for large residential subdivisions located in eligible sewer basins for an amount that is more than the standard residential sewer allocation. The payment is based on the system development charges that apply to each of the homes in the proposed subdivision.
3.0 Plan Approval

3.1 Professionally Engineered
Plans Submitted to CFPUA

3.2 CFPUA Review

3.3 Utility Plan Approval by CFPUA
3.1 Professionally Engineered Plans Submitted to CFPUA

3.1.1 CFPUA Specifications
All projects within the jurisdiction of CFPUA shall be designed in accordance with CFPUA Specifications, 01721—Design Drawing Submittals. A copy of Section 01721 is included in the Supplemental Documents Section of this guidance manual.

3.1.2 Design Plan Conditions
The requirements of Section 01721 apply to design plans for sewer main extension plans, water main extension plans, and utility plans to serve commercial, industrial, or multifamily residences other than a single family duplex residential structure on a single lot of record.

3.1.3 Approval of Sealed Plans
Design plans sealed by a North Carolina licensed Professional Engineer are required to be submitted and approved by CFPUA. The site plan drawings shall be drawn on a standard sheet size of twenty-four (24) by thirty-six (36) inches. A complete submission requires:

⇒ Two (2) sets of the site plan drawings, two (2) sets of all specifications for main line extension:
⇒ Two (2) copies of any engineering reports for main line extension
⇒ One(1) CFPUA application with applicable fee.
⇒ Any required applications for North Carolina Department of Environmental Quality (NCDEQ) permits or North Carolina Department of Transportation (NCDOT) encroachments for main line extensions.

Incomplete submissions will be returned to the engineer.

Plans in compliance with all CFPUA requirements, including these guidelines, will be processed for approval by the CFPUA Engineering Director or designee.

The plans must also be consistent with CFPUA Master Plans, CFPUA policies, details and specifications, current engineering and construction practices, methods, and standards sound engineering practice, and sound construction practice.

3.1.4 Additional Information
When plans require approval from local, state, and federal permitting agencies, there may be the need for information in addition to information required by CFPUA.
3.1.5 Variations
Where content specifications vary, the more restrictive requirement(s) will apply.

3.1.6 Design Drawing Content Checklist
The Design Drawing Content Checklist shown on the next page generally conforms with CFPUA Specifications Section 01721. The design engineer shall be familiar with this checklist and review the plans for conformance with Section 01721 before submitting plans to CFPUA for review and approval.

Additional design drawing considerations include:

- Maintain minimum cover on water line and horizontal (10 feet) and vertical (18 inches) separation from storm and sanitary sewer
- Use two (2) 45 degree bends on pressure mains
- Avoid manholes, meter boxes, sample stations, or valve boxes located in sidewalks.
- Minimize gravity sewer depth (goal is less than 20 feet).
- End of line sewer manholes should be no more than 5 feet deep.
- Provide 2” blow-off with full size isolation valve at end of water line.
- Show fire hydrants one-foot from right-of-way with no long side service.
- Show isolation valves on main line approximately every 1,200 feet on 8” water mains and every 1,500 feet on 12” water mains. Show 3-valves at all crosses; show 2-valves at all tees.
Design Drawing Content Checklist

(a) GENERAL

1. Project name and address.
2. Engineer’s seal and surveyor’s seal if applicable or required.
3. Engineer’s contact information to include name, address, phone number, and email is optional.
4. Surveyor’s name, address, and phone number.
5. Owner’s name, address, and phone number.
6. Include the appropriate Authority water and sewer detail sheets.
7. Strike out Authority details that are not appropriate and propose substitute details.
8. Propose custom details for situations that are not addressed adequately by the Authority details.
9. Dates of original drawings and revisions.
10. North arrow and location map.
11. For multi-sheet plans, provide a cover sheet with an index planning map at a scale of 1 inch = 200 feet showing the organization of the plan sheets, sheet numbers and a legend for all line work and symbols to identify proposed and existing conditions. On the legend include an open circle for sanitary sewer cleanouts and an open box for water service meters.
12. Provide 2 hard copies (24-inch by 36-inch maximum size) and a PDF file copy. File copies may be emailed separately.
13. Show proposed water and sewer layers as bolder line types.
14. Plan text shall be at least 0.10-inches height.
15. Scale:
   1. Scale for plan views shall be 1-inch = 50 feet.
   2. Supplementary plan drawings may be shown at a larger scale.
   3. Scale for profiles shall be 1-inch = 50-feet in the horizontal direction.
   4. Scale for profiles shall be 1-inch = 5-feet in the vertical direction.
16. Survey Control:
   1. Elevations shall be tied to North American Vertical Datum of 1988 (NAVD 88) and horizontal coordinates shall be tied to the North Carolina Grid System.
   2. Include at least 2 coordinated horizontal control points and vertical benchmarks within project area and provide the offsite benchmark reference when applicable.
3.1 Professionally Engineered Plans to CFPUA continued

17. Existing Information: Display all existing storm pipes, sewer pipes, water pipes, underground utilities, water services, fire hydrants, manholes, monitoring wells, sewer services, drainage features, topography, roadways and all other information relevant to the proposed utility design.

18. Total linear feet on cover sheet listed separately for proposed water lines, gravity sewer, and force main.

19. Utility Services:
   1. Commercial, multifamily, and industrial site plans shall indicate all proposed water and/or sewer services, and/or if the existing services will be relocated or abandoned.
   2. Water service will include location and size of the water meter, backflow, service line and tap.
   3. Sewer service will include tap location, size, and cleanout location.
   4. Indicate the use of each service line (irrigation, domestic, or fire line).
   5. Subdivision plans prepared for Authority review are not required to show the service locations on the plans submitted for review prior to construction. Service locations for subdivision plans are recommended to be finalized in the construction phase.

20. Drawings shall indicate water/sewer phases(s).

21. Show approximate vertical and horizontal separations of waterlines, storm pipes, sewer mains, and force mains to proposed and/or existing utilities. Scaled profile drawings are required for each crossing of water and sewer mains, each crossing of water mains and storm pipes, and each crossing of sewer mains and storm pipes.

22. Show all subsurface boring with associated excavations, transitions, and casings.

23. Show Existing surface elevations and proposed finish grades.

24. Show the 100 year flood zone when it is present on the property.

25. Show lot numbers, addresses, property lines, property owners, and county parcel identification numbers within the project and adjacent to the project parcels. Indicate source of property lines shown (i.e. survey date and surveyor, plotted from record, map book page number, GIS tax data).

26. Show right of way with street name, state road number, street owner information, right of way width, pavement material, and pavement width.

27. Show existing easements, including width, deed/map book and page number, property owner, and county parcel identification number.

28. Show proposed easements including width and their relationship to the proposed utilities.

29. Indicate proposed ownership of the proposed utilities (public or private).
30. Plans shall indicate compliance with the Authority's Technical Specifications and Standards.

31. Variances from Authority Specifications and Standards shall be requested in writing along with the plan submittal.

32. Include a general sequence of construction.

(b) SEWER MAINS

1. Provide the plans and the applications in conformance with all North Carolina Division of Water Quality requirements. Indicate whether or not the plan will require a variance from any North Carolina Division of Water Quality (DWQ) requirement. If so, then provide a variance request letter with all relevant information addressed to DWQ.

2. Provide a continuous plan and profile drawing of all gravity and force mains. Stationing is to begin at the connection point to an existing manhole, header, or sewer main.

3. Inverts into and out of manholes are to be shown at 0.01 feet accuracy.

4. For each sewer reach, show pipe diameter, length between manholes, material, and slope.

5. Show station or distance between beginning and end of change in pipe material.

6. Show manhole size and indicate proposed or existing. Indicate material of existing manholes.

7. Show all water supply wells within 100-feet of proposed sewer mains and water mains within 10-feet of proposed sewer mains.

8. Show all wetlands and/or surface waters classified as WS-II, WS-III, B, SA, ORW, HGW, or SB. Show the separation distance between sewer manholes and mains with all wetlands, surface waters and/or areas of environmental concern per North Carolina Division of the Environment and Natural Resources definitions. If no such areas affect the design, then note plans accordingly.

9. Show top (rim) elevation & flood elevation or surface water flow levels at each manhole.

10. Show location of air release valves, valves, and fittings along force mains.

11. Indicate all pipe restraint and thrust blocking.

12. Indicate size and material of existing and proposed services.

13. Indicate manhole service taps, main line taps, service casing, &/or material transition.

14. Include the CFPUA standard sewer notes on all plan & profile sheets.
15. For pump station projects, the plans shall include the site layout and all relevant information required on CFPUA pump station detail sheets. Include all calculations required by DWQ and CFPUA.

(c) WATER MAINS

1. Provide the plans and the applications in conformance with all North Carolina Public Water Supply Section requirements. Indicate whether or not the plan will require a variance from any North Carolina Public Water Supply Section (PWSS) requirement. If so, then provide a variance request letter to with all relevant information addressed to PWSS.

2. Show pipe diameter, length, and approved material.

3. Show all sewer mains within 10-feet of proposed water mains.

4. Show all septic systems within 50-feet of proposed water mains.

5. Show location and type of shut off valves, air release valves, blow off valves and fittings.

6. Indicate all pipe restraint and thrust blocking.

7. Show the backflow prevention device including type, size, manufacturer and model number.

8. Indicate fire hydrants and hydrant shut off valves.

9. Booster stations and storage tanks and other water facilities shall include accurate information regarding size, capacity, structural dimensions, material, coatings, electrical equipment, site plan, power supply, and current zoning of the parcel and adjacent parcels.
3.2 CFPUA Review

3.2.1 Compliance

Design plans submitted to the CFPUA Engineering Department will be reviewed for compliance with all CFPUA requirements, specifications, and design details.

3.2.2 Timetable

The plan review will be done in the order that plans are received. The review time of the plans is generally up to twenty (20) business days, but will depend on the complexity of the project, the size of the project, quality of the plans, etc.

3.2.3 Comments and Corrections

The CFPUA Engineering Department will mark comments and corrections on the plans. Separate written comments (in addition to the comments made on the plans) may be provided. Plans will be returned to the engineer of record, stamped and marked as one of the following:

A. Approved
B. Approved as noted
C. Revise and resubmit

CFPUA will retain a copy of the stamped and marked plans.

3.2.4 Meeting All Requirements

Plans that are marked as “Revise and Resubmit” must be corrected to meet all requirements and resubmitted for review.

3.3 Utility Plan Approval by CFPUA

3.3.1 Approved Plans

Plans that are marked as “Approved” or “Approved as Noted” can proceed to Section 4.0—Permitting. All corrections must be made to the plans. Final design plans shall be submitted with the permit application.
4.0 Permitting

4.1 Application Submittals to CFPUA

4.2 Developer Signature on CFPUA Flow Letter(s)

4.3 Applications forwarded to State Agencies
   Submitted by Developer’s Engineer

4.4 State Agency Review
   (NCDOT and NCDEQ)

4.5 Permit Issuance
4.1 Applications Submitted to CFPUA

4.1.1 Plan and Permit Approvals

Prior to commencing construction, all plan approvals and permits for water and/or sewer infrastructure from agency having jurisdiction shall be obtained:

◊ Developer must obtain all State and Local permits, as applicable. (i.e. Public Water Supply Authorization to Construct, NCDEQ Wastewater Collection System Extension Permit, etc.)

◊ NCDOT Encroachment Permit and/or COW Street Cut Permit will be required from any contractor or developer wishing to excavate or install utilities in public right-of-ways.

4.2 Developer Signature on CFPUA Flow Letter(s)

4.2.1 Flow Letters

CFPUA flow letters for water and/or sewer infrastructure must be signed by the owner/developer and returned to CFPUA prior to permit applications being signed. Examples of the flow letters are included in Section 4.0 of the Supplemental Documents Section of this guidance manual.

4.3 Applications forwarded to State Agencies

Submitted by Developer’s Engineer

4.3.1 State Permit Submittals

CFPUA will sign the NC Division of Water Resources (DWR), NC Public Water Supply Section (PWSS), and NC Department of Transportation (NCDOT) applications as the “permittee” and/or “owner” when public water and/or sewer mains are being extended. CFPUA also is required to sign as the “water supplier” when private water mains are extended. Applications will be signed when the required plans, details, specifications, flow letters, and CFPUA review fees have been provided and approved. The developer’s engineer is required to submit the applications and application fees directly to the state agency with an electronic copy to the CFPUA Project Manager.
4.4 State Agency Review  \textit{(NCDOT and NCDEQ)}

4.4.1  State Review

The state agencies review the applications for compliance with their rules. Although CFPUA makes a good faith attempt to see that requirements are met prior to submittal, the state agencies often have additional comments and concerns that must be addressed by the developer’s engineer. The developer’s engineer may need additional information from the CFPUA Project Manager to respond to the state agency comments. \textit{The developer’s engineer shall copy the CFPUA Project Manager on all responses to the state agency review comments.}

4.5 Permit Issuance

4.5.1  Permit Issuance

The public state sewer permit issued by DWR, public state water permit issued by PWSS, and public state water authorization to construct will be in the name of CFPUA. The NCDOT encroachments will be in the name of all parties involved for installation of CFPUA utilities. State agencies provide a copy of the public permits to CFPUA and the developer’s engineer. The developer and his engineer may request additional permit copies from CFPUA. The state permits are a vital component required to begin construction.
5.0 Construction & Testing

5.1 Construction Document Submittal
(Plans, Specifications, Permits)

5.2 Pre-Construction Conference

5.3 Construction Period

5.4 Inspections

5.5 Testing & Gravity Sewer Video

5.6 Draft As-Built Drawings

5.7 Final Construction Completion
5.1 Construction Document Submittal
(Plans, Specifications, Permits)

5.1.1 Construction Drawing & CFPUA Specifications Submittal

Three (3) sets of the final design plans and three (3) sets of the approved specifications should be submitted by the project’s engineer.

5.1.2 Material Shop Drawing Submittals

Submittals for materials should be made in accordance with CFPUA Specification Section 01340. Material shop drawing submittals are required for all physical assets to ensure they comply with CFPUA technical specifications and details. These submittals are project-specific, and must include or highlight only the specific materials to be used in the project. The submittal approval process is generally as follows:

1. Material vendor furnishes submittals to the contractor based on the project requirements.

2. Contractor reviews the submittals for compliance with the approved construction drawings, CFPUA technical specifications and details, and forwards to the developer’s engineer-of-record when complete.

3. The Developer’s engineer-of-record verifies compliance, stamps and signs the submittal, and forwards the package to the CFPUA Construction Manager. If it is determined that the material shop drawing submittal is not in compliance, the engineer shall return it to the contractor for correction and resubmission as noted above.

4. CFPUA’s Construction Manager reviews the submittal from the developer’s engineer-of-record, verifies compliance, and notifies the engineer that the materials are approved for construction. If it is determined that the material shop drawing submittal is not in compliance, the submittal will be returned to the engineer for correction and resubmission as noted above.
5.1 Construction Document Submittal

(Plans, Specifications, Permits)

5.1.3 Permit Submission Requirements

- State agency permits
  - NCDOT Encroachment Permit
  - NC DWR Sewer Extension Permit
  - NC PWSS Water Extension Plan Approval and Authorization to Construction
  - NC Land Quality Erosion Control Permit
  - NC DWR 404 Wetlands Permit
  - NCDOT Special Trenching Permit
  - CAMA Permit

- Federal Permits
  - US Army Corps 401 Wetlands

- Local Permits
  - COW Right of Way Permit
  - COW Street Cut Permit
  - NHC Land Disturbance Permit
  - NHC or COW Tree Removal Permit

- Easements
  - Public Utility Easements for public utility installation offsite of the development property.

  See Section 3 Supplemental Documents for sample Easement Document.
5.2 Pre-Construction Conference

5.2.1 Pre-Construction Conference

A pre-construction conference (pre-con) shall be required for every development project that involves the construction of water and/or sewer facilities. No construction will begin until CFPUA gives authorization to proceed. The pre-con must be scheduled through the CFPUA Construction Manager with at least two (2) business days’ notice and after receipt of all applicable permits, approval of the final construction drawings and material shop drawings, verification of contractor licensing and payment of all outstanding fees.

The purpose of the pre-con is as follows:

1. Discuss the approved drawings;
2. Discuss the general construction sequence and schedule;
3. Review general construction inspection procedures and requirements;
4. Discuss lines of communication;
5. Discuss typical project pitfalls and time savers;
6. Discuss project challenges. The contractor is encouraged to review the project ahead of the pre-con, ask for clarifications, and introduce any particular challenges that he/she anticipates in the construction of the project;
7. Other topics per the pre-con checklist included in Section 5.0 of the Supplemental Documents Section of this guidance manual.

5.2.2 Pre-Con Attendance

CFPUA’s Construction Manager will specify the time and place of the pre-con, which should include the following project stakeholders:

1. Licensed Utility Contractor and sub-contractor(s), if applicable.
2. The Engineer of Record is encouraged to attend.
3. The Project Owner is encouraged to attend.

5.2.3 Plans

Three (3) copies of the plans and specifications per Section 5.1.1, shall be required at least two (2) business days prior to the pre-con.
5.2 Pre-Construction Conference

5.2.4 Pre-Con Completion

At the end of the pre-con, the developer will receive a copy of the sign-in sheet, signed pre-construction checklist, stamped approved for construction plans, and specifications.

5.2.5 Construction Water Needed from a CFPUA Approved Fire Hydrant – Special Water Use

Construction water from a CFPUA fire hydrant must have a Special Water Use Account, which can be found on the CFPUA website: www.cfpua.org (Choose Departments, Environmental Management, Special Water Use). This requires owning an approved meter assembly and an approved high hazard backflow preventer. All fees for the water use must be paid according to the CFPUA Fee Schedule. The meter assembly and backflow prevention must be approved by CFPUA Community Compliance Section at 628 Groundwater Way, Wilmington, NC 28411, 910-332-6558, Community.Compliance@cfpu.org.

5.3 Construction Period

5.3.1 Points of Contact

During the construction period, the CFPUA Construction Manager will be the primary contact point for the developer and engineer. The CFPUA Inspector will be the primary contact point for the construction contractor.

5.3.2 Changes to Stamped Plans

Any request for deviations from the stamped drawings and material submittals must be submitted to the CFPUA Construction Manager. The deviation will be reviewed by CFPUA staff. The Engineer, Contractor and CFPUA Inspector will be notified if it is approved, needs to be revised and resubmitted or rejected. Any changes to the stamped construction documents made in the field by the Contractor must be approved by the Engineer of record and CFPUA Construction Manager. The CFPUA Inspector cannot approve major changes from the stamped construction documents.
5.4 Inspections

5.4.1 Material Inspection
Before any work is started on the project, the Contractor shall make submittals to the Engineer in accordance with the requirements of CFPUA Specification Section 01340. The CFPUA Inspector shall be notified when any material is delivered to the job site. The CFPUA Inspector will verify that all materials meet CFPUA specifications, details, and/or approved submittal. The CFPUA Inspector will notify the Contractor and the CFPUA Construction Manager of any unapproved material, and that the unapproved material must be removed from the project site.

5.4.2 General Inspection – Construction Phase Review
Routine and unscheduled inspection of ongoing projects will be made by CFPUA personnel during the construction phase to ensure conformance with the approved plans, CFPUA specifications and details, as well as compliance with this guidance manual.

Projects approved for construction by the CFPUA automatically authorizes CFPUA inspection personnel access to the construction site at all times for the purpose of inspecting constructed facilities or observing construction operations in progress. CFPUA Inspectors will take appropriate action, as outlined herein, when improper material or unacceptable workmanship is detected on the project and will notify the CFPUA Construction Manager, Contractor, Engineer and/or Developer.

CFPUA Inspectors shall make periodic checks during all phases of construction to ensure that the contractor is complying fully with project design and specifications as well as the policies and procedures herein established.

- CFPUA valves are not to be operated without a CFPUA Inspector or CFPUA Water Quality personnel present (Notice of Violations will be given if failure to comply).

- Any work after normal working hours (Monday – Friday 7:00 AM – 3:30 PM) must be pre-approved and scheduled with the CFPUA Construction Manager and Inspector.

- All shut downs must be pre-approved and scheduled with the CFPUA Construction Manager and Inspector (they will coordinate with the proper CFPUA departments).

- Water or sewer force main tie-ins or shut downs will not be conducted on Friday through Monday unless pre-approved by CFPUA Operations.
5.4 Inspections continued

- Contractor is to give two (2) business days notification for scheduling to the assigned CFPUA Inspector for each of the following:
  
  - Operating any CFPUA valve (includes tapping valves)
  - When beginning construction and if the contractor pulls off the site
  - Laying out of any connection in existing manholes
  - Cutting in any new manholes on existing lines
  - Coring any manholes
  - Connecting onto an existing sewer force mains
  - Connecting onto existing water lines
  - Any bores and threading carrier pipes
  - All camera work, testing, chlorination and water sampling
  - All testing

5.5 Testing & Gravity Sewer Video

All structures, pressure piping and gravity sewer piping shall be tested by the contractor as specified in the CFPUA Specifications in accordance with applicable regulations and as directed by the CFPUA Inspector. All testing must be conducted in the presence of the CFPUA Inspector. The Contractor is to give two (2) business days notification for scheduling, to the assigned CFPUA Inspector for all testing.

5.5.1 Water Main and Force Main Hydrostatic Pressure Testing

To schedule testing, the Contractor shall give two (2) business days notification to the assigned CFPUA Inspector. All pressure pipe lines must be subjected to hydrostatic testing in accordance with the appropriate CFPUA Specification. These pipe lines shall be tested to 150 psi for a period of two (2) hours. If the pressure drops more than three (3) psi, the test fails. Refer to the appropriate CFPUA Specification for more information on the procedure.
5.5.2 Flushing, Chlorination and Water Sampling

The Contractor shall give two (2) business days notification, for scheduling, to the assigned CFPUA Inspector. All water mains and services must be flushed, chlorinated and sampled in accordance with the CFPUA Specification 02660 and as directed by the CFPUA Inspector.

5.5.3 Gravity Sewer Testing

To schedule testing, the Contractor shall give two (2) business days notification to the assigned CFPUA Inspector. The Contractor shall be responsible for providing all equipment necessary for tests of displacement, deflection, leakage and camera inspection. All tests shall be performed by the Contractor and observed by the CFPUA Inspector.

1. Sewer Line Segment Testing—each sewer line segment (the sewer main between manholes) shall be tested:
   a. Thirty (30) days after installation and prior to final acceptance of the project, all sewer line segments and all services shall be camera inspected and video recorded. The CFPUA inspector will review the video recording for acceptance.
   b. As an alternative to waiting thirty (30) days to permit stabilization of the soil-pipe system, the CFPUA may accept certification from a soil testing firm verifying that the backfill of the trench has been compacted to at least 95% maximum density.
   c. After two (2) paper copies of the as-builds have been submitted to the CFPUA Inspector.
   d. After gravel has been installed on all roadways.

2. Video inspection Testing— the Contractor shall provide a DVD(s) of each sewer line segment and service line to ensure that the lines meet minimum standards. The DVD(s) will be reviewed in the order they are received. The typical review time is generally ten (10) to fifteen (15) business days but will depend on the complexity of the project, size, quality of the DVD(s), etc.
   a. The main line camera inspection must have project name, footages, manhole numbers, and dates of inspection.
   b. The service line camera inspection must include project name, footages, address and/or lot number, and date of inspection.
c. The camera inspection must show the full diameter of the pipe.

d. The camera lighting must be sufficient to see a minimum of two (2) feet in front of the camera.

e. The camera inspection must be performed upon completion of cleaning and potable water introduced into the system to be tested. All defects in the pipeline and appurtenances shall be remedied by the Contractor at no additional expense to the CFPUA and will be re-inspected as outlined above.

3. **Air Test** – Air testing shall be required by CFPUA if conditions are such that infiltration measurements may be inconclusive. The test shall be conducted in the presence of the CFPUA Inspector and shall conform to the following requirements:

   a. Test pressure shall be 3.5 psi increased by the ground water pressure above the top of the sewer.

   b. Pressure loss from 3.5 psi shall not exceed 0.5 psi during the required testing time.

   c. Testing time in minutes shall be calculated as 0.625 x nominal pipe size (inches).

4. **Pipe Deflection Test** (mandrel test) - The mandrel must be sized to no less than 95 percent of inside pipe diameter. The mandrel test may be performed on all sections of pipe and must be witnessed by the CFPUA Inspector. The maximum allowable deflection shall be five (5) percent in any direction. Any section of main not meeting the five (5) percent maximum deflection shall be repaired and retested after thirty (30) days, services after 14 days.

5.5.4 **Manhole Testing**

Manholes shall be tested with vacuum of ten (10) inches of mercury (5 psig). The time for the vacuum to drop to 9 inches of mercury shall be measured. The manhole shall pass if the time is greater than 60 seconds for a 48-inch diameter manhole or 75 seconds for a 60-inch diameter manhole. If a manhole fails the vacuum test, it shall be repaired and retested until a satisfactory test result is obtained.
5.5 Testing & Gravity Sewer Video Continued

5.5.5 Pump Station Start-up Testing

The contractor for the project will schedule the start-up test with the CFPUA Inspector and all required project representatives. Following the startup, the test results will be complied by the CFPUA Inspector and forwarded to the project engineer-of-record.

5.6 As-Built Drawings

The purpose of the as-built record drawings is to verify that the water and sewer system serving the project were installed per CFPUA Technical Specifications, in accordance with the approved construction permit, and recorded to show the actual locations of the water and sewer assets to be conveyed to CFPUA for ownership, operation and maintenance.

5.6.1 Paper As-built Drawings

Two (2) sets of as-built record drawings shall be provided in accordance with CFPUA Specification Section 01720 for review. The as-built checklist and an example of the plan’s cover sheet are provided in Section 5.0 of the Supplemental Documents Section of this manual for reference. It shall be the engineer’s responsibility to assure that the most current as-built checklist is used and to check the as-builts for conformance with this checklist before submitting the as-builts.

5.6.2 Plans and Checklist

Certified, surveyed record drawings (as-built plans), sealed by a North Carolina licensed Professional Land Surveyor or Professional Engineer (engineer seal required for profiles), shall be furnished to CFPUA by the Engineer of Record (or Developer, where applicable) prior to completion and acceptance of the infrastructure by CFPUA. The as-built plans shall conform to the as-built checklist.

5.6.3 As-built Submission

Two (2) sets of paper as-built drawings shall be submitted to the CFPUA Inspector.

1. Sewer projects— Prior to the review of the camera inspection of the installed infrastructure.
2. Water projects— After the infrastructure has been installed and pressure testing has been completed.
5.6 As-Built Drawings continued

5.6.4 CFPUA Inspector’s Review
The CFPUA Inspector will review the as-built drawings for compliance with the CFPUA As-built Checklist. The CFPUA Inspector will field verify the location of all water and sewer items on the as-builds. Comments will be provided to the contractor and engineer up to twenty (20) business days for large and complex projects, and up to five (5) business days for minor subdivisions (a single plan sheet).

5.6.5 Final Sealed As-Built Drawings
Once the CFPUA Inspector approves the as-built drawing, a final copy is to be submitted on original base Mylar sheets (24” X 36”), or the engineer shall provide drawings on DuPont Crovx Erasable Image (wash-off) sheets or approved equal. A digital copy (format no older than AutoCAD 2005) must be provided to CFPUA. Final Sealed as-built drawings should be submitted per Section 6.1 of this document.

5.7 Final Construction Completion

5.7.1 Items Required for Completion
Construction is considered complete when the following items are successfully satisfied:

⇒ Testing (hydro, water samples, air, vacuum, mandrel, and pump station)
⇒ As-Built Drawings
⇒ Camera Inspection
⇒ Walk thru acceptance inspection

Once complete, the project is ready to move towards certification and conveyance.
6.0 Certification & Conveyance

6.1 As-Built Mylar & CD

6.2 Plat Requirement

6.3 Conveyance Documents

6.4 Engineer’s Certification

6.5 Owner Certification and Acceptance

6.6 State Approval

6.7 Activation
6.1 As-Built Mylar & CD

6.1.1 Final Sealed As-Builts

Final sealed as-built drawings should be submitted as follows:

◊ One (1) set of Mylars
◊ One (1) electronic copy of the as-built drawings on CD or Auto CAD format

6.2 Plat Requirement

6.2.1 Subdivision Plat Review

The developer’s surveyor prepares the plat based on the property lines and easements that are necessary to establish the development. Plats are submitted to the various agencies for review, including CFPUA Engineering Department. The jurisdictional governing body (COW or NHC) takes the lead on plat review. See Plat Inspection Checklist.

6.3 Conveyance Documents

6.3.1 Conveyance documents to be provided by the Developer

CFPUA staff will request the conveyance information from the developer. CFPUA will assemble the Conveyance deed and forward it to the developer for signature. This document must be returned for execution and recordation. For questions, call 910-332-6560.

Additional items required:

◊ Warranties and Releases (see Supplemental Documents Section of this guidance manual)
  ⇒ Assignment of all Warranties and Guarantees (to be signed by conveyance grantor and all contractors)
  ⇒ Grantor’s Agreement (to be signed by conveyance grantor)
  ⇒ Contractor’s Release of Liens. Each Contractor and all Sub-Contractors shall complete this document.
6.3 Conveyance Documents

- **Legal Name of Signing Authority** — Company Name, Name of Signatory, and Title
  - If corporation—must be President, Vice President or Corporate Secretary
  - If partnership—must be a partner
  - If limited liability corporation (LLC) - must be member/manager or registered agent

- **Map Book and Page Number(s)** of recorded plats where utilities are installed
  - If no plats were recorded, provide deed book and page number(s) describing property where the utilities are installed.
  - Deeds and plats may be found at [http://www.nhcgov.com/Pages/GIS.aspx](http://www.nhcgov.com/Pages/GIS.aspx)

- **Description of utilities being conveyed**
  - Examples: 100 lf 8” gravity sewer, 50 lf 24” sewer force main, 1 pump station, and 100 lf 8” water main.

- **Cost of the water and sewer improvements**
  - List water and sewer separately

- **If easement is required:**
  - Provide:
    - Parent Tax Parcel Number(s) where are utilities are installed and easements are located.
      Parent tax parcels can be found at [http://www.nhcgov.com/Pages/GIS.aspx](http://www.nhcgov.com/Pages/GIS.aspx)
    - Map Book and Page Number(s) of recorded plats displaying all on-site and off-site easements to be recorded.

6.3.2 **Utilities to be Conveyed to CFPUA**

The utilities must be transferred to the ownership of CFPUA to become operational. The conveyance documents are necessary for the ownership transfer. The developer provides documents (See Section 6.4) that CFPUA will use to create the conveyance deed. CFPUA sends the deed to the developer for signature. Once returned, CFPUA signs and records the deed.
6.4 Engineer’s Certification

6.4.1 Required Documents

The following documentation must be submitted by the developer’s engineer and approved by CFPUA to process the Engineer’s Certification.

◊ **Engineer’s Certification** stating that the project was constructed as designed in accordance with the NCDWR and/or NCPWSS approved construction permit.

◊ **Conveyance Deed** transferring ownership of the installed water and sewer physical assets with easements to CFPUA. CFPUA prepared this document, the developer signs, and CFPUA records. (see Section 6.3)

6.5 Owner Certification and Acceptance

6.5.1 Certification by System Permitee

CFPUA signs the owner certifications of public utilities upon receipt of the developer’s engineer’s certification and the completion of conveyance documents.

⇒ Sewer—The owner’s certification is returned to the engineer for submittal to NCDWR.

⇒ Water—CFPUA submits certifications to the state with a copy to the engineer.

6.5.2 Acceptance

Acceptance of the new public utility system is indicated when CFPUA signs the owner’s certification, and records the conveyance deed.

6.6 State Approval

6.6.1 NCDWR and NCPWSS

NCDWR and NCPWSS issue the approvals to CFPUA with copy to the engineer. The state approvals are necessary to activate any public water or sewer utility.

6.7 Activation

6.7.1 Main Activation and Warranty

CFPUA will activate the approved mains. Only CFPUA personnel can open valves and/or activate CFPUA mains and equipment. The warranty period begins when the conveyance deed is recorded.
7.0 Plats

7.1 Mylar Plat Approval by CFPUA

7.2 COW/NHC Plat Approval

7.3 Recorded Plat
7.1 Mylar Plat Submission

Mylar plats are submitted to COW or NHC once CFPUA and all agencies approve the paper plat.

7.2 COW/NHC Plat Approval

7.2 Requirements

COW and NHC require CFPUA to sign all plats that involve or require public utilities.

7.3 Recorded Plat

7.3 Recordation

The developer’s surveyor records the plat upon final approval by the City or County.
8.0 Utility Accounts and Building Permits

8.1 CFPUA Utility Service Application

8.2 Fees Paid and Building Permit Sign Off

8.3 Backflow

8.4 Meter Set

8.5 CFPUA Sign Off for C.O.
8.1 CFPUA Utility Service Application

New lots are created when the plat is recorded. Once a lot has been created, the City or County will assign an address and a parcel identification number. Then, a utility account may be established.

8.1 Application and Fees

An application is available online at www.cfpua.org or at one of our Customer Service Centers at 235 Government Center Drive and 305 Chestnut Street. You can reach our Customer Service Department by phone at 910-332-6550. The fees necessary to set up the account and connect will be provided by the customer service representative when the application is completed.

8.2 Fees Paid and Building Permit Sign Off

8.2 Fees Paid

Once the fees are received by CFPUA, the applicable work order(s) will be generated in the system; for example, setting a water meter. Once the request form is received, CFPUA will perform a Certificate of Occupancy inspection. Allow up to two (2) business days to complete the of Occupancy sign off.

8.2.1 Building Permit Program

New Hanover County administers the building permits program (910-798-7060) for projects within the City of Wilmington and unincorporated areas. CFPUA reviews the building permit application as part of the process once an application is received by the New Hanover County Building Inspections Department.

Once the CFPUA utility account is established (see Section 8.1), and the applicable fees are paid, CFPUA will sign off on the building permit. Typically, this sign-off occurs within ten (10) business days, electronically. The contractor may check/track the status on the New Hanover County Permit System.

8.2.2 Inspection Fee

If a meter set has been requested and all work is not to CFPUA standards or the plumbing work is not complete, the meter set cannot occur. The meter set will have to be rescheduled once the work is complete, following the same process as outlined above. A premise visit fee will be assessed to the account for each additional visit that CFPUA staff must make to set the meter. Please refer to the Schedule of Fees and Charges for the applicable premise visit fee.
8.4 Water and Sewer Connections

It will be necessary for the plumbing contractor to coordinate the plumbing connections for water and sewer. To schedule a meter set CFPUA’s Customer Service Center at (910) 332-6550 or an email can be sent to customer.service@cfpua.org. The following information must be provided:

- Address
- Name of Requestor and contact information
8.4 Meter Set (continued)

Once the request has been submitted, CFPUA will make every attempt to provide inspections and/or install meters within two (2) business days.

8.5 CFPUA Sign Off for C.O.

8.5.1 CFPUA Certificate of Occupancy (C.O.) Request Form

In order to obtain a Certificate of Occupancy (CO), a request form must be completed. A sample copy of this form can be found in the Supplemental Documents Section of this document. This form can also be found at www.cfpua.org. The completed form can be emailed to enginspection@cfpua.org or returned to 235 Government Center Drive.

Once this request form is received, CFPUA will perform a Certificate of Occupancy inspection.

8.5.2 Sign Off

CFPUA will sign off on the building permit once a CFPUA utility account is established and all applicable fees are paid. Expect two (2) business days to complete the Certificate of Occupancy inspection.
ALTERNATE ROUTE

9 Utility Bond or Letter of Credit
New Hanover County Only

9.1 Permitting Complete

9.2 Professional Engineer’s Sealed Estimate of Completion of Construction

9.3 CFPUA Engineering Review

9.4 NHC Bond Acceptance
9.0 Utility Bond or Letter of Credit

New Hanover County Only

Within NHC, a plat may be conditionally approved prior to construction of the improvements required to serve the development. The plat may be approved once the developer provides a financial guarantee acceptable to NHC and the applicable agencies, such as NCDOT, CFPUA, etc. Financial guarantees typically take the form of a bond, letter of credit, or certified check meeting the county requirements. Contact New Hanover County Planning for details. Structures may not be occupied, but in some cases, the building permits and construction may begin parallel to the construction of required improvements. In some cases the construction time of the project may be shortened through this process. CFPUA will not issue a release for C.O. to NHC until a means of water and/or sewer are available.

9.1 Permitting Complete

10.1 Utility Permitting Complete

In order to proceed along this process; the water and sewer utility plans must first be approved and permitted by the respective local, state, and federal agencies.

9.2 Professional Engineer’s Sealed Estimate of Completion of Construction

10.2 Engineer’s Estimate of Probable Costs

The developer obtains the services of a professional consulting engineer who prepares a sealed opinion of probable cost of water and sewer construction based on the approved permitted public water and sewer utility plans.
10.3 **CFPUA Estimate Approval**

The engineer submits the water and/or sewer cost estimate to the CFPUA Engineering Project Manager for review. The CFPUA engineering staff informs the NHC Engineering staff and the consulting engineer when the cost estimate is approved.

10.4 **NHC Bond Acceptance**

County staff accepts the engineer’s cost estimate once they receive confirmation from CFPUA and any other applicable agencies. Then, county staff and/or the developer routes the plat for all agency approvals.
Supplemental DOCUMENTS
Index

2.0 Preliminary Plan

2.A Commercial Plan Review and/or Utility Extension Review with Listing of CFPUA Fees
2.B CFPUA Water and Sewer Availability Request for Information (RFI) Form

3.0 Plan Approval

3.A Section 01721 Design Drawing Submittals
3.B Sample Easement Document

4.0 Permitting

4.A NCDEQ Application for Approval of Engineering Plans & Specs for Water Supply Systems
4.B NCPWS Engineer’s Report for Water Main Extensions
4.C NCDEQ Division of Water Resources-Fast Track Application for Gravity Sewer, Pump Stations & Force Mains
4.D NCDOT Three Party Right of Way Encroachment Agreement
4.E City of Wilmington—Utility Work Permit Application
4.F CFPUA Flow Letter—Public Sewer
4.G CFPUA Flow Letter—Public Water

5.0 Construction

5.A CFPUA Pre-Con Checklist
5.B Tracking Sheet for Water and Sewer Systems
5.C As-built Checklist REV. 4, Section 01720
5.D CFPUA Walk-Thru Checklist
5.E Sample Bacteriological Analysis Report
5.F Gravity Sewer Main Air Pressure Test
5.F.1 Force Main Water Line Pressure Test
5.F.2 Manhole Vacuum Leakage Test
Exhibit #  Document Name

5.0 Construction continued

5.G  After Hours Inspection Fee Sheet
5.H  Certification of Occupation Request Form
5.I  As-Built Cover Sheet Example

6.0 Certification & Conveyance

6.A  NCDEQ Applicant Certification Form—Public Water System Project
6.B  NCDEQ Applicant Certification Form for Water Main Extensions not owned by the supplier of water
6.C  Fast Track Sewer Engineering Certification
6.D  Sample NCDEQ DWR Engineering Plans & Specifications Approval—Water Main Extension
6.E  Sample NCDEQ DWR Authorization to Construct—Public Water System
6.F  Sample NCDEQ DWR Final Approval—Public
6.G  Sample NCDEQ DWR Permit Modification—Public Sewer System
6.H  Sample Email NCDEQ DWR Partial Certification
6.I  Sample NCDEQ DWR Permit Tracking
6.J  Sample NCDEQ DWR Final Engineering Certification
6.K  Assignment of All Warranties and Guarantees
6.L  Grantor’s Agreement
6.M  Contractor’s Release of Liens
6.N  Easement and Conveyance Document

7.0 Plats

7.A  Plat Inspection Checklist
7.B  CFPUA Plat Certification
2.0 Preliminary Plan

2.A Commercial Plan Review and/or Utility Extension Review with Listing of CFPUA Fees

2.B CFPUA Water and Sewer Availability Request for Information (RFI) Form
## Commercial Plan Review and/or Utility Extension Review with Listing of CFPUA Fees

**NOTE:** Submittals must include an Application, two (2) sets of plans with vicinity map, and Plan Review Fee.

<table>
<thead>
<tr>
<th>Utility Extension (Total Water and Sewer Main Footage)</th>
<th>Review Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 500 Linear Feet</td>
<td>$240</td>
</tr>
<tr>
<td>500 – 999 Linear Feet</td>
<td>$300</td>
</tr>
<tr>
<td>1,000 – 4,999 Linear Feet</td>
<td>$600</td>
</tr>
<tr>
<td>5,000 – 9,999 Linear Feet</td>
<td>$850</td>
</tr>
<tr>
<td>10,000 and up Linear Feet</td>
<td>$1,400</td>
</tr>
<tr>
<td>Re-Review Fee</td>
<td>$50</td>
</tr>
</tbody>
</table>

*Pump Station Review*  
$350

*Minor Subdivision (5 lots or less; with no utility extension)*  
$120

*Commercial Plan Review (Taps Only)*  
$120

Application For:

**Commercial Plan Review and/or Utility Extension Review with Listing of CFPUA Fees**

DateReceived: ____________________________ CFPUA File #: ____________________________

Project Manager: ____________________________ NHC Building Permit #: ____________________________

Please type or print:

1) **NAME OF DEVELOPMENT:** ____________________________

2) **ADDRESS OF DEVELOPMENT:** ____________________________

3) **TYPE OF DEVELOPMENT / USE(S):** ____________________________

4) **NUMBER OF UNITS:** __________, **WATER DEMAND IN GPD:** __________, **SEWER DEMAND IN GPD:** __________

5) **TAX I.D. NUMBER:** ____________________________

6) **PRESENT ZONING:** __________, **PROPOSED ZONING CHANGES:** __________, **ACRES:** __________

7) **IS A WATER: MAIN PROPOSED:** YES: __________ NO: __________, **SERVICE PROPOSED:** YES: __________ NO: __________

8) **IS A SEWER: MAIN PROPOSED:** YES: __________ NO: __________, **SERVICE PROPOSED:** YES: __________ NO: __________

9) **IS THERE AN EXISTING: SEWER TAP?** YES: __________ NO: __________, **WATER SERVICE:** YES: __________ NO: __________

   (If there is an existing sewer tap, a Work Order must be sent to Operations to camera existing cleanout)

10) **IS A FIRE LINE PROPOSED:** YES: __________, NO: __________

**OWNER / DEVELOPER:** ____________________________

**ADDRESS:** ____________________________

**CONTACT PERSON:** ____________________________

**PHONE #:** ____________________________, **FAX #:** ____________________________

**E-MAIL ADDRESS:** ____________________________

**PLANS PREPARED BY:** ____________________________

**ADDRESS:** ____________________________

**CONTACT PERSON:** ____________________________

**PHONE #:** ____________________________, **FAX #:** ____________________________

**E-MAIL ADDRESS:** ____________________________

**SIGNATURE OF OWNER / DEVELOPER / REPRESENTATIVE** ____________________________ **DATE** ____________________________

**REVIEW FEE RECEIVED:** $ ____________________________
# CFPUA Water and Sewer Availability Request for Information (RFI) Form

**Return To:** CFPUA Engineering Department  
235 Government Center Drive, Wilmington, NC 28403  
Phone: (910) 332-6560, Fax: (910) 332-6535, or Email: residential.requests@cfpua.org

<table>
<thead>
<tr>
<th>Requested By</th>
<th>Contact Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Engineer</td>
<td>Developer/Owner</td>
</tr>
<tr>
<td>Agent/Broker</td>
<td>Phone:</td>
</tr>
<tr>
<td>Appraiser</td>
<td>Fax:</td>
</tr>
<tr>
<td>Contractor</td>
<td>Email Address:</td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

## Requested Date: 

## Describe the land you are requesting information about (one RFI per parcel):
### Parcel ID: R

### Street Address: 
### Acres: 
### Property Owner: 
### Multiple adjoining parcels? Yes No If yes, submit one RFI per parcel.

## What do you plan to do?:
### Subdivide Single Family Approx # Units: 
### Multi-family Approx # Units: 
### Commercial Describe Use: 
### Construct a Home Comment: 
### Other Comment: 

## What information do you need?:
### Availability and requirements for connection to CFPUA sewer 
### Availability and requirements for connection to CFPUA water 
### Other: 

### Proposed Water Meter Size (if applicable): 

### General Comments:

## CAPE FEAR PUBLIC UTILITY AUTHORITY (Allow 7 business days):
All costs for extensions of the water or sewer systems in the CFPUA system are at the responsibility of the developer (including design, permitting, easements, construction, inspection, conveyance, etc.) The information provided in this response must be verified for accuracy by the requester’s licensed professional. CFPUA does not guarantee its accuracy or completeness in regards to actual distance and/or elevation.

If checked, the following notice applies to development of this parcel: Treatment capacity at the Northside and Southside waste water treatment facilities is limited, and completion of this form, does not guarantee connection. Final approval and connection is subject to State and Local reviews and approval and subject to acceptance by the CFPUA. Availability based on a first come, first serve basis.

All activities in New Hanover County and the City of Wilmington must comply with the entirety of the code of ordinance located along with other information at [http://www.cfpua.org/index.asp?nid=194](http://www.cfpua.org/index.asp?nid=194).

## General Comments:
CFPUA RESPONSE TO RFI (cont’d)

SEWER:

☐ If checked, the CFPUA sewer system does not extend to this area.

☐ If checked, the project is in an area that would require a main line sewer extension or the installation of a regional lift station at the developer’s cost.

The sewage at this project would be treated at:

☐ Northside Plant
☐ Southside Plant

Specific Sewer Comments:

WATER:

☐ If checked, the CFPUA water system does not extend to this area.

☐ If checked, the project is in an area that would require a main line water extension.

Specific Water Comments:

ADDITIONAL INFORMATION:

Info Taken By:            Contact Date:           
Forwarded To:            Contact Date:           
CFPUA Contact:           Contact Date:           
CFPUA Contact:           Contact Date:           

Revised 08/24/2015
3.0 Plan Approval

3.A  Section 01721 Design Drawing Submittals

3.B  Sample Easement Document
SECTION 01721
DESIGN DRAWING SUBMITTALS

PART 1 GENERAL

1.01 DESIGN DRAWINGS

This section applies to design plans for sewer main extension plans, water main extension plans, and utility plans to serve commercial, industrial, or multifamily residences other than a single family duplex residential structure on a single lot of record. Design plans sealed by a North Carolina licensed Professional Engineer are required to be submitted and approved by the Cape Fear Public Utility Authority (Authority). Plans in compliance with all Authority requirements including this specification may be approved by Engineering Director for the Authority or his/her designee. The plans must also be consistent with the Authority Master Plans, Authority policies, current engineering and construction practices, methods, and standards sound engineering practice, and sound construction practice. When plans require approval from local, state, and federal permitting agencies, there may be the need for information in addition to information required by this specification. Where content specifications vary, the more restrictive requirement(s) will apply.

1.02 DESIGN DRAWING CONTENT CHECK LIST

(a) GENERAL

1. Project name and address.
2. Engineer’s seal and surveyor’s seal as applicable or required.
3. Engineer’s contact information to include name, address, phone number, and email is optional.
4. Surveyor’s name, address, and phone number.
5. Owner’s name, address, and phone number.
6. Include the appropriate Authority water and sewer detail sheets.
7. Strike out Authority details that are not appropriate and propose substitute details.
8. Propose custom details for situations that are not addressed adequately by the Authority details.
9. Dates of original drawings and revisions.
10. North arrow and location map.
11. For multi-sheet plans, provide a cover sheet with an index planning map at a scale of 1 inch = 200 feet showing the organization of the plan sheets, sheet numbers and a legend for all line work and symbols to identify proposed and existing conditions. On the legend include an open circle for sanitary sewer cleanouts and an open box for water service meters.
12. Provide 2 hard copies (24-inch by 36-inch maximum size) and a PDF file copy. File copies may be emailed separately.
13. Show proposed water and sewer layers bolder line type than drainage, streets, etc.
14. Plan text shall be at least 0.10-inches height.
15. Scale:
   1. Scale for plan views shall be 1-inch = 50 feet.
   2. Supplementary plan drawings may be shown at a larger scale.
   3. Scale for profiles shall be 1-inch = 50-feet in the horizontal direction.
   4. Scale for profiles shall be 1-inch = 5-feet in the vertical direction.
16. Survey Control:
   1. Elevations shall be tied to North American Vertical Datum of 1988 (NAVD 88) and horizontal coordinates shall be tied to the North Carolina Grid System.
   2. Include at least 2 coordinated horizontal control points and vertical benchmarks within project area and provide the offsite benchmark reference when applicable.
17. Existing Information: Display all existing storm pipes, sewer pipes, water pipes, underground utilities, water services, fire hydrants, manholes, monitoring wells, sewer services, drainage features, topography, roadways and all other information relevant to the proposed utility design.
18. Total linear feet on cover sheet listed separately for proposed water lines, gravity sewer, and force main.
19. Utility Services:
   i. Commercial, multifamily, and industrial site plans shall indicate all water and/or sewer services proposed, existing, to be relocated and/or to be abandoned.
   ii. Water service will include location and size of the water meter, backflow, service line and tap.
   iii. Sewer service will include location and size, cleanout and tap.
   iv. Indicate the use of each service (ie, irrigation, domestic, or fire line).
   v. Subdivision plans prepared for Authority review are not required to show the service locations on the plans submitted for review prior to construction. Service locations for subdivision plans are recommended to be finalized in the construction phase.
20. Drawings shall indicate water/sewer phases(s).
21. Show approximate vertical and horizontal separations of waterlines, storm pipes, sewer mains, and force mains to proposed and/or existing utilities. Scaled profile drawings are required for each crossing of water and sewer mains, each crossing of water mains and storm pipes, and each crossing of sewer mains and storm pipes.
22. Show all subsurface boring with associated excavations, transitions, and casings.
23. Show Existing surface elevations and proposed finish grades.
24. Show the 100 year flood zone when it is present on the property.
25. Show lot numbers, addresses, property lines, property owners, and county parcel identification numbers within the project and adjacent to the project parcels. Indicate source of property lines shown (i.e. survey date and surveyor, plotted from record, map book page number, GIS tax data).
26. Show right of way with street name, state road number, street owner information, right of way width, pavement material, and pavement width.
27. Show existing easements, including width, deed/map book and page number, property owner, and county parcel identification number.
28. Show proposed easements including width and their relationship to the proposed utilities.
29. Indicate proposed ownership of the proposed utilities (public or private).
30. Plans shall indicate compliance with the Authority Technical Specifications and Standards.
31. Variances from Authority Specifications and Standards shall be requested in writing along with the plan submittal.
32. Include a general sequence of construction.

(b) SEWER MAINS
   1. Provide the plans and the applications in conformance with all North Carolina Division of Water Quality requirements. Indicate whether or not the plan will require a variance from any North Carolina Division of Water Quality (DWQ) requirement. If so then provide a variance request letter to with all relevant information addressed to DWQ.
   2. Provide a continuous plan and profile drawing of all gravity and force mains. Stationing is to begin at an end of the proposed main that connects to an existing manhole, header, or sewer main.
   3. Inverts into and out of manholes are to be shown at 0.01-feet accuracy.
   4. For each sewer reach, show pipe diameter, length between manholes, material, and slope.
   5. Show station or distance to beginning and end of change in pipe material.
   6. Show manhole size and indicate proposed or existing. Indicate material of existing manholes.
   7. Show all water supply wells within 100-feet of proposed sewer mains and water mains within 10-feet of proposed sewer mains.
   8. Show all wetlands and/or surface waters classified as WS-II, WS-III, B, SA, ORW, HGW, or SB. Show the separation distance to sewer manholes and mains with all wetlands, surface waters and/or areas of environmental concern per North Carolina Division of the Environment and Natural Resources definitions. If no such areas affect the design, then note plans accordingly.
   9. Show top (rim) elevation & flood elevation or surface water flow levels at each manhole.
10. Show location of air release valves, valves, and fittings along force mains.
11. Indicate all pipe restraint and thrust blocking.
12. Indicate size and material of existing and proposed services.
13. Indicate manhole service taps, main line taps, service casing, &/or material transition.
14. Include the Authority standard sewer notes on all plan & profile sheets.
15. For pump station projects, the plans shall include the site layout and all relevant information required on the Authority pump station detail sheets. Include all calculations required by DWQ and the Authority.

(c) WATER MAINS
1. Provide the plans and the applications in conformance with all North Carolina Public Water Supply Section requirements. Indicate whether or not the plan will require a variance from any North Carolina Public Water Supply Section (PWSS) requirement. If so then provide a variance request letter to with all relevant information addressed to PWSS.
2. Show pipe diameter, length, and approved material.
3. Show all sewer mains within 10-feet of proposed water mains.
4. Show all septic systems within 50-feet of proposed water mains.
5. Show location and type of shut off valves, air release valves, blow off valves and fittings.
6. Indicate all pipe restraint and thrust blocking.
7. Show the backflow prevention device including type, size, manufacturer and model number.
8. Indicate fire hydrants and hydrant shut off valves.
9. Booster stations and storage tanks and other water facilities shall include accurate information regarding size, capacity, structural dimensions, material, coatings, electrical equipment, site plan, power supply, and current zoning of the parcel and adjacent parcels.

END OF SECTION
This DEED OF EASEMENT, made and entered into this _____ day of ______________, 2016, by and between ______________________________, hereinafter, whether one or more, referred to as "GRANTOR"; and CAPE FEAR PUBLIC UTILITY AUTHORITY, a body corporate and politic of the State of North Carolina created pursuant to Chapter 162A, Article 1 of the North Carolina Statutes, whose mailing address is 235 Government Center Drive, Wilmington, North Carolina 28403, its successors and assigns, hereinafter referred to as "GRANTEE";

W I T N E S S E T H:

WHEREAS, GRANTOR owns certain real property located in New Hanover County more particularly described on Exhibit A attached (the "Property"), and has agreed to convey to GRANTEE certain easements for public water and sewer utilities over portions of the Property;

NOW, THEREFORE, GRANTOR, for and in consideration of the sum of One Dollar ($1.00) and other valuable consideration to it in hand paid by GRANTEE, and in consideration of the mutual benefits inuring to the parties hereto, does hereby give, grant and convey unto GRANTEE the perpetual rights and easements as more fully described in the paragraphs below.
1. Public Utility Easement.
   
   A. GRANTEE shall have a permanent non-exclusive utility easement upon, through, in, and under the portions of the Property more specifically described as

   ______________________________________________________________________
   ______________________________________________________________________
   ______________________________________________________________________ (the "Easement Area").

   B. Purpose of Easements. The purpose of this easement is for the installation, operation, and maintenance of a system of pipelines or mains and related facilities for public utility purposes, including water and sanitary sewer (whether currently existing or later installed, collectively the "Facilities"). Said Facilities may include, without limitation, water lines, sewer lines, pipes, valves, hydrants, meters, and manholes. GRANTEE'S rights shall include the right to do all things necessary and convenient to satisfy said purposes, including without limitation constructing, laying, maintaining, inspecting, operating, protecting, repairing, changing the size of, replacing, removing or abandoning the facilities.

   C. Specific Terms. Further specific terms and conditions applicable to the public utility easement are as follows:

   (i.) GRANTOR shall not place, construct, deposit, leave, permit to be or remain on, within or over the Easement Area, any construction materials, metals, lumber, trees, berms, water bodies, rubbish, refuse, fences, structures, buildings or other obstructions. Furthermore, GRANTOR shall not install, or permit to be installed, any utility lines or facilities within five (5) feet of the facilities located in the Easement Area or above or below said Facilities at any distance. Any such obstructions shall constitute an easement nuisance and shall be removed by GRANTOR, at its expense.

   (ii.) GRANTEE is authorized to remove from the Easement Area all structures, fences, trees, shrubs, vegetation, and other obstructions as necessary, in GRANTEE's sole
Cape Fear Public Utility Authority Contract Number: ___ - ______
discretion, to maintain, repair or protect the facilities. Notwithstanding the foregoing,
GRANTOR may (1) construct, maintain, and use the Easement Area for paved rights of way,
paved drives and parking areas; and (2) plant and maintain shallow-rooted ground cover
material within the Easement Area.

(iii.) GRANTOR shall retain fee simple ownership of the Property including the
Easement Area; provided, however, no use may be made of the Easement Area which
interferes with GRANTEE's full, reasonable use of the easements and rights described herein.

(iv.) At the conclusion of any installation or maintenance of the facilities within
the Easement Area, GRANTEE will regrade, mulch, and re-seed, or otherwise return the
disturbed land within the Easement Area to as near prior conditions as feasibly possible, and in
compliance with municipal ordinances. Said restoration shall not include laying sod,
landscaping, or non-standard driveways (exposed aggregate, etc.).

2. Ingress and Egress Easement. GRANTEE shall have the right of access, ingress and
egress over, upon, through, and under the Easement Area. In addition thereto, GRANTEE shall
have the right of access, ingress, and egress over such private roads, driveways, alleys and ways
as may now or hereafter exist on the Property (collectively, the "Private Roads"), and if there
are no public rights of way or Private Roads reasonably convenient to provide access to the
Easement Area, then GRANTEE shall have the rights of ingress and egress over the portions of
the Property adjacent to the Easement Area in such manner as shall reasonably minimize the
inconvenience and damages to GRANTOR. GRANTEE will be responsible for damages to the
Property outside of the Easement Area caused by GRANTEE's use of the same for ingress and
egress as provided herein.

3. Indemnity. (a) GRANTOR agrees to indemnify and hold harmless GRANTEE, and its
independent contractors, agents, employees, successors and assigns from and against any and
all claims, demands, causes of action, or other liability, including attorneys' fees, on account of
damage resulting from the negligence of all GRANTOR, GRANTOR'S agents, employees, and
subcontractors in connection with the installation of the Existing Facilities (b.) GRANTEE agrees to indemnify and hold harmless GRANTOR, and its independent contractors, agents, employees, successors and assigns from and against any and all claims, demands, causes of action, or other liability, including attorneys’ fees, on account of property damage resulting from the negligence of all GRANTEE, GRANTEE’s agents, employees and subcontractors in connection with the Existing Facilities.

4. **Covenants by Grantor.** GRANTOR, for itself, its heirs, executors, administrators and assigns, does covenant with GRANTEE, its successors and assigns, that it is the owner in fee simple of the Property on Exhibit A; that it has good right to grant and convey the easements and rights described herein and the easements shown on the attached plats; that said Property is free and clear from all restrictions, easements or encumbrances, except for encumbrances of record as of the date of this Deed of Easement which do not affect the easements granted herein to GRANTEE and the lien of local property taxes; and that it shall, and its heirs, executors, administrators and assigns shall, warrant and defend the title to said easements and rights against the lawful claims and demands of any and all persons whomsoever. GRANTOR further covenants that the individuals executing this document on behalf of GRANTOR have all necessary and appropriate authority to bind GRANTOR to the obligations and conveyances granted herein, and, in the event that GRANTOR is a corporation or similar entity, that the execution of this document has been authorized by all appropriate and necessary corporate action.

TO HAVE AND TO HOLD the rights and easements hereby granted to GRANTEE and its successors in title forever; it being agreed that the rights and easements hereby granted are appurtenant to and runs with the Property now owned by GRANTOR.

[SIGNATURES ON FOLLOWING PAGES]
Cape Fear Public Utility Authority Contract Number: ___ - ______

IN TESTIMONY WHEREOF, the GRANTOR has hereunto set its hand and seal, the day and year first above written.

_________________________________ (SEAL)
(PrintName) ___________________________

STATE OF NORTH CAROLINA
COUNTY OF ______________________

I certify that _________________________ personally appeared before me this day, acknowledging to me that he/she signed the foregoing document for the purpose(s) stated therein, in the capacity indicated therein.

Date: ____________________________

Signature of Notary Public

_______________________________
Notary's printed or typed name

My commission expires: ___________________

(Official Seal)

Notary seal or stamp must appear within this box.
EXHIBIT A

PROPERTY

All of that certain tract or parcel of land located in New Hanover County more particularly described as follows:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Supplemental DOCUMENTS

4.0 Permitting

4.A NCDENR Application for Approval of Engineering Plans & Specs for Water Supply Systems
4.B NCPWS Engineer’s Report for Water Main Extensions
4.C NCDENR Division of Water Resources-Fast Track Application for Gravity Sewer, Pump Stations & Force Mains
4.D NCDOT Three Party Right of Way Encroachment Agreement
4.E City of Wilmington—Utility Work Permit Application
4.F CFPUA Flow Letter—Public Sewer
4.G CFPUA Flow Letter—Public Water
North Carolina Department of Environmental Quality  
Division of Water Resources  
Public Water Supply Section

Application for Approval of Engineering Plans and Specifications For Water Supply Systems

<table>
<thead>
<tr>
<th>Applicant</th>
<th>Design Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Name of Board, Council or Owner – the Applicant)</td>
<td>(Name of Design Engineer of Record)</td>
</tr>
<tr>
<td>(Name and Title of Authorized Official or Representative of the Applicant)</td>
<td>(Name of Engineering Firm)</td>
</tr>
<tr>
<td>(Street or Box Number)</td>
<td>(Street or Box Number)</td>
</tr>
<tr>
<td>(City, State &amp; ZIP)</td>
<td>(City, State &amp; ZIP)</td>
</tr>
<tr>
<td>(Phone Number)</td>
<td>(Phone Number)</td>
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<tr>
<td>(FAX Number)</td>
<td>(FAX Number)</td>
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<tr>
<td>(Email address)</td>
<td>(Email address)</td>
</tr>
<tr>
<td>(Signature of Authorized Official or Representative of the Applicant)</td>
<td></td>
</tr>
</tbody>
</table>

Project Name: __________________________ (Name of Project to appear on Public Water Supply Section records and tracking system)

(Name of Project to appear on Public Water Supply Section records and tracking system)

(description of project)

(general location of project)
in __________________________ County.

Date __________________________ Serial No. __________________________
(for DEQ use only) (for DEQ use only)
Application for Approval of Engineering Plans and Specifications for Water Supply Systems

To: Division of Water Resources,  
Department of Environmental Quality

The Applicant applies under and in full accord with the provision of NCGS 130A-317, and such other statutes and rules as relate to public water systems. The Authorized Official or Representative of the Applicant represents that he is authorized to act for the Applicant. The Authorized Official or Representative of the Applicant understands and agrees to the following:

1. The Applicant shall not award contracts or begin construction without first receiving “Authorization to Construct” from DEQ.
2. The Applicant shall make no change or deviation from the engineering plans and specifications approved by DEQ except as allowed by 15A NCAC 18C .0306 or with the written consent and approval of DEQ.
3. The Applicant shall obtain Final Approval from DEQ prior to placing the project (or any portion thereof) into service.
4. Digital (PDF) submittals are true image copy of the original sealed/signed documents.

An authorized representative of the Public Water System (not always the same as the Applicant) is to complete and sign the following WSMP section.

Status of Water System Management Plan (WSMP)

Check one of the following, and if applicable, provide the required information:

☐ The WSMP for the project, as defined in the attached engineering plans and specifications, has not been submitted.
☐ Three copies of the WSMP for the project, as defined in the attached engineering plans and specifications, are submitted with this application.
☐ The WSMP that includes this project, as defined in the attached engineering plans and specifications, was previously submitted.

Provide the following:

Public Water System Name: __________________________
Owner Name: __________________________
Water System No.: NC __________________________
Serial Number of Deemed Complete WSMP: __________________________

By my signature below, I certify that the previously submitted WSMP contains the information required by 15A NCAC 18C .0307(c) for the project defined in the attached engineering plans and specifications.

________________________________________
(Type or print name of authorized representative of Public Water System)

________________________________________
(Title of authorized representative of Public Water System)

________________________________________
(Signature of authorized representative of Public Water System)  (Date)
Application for Approval of Engineering Plans and Specifications for Water Supply Systems

In accordance with NCGS 130A-328, the Public Water Supply Section charges a fee for plan review. Any documents submitted for review must be accompanied by a check payable to DEQ/Public Water Supply Section before the review will begin.

There is a $25 fee for returned checks.

The charges for review of plans are shown below. Check one of the following.

**Distribution System fees**
- Construction of water lines, less than 5000 linear feet: $150
- Construction of water lines, 5000 linear feet or more: $200
- Other construction or alteration to a distribution system: $75

**Ground Water System fees**
- Construction of a new ground water system or adding a new well: $200
- Alteration to an existing ground water system: $100

**Surface water system fees**
- Construction of a new surface water intake or treatment facility: $250
- Alteration to existing surface water intake or treatment facility: $150

**Other fees**
- Water System Management Plan review: $75
- Miscellaneous changes or maintenance not covered above: $50

Notes:
1. Projects for Tank Rehabilitation use separate “Application for Water Tank Reconditioning Plan Approval.”
2. The fee is not refundable if the plans are not approved.
3. Revisions to plans to address the Public Water Supply Section’s or other state agency’s comments do not incur an additional fee.
4. If one set of plans has multiple related items (such as a new well with construction of water lines) only one fee must be submitted for highest price item. The amounts are not cumulative, except for fees for Water System Management Plans.
5. If the appropriate plan review fee is not received within ten days after the receipt of plans and specifications for approval, then all plan documents will be recycled. A new set of documents must then be submitted with the appropriate fee for approval.

This approval does not address all applicable laws, rules, standards and criteria, and other approvals and licenses that may be required by the local, state or federal government.

The Public Water Supply Section gives this approval with the understanding that upon installation of such works, its operation shall be placed under the care of a competent person, and the operation shall be carried out according to best accepted practice and in accordance with DEQ’s recommendations.

The Public Water Supply Section has stamped and sealed the official copies of plans and specifications accompanying this application with the serial number of this application ____________________________. Any erasures, additions or alterations of the proposed improvements except those permitted in 15A NCAC 18C.0306 make this approval null and void.

This approval does not constitute a warranty of the design, construction or future operation of the water system.

Signed: ____________________________________
Public Water Supply Section
DEQ
Other Information and Checklist Page

☐ Attached is a check for the proper plan review fee amount, in accordance with NCGS 130A-328. See note 4 on page 3.

This submittal includes one paper original with two digital (PDF) CDs of the following items, each item in separate folders:

☐ This completed “Application for Approval of Engineering Plans and Specifications for Water Supply Systems”

☐ The sealed plan drawings, separate file in PDF format for each drawing. Cover sheet must include drawings index;

☐ The project-specific Engineering Report (ER) describing the scope and purpose of the project and addressing each of the items listed in 15A NCAC 18C.0307(b), including the design basis of the project. [15A NCAC 18C.0307(b) (12)];

☐ Specifications for this project; OR

☐ The project will use the following system’s previously approved standard specifications for waterline extensions:

| Name of System: | ____________________________ |
| Serial Number: | ____________________________ |

The Serial Numbers for previously approved standard specifications can be found at the following website: http://www.ncwater.org/?page=424

One of the following:

☐ Attached is a letter signed by an authorized representative of the Public Water System agreeing to serve the project and stating that the system has adequate supply;

OR

☐ The Applicant is the Public Water System.

If the project has sought funding (for example, DWSRF loan) list the program and (if available) the application or funding number below:

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Application or Funding Number, if available</th>
</tr>
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<tr>
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</table>

Yes  ☐  No  ☐  Project will be completed with significant expenditure of state moneys, greater than ten million dollars ($10,000,000) in accordance with G.S. 113A-9 (7a).

☐  ☐  Project will cause substantial, permanent land-disturbing activity of an area greater than 10 acres of public lands in accordance with G.S. 113A-9 (11).
Engineer’s Report for Water Main Extensions

Date: ____________________________________________

Project Name: ____________________________________________

Water System Name: ____________________________________________

Water System ID: ____________________________________________

County of Project: ____________________________________________

Prepared by:

________________________________________

________________________________________

________________________________________

This form includes the minimum information needed for the N.C. Public Water Supply Section to review water main extension projects. Complex or unique design conditions must be addressed in a supplemental document as deemed appropriate by the design engineer.

Signature and seal of professional engineer that prepared this report

I attest that this engineer’s report has been prepared by me, or under my responsible charge, and is accurate, complete and consistent with the information supplied in the engineering calculations. I further attest that the proposed design has been prepared in accordance with 15A NCAC 18C. Although page 4 of this report incorporates data provided by others, inclusion of these materials under my seal signifies that I have reviewed this material and have judged it to be consistent with the proposed design.
Water Main Extension Engineer’s Report Mandatory Information
To present data required by 15A NCAC 18C .0307(b)
Specific citations from 15A NCAC 18C are provided when data is required to confirm compliance with another regulation.

Applicant Information

Applicant name (must be a person): ____________________________________________________________
Applicant mailing address: ____________________________________________________________
Applicant phone numbers: Business_________ Cell_________
Applicant e-mail address: _________________________________

Description of Proposed Project

Name of proposed project: ____________________________________________________________
Provide a summary of the diameter, length and material of all piping proposed in the project.

<table>
<thead>
<tr>
<th>Diameter of piping</th>
<th>Length of piping</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>_________-inch</td>
<td>_________ linear feet</td>
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<tr>
<td>_________-inch</td>
<td>_________ linear feet</td>
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<td>_________ linear feet</td>
<td></td>
</tr>
<tr>
<td>_________-inch</td>
<td>_________ linear feet</td>
<td></td>
</tr>
</tbody>
</table>

Location of project: (use address if available; if address is not available use existing roads and intersections, and identify municipality).

Is the project phased? □ Yes □ No
If yes, delineate all phases in plan sheets. Partial final approvals may be granted to completed phases specified in this submittal.

If yes, provide calculations to demonstrate that the project can provide adequate domestic and fire flows at the minimum required residual pressures (30 and 20 pounds per square inch gauge (psig), respectively) through each phase of construction.

Check here if project is a water main replacement with no additional demands. (Water main replacement consists of like size, no additional service connections, and no additional hydrants and no added fire demand.) □

If box checked, proceed to page 4
Provide anticipated project flows for any project that will increase demands

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the proposed project include any in-ground irrigation?</td>
<td></td>
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<tr>
<td>If yes, attach appropriate analysis to address how the system is designed to accommodate the impact of irrigation use on treated water supply, storage needs and system pressure.</td>
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</tr>
<tr>
<td>Peak hourly demand (non-fire flow) of proposed project</td>
<td></td>
<td></td>
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<tr>
<td>Maximum day demand of proposed project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicate the calculated pressure at maximum non-fire flow. The pressure must be at least 30 pounds per square inch gauge. You must attach calculations or summary of model results.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Will the proposed project provide fire flow?</td>
<td></td>
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</tr>
<tr>
<td>If yes, minimum flow rates are 500 gpm with the system capable of maintaining this flow for one hour or 250 gpm with the system capable of maintaining this flow for two hours. All fire suppression systems or appurtenances that exert a demand on proposed project must be included in calculations. Pressure must be at least 20 psig during fire flow conditions at maximum day demand.</td>
<td></td>
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<tr>
<td>Static pressure</td>
<td></td>
<td></td>
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<tr>
<td>Residual pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow rate during fire flow test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum pressure during fire flow at maximum day demand You must attach calculations or summary of model results.</td>
<td></td>
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<tr>
<td>NOTE: Supporting documentation must be attached for all calculated values. Maps displaying the locations of the field pressure and flow tests in relation to the location of the proposed project must also be attached.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **gpm**: gallons per minute
- **gpd**: gallons per day
- **psig**: pounds per square inch gauge
### Water System-Supplied Information

**Information on this page must be updated on an annual basis**

Data provided by: _________________________________ (name)  Date provided: ________________________________

Position: __________________________________________________________________________

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of current connections in water system</td>
<td>_______________ connections</td>
</tr>
<tr>
<td>Approved number of connections in water system</td>
<td>_______________ connections  □ N/A – local government system</td>
</tr>
<tr>
<td>Current average and maximum day demand of existing system</td>
<td>_______________ average gpd</td>
</tr>
<tr>
<td></td>
<td>_______________ maximum gpd</td>
</tr>
<tr>
<td>Current maximum daily treated water supply of existing system</td>
<td>_______________ maximum gpd</td>
</tr>
<tr>
<td>Total elevated storage capacity of existing system</td>
<td>_______________ gallons</td>
</tr>
<tr>
<td>Total ground storage capacity of existing system</td>
<td>_______________ gallons</td>
</tr>
<tr>
<td>Total hydropneumatic storage capacity of existing system</td>
<td>_______________ gallons</td>
</tr>
<tr>
<td>Contractual storage with other system(s)  Attach a copy of the agreement with the providing system</td>
<td>_______________ gallons</td>
</tr>
<tr>
<td>Systems &gt; 300 connections or systems &lt; 300 connections without hydropneumatic storage:</td>
<td>□ Yes  □ No  □ N/A</td>
</tr>
<tr>
<td>• Total storage volume is at least half the average annual daily demand (Rule .0805(c))</td>
<td>□ Yes  □ No  □ N/A</td>
</tr>
<tr>
<td>• Has elevated storage or meets high yield aquifer criteria (Rule.0405(d))</td>
<td>□ Yes  □ No  □ N/A</td>
</tr>
<tr>
<td>• For municipalities, at least 75,000 gallons elevated storage and at least half the average day demand combined elevated and ground finished water storage (Rule .0805(b))</td>
<td>□ Yes  □ No  □ N/A</td>
</tr>
<tr>
<td>Systems with hydropneumatic storage tanks up to 300 connections:</td>
<td>□ Yes  □ No</td>
</tr>
<tr>
<td>• Volume of hydropneumatic storage tank is sufficient to meet peak demands based on Rule .0802 and calculations in Appendix B, Figure 6</td>
<td>□ Yes  □ No  □ N/A</td>
</tr>
<tr>
<td>• For residential community systems, volume of hydropneumatic storage tank is at least 40 times the number of connections or 500 gallons, whichever is greater (Rule .0803)</td>
<td>□ Yes  □ No  □ N/A</td>
</tr>
<tr>
<td>• For mobile home park systems, volume of hydropneumatic storage tank is at least 25 times the number of connections or 500 gallons, whichever is greater (Rule .0803)</td>
<td>□ Yes  □ No  □ N/A</td>
</tr>
<tr>
<td>• For campground systems, volume of hydropneumatic storage tank is at least 10 times the number of connections or 500 gallons, whichever is greater (Rule .0803)</td>
<td>□ Yes  □ No  □ N/A</td>
</tr>
</tbody>
</table>
General – When submitting this application, please use the following instructions as a checklist in order to ensure all required items are submitted. Adherence to these instructions and checking the provided boxes will help produce a quicker review time and reduce the amount of requested additional information.

For more information, visit the Water Quality Permitting Section’s website or; contact the Regional Office serving your county.

Unless otherwise noted, the Applicant shall submit one original and one copy of the application and supporting documentation to the appropriate Regional Office (see page 3).

A. Cover Letter:
- Include a brief project narrative describing the final design (i.e. system and/or pump station to ultimately serve 500 homes, but flow for only 100 homes being requested now). For modifications, clearly explain the reason for the modification (i.e. adding another phase, changing line size, length, etc).

B. Application Form (FTA 10-14):
- Submit the completed and appropriately executed Fast-Track (FTA 10-14) Application. Any unauthorized content changes to this form shall result in the application being returned. If necessary for clarity or due to space restrictions, attachment to the application may be made, as long as the attachments are numbered to correspond to the section and item to which they refer. You do not need to submit detailed plans and specifications unless you respond NO to item B(13).
- The Professional Engineer’s Certification of the application shall be signed, sealed and dated by a North Carolina licensed Professional Engineer.
- The Applicant’s Certification of the application shall be signed in accordance with 15A NCAC 02T .0106(b). Per 15A NCAC 02T .0106(c), an alternate person may be designated as the signing official if a delegation letter is provided from a person who meets the criteria in 15A NCAC 02T .0106(b).

C. Application Fee:
- Submit a check in the amount of $480 to: North Carolina Department of Environmental Quality (NCDEQ).
- Checks shall be dated within 90 days of application submittal.

D. Certificate of Public Convenience and Necessity (For Privately-Owned Public Utilities Only):
- Per 15A NCAC 02T .0115(a)(1), provide two copies of the Certificate of Public Convenience and Necessity from the North Carolina Utilities Commission demonstrating the Applicant is authorized to hold the utility franchise for the area to be served by the sewer extension, or
- Provide two copies of a letter from the North Carolina Utilities Commission’s Water and Sewer Division Public Staff stating an application for a franchise has been received and that the service area is contiguous to an existing franchised area or that franchise approval is expected.
- The project name in the CPCN or letter must match that provided in Item A(2)a of this application.

E. Operational Agreements (For Home/Property Owners’ Associations and Developers of lots to be sold):
- Home/Property Owners’ Associations
- Per 15A NCAC 02T .0115(c), submit the properly executed Operational Agreement (HOA 08-13).
- Per 15A NCAC 02T .0115(c), submit a copy of the Articles of Incorporation, Declarations and By-laws.
- Developers of lots to be sold
- Per 15A NCAC 02T .0115(b), submit the properly executed Operational Agreement (DEV 08-13). Even if the project may be turned over to a municipality upon completion, Form DEV 08-13 is required.

F. Downstream Sewer, WWTF Capacity and Flow Tracking/Acceptance Form (FTSE 08-13)
- Submit the completed and appropriately executed Flow Tracking/Acceptance for Sewer Extension Permit (FTSE 08-13) Form for all applications.
The applicant (and owners of downstream sewers, pump stations and/or treatment facilities submitting form FTSE 08-13 certifies that the addition of the volume of wastewater to be permitted in this project has been evaluated along the route to the receiving treatment plant, and that the flow from this project will not cause capacity related sanitary sewer overflows or overburden any downstream pump station en route to the receiving wastewater treatment plant.

Where the applicant is not the owner of the downstream sewer, submit two copies of form FTSE 08-13 from the owner of the downstream sewer and owner of the WWTF, if different.

The flow acceptance indicated in form FTSE 08-13 must not expire prior to permit issuance and must be dated less than one year prior to the application date.

Submission of this application and form FTSE 08-13 indicates that owner has adequate capacity and will not violate G.S. 143-215.67(a).

Intergovernmental agreements or other contracts will not be accepted in lieu of a project-specific FTSE 08-13.

G. Site Map (All Application Packages):
- Submit an 8.5-inch x 11-inch color copy of a USGS Topographic Map of sufficient scale to identify the entire project area and closest surface waters. Each map must include at a minimum:
  - The location of the sewer line and pump stations and be of reproducible quality.
  - Downstream connection points and the permit number for the receiving sewer (if known)
  - Pump Station Locations and the longitude and latitude for each pump station (if applicable)
- Include a street level map showing all relevant project areas.

H. Stream Classification (WSCAS 01-15)
- Submit the completed and appropriately executed Watershed Classification Attachment form (WSCAS 01-15) if any portion of the sewer system project is within 100 feet of any surface water or wetlands.
- A variance must be requested for encroachment within required setbacks or buffers pursuant to 15A NCAC 02T .0305(f)

I. Environmental Assessments (Projects subject to an Environmental Assessment (EA)):
- Projects involving an Environmental Assessment per 15A NCAC 01C .0408, must be submitted for a full technical review and must be submitted to the PERCS Unit on application forms provided by the Division.

J. Alternative Sewer Systems
- Projects involving low pressure sewer systems, vacuum sewer systems and other alternative sewer systems must be submitted for a full technical review and must be submitted to the PERCS Unit on application forms provided by the Division.

K. Flow Direction
- Many wastewater treatment systems are entering into agreements for regionalization efforts and emergency treatment capacity. Parts of the system are installed so that the wastewater flow can be directed to more than one treatment facility. If this is the case with the project, please indicate in B(12) and give the permit number of the second facility.

L. Certifications – Section C
- The application must be certified by both the applicant and the design engineer who is a North Carolina Registered Professional Engineer (PE). The applicant signature must match the signing official listed in Item A(1b). The PE should NOT certify the application if he/she is unfamiliar with 15A NCAC Chapter 2T, The Gravity Sewer Minimum Design Criteria (most recent version) and the Minimum Design Criteria for the Permitting of Pump Stations and Force Mains (most recent version), as applicable to the project.
THE COMPLETED APPLICATION PACKAGE INCLUDING ALL SUPPORTING INFORMATION AND MATERIALS, SHOULD BE SENT TO THE APPROPRIATE REGIONAL OFFICE:

<table>
<thead>
<tr>
<th>REGIONAL OFFICE</th>
<th>ADDRESS</th>
<th>COUNTRIES SERVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asheville Regional Office</td>
<td>2090 US Highway 70 Swannanoa, North Carolina 28778</td>
<td>Avery, Buncombe, Burke, Caldwell, Cherokee, Clay,</td>
</tr>
<tr>
<td>Water Quality Section</td>
<td>(828) 296-4500</td>
<td>Graham, Haywood, Henderson, Jackson, Macon, Madison,</td>
</tr>
<tr>
<td></td>
<td>(828) 299-7043 Fax</td>
<td>McDowell, Mitchell, Polk, Rutherford, Swain,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transylvania, Yancey</td>
</tr>
<tr>
<td>Fayetteville Regional Office</td>
<td>225 Green Street Suite 714 Fayetteville, North Carolina 28301-5094</td>
<td>Anson, Bladen, Cumberland, Harnett, Hoke, Montgomery,</td>
</tr>
<tr>
<td>Water Quality Section</td>
<td>(910) 433-3300</td>
<td>Moore, Robeson, Richmond, Sampson, Scotland</td>
</tr>
<tr>
<td></td>
<td>(910) 486-0707 Fax</td>
<td></td>
</tr>
<tr>
<td>Mooresville Regional Office</td>
<td>610 E. Center Avenue Mooresville, North Carolina 28115</td>
<td>Alexander, Cabarrus, Catawba, Cleveland, Gaston,</td>
</tr>
<tr>
<td>Water Quality Section</td>
<td>(704) 663-1699</td>
<td>Iredell, Lincoln, Mecklenburg, Rowan, Stanly,</td>
</tr>
<tr>
<td></td>
<td>(704) 663-6040 Fax</td>
<td>Union</td>
</tr>
<tr>
<td>Raleigh Regional Office</td>
<td>1628 Mail Service Center Raleigh, North Carolina 27699-1628</td>
<td>Chatham, Durham, Edgecombe, Franklin, Granville,</td>
</tr>
<tr>
<td>Water Quality Section</td>
<td>(919) 791-4200</td>
<td>Halifax, Johnston, Lee, Nash, Northampton, Orange,</td>
</tr>
<tr>
<td></td>
<td>(919) 788-7159 Fax</td>
<td>Person, Vance, Wake, Warren, Wilson</td>
</tr>
<tr>
<td>Washington Regional Office</td>
<td>943 Washington Square Mall Washington, North Carolina 27889</td>
<td>Beaufort, Bertie, Camden, Chowan, Craven, Currituck,</td>
</tr>
<tr>
<td>Water Quality Section</td>
<td>(252) 946-6481</td>
<td>Dare, Gates, Greene, Hertford, Hyde, Jones, Lenoir,</td>
</tr>
<tr>
<td></td>
<td>(252) 975-3716 Fax</td>
<td>Martin, Pamlico, Pasquotank, Perquimans, Pitt,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tyrrell, Washington, Wayne</td>
</tr>
<tr>
<td>Wilmington Regional Office</td>
<td>127 Cardinal Drive Extension Wilmington, North Carolina 28405</td>
<td>Brunswick, Carteret, Columbus, Duplin, New</td>
</tr>
<tr>
<td>Water Quality Section</td>
<td>(910) 796-7215</td>
<td>Hanover, Onslow, Pender</td>
</tr>
<tr>
<td></td>
<td>(910) 350-2004 Fax</td>
<td></td>
</tr>
<tr>
<td>Winston-Salem Regional Office</td>
<td>450 W. Hanes Mill Road Suite 300 Winston-Salem, North Carolina</td>
<td>Alamance, Alleghany, Ashe, Caswell, Davidson, Davie,</td>
</tr>
<tr>
<td>Water Quality Section</td>
<td>27105 (336) 776-9800</td>
<td>Forsyth, Guilford, Rockingham, Randolph, Stokes,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Surry, Watauga, Wilkes, Yadkin</td>
</tr>
</tbody>
</table>
## A. APPLICATION INFORMATION

1. **Owner/Permittee:**
   1a. Full Legal Name (company, municipality, HOA, utility, etc.)
   1b. Signing Official Name and Title (Please review 15A NCAC 2T.0106 (b) for authorized signing officials)
   1c. The legal entity who will own this system is:
      - [ ] Individual
      - [ ] Federal
      - [ ] Municipality
      - [ ] State/County
      - [ ] Private Partnership
      - [ ] Corporation
      - [ ] Other (specify):
   1d. Mailing Address
   1f. City
   1h. Telephone
   1j. E-mail

2. **Project (Facility) Information:**
   2a. Brief Project Name (permit will refer to this name)
   2b. County Where Project is Located

3. **Contact Person:**
   3a. Name and Affiliation of Someone Who Can Answer Questions About this Application
   3b. Phone Number
   3c. E-mail

### B. PERMIT INFORMATION

1. Project is [ ] New [ ] Modification (of an existing permit)  
   If Modification, Permit No.: [ ]

2. Owner is [ ] Public (skip to Item B(3)) [ ] Private (go to Item 2(a))

   2a. If private, applicant will be:
      - [ ] Retaining Ownership (i.e. store, church, single office, etc.)
      - [ ] Leasing units (lots, townhomes, etc. - go to Item B(3))
      - [ ] Selling units (lots, townhomes, etc. - go to Item B(2b))

   2b. If sold, facilities owned by a (must choose one)
      - [ ] Public Utility (Instruction D)
      - [ ] Homeowner Assoc./Developer (Instruction E)

3. Owner of Wastewater Treatment Facility (WWTF) Treating Wastewater From This Project
   4a. Name of WWTF
   4b. WWTF Permit No.

   5a. Owner of Downstream Sewer
   5b. Receiving Sewer Size
   5c. Permit # of Downstream Sewer (Instruction F)

6. The origin of this wastewater is (check all that apply):
   - [ ] Residential Subdivision
   - [ ] Apartments/Condominiums
   - [ ] Mobile Home Park
   - [ ] School
   - [ ] Restaurant
   - [ ] Office
   - [ ] Retail (Stores, shopping centers)
   - [ ] Institution
   - [ ] Hospital
   - [ ] Church
   - [ ] Nursing Home
   - [ ] Other (specify):

7. Volume of wastewater to be allocated or permitted for this particular project: [ ] gallons per day
   *(Do not include future flows or previously permitted allocations)*

8. If the permitted flow is zero, indicate why:
   - [ ] Pump Station, Outfall or Interceptor Line where flow will be permitted in subsequent permits that connect to this line
   - [ ] Flow has already been allocated in Permit No.
   - [ ] Rehabilitation or replacement of existing sewer with no new flow expected
   *(see 15A NCAC 02T.0303 to determine if a permit is required)*
9. Provide the wastewater flow calculations used in determining the permitted flow in accordance with **15A NCAC 2T .0114** for the value in Item B(7) **AND/OR** the design flow for line or pump station sizing if a reduced or zero flow is being requested in Item B(7). Values other than that in 15A NCAC 2T .0114 (b) and (c) must be supported with actual water or wastewater use data in accordance with 15A NCAC 2T .0114 (f).

10. **Summary of Sewer Lines** to be Permitted (attach additional sheets if necessary)

<table>
<thead>
<tr>
<th>Size (inches)</th>
<th>Length (feet)</th>
<th>New Gravity or Additional Force Main</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

11. **Summary of Pump Stations w/ associated Force Mains** to be Permitted (attach additional sheets as necessary)

<p>| Pump Station Location ID: ______________________ (self chosen - as shown on plans/map for reference) | Longitude: ______________________ | Latitude: ______________________ |</p>
<table>
<thead>
<tr>
<th>Design Flow (MGD)</th>
<th>Operational Point GPM @TDH</th>
<th>Power Reliability Option 1 - permanent generator w/ATS; 2 - portable generator w/MTS</th>
<th>Force Main Size</th>
<th>Force Main Length</th>
</tr>
</thead>
<tbody>
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<p>| Pump Station Location ID: ______________________ (self chosen - as shown on plans/map for reference) | Longitude: ______________________ | Latitude: ______________________ |</p>
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<th>Design Flow (MGD)</th>
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</table>

12. Will the wastewater flow in the proposed sewer lines or pump stations be able to be directed to another treatment facility?

☐ Yes ☐ No       If Yes, permit number of 2nd treatment facility:

(RO – if “yes” to B,12 please contact the Central Office PERCS Unit)

13. Does the sewer system comply with the **Minimum Design Criteria for the Permitting of Pump Stations and Force Mains** (latest version), the **Gravity Sewer Minimum Design Criteria** (latest version) and **15A NCAC Chapter 2T** as applicable?

☐ Yes ☐ No

If No, complete and submit the **Variance/Alternative Design Request (VADC 10-14)** application and supporting documents for review. Approval of the request is required prior to submittal of the Fast Track Application and supporting documents.
14. Have the following permits/certifications been submitted for approval for the system or project to be served?

<table>
<thead>
<tr>
<th>Permit/Certification</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland/Stream Crossings - General Permit or 401Certification?</td>
<td></td>
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<td></td>
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<tr>
<td>Sedimentation and Erosion Control Plan?</td>
<td></td>
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<tr>
<td>Trout Buffer Waiver?</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Stormwater?</td>
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</tbody>
</table>

15. Does this project include any high priority lines ([15A NCAC 02T_0402(2)]) involve aerial lines, siphons, or interference manholes? These lines will be considered high priority and must be checked once every six months

Check if Yes: ___ and provide details:

C. CERTIFICATIONS

1. Owner/Permittee's Certification: (Signature of Signing Official and Project Name)

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 documentation and attachments are not included, this application package is subject to being returned as incomplete. Note: In accordance with North Carolina General Statutes 143-215.6A and 143-215.6B, any person who knowingly makes any false statement, representation, or certification in any application shall be guilty of a Class 2 misdemeanor, which may include a fine not to exceed $10,000 as well as civil penalties up to $25,000 per violation.

1a. Signing Official Signature ___________________________ Date ____________

ENGINEERING DESIGN DOCUMENTS MUST BE COMPLETED PRIOR TO SUBMITTAL OF THIS APPLICATION. THESE DOCUMENTS MUST INCLUDE PLAN AND PROFILE OF SEWERS, THEIR PROXIMITY TO OTHER UTILITIES, DESIGN CALCULATIONS, ETC. REFER TO [15A NCAC 02T_0305]

2. Professional Engineer's Certification: (Signature of Design Engineer and Project Name)

I, ___________________________, attest that this application for __________________________ has been reviewed by me and is accurate, complete and consistent with the information in the engineering plans, calculations, and all other supporting documentation 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, Gravity Sewer Minimum Design Criteria for Gravity Sewers adopted February 12, 1996, and the Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 and the watershed classification in accordance with Division guidance. Although other professionals may have developed certain portions of this submittal package, 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. Note: In accordance with NC General Statutes 143-215.6A and 143-215.6B, any person who knowingly makes any false statement, representation, or certification in any application shall be guilty of a Class 2 misdemeanor which may include a fine not to exceed $10,000 as well as civil penalties up to $25,000 per violation.

2a. Professional Engineer Name ____________________________

2b. Engineering Firm ____________________________

2c. Mailing Address ____________________________

2d. City ____________________________ State ____________________________

2e. Zip ____________________________

2f. Telephone ____________________________ Facsimile ____________________________

2g. E-mail ____________________________ NC PE Seal, Signature & Date ____________________________
NOW, THEREFORE, IT IS AGREED that the party of the first part hereby grants to the party of the second part the right and privilege to make this encroachment as shown on attached plan sheet(s), specifications and special provisions which are made a part hereof upon the following conditions, to wit:

1. That the installation, operation, and maintenance of the above described facility will be accomplished in accordance with the party of the first part's latest POLICIES AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS-OF-WAY, and such revisions and amendments thereto as may be in effect at the date of this agreement. Information as to these policies and procedures may be obtained from the Division Engineer or State Utility Agent of the party of the first part.

2. That the party of the second part agrees to provide during construction and any subsequent maintenance proper signs, signal lights, flagmen and other warning devices for the protection of traffic in conformance with the latest Manual on Uniform Traffic Control Devices for Streets and Highways, and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the Division Engineer of the party of the first part.

3. That the party of the second part hereby agrees to indemnify and save harmless the party of the first part from all damages and claims for any cause of the installation and maintenance of this encroachment.

4. That the party of the second part agrees to restore all areas disturbed during installation and maintenance to the satisfaction of the Division Engineer of the party of the first part. The party of the second part agrees to exercise every reasonable precaution during construction and maintenance to prevent eroding of soil; silting or pollution of rivers, streams, lakes, reservoirs, other water impoundments, ground surfaces or other property; or pollution of the air. There shall be compliance with applicable rules and regulations of the North Carolina Division of Environmental Management, North Carolina Sedimentation Control Commission, and with ordinances and regulations of various counties, municipalities, and other official agencies relating to pollution prevention and control. When any installation or maintenance operation disturbs the ground surface and existing ground cover, the party of the second part agrees to remove and replace the sod or otherwise reestablish the grass cover to meet the satisfaction of the Division Engineer of the party of the first part.

5. That the party of the second part agrees to assume the actual cost of any inspection of the work considered to be necessary by the Division Engineer of the party of the first part.

6. That the party of the second part hereby agrees to indemnify and save harmless the party of the first part from all damages and claims for any reason of the installation and maintenance of the above described facility will be accomplished in accordance with the party of the first part's latest POLICIES AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS-OF-WAY, and such revisions and amendments thereto as may be in effect at the date of this agreement. Information as to these policies and procedures may be obtained from the Division Engineer or State Utility Agent of the party of the first part.

7. That the party of the second part agrees to provide during construction and any subsequent maintenance proper signs, signal lights, flagmen and other warning devices for the protection of traffic in conformance with the latest Manual on Uniform Traffic Control Devices for Streets and Highways, and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the Division Engineer of the party of the first part.

8. That the party of the second part hereby agrees to indemnify and save harmless the party of the first part from all damages and claims for any cause of the installation and maintenance of this encroachment.

9. That the party of the second part agrees to restore all areas disturbed during installation and maintenance to the satisfaction of the Division Engineer of the party of the first part. The party of the second part agrees to exercise every reasonable precaution during construction and maintenance to prevent eroding of soil; silting or pollution of rivers, streams, lakes, reservoirs, other water impoundments, ground surfaces or other property; or pollution of the air. There shall be compliance with applicable rules and regulations of the North Carolina Division of Environmental Management, North Carolina Sedimentation Control Commission, and with ordinances and regulations of various counties, municipalities, and other official agencies relating to pollution prevention and control. When any installation or maintenance operation disturbs the ground surface and existing ground cover, the party of the second part agrees to remove and replace the sod or otherwise reestablish the grass cover to meet the satisfaction of the Division Engineer of the party of the first part.

10. That the party of the second part agrees to assume the actual cost of any inspection of the work considered to be necessary by the Division Engineer of the party of the first part.

11. That the party of the second part agrees to have available at the construction site, at all times during construction, a copy of this agreement showing evidence of approval by the party of the first part. The party of the first part reserves the right to stop all work unless evidence of approval can be shown.

12. Provided the work contained in this agreement is being performed on a completed highway open to traffic; the party of the second part agrees to give written notice to the Division Engineer of the party of the first part when all work contained herein has been completed. Unless specifically requested by the party of the first part, written notice of completion of work on highway projects under construction will not be required.

13. That in the case of noncompliance with the terms of the agreement by the party of the second part, the party of the first part reserves the right to stop all work until the facility has been brought into compliance or removed from the right of way at no cost to the party of the first part.

14. That it is agreed by both parties that this agreement shall become void if actual construction of the work contemplated herein is not begun within one (1) year from the date of authorization by the party of the first part unless written waiver is secured by the party of the second part from the party of the first part.
During the performance of this contract, the second party, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor"), agrees as follows:

Compliance with Regulations: The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

Nondiscrimination: The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

Solicitations for Subcontracts, including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

Information and Reports: The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Department of Transportation of the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Department of Transportation shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to,

(1) withholding of payments to the contractor under the contract until the contractor complies, and/or
(2) cancellation, termination or suspension of the contract, in whole or in part.

Incorporation of Provisions: The contractor shall include the provisions of paragraphs "a" through "t" in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Department of Transportation to enter into such litigation to protect the interests of the State, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

That when title to the subject that constitutes the aforesaid encroachment passes from the party of the second part and vests in the party of the third part, the party of the third part agrees to assume all responsibilities and rights and to perform all obligations as agreed to herein by the party of the second part.

R/W (166) : Party of the Second Part certifies that this agreement is true and accurate copy of the form R/W (166) incorporating all revisions to date.

IN WITNESS WHEREOF, each of the parties to this agreement has caused the same to be executed the day and year first above written.

DEPARTMENT OF TRANSPORTATION

BY: __________________________
DIVISION ENGINEER

WITNESS:

BY: __________________________
(Signature)

(Signature)

(Print Name/Title)

(Print Name/Title)

Second Party

WITNESS:

BY: __________________________
(Signature)

Donna S. Pope, Clerk to the Board
Cape Fear Public Utility Authority
235 Government Center Drive
Wilmington, North Carolina 28403 (910) 332-6660

Kent Harrell, Engineering Manager
Cape Fear Public Utility Authority
235 Government Center Drive
Wilmington, North Carolina 28403 (910) 332-6542

Third Party
### Utility Work Permit Application

**Public Services**  
**Engineering Division**  
**Wilmington, NC 28412**  
**Phone (910) 341-7807**

#### Applicant/Utility:

- **Name of Utility Company:**
- **Contractor/Excavator (Permittee):**
- **Contractor Address:**
- **City:**  
  **State:**  
  **Zip Code:**
- **Site Contact:**  
  **Site Contact Phone:**
- **Emergency Phone:**  
  **E-mail Address:**

#### Work Description:

- **Address:**
- **Cross Street:**
- **Nature of work (Be Specific):**
- **Requested Hours of Operation:**

**Anticipated Start Date (mm/dd/yy):** 3/31/2009  
**Anticipated Completion Date:** <4/16/2009>

#### Construction:

- **Check all that apply (City reserves the right to require a Temporary Traffic Control Plan):**
  - Temporary Road or Alley Closure
  - Temporary Parking Space Closure
  - Temporary Sidewalk Closure
  - Temporary Lane Closure
  - Temporary Intersection Closure
  - Shoulder Work (> 5’ from EOP)
  - Shoulder Work (< 5’ from EOP)

**NOTE:** Contractor required to utilize the MUTCD (Part 6) and/or NCDOT Standards

#### Utility Installation:

- **Utility Type:** Natural Gas  
  **Proximity to Pavement:**
- **Length of Installation:**
  **Width of Excavation:**
- **Type(s) of Pipe or Line:**
  **Size (Diameter):**

#### Right-of-Way Restoration:

- **Street Cut (Check One):** Yes  
  No
- **Pavement Type:** Asphalt Pavement
- **Cut Length:**
  **Cut Width:**

---

**Fees and Requirements**

General Permit / $10.00 - due at time permit is issued  
Open Cut Fee / $325 - due at time permit is issued  
Send by fax to City of Wilmington, Engineering (910) 341-5881  
Send by email to: skipper.funderburg@wilmingtonnc.gov

**Permit and Fees required before work begins. The Applicant may contact the Engineering ROW Department (910-341-5899) for assistance with the permit.**

**The Applicant and Contractor shall follow the City Street Cut Policy. All restoration is provided with an 18-month warranty by the Applicant.**
Date

Applicant Name
Address 1
Address 2
Address 3

RE:  PROJECT NAME
CFPUA File # ____________ (Public Sewer)

(You must sign and return prior permit application approval)

Dear ______________,

The Cape Fear Public Utility Authority currently has the capacity to accept the sewage flow of ___________ (GPD) Gallons Per Day from the above referenced project. The receiving wastewater treatment plant will be the M’Kean-Moffit SSWWTF (NPDES NC 0023973).

In order to receive sewer from CFPUA, any private system, must have its design approved by the Authority and will require a copy of the permit application, State permit, and Engineer’s certification. Private systems must construct services to Authority specifications and install sewer guards at each manhole including grease traps. Any private pump station’s top elevation must be constructed at two (2) feet above the routed 100 year storm elevation or FIRM maps 100 year flood, whichever is higher. All private systems must be upgraded to the Authority specifications, at no cost to the Authority, if in the future it is desired to convey the system to the Authority. Private systems must employ or contract with a system operator on a 24 hour / 7 day basis and provide names and contact numbers to the Authority. Maintenance in private systems is the responsibility of the owner/operator; private system location is determined as designated on certification.

If the sewer is a public system, the Authority must approve the design and sign the State permit application. Any permits, public encroachments, and/or easements outside the development parcel(s) must be obtained by the developer and the agreement(s) recorded prior to the required pre-construction meeting. The Authority will not participate financially in a project if an agreement is not mutually signed prior to the pre-construction meeting. Please see the attached public utility easement document. All offsite easements must be approved, acquired and recorded prior to the pre-construction meeting. No buildings, structures, ponds, obstructions, fences, berms, or trees, except those required by any governmental ordinance, statute or regulation, shall be placed, constructed or situated within the rights-of-way and the easements, whether existing or to be granted. The only exception is a security fence (perpendicular to the main line, adjacent to a right-of-way, not applicable to individual lots) with removable paneling may be granted but must be submitted for approval on a case by case basis, and in any event a “Hold Harmless” agreement must be executed or incorporated into the conveyance. All easements must be a minimum of 30 feet in width unless otherwise approved by the Authority.

Whether permitted as a public or private sewer system, the Authority must always be notified 48 hours prior to construction. The material used to connect to the system must be per Authority technical specifications and the work must be performed by a licensed utility contractor and approved by the Authority.
Authority.

All additions to any Authority system will be documented by asbuilt drawings and per Authority specifications. Information regarding additions shall be submitted to the Authority and shall include mylars and a CD disk in AutoCAD format per CFPUA Technical Specifications before final inspection, approval, and activation. Final acceptance of work is at the sole discretion of the Authority.

The owner is responsible to make all directed repairs at no cost to the Authority prior to activating the system. All applicable fees and costs associated in connection with the Authority’s sewer system must be paid prior to or at time of application for service. Failure to pay all applicable fees and costs per the Authority’s Regulations and Ordinances may result in holds being placed on Certificate of Occupancy and/or System Activation.

The Authority’s one (1) year warranty will start from the date the system conveyance is recorded. Conveyance of the Public Utilities occurs upon approval of the certification from the Division of Water Quality.

Per NCDENR, any constructed system will not be operated or otherwise activated until the Engineer’s and Applicant’s Certifications have been submitted to and approved by NCDENR Division of Water Quality. The following are required (to be provided by the developer) for the Authority to approve certification:

1. The developer shall provide all monetary values of the Public utilities and descriptions on the attached standard template that will become the Authority’s upon final approval by the State.
2. The developer shall provide all lien waivers/release of liens and an affidavit that there are no other liens against any infrastructure being certified.
3. The developer shall provide as-builts to the Authority Specifications.
4. The developer provides all public utility easements per the attached document.

Any taps which may be deemed necessary to be installed, relocated, or abandoned will be the responsibility of the Developer or owner at no cost to the Authority, in accordance with the Authority specifications and approval. The Authority’s inspector will perform all required cleanout inspections prior to obtaining any Certificate of Occupancy.

Unauthorized operation of CFPUA owned valves, hydrants, and other appurtenances, is grounds for civil penalty assessment and/or other enforcement actions.

This is not a commitment of capacity. It only indicates present availability. System capacity will change as new connections are made, potentially impacting your ability to connect some or all of your proposed development into the Authority’s system. Capacity is allocated by the Authority at the time the NC Division of Water Quality Flow Tracking System evaluation is signed.

Regards,

_________________, Project Manager
Cape Fear Public Utility Authority
Engineering Department
Development Services Division

cc: Carel Vandermeyden, P.E., Director of Engineering
CFPUA, Utility Construction Inspectors
Name of Consulting Engineer

235 Government Center Drive, Wilmington, NC 28403
PROJECT NAME
CFPUA File # ______________ (Public Sewer)

I, __________________________________________________, as property owner and/or Applicant

responsible party, accept the above conditions of this letter. I and my employees will disclose to all parties the directives as outlined in this letter. I further understand that I must convey the system per the Authority’s documents in a timely manner, as determined by the Authority, or Certificate of Occupancy and permits, regardless of ownership, will be held until the system is properly conveyed to the Authority.

1. _____ I waive the option of requesting Authority cost participation in cost of this system. (initial)

OR,

2. _____ I am requesting cost participation. See my attached request for participation letter and three (initial) independent bids for the project showing the showing the cost differences that I am requesting participation for. I acknowledge that participation agreements take a minimum of 45 days to execute and are at the sole discretion of the Authority.

AND

3. _____ I agree that no utilities construction will commence before a participation agreement contract (initial) is in place or I waive the participation offer (see above).

_______________________________________ ______________________
Signature (required) Date

Item 1 OR 2 must be initialed prior to holding a preconstruction conference,
AND Item 3 must be initialed prior to holding a preconstruction conference.
Date

Applicant Name
Address 1
Address 2
Address 3

RE: PROJECT NAME
CFPUA File # __________ (Public Water)

(You must sign and return prior permit application approval)

Dear __________________,

The Cape Fear Public Utility Authority currently has the capacity to provide __________ GPD (Gallons Per Day) of water for the above referenced project. The water system is the water system is the CFPUA Water System, PWSID #NC0465010, WSMP # 99-02138-R1.

In order to obtain water from CFPUA, any private system, must have its design approved by the Authority and will require a copy of the permit application, State permit, and Engineer’s certification. If a public system, the Authority must approve the design and sign the State permit application. Private systems must employ or contract with a system operator on a 24 hour / 7 day basis and provide names and contact numbers to the Authority. All private systems must be upgraded to the Authority specifications, at no cost to the Authority, if in the future it is desired to convey the system to the Authority. Water quality and maintenance in private systems as designated on certification is the responsibility of the owner/operator. Water quality within the private system may require flushing by the owner/operator if potable water lines are sized for the demand at final build-out, oversized to reduce head loss, or if the system designer puts a flow restriction in the line such as an undersized meter or backflow prevention device.

Any permits, encroachments, and/or easements outside the development parcel(s) must be obtained by the developer and the agreement(s) recorded prior to a required pre-construction meeting. The Authority will not participate financially in a project if an agreement is not mutually signed prior to the pre-construction meeting. Please see the attached public utility easement document. All offsite easements must be approved, acquired and recorded prior to the pre-construction meeting. No buildings, structures, ponds, obstructions, fences, berms, or trees, except those required by any governmental ordinance, statute or regulation, shall be placed, constructed or situated within the rights-of-way and the easements, whether existing or to be granted. The only exception is a security fence (perpendicular to the main line, adjacent to a right-of-way, not applicable to individual lots) with removable paneling. An exception may be granted but must be submitted for approval on a case by case basis, and in any event a “Hold Harmless” agreement must be executed or incorporated into the conveyance. All easements must be a minimum of 20 feet in width unless otherwise approved by the Authority.

Whether permitted as a public or private water system, the Authority must always be notified 48 hours prior to construction. The material used to connect to the system must be per Authority technical specifications and the work must be performed by a licensed utility contractor and approved by the Authority.

All additions to any Authority system will be documented by as-built drawings and per Authority specifications. Information regarding additions shall be submitted to the Authority and shall include mylars and a CD disk in AutoCAD format per CFPUA Technical Specifications before final inspection, approval, and activation. Final acceptance of work is at the sole discretion of the Authority.
The owner is responsible to make all directed repairs at no cost to the Authority prior to activating the system. All applicable fees and costs associated in connection with the Authority’s water system must be paid prior to or at time of application for service. Failure to pay all applicable fees and costs per the Authority’s Regulations and Ordinances may result in holds being placed on Certificate of Occupancy and/or System Activation. Backflow prevention is required as adopted by the Authority and North Carolina State Building Code.

The Authority’s one (1) year warranty will start from the date the system conveyance is recorded. Conveyance of the Public Utilities occurs upon approval of the certification from the Division of Water Quality.

Per NCDENR, any constructed system will not be operated, no meters (construction, hydrant, or permanent) will be set or otherwise activated until the Engineer’s and Applicant’s Certifications have been submitted to and approved by NCDENR Public Water Supply Section. The following are required (to be provided by the developer) for the Authority to approve certification:

1. The developer shall provide all monetary values of the Public utilities and descriptions on the attached standard template that will become the Authority’s upon final approval by the State.
2. The developer shall provide all lien waivers/release of liens and an affidavit that there are no other liens against any infrastructure being certified.
3. The developer shall provide as-builds to the Authority Specifications.
4. The developer provides all public utility easements per the attached document.

Unauthorized operation of CFPUA owned valves, hydrants, and other appurtenances, is grounds for civil penalty assessment and/or other enforcement actions.

Any taps which may be deemed necessary to be installed, relocated, or abandoned will be the responsibility of the Developer or owner at no cost to the Authority, and will be performed in accordance with the Authority specifications and approval.

The Authority's inspector will perform all necessary water service inspections prior to obtaining any Certificate of Occupancy (CO).

This is not a commitment of capacity. It only indicates present availability. System capacity will change as new connections are made, potentially impacting your ability to connect some or all of your proposed development into the Authority’s system. Capacity is allocated by the Authority at the time the NC Division of Water Quality Flow Tracking System evaluation is signed.

Regards,

_________________ Project Manager
Cape Fear Public Utility Authority
Engineering Department
Development Services Division

cc: Carel Vandermeidjen, P.E., Director of Engineering
CFPUA, Utility Construction Inspectors
Name of Consulting Engineer
PROJECT NAME
CFPUA File # ________________ (Public Water)

I, __________________________________________________, as property owner and/or Applicant
responsible party, accept the above conditions of this letter. I and my employees will disclose to all parties
the directives as outlined in this letter. I further understand that I must convey the system per the
Authority’s documents in a timely manner, as determined by the Authority. Permits and the Certificate of
Occupancy, regardless of ownership, will be held until the system is properly conveyed to the Authority.

1. _____ I waive the option of requesting Authority cost participation in cost of this system.
   (initial)

OR,

2. _____ I am requesting cost participation. See my attached request for participation letter and three
   independent bids for the project showing the showing the cost differences that I am requesting participation for. I acknowledge that participation agreements take a minimum of 45 days to execute and are at the sole discretion of the Authority.

AND

3. _____ I agree that no utilities construction will commence before a participation agreement contract
   is in place or I waive the participation offer (see above).

________________________________________________________________________
Signature (required)  __________________________ Date

Item 1 OR 2 must be initialed prior to holding a preconstruction conference,
AND Item 3 must be initialed prior to holding a preconstruction conference.
Supplemental DOCUMENTS

5.0 Construction

5.A CFPUA Pre-Con Checklist
5.B Tracking Sheet for Water and Sewer Systems
5.C As-built Checklist REV. 4, Section 01720
5.D CFPUA Walk-Thru Checklist
5.E Sample Bacteriological Analysis Report
5.F Gravity Sewer Main Air Pressure Test
5.F.1 Force Main Water Line Pressure Test
5.F.2 Manhole Vacuum Leakage Test
5.G After Hours Inspection Fee Sheet
5.H Certification of Occupation Request Form
5.I As-Built Cover Sheet Example
CFPUA PRE-CON CHECKLIST

☐ 1. CFPUA Specifications and Details must be followed.

☐ 2. For scheduling purposes, the contractor must give 48 hours’ notice to the assigned CFPUA inspector for each of the following:

- Operating any CFPUA valve (including tapping valves or tie-in valves)
- When beginning construction
- If the contractor pulls off the site for more than two (2) weeks
- Laying out of any tie-in existing manholes
- Cutting in any new manholes on existing lines
- Coring any manholes
- Tapping an existing sewer main
- Tapping an existing water main
- Any bores and threading carrier pipes
- All camera work, testing, chlorination and water sampling

☐ 3. Notify the Design Engineer for any request to deviate from approved stamped plans. The Design Engineer will then notify the CFPUA Project Manager.

☐ 4. Any changes to CFPUA details must be approved by the CFPUA Project Manager. These changes will be noted/clouded on CFPUA Detail Sheet.

☐ 5. Notify the CFPUA Inspector when material is delivered to the job site for verification that materials meet CFPUA Specifications or approved submittal.

☐ 6. No CFPUA valves are to be operated without a CFPUA Inspector or CFPUA Water Quality employee present. CFPUA Community Compliance will issue Notice of Violations for failure to comply.

☐ 7. Any work after normal working hours (Monday – Friday 7:00 AM – 3:30 PM) must be pre-approved and scheduled with the CFPUA Project Manager and Inspector.

☐ 8. All shut downs must be pre-approved and scheduled with the CFPUA Project Manager and Inspector. They will coordinate with the proper CFPUA departments.
9. No water or sewer force main tie-ins or shut downs will be made on Friday thru Monday unless pre-approved by CFPUA Operations.

10. It is the Contractor’s responsibility to request CFPUA Standard Operating Procedures for items not covered in the Specifications and Details (i.e. abandoning infrastructure, work on older materials, shut down procedures).

11. Boring and Jacking
   - Approved “Boring and Jacking Plan” per CFPUA SPECS (02301.3).
   - Approved pipe (mechanical or restrained joints) to be used when main is to be operating under pressure per CFPUA SPECS (02301.1 & 02660.2).

12. Sewer Bypass Pumping
   - Must submit and have approved a “Bypass Pumping Plan” per CFPUA SPECS (01510.2).
   - All bypass pumping operations must be monitored 24 hours / 7 days per CFPUA SPECS (01510.3).
   - Monitoring person must be properly trained, experienced and mechanically qualified per CFPUA SPECS (01510.4).

13. In the event of a water/sewer main line or service break, the CFPUA Emergency number (910-332-6565) will be called immediately. Then, the CFPUA Inspector will be notified to assist in obtaining the proper response, if any, from CFPUA.

________________________________________
Contractor Signature (required)  Date: ____________________

________________________________________
Project Manager/Project Engineer Signature  Date: ____________________
### TRACKING SHEET FOR WATER AND SEWER SYSTEMS

#### NAME OF PROJECT:

#### CFPUA FILE NUMBER:

#### CFPUA PROJECT ENGINEER:

#### UTILTY INSPECTOR:

#### LICENSED UTILITY CONTRACTOR:

#### DESIGN ENGINEER:

### Ownership of Utilities

<table>
<thead>
<tr>
<th>WATER</th>
<th>SEWER</th>
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### Legal Documents Required

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<th>CONVEYANCE</th>
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#### Developer Name and Contact Information

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### ITEMS NEEDED

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<td>ESMD ATC and Details</td>
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<td>Paper As-Builts</td>
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<td>Letter Requesting Conveyance</td>
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<td>Camera inspection (sewer Only)</td>
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<td>Sewer Final Inspection (Walk Through)</td>
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<td>Water Final Inspection (Walk Through)</td>
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<td>Tracer Wire Testing</td>
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<tr>
<td>As-Built Mylars and CD/DVD</td>
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<tr>
<td>Water Certification given to Admin.</td>
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<td>Sewer Certification given to Admin.</td>
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<td>Final STATE Approval-Sewer</td>
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<td>System Activation Email/Work Order Sent (Water)</td>
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<tr>
<td>System Activation Email/Work Order Sent (Sewer)</td>
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<td>Tracking Sheet Package delivered to Eng. Tech.</td>
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### Additional Comments:

Approved: 07/26/2012
Updated: 08/22/2014
## CFPUA As-built Check List Rev. 4

**Date:** ______________________________  
**Subdivision name:** ________________________________________________  
**Reviewed by:** ____________________________________________________  
**CFPUA Project Number:** __________________________________________  
**Engineer’s seal and Surveyor’s seal as applicable or required**

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<thead>
<tr>
<th>W</th>
<th>S</th>
<th>#</th>
<th>✓ - COMPLETED</th>
<th>X - INCOMPLETE</th>
<th>N/A - NOT APPLICABLE</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td></td>
<td>Name of subdivision (if applicable), owners name, date of construction, north arrow, scale, vicinity map and as-built plan</td>
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<td>2</td>
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<td>All inverts into and out of manholes shall be field verified to 1/100 ft.</td>
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<td>Engineer’s seal and Surveyor’s seal as applicable or required</td>
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<td>Plans shall show stubs for individual services.C/O shown open circle, water meters open box. Sewer Cleanouts (COs) shall be located by measuring from each manhole along the sewer main up stream to a point which lies on a line that is perpendicular to the sewer main and connects said point and C.O. - zero point shall be the immediate downstream manhole, i.e., 127/14R. No stations shall be used. Indicate size and location of all of services.</td>
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<td>Drawings shall indicate water/sewer phases and their relationship to subdivision phases</td>
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<td>6</td>
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<td>Show approximate vertical and horizontal separations of waterlines, sewer mains, and force mains to proposed or existing utilities and structures (includes storm water piping)</td>
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<td></td>
<td>For each sewer reach, show pipe diameter, length, type, slope, existing surface elevations and proposed finish grades. Show station or distance to beginning and end of change in pipe material.</td>
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<td>8</td>
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<td>Show all water supply wells within 50’ &amp; community wells within 100’ of sewer main.</td>
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<td>9</td>
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<td>Show manhole top elevation &amp; flood elevation or surface water flow levels @ each MH.</td>
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<td>10</td>
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<td>Elevations shall be tied to mean sea level. Indicate any benchmarks within project area.</td>
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<tr>
<td>11</td>
<td></td>
<td>As-built plans shall be inked on original base mylar sheets (24” X 36”), or the engineer shall provide drawings on Dupont Crox Erasable Image (wash-off) sheets or approved equal. A digital copy (format no older than AutoCAD 2005) must be provided to the Authority. All lettering shall be at least 0.10 inches in height. The minimal drawing scale shall be 1” = 50’ (horizontal) and 1” = 5’ (vertical). All drawings shall become the property of the Cape Fear Public Utility Authority.</td>
<td></td>
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<tr>
<td>12</td>
<td></td>
<td>Show location of air release valves, gate valves and fittings along water main and sanitary sewer force main.</td>
<td></td>
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<tr>
<td>13</td>
<td></td>
<td>Show stations and material types for force main.</td>
<td></td>
<td></td>
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<tr>
<td>14</td>
<td></td>
<td>Lot numbers, property lines and owner reference lines, street names and all easements</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>15</td>
<td></td>
<td>Sheet numbers and number of total sheets.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>16</td>
<td></td>
<td>Clearly indexed cover sheet with location of plan - profile sheets on cover sheet, by sheet number</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>Indicate manhole service taps, service casing &amp;/or material transition.</td>
<td></td>
<td></td>
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<tr>
<td>18</td>
<td></td>
<td>Manhole sewer monuments, if manhole is buried.</td>
<td></td>
<td></td>
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<tr>
<td>19</td>
<td></td>
<td>Accurate location map and index planning map at a scale of 1 inch = 200 feet.</td>
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<tr>
<td>20</td>
<td></td>
<td>Indicate size of services greater than 4”.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>21</td>
<td></td>
<td>Reference ties into existing sewer systems by title and page of as-built drawing for existing system. The Authority will assist with obtaining this information, (i.e. existing manhole number, project name, CFPUA number and sheet number. Show information on plan-profile sheet and cover sheet.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td></td>
<td>Authority standard sewer notes on all plan &amp; profile sheets.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 23 |   | Total linear feet on cover sheet listed by phases:  
Water lines:  
Gravity lines:  
Force main:  
Water & sewer layers to be bolder line type than drainage, streets, etc. |
| 24 |   | Make contour lines very light or turn off  
Locating wire checked and tested. |

**Date Final Inspection Completed**  
**Inspectors Signature**

---

Approved:  
Revision:
The following numbers refer to the CFPUA As-built Check List above found in the CFPUA Spec 01720.2:
<table>
<thead>
<tr>
<th></th>
<th>V - COMPLETED</th>
<th>X - INCOMPLETE</th>
<th>N/A - NOT APPLICABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>As-builts reviewed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Waterline hydro static pressure test and consecutive water samples passed</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>Sewer line(s) inspected and accepted</td>
<td></td>
<td></td>
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<tr>
<td>4</td>
<td>Road surface completed</td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>Ring and cover is set to grade</td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td>Ring and chimney properly grouted (chimney grout is smooth)</td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>Chimney height is within specifications</td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td>Check walls for leaks and smooth surface</td>
<td></td>
<td></td>
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<tr>
<td>9</td>
<td>Check drop for proper installation</td>
<td></td>
<td></td>
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<tr>
<td>10</td>
<td>Check invert shelf and hood for smooth surfaces</td>
<td></td>
<td></td>
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<tr>
<td>11</td>
<td>Check for correct insert, ring and cover</td>
<td></td>
<td></td>
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<tr>
<td>12</td>
<td>Check vent installation</td>
<td></td>
<td></td>
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<tr>
<td>13</td>
<td>Cast iron boxes are set to grade</td>
<td></td>
<td></td>
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<tr>
<td>14</td>
<td>Verify 8” air gaps</td>
<td></td>
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<tr>
<td>15</td>
<td>Posts are correctly installed per detail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Plugs are properly removed</td>
<td></td>
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<tr>
<td>17</td>
<td>Valve box and concrete donut set to grade</td>
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<tr>
<td>18</td>
<td>Proper lid on valve box</td>
<td></td>
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<td>19</td>
<td>Tracer wire is placed inside valve box</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Approved meter boxes set to grade</td>
<td></td>
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</tr>
<tr>
<td>21</td>
<td>Lids seat properly on meter boxes</td>
<td></td>
<td></td>
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<tr>
<td>22</td>
<td>Tracer wire is inside the meter box</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Set to grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Continuity of tracer wire verified</td>
<td></td>
<td></td>
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<tr>
<td>25</td>
<td>Properly abandoned</td>
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</tbody>
</table>

Additional Comments:
### BACTERIOLOGICAL ANALYSIS

**Water System ID #:** [Redacted]  
**County:** New Hanover  
**System Type:**  
**Water Source:**  
**Distribution - Total Coliform Rule (TCR)**  
**Sample Type:** Special  
**Facility ID:** D01  
**Sample Point:** Special  
**Location Code:**  
**Location:** [Redacted]  
**Collected by:** [Redacted]  
**DATE:** 3/26/2015  
**TIME:** 12:00:00 PM  
**Mail Results to (water system representative):** [Redacted]  
**Phone Number:** [Redacted]  
**Fax Number:** [Redacted]  
**Responsible Person's Name:**  
**Customer Number:**  
**Total Chlorine Residual:** [Redacted] mg/L  
**Free Chlorine Residual:** 0.96 mg/L  
**Disinfectant Used:**  
**LABORATORY ID #:** 37729  
**Repeat Samples Required from Client**  
**Resample Required from Client**  
**CONTAM CODE** | **CONTAMINANT** | **METHOD CODE** | **QUANTIFIED RESULTS** | **ANALYSES BEGIN** | **ANALYSES COMPLETED**  
---|---|---|---|---|---  
3100 | Total Coliform | SM 9223B | Absent | 03/26/2015 16:30 | 03/27/2015 16:30  
3014 | E. Coli | SM 9223B | Absent | 03/26/2015 16:30 | 03/27/2015 16:30  
**Comment:**  
**Reviewed by:** [Redacted]  
---

**Laboratory Log Number:** [Redacted]  
**REPORT #:** [Redacted]
Onsite Observation Information

DATE: Click here to enter a date.

Project Name: ____________________________ File #: ____________________________

Beginning manhole: ____________________________ Ending manhole: ____________________________

Time test begun: ____________________________ Starting Pressure: ____________________________ PSI

Time test ended: ____________________________ Ending Pressure: ____________________________ PSI

Test Duration: ______ minutes Pressure Drop: ____________________________ PSI

NOTE:
- Test pressure shall be 3.5 psi increased by the ground water pressure above the top of the sewer
- Pressure loss shall not exceed 0.5 psi during the required testing time
- Testing time in minutes shall be calculated as 0.625 x nominal pipe size (inches)

Upon completion of test, blow off pressure at most remote location from pressure gauge. Gauge needs to return to 0.

COMMENTS: ____________________________

Testing Observed By: ____________________________

Signature of Test Observer: ____________________________
Force Main / Water Line Pressure Test

Onsite Observation Information

DATE: Click here to enter a date.

Project Name:                      File #

Time test begun:                   Starting Pressure:  PSI

Time test ended:                   Ending Pressure:   PSI

Test Duration: Hours               Pressure Drop:     PSI

NOTE:
- Minimum test duration – 2 hours
- Recommended starting pressure – 150 PSI
- Maximum pressure drop during test – 3 PSI
- If pressure drop reaches 3 PSI during test, re-pressurize main to starting pressure, record volume of water required to re-pressurize and continue test period.

Upon completion of test, blow off pressure at most remote location from pressure gauge and at end of line such as a cul-de-sac. Test pressure gauge must then return to 0 psi

COMMENTS:

Testing Observed By:  
Signature of Test Observer:  

235 Government Center Drive 
T: 910.332.6560 F: 910.332.6553
Onsite Observation Information

DATE: Click here to enter a date.

Project Name: File #

Manhole number:

Time test begun: Starting Pressure: Inches of mercury

Time test ended: Ending Pressure: Inches of mercury

Test Duration: Seconds Pressure Drop: Inches of mercury

NOTE:
- A vacuum of 10 inches (5 psig) of mercury shall be drawn and the vacuum pump shut off.
- With the valves closed, the time shall be measured for the vacuum to drop to 9 inches.
- The manhole shall pass if the time is greater than 60 seconds for 48 inch diameter, 75 seconds for 60 inch diameter.

Upon completion of test, blow off pressure. Gauge needs to return to 0.

COMMENTS:

Testing Observed By: ______________________________

Signature of Test Observer: _______________________

235 Government Center Drive
T: 910.332.6560 F: 910.332.6553
Note: Any work after normal working hours (Monday – Friday 7:00 AM – 3:30 PM) will require an afterhours inspection fee of $75/hour with a two (2) hour minimum. Total calculated time will include thirty (30) minute Inspector travel time.

CFPUA Inspector Name: __________________________________________

CFPUA Project Manager: _________________________________________

Project Name: _________________________________________________

CFPUA Project Number: _________________________________________

Contractor Name: ______________________________________________

<table>
<thead>
<tr>
<th>Date</th>
<th>Start Time</th>
<th>End Time</th>
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</table>

Description of Work:

Date: 

Start Time: 

End Time: 

Description of Work:

Date: 

Start Time: 

End Time: 

Description of Work:

Licensed Utility Contractor/Foreman Signature: ____________________________

Inspector Signature: ____________________________

Project Manager/Project Engineer Signature: ____________________________
CFPUA Certificate of Occupancy Request Form

Service Address: ________________________________

Permit # ________________________________

Contact person: _____________________________________

Contact e-mail: _____________________________________

Contact phone # ____________________________________

E-mail form to enginspection@cfpua.org

CFPUA Engineering (910) 332-6560

I have read the following list of policies below on this document (Please Note: Please use Submit Button at the bottom of page to submit request).

- Verify all applicable items on the Certificate of Occupancy Inspection Outline are complete before requesting inspection
- All lines on request form must be filled out or inspection cannot be started
- CFPUA Inspector has 48 hours to complete the inspection (does not include weekends or holidays) from time of request.
- Any incomplete applicable outline items will cause the inspection to fail.
- Any failed inspection will be charged a reinspection fee.
- The fee is to be paid after all corrections are made.
- Fees are to be paid at CFPUA Customer Service
- CFPUA Customer Service will generate reinspection request when fees are paid

Certificate of Occupancy Inspection Outline

1) Receive WORK ORDER REQUEST from Customer Liaison
   a) Request form received by email at enginspection@cfpua.org
   b) Request received by phone at (910)322-6560
2) CFPUA inspector will verify water and sewer certifications are completed if applicable
3) CFPUA inspector will arrive at address and check the following items
4) Is the landscaping complete, i.e. lot final graded, sod (10’ X 10’) in area of clean out and water meter box, irrigation system in (if applicable)
5) The cleanout at the R/W (easement) :
   a) Cast iron box set to grade and lid in place
   b) Check 8” air gap
      i) If in grass area (6” – 11” from top of box to top of PVC adapter)
ii) If in concrete slab 3” – 11” from top of box to top of PVC adapter

c) Remove screw cap and check inside cleanout
   i) No sand, dirt or debris in combination
      (1) Builder to have line jetted clean
   ii) Check for standing water, back-ups, cracks, leaks or broken pipe
       (1) Builder to have service jetted clean and camera inspected

d) Replace screw cap and tighten to check that all joints are glued (loosen cap when complete)

6) The cleanouts on private property:
   a) If inside cast iron box
      i) Cast iron box set to grade and lid in place
      ii) Check 8” air gap
          (1) If in grass area (6” – 11” from top of box to top of PVC adapter)
          (2) If in concrete slab 3” – 11” from top of box to top of PVC adapter
      iii) Tighten screw cap to check that all joints are glued (loosen cap when complete)
   b) If inside of a concrete donut
      i) If outside of a planted area
         (1) top of donut to be flush with ground
         (2) top of adapter flush with or lower than top of donut (needs to be inside donut)
         (3) Check for recessed slotted cap
      ii) If inside a planted area
         (1) Donut can be sitting on top of the ground
         (2) top of adapter flush with or lower than top of donut (needs to be inside donut)
         (3) Check for recessed slotted cap
         (4) Tighten screw cap to check that all joints are glued (loosen cap when complete)

7) The water meter box (if applicable)
   a) If in the driveway box must be a traffic rated box (SIP 4242 box with a 4243 lid)
   b) Box is set to grade
   c) Remove lid and check inside:
      i) Is box broken or sides crushed
      ii) Is all plumbing run under the box (not cut into the side of the box)
      iii) Is meter setter or angle stop centered in box (centered side to side, 3” from road
          side of box and top of meter is 3” below the lid)
      iv) Meter and angle stop are not covered with dirt and are inside the box
      v) Tracer wire is in the box
   d) Replace lid and check to make sure it fits properly

8) The grease interceptor (if applicable)
   a) Verify Authorization To Construct from EMD
   b) Check manhole covers are set to grade
   c) Verify proper insert is installed
   d) Verify chimney is grouted
   e) Check for any other infiltration
   f) Notify EMD by e-mail that inspection has been done (include address and business
      name)

9) Any manholes (if applicable)
   a) Verify proper insert is installed
   b) Check manhole cover is set to grade
   c) Verify chimney is intact

10) Any valve box, blow offs and fire hydrants (if applicable)
    a) Check valve box and concrete collar is set to grade
    b) Check tracer wire is inside the box

11) Jet and camera inspection (if applicable)
    a) Service jetted clean, water dropped and camera inspection accepted by CFPUA Inspector
12) If everything passes
   a) Send e-mail to NHCo and contact person with original work order
   b) Call Contact person (if no e-mail address available) and inform them it passed

13) If it fails
   a) Send e-mail to CFPUA Inspector group and contact person with explanation of why it failed
   b) Call Contact person (if no e-mail address available) and inform them of why it failed
   c) A reinspection fee will be charged.
   d) Once all items are corrected, the reinspection fee can be paid and CFPUA Customer Service will generate a work order for the new inspection.
6.A  NCDENR Applicant Certification Form—Public Water System Project
6.B  NCDENR Applicant Certification Form for Water Main Extensions not owned by the supplier of water
6.C  Fast Track Sewer Engineering Certification
6.D  Sample NCDENR DWR Engineering Plans & Specifications Approval—Water Main Extension
6.E  Sample NCDENR DWR Authorization to Construct—Public Water System
6.F  Sample NCDENR DWR Final Approval—Public
6.G  Sample NCDENR DWR Permit Modification—Public Sewer System
6.H  Sample Email NCDENR DWR Partial Certification
6.I  Sample NCDENR DWR Permit Tracking
6.J  Sample NCDENR DWR Final Engineering Certification
6.K  Assignment of All Warranties and Guarantees
6.L  Grantor’s Agreement
6.M  Contractor’s Release of Liens
6.N  Easement and Conveyance Document
Applicant Certification Form

In accordance with 15A NCAC 18C .0303 (c), a signed applicant certification must be submitted to the Department, stating that the Operation and Maintenance (O&M) Plan and the Emergency Management Plan requirements have been satisfied and that the system will have a certified operator as required by Section .1300. No construction, alteration, or expansion of a community or non-transient, non-community public water system shall be placed into final service or made available for human consumption until the applicant has submitted the certification and has received Final Approval from the Department.

Certification must be provided by the following individual or their duly authorized representative:

1. For a corporation, limited liability company, home owner association or non-profit organization: a president, vice president, secretary, or treasurer.
2. For a partnership or sole proprietorship: by a general partner or the proprietor.
3. For a municipality, State, Federal or other agency: by either a principal executive officer or ranking elected official.

By the signature below I certify, under penalty of law:

1. The following actions have been completed for the construction, alteration, or expansion of the water system, as defined in the project documents:
   - I, or personnel under my direct supervision, have completed an O&M Plan and an Emergency Management Plan in accordance with 15A NCAC 18C .0307(d) and (e). Based on my evaluation of the plans, or my inquiry of the person or persons directly responsible for preparing the O&M Plan and Emergency Management Plan, the information contained in the plans is, to the best of my knowledge and belief, true, accurate, and complete.

2. The following actions will be completed before the construction, alteration, or expansion of the water system, as defined in the project documents, is placed into final service or made available for human consumption:
   - In accordance with 15A NCAC 18C .0307(d), the O&M Plan will be made accessible to the operator on duty at all times and available to the Department upon request.
   - In accordance with 15A NCAC 18C .0307(e), the Emergency Management Plan will be made accessible to the system operator on duty at all times and available to the Department upon request.
   - In accordance with 15A NCAC 18C .0303(c), the system will have a certified operator as required by 15A NCAC 18 C. 1300.

Signature: ___________________________ Name(Print): ___________________________
Title: ___________________________ Date: ___________________________
Project Name: ___________________________ System Name: ___________________________
Serial No: ___________________________ Water Sys. ID: ___________________________
Public Water System Project
Engineer Certification Form

By the signature below I certify:

The referenced public water system project was completed in substantial compliance with the approved engineering plans and specifications, including any provisions stipulated in the Department’s plan approval letter or authorization to construct letter, and revised only in accordance with the provisions of Rule .0306.

This is a

____ Full certification

____ Partial certification, covering ______________________________

This certification is based upon inspections conducted (select one):

____ Daily

____ Continuously

____ Periodically

By (select one):

____ Myself

____ Another under my responsible charge

Seal here:

Engineer Signature: ___________________________  Engineer Name(Print): ___________________________

Project Name: ___________________________  Date: ___________________________

Serial No: ___________________________  Water System Name: ___________________________

Mail completed form to: Public Water Supply Section  1634 Mail Service Center  Raleigh, NC 27699-1634
Applicant Certification Form

For water main extensions not owned by the supplier of water

No construction, alteration, expansion, or interconnection of a community or non-transient, non-community public water system shall be placed into final service or made available for human consumption until the applicant has submitted this certification and have received Final Approval from the Department.

Certification must be provided by the following individual or their duly authorized representative:

1. For a corporation, limited liability company, home owner association or non-profit organization: a president, vice president, secretary, or treasurer.
2. For a partnership or sole proprietorship: by a general partner or the proprietor.
3. For a municipality, State, Federal or other agency: by either a principal executive officer or ranking elected official.

By the signature below I certify that:

- The referenced project is a water main extension connected to a Public Water System, however the line extension is not owned by the Supplier of Water (i.e., the owner or operator of a Public Water System) and will not be operated as a Public Water System. If this project becomes a Public Water System as defined by the N.C. General Statutes 130A-313, I will notify the appropriate Regional Engineer of the Public Water Supply Section immediately.

- I acknowledge that the Supplier of Water is not responsible for operation, maintenance, and repair of the below referenced project.

Signature: ___________________________ Name(Print): ___________________________
Title: ___________________________ Date: ___________________________
Project Name: ___________________________ Serial No: ___________________________
FAST TRACK SEWER ENGINEERING CERTIFICATION

PERMITTEE: Permittee
PERMIT #: WQ00XXXX
PROJECT: Project Name – (If Modification – Area/Section Identifier)
ISSUE DATE: DATE
COUNTY: County

This project shall not be considered complete nor allowed to operate in accordance with Condition 7 of this permit until the Division has received this Certification and all required supporting documentation. Consequently, it should be submitted in a manner that documents the Division’s receipt. Send the required documentation to the Wilmington Regional Supervisor, Water Quality Section at the address at the bottom.

Any wastewater flow made tributary to the wastewater collection system extension prior to completion of this Certification shall be considered a violation of the permit and shall subject the Permittee to appropriate enforcement actions. The Permittee is responsible for tracking all partial certifications up until a final certification is received. A Final Certification shall be a complete set of record drawings and design calculations regardless of whether partials have been submitted.

PERMITTEE’S CERTIFICATION

I, the undersigned agent for the Permittee, hereby state that this project has been constructed pursuant to the applicable standards & requirements, the Professional Engineer below has provided applicable design/construction information to the Permittee, and the Permittee is prepared to operate & maintain the wastewater collection system permitted herein or portions thereof.

__________________________  ______________________________  ______
Printed Name, Title  Signature  Date

ENGINEER’S CERTIFICATION

I, ________________________, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (□ periodically, □ weekly, □ full time) the construction of the project name and location as referenced above for the above Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance of this permit; 15A NCAC 2T; the Division of Water Resources’ (Division) Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; the Division’s Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable; and other supporting materials.

North Carolina Professional Engineer’s Seal w/signature & date

□ Final  □ Partial

Certification Comments/Qualifiers:
May 14, 2015

Mr. Kent Harrell, P.E., Engineering Manager
Cape Fear Public Utility Authority
235 Government Center Drive
Wilmington, North Carolina 28403

Re: Engineering Plans and Specifications Approval
Water Main Extension

Dear Mr. Harrell:

Enclosed please find one copy of the "Application for Approval..." together with one copy of the referenced engineering plans and specifications bearing the Division of Water Resources stamp of approval for the referenced project. These engineering plans and specifications are approved under Division of Water Resources Serial Number 15-00197, dated May 14, 2015.

Engineering plans and specifications prepared by [Redacted], call for the installation of approximately 1,500 feet of 8-inch water main, valves, hydrants, 2-inch service line with a meter and a RPZ and an irrigation service line with a meter and a RPZ and other appurtenances to serve the [Redacted] located off [Redacted] in the City of Wilmington, Castle Hayne.

Cross-connection control protection devices are required based on degree of health hazard involved as listed in Appendix-B of the Rules Governing Public Water Systems in North Carolina. These guidelines are the minimum requirements. Approved backflow prevention assemblies must meet the American Society of Sanitary Engineering (ASSE) standard and carry the ASSE seal or are on the University of Southern California approval list. 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.

Please note that in accordance with 15A NCAC 18C .0309(a), no construction, alteration, or expansion of a water system shall be placed into service or made available for human consumption until the Public Water Supply Section has issued Final Approval. Final Approval will be issued and mailed to the
applicant upon receipt of both an Engineer’s Certification and an Applicant’s Certification submitted in accordance 15A NCAC 18C .0303 (a) and (c).

These plans and specifications in the foregoing application are approved insofar as the protection of public health is concerned as provided in the rules, standards and criteria adopted under the authority of Chapter 130A-317 of the General Statutes. This approval does not constitute a warranty of the design, construction or future operation of the water system.

One copy of the “Application for Approval…” and a copy of the plans and specifications with a seal of approval from the department are enclosed. One copy of the approved documents is being forwarded to our Wilmington Regional Office. The third copy is being retained in our office for permanent records.

If the Public Water Supply Section can be of further service, please call (919) 707-9100.

Sincerely,

Robert W. Midgette, P.E., Operations Branch Head
Public Water Supply Section
Division of Water Resources

RWM/SMB

Enclosures: Approval Documents

cc: Diane J. Williams, Wilmington Regional Office
    New Hanover County Health Department
Dear Applicant:

This letter is to confirm that a complete Engineer's Report and a Water System Management Plan have been received, and that engineering plans and specifications have been approved by the Department for [Incomplete Info].

The Authorization to Construct is valid for 24 months from the Issue Date (refer to next page). Authorization to Construct may be extended if the Rules Governing Public Water Supplies and site conditions have not changed (see Rule 0.0302). The Authorization to Construct and the engineering plans and specifications approval letter shall be posted at the primary entrance of the job site before and during construction.

Upon completion of the construction or modification, and prior to placing the new construction or modification into service, the applicant must submit an Engineer's Certification and Applicant Certification directly to SHAHI B.HATTA at this office.

- **Engineer Certification:** in accordance with Rule 0.0303(a), the applicant shall submit a certification statement signed and sealed by a registered professional engineer stating that construction was completed in accordance with approved engineering plans and specifications, including any provisions stipulated in the Department's engineering plan and specification approval letter.

- **Applicant Certification:** in accordance with Rule 0.0303(c), the applicant shall submit a signed certification statement indicating that the requirements for an Operation and Maintenance Plan and Emergency Management Plan have been satisfied in accordance with Rule 0.0307(d) and (e) and that the system has a certified operator in accordance with Rule 1.3100. The “Applicant Certification” form is available at http://www.deq.state.nc.us/pws/ (click on Plan Review Forms, under Plan Review heading).

If this Authorization to Construct is for a new public water system, the owner must submit a completed application for an Operating Permit and the appropriate fee. For a copy of the application for an Operating Permit please call (919) 707-9083.

Once the certifications and permit application and fee, (if applicable), are received and determined adequate, the Department will issue a Final Approval letter to the applicant. In accordance with Rule 0.0309(a), no portion of this project shall be placed into service until the Department has issued Final Approval.

Sincerely,

Robert W. Midgette, P.E., Operations Branch Head
Public Water Supply Section
Division of Water Resources

cc: DIANE J. WILLIAMS, Wilmington Regional Office
North Carolina Department of Environment and Natural Resources
Division of Water Resources

Public Water System Authorization to Construct

Public Water System Name and Water System No.:
CFPUA-WILMINGTON

Project Name: [Redacted]

Serial No.: [Redacted]

Issue Date: 05/14/2015

Expiration Date: 24 Months after Issue Date

In accordance with NCAC 18C .0305, this Authorization to Construct must be posted at the primary entrance to the job site during construction.
North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

06/16/2015

KENT P HARRELL, ENG. MANAGER
CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403

Donald R. van der Vaart
Secretary

06/16/2015
RECEIVED
JUN 18 2015
N & T

Re: Final Approval
Final Approval Date: 06/16/2015

[Redacted]
Water System No. [Redacted]
New Hanover County

Dear Sir/Madam:

The Department received an engineer's certification statement and an applicant's certification statement concerning the above referenced project. The engineer's certification verifies that the construction of the referenced project has been completed in accordance with the engineering plans and specifications approved under Department Serial Number 13-01134. The applicant's certification verifies that an Operation and Maintenance Plan and Emergency Management Plan have been completed and are accessible to the operator on duty at all times and available to the Department upon request and that the system will have a certified operator as required by 15A NCAC 18C .1303.

The Department has determined that the requirements specified in 15A NCAC 18C .0303(a) and (c) have been met and, therefore, issues this Final Approval in accordance with Rule .0309(a).

Sincerely,

[Signature]

Robert W. Midgette, P.E., Operations Branch Head
Public Water Supply Section
Division of Water Resources

cc: DIANE J WILLIAMS, Wilmington Regional Office
New Hanover County Health Department

[Redacted] ENGRS
Dear Mr./Ms.:

In accordance with your application received (MONTH, DAY, YEAR) and additional information received on MONTH, DAY, YEAR, we are forwarding herewith Permit No. WQ00XXXXX dated ISSUE DATE to the NAME OF APPLICANT (Permittee) for the construction and operation upon certification of the subject wastewater collection system extension. This permit shall be effective from the date of issuance until rescinded, shall void Permit No. WQ0000000 issued MONTH, DAY, YEAR, and shall be subject to the conditions and limitations as specified therein. This cover letter shall be considered a part of this permit and is therefore incorporated therein by reference.

This modification ...... If modification, include a brief description of what’s being modified here (remove if not a modification)

Please pay particular attention to the following conditions contained within this permit:

Special Conditions:

Condition I?

Standard Conditions:

Condition II.1: This permit shall not be automatically transferable; a request must be made and approved.

Condition II.4: Requires that the wastewater collection facilities be properly operated and maintained in accordance with 15A NCAC 2T .0403 or any individual system-wide collection system permit issued to the Permittee.
It shall be responsibility of the Permittee to ensure that the as-constructed project meets the appropriate design criteria and rules. Failure to comply may result in penalties in accordance with North Carolina General Statute §143-215.6A through §143-215.6C, construction of additional or replacement wastewater collection facilities, and/or referral of the North Carolina-licensed Professional Engineer to the licensing board.

If any parts, requirements, or limitations contained in this permit are unacceptable, you have the right to request an adjudicatory hearing upon written request within 30 days following receipt of this permit. This request must be in the form of a written petition, conforming to Chapter 150B of North Carolina General Statutes, and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. Unless such demands are made, this permit shall be final and binding.

If you need additional information concerning this matter, please contact Permit Reviewer at (910) 796-7215 or via e-mail at Permit.Reviewer@ncdenr.gov.

Sincerely,

James H. Gregson, Regional Supervisor
Water Quality Regional Operations Section
Wilmington Regional Office
Division of Water Resources, NCDEQ

Attachment: Operational Agreement (Delete if not applicable)

Cc: ENGINEER, FIRM
COUNTY County Health Department (only for commercial food permits)
COUNTY/CITY/TOWN Building Inspections Department (only if deemed to be needed)
WWTF Owner (if permittee & plant owner are different)
Downstream Sewer Owner (if permittee & system owner are different)
WIRO, Water Quality Section -- WWTF Name ( Permit Number) Sewer Ext. File
Central Files, Water Quality Section

Michael Leggett, PERCS Unit (via email)
In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules, and Regulations, permission is hereby granted to the

**APPLICANT**
**COUNTY COUNTY**

for the construction and operation upon certification of approximately ¥ linear feet of ¥-inch gravity sewer; a ¥-gallon per minute pump station with duplex pumps, on-site audible and visual high water alarms, telemetry, and a (portable generator receptacle OR permanent generator with automatic transfer switch) as well as approximately ¥ linear feet of ¥-inch force main to serve (PROJECT INFO-32 three-bedroom homes, 125,000 sf of shopping center, a 40-seat restaurant, etc) as part of the PROJECT NAME project, and the discharge of PERMITTED FLOW gallons per day of collected domestic, commercial, industrial wastewater into the DOWNSTREAM SEWER OWNER or WWTF OWNER’s existing sewerage system, pursuant to the application received MONTH, DAY, YEAR, and additional information received on MONTH, DAY, YEAR and in conformity with 15A NCAC 2T; the Division’s Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; the Division’s Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable; and other supporting data subsequently filed and approved by the Department of Environmental Quality and considered a part of this permit.

**Permit Modification History**

This permit shall be effective from the date of issuance until rescinded and shall be subject to the specified conditions and limitations contained therein.

**Permit Number:** WQ00XXXXX

**Issued Today:** ISSUE DATE

James H. Gregson, Regional Supervisor
Wilmington Regional Office
Water Quality Regional Operations Section
Division of Water Resources, NCDEQ
*By Authority of the Director and The Environmental Management Commission*
SUPPLEMENT TO PERMIT COVER SHEET

NAME OF APPLICANT is hereby authorized to:

Construct, and then operate upon certification the aforementioned wastewater collection extension. The sewage and wastewater collected by this system shall be treated in the WWTF NAME Wastewater Treatment Facility in accordance with Permit Number NC00XXXXX or WQ00XXXXX.

Permitting of this project does not constitute an acceptance of any part of the project that does not meet 15A NCAC 2T; the Division of Water Resources’ (Division) Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; and the Division’s Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable, unless specifically mentioned herein. Division approval is based on acceptance of the certification provided by a North Carolina-licensed Professional Engineer in the application. It shall be the Permittee’s responsibility to ensure that the as-constructed project meets the appropriate design criteria and rules.

Construction and operation is contingent upon compliance with the Standard Conditions and any Special Conditions identified below.

I. SPECIAL CONDITIONS

(Delete the following condition if not required – Approved variance language from Central Office)

1. Language to be provided by the Central Office. [15A NCAC 02T .0105(n)]

(Delete if not required – required when owner of WWTF/Downstream sewer and project are different)

2. This permit shall become voidable unless the agreement between NAME OF APPLICANT and DOWNSTREAM SEWER OWNER and/or WWTF OWNER for the collection and final treatment of wastewater is in full force and effect. [15A NCAC 02T.0304(h)]

(Delete if not required – Dry Sewer: Construction Only Project)
Requires approval from Central Office First

3. This permit shall be for the construction of the wastewater collection facilities only. No flow shall be made tributary to the subject facilities until a permit modification application is submitted (with the appropriate fee), a modified permit is issued, and the Engineer’s Certification is received and approved by the Division. Only lots that can obtain a septic disposal system via the County health department may be developed until such time that the permit is modified and system permitted herein is placed into operation. [15A NCAC 02T.0116]

(Delete if not required – Additional Wastewater Flow)

4. No flow in excess of the quantity or number & type of connections permitted herein shall be made tributary to the subject sewer system until an application for permit modification has been submitted to and approved by the Division. [15A NCAC 02T.0304(b)]

(Delete if not required – Downstream Capacity Increase or Treatment Required)
5. No wastewater flow shall be made tributary to the subject sanitary sewer system until the **DOWNSTREAM COLLECTION SYSTEM and/or WWTF** expansion is constructed, operational, and the engineer’s certification has been received by the Division. [15A NCAC 02T .0116]

(Delete if not required – for permits issued to Developer selling lots/units or issued to an Owner’s Assoc)

6. The Operational Agreement between the Permittee and the Environmental Management Commission is incorporated herein by reference and shall be a condition of this permit. Noncompliance with the terms of the Operational Agreement shall subject the Permittee to all sanctions provided by North Carolina General Statutes §143-215.6A to §143-215.6C for violation of or failure to act in accordance with the terms and conditions of this permit. [15A NCAC 02T.0115]

   **Delete the following condition if not required – Related to Pump Station Signage**

7. Each pump station shall be clearly and conspicuously posted using a weatherproof sign with the address, a pump station identifying name/number, 24-Hour Emergency telephone number, and name of the owner/operator of the sewer system/pump station and instructions to call the number in the event of alarm activation or other emergency. Simplex pump stations or vacuum sewer pits serving a single-family residence may have a placard or sticker without the address placed on the control panel in lieu of a sign. [15A NCAC 02T .0305(h)(2)]

   (Delete if not required - For structure replacement)

8. The abandonment of any existing wastewater facilities including septic systems being replaced by new sewer infrastructure shall be done in accordance with the applicable agency having compliance oversight on such facilities. [15A NCAC 02T.0105(c)(6)]

   **Insert Additional Conditions as necessary**
II. STANDARD CONDITIONS

1. **This permit shall not be transferable.** In the event there is a desire for the wastewater collection facilities to change ownership, or there is a name change of the Permittee, a formal permit request shall be submitted to the Division accompanied by documentation from the parties involved, and other supporting materials as may be appropriate. The approval of this request shall be considered on its merits and may or may not be approved. [15A NCAC 02T.0104; G.S 143-215.1(d3)]

2. This permit shall become voidable unless the wastewater collection facilities are constructed in accordance with the conditions of this permit; 15A NCAC 2T; the Division’s Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; the Division’s Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable; and other supporting materials unless specifically mentioned herein. [15A NCAC 02T.0110]

3. This permit shall be effective only with respect to the nature and volume of wastes described in the application and other supporting data. [15A NCAC 02T .0110]

4. The wastewater collection facilities shall be properly maintained and operated at all times. The Permittee shall maintain compliance with an individual system-wide collection system permit for the operation and maintenance of these facilities as required by 15A NCAC 2T .0403. If an individual permit is not required, the following performance criteria shall be met: [15A NCAC 02T .0108(b)]

   a. The sewer system shall be effectively maintained and operated at all times to prevent discharge to land or surface waters, and to prevent any contravention of groundwater standards or surface water standards.
   
   b. A map of the sewer system shall be developed and shall be actively maintained.
   
   c. An operation and maintenance plan including pump station inspection frequency, preventative maintenance schedule, spare parts inventory and overflow response has been developed and implemented.
   
   d. Pump stations that are not connected to a telemetry system shall be inspected every day (i.e. 365 days per year). Pump stations that are connected to a telemetry system shall be inspected at least once per week.
   
   e. High-priority sewer lines shall be inspected at least once per every six-months and inspections are documented.
   
   f. A general observation of the entire sewer system shall be conducted at least once per year.
   
   g. Overflows and bypasses shall be reported to the appropriate Division regional office in accordance with 15A NCAC 2B .0506(a), and public notice shall be provided as required by North Carolina General Statute §143-215.1C.
   
   h. A Grease Control Program is in place as follows:

      1. For public owned collection systems, the Grease Control Program shall include at least biannual distribution of educational materials for both commercial and residential users and the legal means to require grease interceptors at existing establishments. The plan shall also include legal means for inspections of the grease interceptors, enforcement for violators and the legal means to control grease entering the system from other public and private satellite sewer systems.
2. For privately owned collection systems, the Grease Control Program shall include at least bi-
annual distribution of grease education materials to users of the collection system by the
permittee or its representative.

3. Grease education materials shall be distributed more often than required in Parts (1) and (2)
of this Subparagraph if necessary to prevent grease-related sanitary sewer overflows.

   i. Right-of-ways and easements shall be maintained in the full easement width for personnel and
equipment accessibility.

   j. Documentation shall be kept for Subparagraphs (a) through (i) of this Rule for a minimum of three
years with exception of the map, which shall be maintained for the life of the system.

5. Noncompliance Notification:

   The Permittee shall report by telephone to a water resources staff member at the Wilmington
Regional Office, telephone number (910) 796-7215, as soon as possible, but in no case more than 24
hours or on the next working day, following the occurrence or first knowledge of the occurrence of
either of the following:

   a. Any process unit failure, due to known or unknown reasons, that renders the facility incapable
   of adequate wastewater transport, such as mechanical or electrical failures of pumps, line
   blockage or breakage, etc.; or

   b. Any SSO and/or spill over 1,000 gallons; or

   c. Any SSO and/or spill, regardless of volume, that reaches surface water

   Voice mail messages or faxed information is permissible, but this shall not be considered as the initial
   verbal report. Overflows and spills occurring outside normal business hours may also be reported to
   the Division of Emergency Management at telephone number (800) 858-0368 or (919) 733-3300. Persons
   reporting any of the above occurrences shall file a spill report by completing and submitting
   Part I of Form CS-SSO (or the most current Division approved form) within five days following first
   knowledge of the occurrence. This report must outline the actions taken or proposed to be taken to
   ensure that the problem does not recur. Part II of Form CS-SSO (or the most current Division approved
   form) can also be completed to show that the SSO was beyond control. [G.S. 143-215.1C(a1)]

6. Construction of the gravity sewers, pump stations, and force mains shall be scheduled so as not to
interrupt service by the existing utilities nor result in an overflow or bypass discharge of wastewater
to the surface waters of the State. [15A NCAC 02T.0108(b)]

7. Upon completion of construction and prior to operation of these permitted facilities, the completed
Engineering Certification form attached to this permit shall be submitted with the required supporting
documents to the address provided on the form. A complete certification is one where the form is
fully executed and the supporting documents are provided as applicable. Any wastewater flow made
tributary to the wastewater collection system extension prior to completion of this Engineer's
Certification shall be considered a violation of the permit and shall subject the Permittee to
appropriate enforcement actions.

    If the permit is issued to a private entity with an Operational Agreement, then a copy of the Articles
of Incorporation, Declarations/Covenants/Restrictions, and Bylaws that have been appropriately
filed with the applicable County's Register of Deeds office shall be submitted with the certification.
A complete certification is one where the form is fully executed and the supporting documents are provided as applicable. Supporting documentation shall include the following:

a. One copy of the project construction record drawings (plan & profile views of sewer lines & force mains) of the wastewater collection system extension. Final record drawings should be clear on the plans or on digital media (CD or DVD disk) and are defined as the design drawings that are marked up or annotated with after construction information and show required buffers, separation distances, material changes, etc.

b. One copy of the supporting pump station design calculations (selected pumps, system curve, operating point, buoyancy calculations, and available storage if portable generator(s) or storage greater than longest past three year outage reliability option selected) for any pump stations permitted as part of this project.

c. Changes to the project that do not result in non-compliance with this permit, regulations, or the Minimum Design Criteria should be clearly identified on the record drawings, on the certification in the space provided, or in written summary form.

Prior to Certification (Final or Partial): Permit modifications are required for any changes resulting in non-compliance with this permit (including pipe length increases of 10% or greater, increased flow, pump station design capacity design increases of 5% or greater, and increases in the number/type of connections), regulations, or the Minimum Design Criteria. Requested modifications or variances to the Minimum Design Criteria will be reviewed on a case-by-case basis and each on its own merit. Please note that variances to the Minimum Design Criteria will be requested and approved during the permitting process prior to construction. After-construction requests are discouraged by the Division and may not be approved, thus requiring replacement or repair prior to certification & activation. [15A NCAC 02T .0116]

8. Gravity sewers installed greater than ten percent below the minimum required slope per the Division’s Gravity Sewer Minimum Design Criteria shall not be acceptable and shall not be certified until corrected. If there is an unforeseen obstacle in the field where all viable solutions have been examined, a slope variance can be requested from the Division with firm supporting documentation. This shall be done through a permit modification with fee. Such variance requests will be evaluated on a case-by-case basis. Resolution of such request shall be evident prior to completing and submitting the construction certification. [15A NCAC 02T.0105(n)]

9. A copy of the construction record drawings shall be maintained on file by the Permittee for the life of the wastewater collection facilities. [15A NCAC 02T .0116]

10. Failure to abide by the conditions and limitations contained in this permit; 15A NCAC 2T; the Division’s Gravity Sewer Design Criteria adopted February 12, 1996 as applicable; the Division’s Minimum Design Criteria for the Fast-Track Permitting of Pump Station and Force Mains adopted June 1, 2000 as applicable; and other supporting materials may subject the Permittee to an enforcement action by the Division, in accordance with North Carolina General Statutes §143-215.6A through §143-215.6C, construction of additional or replacement wastewater collection facilities, and/or referral of the North Carolina-licensed Professional Engineer to the licensing board. [15A NCAC 02T .0104; 15A NCAC 02T .0108(b-c)]

11. In the event that the wastewater collection facilities fail to perform satisfactorily, including the creation of nuisance conditions, the Permittee shall take immediate corrective action, including those as may be required by this Division, such as the construction of additional or replacement facilities. [15A NCAC 02T .0110; 15A NCAC 02T .0108(b)]
12. The issuance of this permit shall not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by the Division any other Federal, State, or Local government agencies which have jurisdiction or obtaining other permits which may be required by the Division or any other Federal, State, of Local government agencies. [G.S. 143-215.1(b)]
This project shall not be considered complete nor allowed to operate in accordance with Condition 7 of this permit until the Division has received this Certification and all required supporting documentation. Consequently, it should be submitted in a manner that documents the Division’s receipt. Send the required documentation to the Wilmington Regional Supervisor, Water Quality Section at the address at the bottom.

Any wastewater flow made tributary to the wastewater collection system extension prior to completion of this Certification shall be considered a violation of the permit and shall subject the Permittee to appropriate enforcement actions. The Permittee is responsible for tracking all partial certifications up until a final certification is received. A Final Certification shall be a complete set of record drawings and design calculations regardless of whether partials have been submitted.

**PERMITTEE’S CERTIFICATION**

I, the undersigned agent for the Permittee, hereby state that this project has been constructed pursuant to the applicable standards & requirements, the Professional Engineer below has provided applicable design/construction information to the Permittee, and the Permittee is prepared to operate & maintain the wastewater collection system permitted herein or portions thereof.

__________________________  ______________________________  _______________
Printed Name, Title  Signature  Date

**ENGINEER’S CERTIFICATION**

I, ________________, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project name and location as referenced above for the above Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance of this permit; 15A NCAC 2T; the Division of Water Resources’ (Division) Gravity Sewer Minimum Design Criteria adopted February 12, 1996 as applicable; the Division’s Minimum Design Criteria for the Fast-Track Permitting of Pump Stations and Force Mains adopted June 1, 2000 as applicable; and other supporting materials.

North Carolina Professional Engineer’s Seal w/signature & date

☐ Final  ☐ Partial

Certification Comments/Qualifiers:
Processed today. Printed verification available starting next Monday using the Sewer Permit Tracker on our website linked below.

Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties unless the content is exempt by statute or other regulation.

The goal of the Fast Track sewer permit program is to issue a permit in no more than 30 business days from receipt of a complete application and if no additional information has to be requested upon full review. Please use the tracker to determine the official application receipt date to allow you to estimate a date for issuance and find the reviewer’s name. Once issued, the record stays on the site for 30 days.

For information about permit applications please visit DENR’s Permit Application Tracker using this address:  [http://portal.ncdenr.org/web/deao/permit-tracker](http://portal.ncdenr.org/web/deao/permit-tracker)

**NEW***NEW***NEW**

Check on sewer certification receipt status using the [Sewer Extension Permit Tracker](http://portal.ncdenr.org/web/wq/swp/ps/cs) link at the address below. Confirmation using this method will replace letters and emails; it is recommended that confirmation be printed and/or saved.


Subscribe to Collection System Updates to receive automatic alerts for changes to applications, policies, regulations, etc.
### Permit Number: WQ_XXXXX
### Permit Type: Gravity Sewer Extension, Pump Stations, & Pressure Sewer Extensions
### Issued Date: 6/10/2013

### Facility Name: Northwest Regional Pump Station and Interceptor
### Facility County: New Hanover
### Facility Region: Wilmington

### Owner Information Details:
Submit a Permit Ownership / Name Change form to DWR to make any changes to this Owner information. See [http://portal.ncdenr.org/web/wq/swp/pw/cswp/cspol] for form. Note that the owner is the legally responsible entity.

<table>
<thead>
<tr>
<th>Owner Name</th>
<th>Cape Fear Public Utility Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner Affiliation</td>
<td>James R. Flechtner</td>
</tr>
<tr>
<td>Address1</td>
<td>235 Government Center Dr</td>
</tr>
<tr>
<td>Address2</td>
<td></td>
</tr>
<tr>
<td>City, State &amp; Zip</td>
<td>Wilmington, NC 28403</td>
</tr>
<tr>
<td>Work Phone</td>
<td>910-332-6669</td>
</tr>
<tr>
<td>Email Address</td>
<td><a href="mailto:Jim.Flechtner@cfpu.org">Jim.Flechtner@cfpu.org</a></td>
</tr>
</tbody>
</table>

### Permit Engineer/Environmental Consultant

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
</table>

### Permit Events

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Date</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variance Granted</td>
<td>6/10/2013</td>
<td>A variance for a residential flow reduction of 80 gpd/bedroom with a 160 gpd minimum has been granted for existing &amp; future residences tributary to this pump station only based on data from 2007-2012 and a study conducted by [Redacted] using the Walnut Hills treatment facility and its collection system. The pump station’s design has been allowed to use this value as a basis for its design, but the Permittee shall monitor this system and station to ensure the as-built design performs adequately taking any necessary action to correct issues that arise.</td>
</tr>
</tbody>
</table>

| Permit issued     | 6/10/2013    | |
| Partial Engineer Certification Received | 6/16/2014    | 12,355 ft of 8” FM; 12,355 ft of 10” FM; 7,301 ft of 8” GS & 72 ft of 12” GS |
| Partial Engineer Certification Received | 6/16/2014    | By [Redacted] 5,700 ft of 8” and 10” FM; 1,940 ft of 12 FM |
| Partial Engineer Certification Received | 3/18/2015    | 105 feet of GS to MH #G6 |
| Partial Engineer Certification Received | 4/24/2015    | By [Redacted] 148 ft. 18” FM, 270 ft of 14” FM, 5,030 ft of 12” FM |
| Partial Engineer Certification Received | 4/24/2015    | Pump Station completely finished; 8,568 ft of 12” FM |

**NOTE:** Receipt of an Engineering Certification (Partial and/or Final) is required prior to operation of the facility.
<table>
<thead>
<tr>
<th>Date</th>
<th>Comment Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/17/2014</td>
<td>A variance for a residential flow reduction of 80 gpd/bedroom with a 160 gpd minimum has been granted for existing &amp; future residences tributary to this pump station only based on data from 2007-2012 and a study conducted by [redacted] using the Walnut Hills treatment facility and its collection system. The pump station’s design has been allowed to use this value as a basis for its design, but the Permittee shall monitor this system and station to ensure the as-built design performs adequately taking any necessary action to correct issues that arise.</td>
</tr>
</tbody>
</table>
North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

November 19, 2014

John E. Skvarla, III
Secretary

RECEIVED
NOV 21 2014
N & T

P.O. Box
Wilmington, NC 28406

SUBJECT: FINAL ENGINEERING CERTIFICATION
Permit No. WC
Wastewater Collection System Extension
New Hanover County

Dear Mr. [Redacted]:

The Division of Water Resources’ Wilmington Regional Office received a final engineering certification for the subject project on November 18, 2014. The Wilmington Regional Office has conducted a preliminary review of the submitted documentation in support of the certification for the subject permit and hereby accepts it on that basis. Should a more thorough review be conducted in the future, you shall be notified of any identified discrepancies between the permitted project and the constructed project. Since the Division does not perform a technical review prior to permitting, this engineering certification is our only verification that the design meets all regulations and minimum design criteria. The Division would like to see everything that would have been required in a complete set of plans as if a full technical review were conducted before permit issuance. Please note that the certifying engineer should be aware of the full requirements of his certification submittal.

Enclosed is a copy of the date stamped certification page for your records. Please be reminded that the Permittee is responsible for keeping a copy of the final record drawings for the life of the project. You or your organization should have received a complete set of record drawings and design calculations as referenced by your signature on the certification as the Permittee. Lastly, you are receiving this letter because the Division has you listed as the responsible party for this permit and new sewer system. Since this permit is not automatically transferable, if this permit and system is no longer owned by you please complete and submit the Sewer Permit Change-of-Ownership Form (PNOCF 08-13) which can be downloaded from: http://portal.ncdenr.org/web/wa/swp/ps/cs/pnoc.

If you have any questions concerning this correspondence, the permit, or requirements for permit transference, please feel free contact me using the letterhead contact information or via E-mail at Dean.Hunkele@ncdenr.gov.

Sincerely,

[Redacted]
Senior Environmental Specialist

Enclosure: Copy of Final Permit Certification Page

Cc: [Redacted] Consulting Engineers
    Kent Harrell, CFPUA
    Sewer Carts, WIRO - Water Quality Section
    Central Files – Water Quality Section

(no enclosures)
(no enclosures)
(enclosure w/ plan sheets)
(w/ original certification)
ASSIGNMENT OF ALL
WARRANTIES AND GUARANTEES
(for utilities not installed under a CFPUA contract)

To: Cape Fear Public Utility Authority  
235 Government Center Drive  
Wilmington, N.C. 28403  
Grantor of Utilities: _____________________________  
Contractor(s): _____________________________

Project (Name and Address): _____________________________

STATE OF: _____________________  
COUNTY OF: ___________________

The undersigned do hereby assign, transfer, bargain and convey unto the Cape Fear Public Utility Authority all its rights, title and interest in and to all warranties, express or implied, covering warranting, applying or pertaining to all goods, equipment, and materials of whatsoever kind, furnished, delivered or used for or in said project referenced above and more particularly described as follows:

__________________________________________________________________________________________

Also, the undersigned does hereby certify that to the best of his knowledge, information and belief that the warranties attached hereto include all warranties of the contractors, and all subcontractors. And all suppliers of materials and equipment furnished, delivered or used for or in said contract referenced above.

IN TESTIMONY WHEREOF, this Agreement made this ____ day of ____________________, 20____.

GRANTOR: _____________________________  Address: _______________________________

By:____________________________________  (SEAL)

Printed:_________________________________

Title: __________________________________

STATE OF ____________________  
COUNTY OF __________________

I, ________________________________, a Notary Public for the State and County aforesaid do hereby certify that ______________________________ personally appeared before me this day ___ of ________________, 20___ and executed the foregoing instrument.

______________________________________

Notary Public

(Seal)  My Commission Expires: ________________
CONTRACTOR: ____________________________ Address: _______________________________

By: _______________________________ (SEAL)

Printed: _______________________________

Title: _______________________________

STATE OF __________________
COUNTY OF __________________

I, _______________________________, a Notary Public for the State and County aforesaid do hereby certify that _______________________________ personally appeared before me this ___ day of _______________, 20___ and executed the foregoing instrument.

________________________________________
Notary Public

(Seal) My Commission Expires: _______________
GRANTOR’S AGREEMENT (for utilities not installed under a CFPUA contract) -B-

To: Cape Fear Public Utility Authority
235 Government Center Drive
Wilmington, N.C. 28403

Grantor of Utilities: _____________________________
Contractor(s): _____________________________

Project (Name and Address): _____________________________

STATE OF: ___________________
COUNTY OF: _________________

The undersigned owns in fee simple, and no other person or entity owns any share of, water and/or sewer improvements made part of the above stated project, more particularly described as follows (the “Property”):

__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

The undersigned certifies there are no pending suits, judgments, executions, or encumbrances against the Grantor in the State of North Carolina or in any Federal Court.

The undersigned has paid in full or otherwise has satisfied or will satisfy all obligations for all materials and equipment furnished, for all work, labor and services performed, and for all known indebtedness and claims against the undersigned for damages arising in any manner in connection with the construction/repair of the Property for which the owner or his property might in any way be held responsible, and further that no financing statements, chattel mortgages, conditional bills or sale or retention of title agreements have been given or executed by undersigned for or in connection with any material, appliances, equipment, fixtures, or furnishings placed upon or installed as part of the Property.

The undersigned certifies there are no outstanding bills incurred for labor employed and/or materials used in making any repairs or improvements on or to the Property. No labor, professional design or surveying services have been performed on, at or to the Property, nor has any labor been performed towards the construction of any structure on or to the Property, and no materials, supplies, or equipment of any kind that could be used in connection with such work have been delivered to, placed on or made part of the Property. There are no unpaid bills or liens against the Property. If any unpaid bills or liens shall be discovered, then the Grantor agrees to be responsible for payment of any such bills or liens.

Grantor shall indemnify and hold the Cape Fear Public Utility Authority harmless of and from any and all loss, cost, damage, and expense of every kind, including attorney’s fees, which the Cape Fear Public Utility Authority shall or may suffer or incur to become liable for under its policies, directly or indirectly, out of the improvement to the Property, or on account of any mechanic’s, materialman’s or any other type of lien or claim, or in connection with the enforcement of this Agreement.

The undersigned certifies that they have not created, suffered, assumed or agreed to any defect, lien, encumbrance, or adverse matter affecting title to the Property except matters of record and matters disclosed herein. The undersigned agrees to promptly defend, remove, bond, or otherwise dispose of any defect, lien, encumbrance, adverse claim, or other matter, if any, created, first appearing in the public records, or attaching subsequent to the date of this Agreement, but prior to the date the Cape Fear Public Utility Authority acquires for value the easement, interest or facilities to be conveyed.
IN TESTIMONY WHEREOF, this Agreement made this ____ day of ____________________, 20____.

GRANTOR: ____________________________ Address: _______________________________ _______________________________

By:__________________________________ (SEAL)

Printed:________________________________

Title: __________________________________

STATE OF __________________
COUNTY OF ________________

I, _______________________________, a Notary Public for the State and County aforesaid do hereby certify that _______________________________ personally appeared before me this ___ day of _______________, 20___ and executed the foregoing instrument.

________________________________________
Notary Public

(Seal) My Commission Expires: ____________

REVISED: 10/17/11
CONTRACTOR’S RELEASE OF LIENS
(for utilities not installed under a CFPUA contract)
(Each Contractor shall complete a Release of Lien)

To: Cape Fear Public Utility Authority
Grantor of Utilities: __________________________
235 Government Center Drive
Contractor: __________________________
Wilmington, N.C. 28403

Project (Name and Address):

STATE OF: __________________
COUNTY OF: __________________

The undersigned contracted directly with the Grantor described above to construct or repair water and/or
sewer improvements made part of the above stated project, more particularly described as follows (the
“Property”):

__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

The undersigned has paid in full or otherwise has satisfied or will satisfy all obligations for all materials
and equipment furnished, for all work, labor and services performed, and for all known indebtedness and claims
against the undersigned for damages arising in any manner in connection with the construction/repair of the
Property for which the owner or his property might in any way be held responsible, and further that no
financing statements, chattel mortgages, conditional bills or sale or retention of title agreements have been
given or executed by undersigned for or in connection with any material, appliances, equipment, fixtures, or
furnishings placed upon or installed as part of the Property.

The undersigned does hereby waive and release all right to a mechanic’s or materialman’s lien and any
other applicable lien on the Property. To the extent of any post-closing punch list or other post-closing labor,
services or materials furnished or provided by Grantor or undersigned for completion or repair of the Property,
they do hereby subordinate in favor of the Cape Fear Public Utility Authority, their respective claims regarding
a potential lien on the Property and right to file a mechanic’s or materialman’s lien and any other applicable lien
on the Property.

The undersigned certifies that (i) there are no known liens on the Property, (ii) the undersigned has not
received a notice of claim of lien on funds due related to the Property, (iii) there are no other claims outstanding
which would entitle the holder thereof to claim a lien on the Property, including no outstanding retention of title
agreements or security interests for any materials, appliances, equipment, fixtures, or furnishings placed upon or
installed as part of the Property.

The undersigned certifies that they have not created, suffered, assumed or agreed to any defect, lien,
encumbrance, or adverse matter affecting title to the Property except matters of record and matters disclosed
herein. The undersigned agrees to promptly defend, remove, bond, or otherwise dispose of any defect, lien,
encumbrance, adverse claim, or other matter, if any, created, first appearing in the public records, or attaching
subsequent to the date of this Agreement, but prior to the date the Cape Fear Public Utility Authority acquires
for value the easement, interest or facilities to be conveyed.

The undersigned understands and agrees that this Agreement relates to all services rendered, work done,
and materials furnished for the Property by undersigned in any and all capacities, and not solely for any
particular item.

The undersigned warrants that they have not assigned nor will assign their claims for payment, nor right
to perfect a lien against the Property, and that undersigned has the right to execute this Agreement.
IN TESTIMONY WHEREOF, this Agreement made this ___ day of ________________, 20___.

CONTRACTOR: ____________________________ Address: _______________________________

____________________________________  (SEAL)
By:____________________________________
Printed:_______________________________
Title: _________________________________

STATE OF ____________________________
COUNTY OF __________________________

I, _________________________________, a Notary Public for the State and County aforesaid do hereby certify that ___________________________________ personally appeared before me this ___ day of ________________, 20__ and executed the foregoing instrument.

____________________________________
Notary Public

(Seal) My Commission Expires: ________________
This EASEMENT AND CONVEYANCE, made and entered into this _____
day of ______________________, 20___, by and between
________________________________, hereinafter, whether one or more, referred to as
"GRANTOR"; and CAPE FEAR PUBLIC UTILITY AUTHORITY, a body corporate and
politic of the State of North Carolina created pursuant to Chapter 162A, Article 1 of the
North Carolina Statutes, whose mailing address is 235 Government Center Drive,
Wilmington, North Carolina 28403, its successors and assigns, hereinafter referred to as
"GRANTEE";

W I T N E S S E T H:

WHEREAS, GRANTOR owns certain real property located in New Hanover
County, more particularly described on Exhibit A attached (the "Property"), and has
agreed to convey to GRANTEE certain easements for public water and sewer utilities
over portions of the Property, together with title to sewer mains, water mains, and services
and appurtenances located on the Property;
NOW, THEREFORE, GRANTOR, for and in consideration of the sum of One Dollar ($1.00) and other valuable consideration to it in hand paid by GRANTEE, and in consideration of the mutual benefits inuring to the parties hereto, does hereby give, grant and convey unto GRANTEE the perpetual rights and easements as more fully described in the paragraphs below.

1. **Conveyance of Existing Facilities.**

   A. GRANTOR grants, conveys, bargains and sells unto the GRANTEE, its successors and assigns, certain improvements on the Property, more particularly described as follows:

   All those rights-of-way and easements within__________________________________ (Subdivision Name) as shown on the plat(s), deed(s) or attached herein thereof recorded in the New Hanover County Registry in

   ___________________________________________________________
   ___________________________________________________________

   together with all sewer mains, manholes, including those installed within the right-of-way_____________________________(Road Name(s) and SR #) services to the first cleanout and appurtenances and other personalty therein being valued at $________________.

   B. **Warranty.** GRANTOR makes the following warranties to the GRANTEE concerning the Existing Facilities:

      (i.) **Warranty of Materials and Equipment.** GRANTOR warrants to GRANTEE that the Existing Facilities conveyed herein are of good quality and free from faults and defects, and conform to as-built drawings. GRANTOR warrants all such Existing Facilities for a period of one (1) year from the date of recording this Easement and Conveyance in the office of the Register of Deeds.
Cape Fear Public Utility Authority Contract Number: ___ - _____ [__ ]

(ii.) Warranty of Work. GRANTOR warrants to GRANTEE for a period of one (1) year from the date recording this Easement and Conveyance in the office of the Register of Deeds that all work performed on the Existing Facilities has been performed in a workmanlike quality and consistent with good construction practice prevailing in North Carolina at the time of construction.

(iii.) Warranty Against Major Structural Defects. GRANTOR warrants that all structures conveyed herein are free from major structural defects for a period of one (1) year from the date of recording this Easement and Conveyance in the office of the Register of Deeds.

(iv.) Indemnity. (a) GRANTOR agrees to indemnify and hold harmless GRANTEE, and its independent contractors, agents, employees, successors and assigns from and against any and all claims, demands, causes of action, or other liability, including attorneys' fees, on account of property damage resulting from the negligence of all GRANTOR, GRANTOR'S agents, employees, and subcontractors in connection with the installation of the Existing Facilities, and agrees to include this provision in any contract with successors or assigns (b.) GRANTEE agrees to indemnify and hold harmless GRANTOR, and its independent contractors, agents, employees, successors and assigns from and against any and all claims, demands, causes of action, or other liability, including attorneys' fees, on account of property damage resulting from the negligence of all GRANTEE, GRANTEE's agents, employees and subcontractors in connection with the Existing Facilities as long as all easements are clear of any encumbrances.


A. GRANTEE shall have a permanent exclusive utility easement upon, through, in, and under the portions of the Property provided for the installation, operation and maintenance of public utilities (the "Easement Area").
B. **Purpose of Easements.** The purpose of this easement is for the installation, operation, and maintenance of a system of pipelines or mains and related facilities for public utility purposes, including water and sanitary sewer (whether currently existing or later installed, collectively the "Facilities"). Said Facilities may include, without limitation, waterlines, sewer lines, pipes, valves, hydrants, meters, and manholes. GRANTEE's rights shall include the right to do all things necessary and convenient to satisfy said purposes, including without limitation constructing, laying, maintaining, inspecting, operating, protecting, repairing, changing the size of, replacing, removing or abandoning the Facilities.

C. **Specific Terms.** Further specific terms and conditions applicable to the public utility easement are as follows:

(i.) **GRANTOR** shall not place, construct, deposit, leave, permit to be or remain on, within or over the Easement Area, any construction materials, metals, lumber, trees, berms, water bodies, rubbish, refuse, fences, structures, buildings or other obstructions. Furthermore, **GRANTOR** shall not install, or permit to be installed, any utility lines or facilities without written approval from Cape Fear Public Utility Authority. Any such obstructions shall constitute an easement nuisance and shall be removed by **GRANTOR** at its expense.

(ii.) **GRANTEE** is authorized to remove from the Easement Area all structures, fences, trees, shrubs, vegetation, and other obstructions as necessary, in **GRANTEE**'s sole discretion, to maintain, repair or protect the Facilities. Notwithstanding the foregoing, **GRANTOR** may (1) construct, maintain, and use the Easement Area for paved rights of way, paved drives and parking areas; and (2) plant and maintain shallow-rooted ground cover material within the Easement Area.

(iii.) **GRANTOR** shall retain fee simple ownership of the Property including the Easement Area; provided, however, no use may be made of the Easement Area which
interferes with GRANTEE’s full, reasonable use of the easements and rights described herein. Further, no encroachments shall be in the rights-of-ways to interfere with GRANTEE’s service. GRANTOR releases GRANTEE from any liability for damage to encroachments improperly or illegally in easement.

(iv.) At the conclusion of any installation or maintenance of the Facilities within the Easement Area, GRANTEE will regrade, mulch, and re-seed, or otherwise return the disturbed land within the Easement Area to as near prior conditions as feasibly possible. Said restoration shall not include laying sod or landscaping.

3. **Ingress and Egress Easement.** GRANTEE shall have the right of access, ingress and egress over, upon, through, and under the Easement Area. In addition thereto, GRANTEE shall have the right of access, ingress, and egress over such private roads, driveways, alleys and ways as may now or hereafter exist on the Property (collectively, the "Private Roads"), and if there are no public rights of way or Private Roads reasonably convenient to provide access to the Easement Area, then GRANTEE shall have the rights of ingress and egress over the portions of the Property adjacent to the Easement Area in such manner as shall reasonably minimize the inconvenience and damages to GRANTOR. GRANTEE will be responsible for damages to the Property outside of the Easement Area caused by GRANTEE’s use of the same for ingress and egress as provided herein.

4. **Covenants by Grantor.** GRANTOR, for itself, its heirs, executors, administrators and assigns, does covenant with GRANTEE, its successors and assigns, that it is the owner in fee simple of the Property on Exhibit A; that it has good right to grant and convey the easements and rights described herein and the easements shown on the attached plats; that it is seized of the Existing Facilities in fee and has good right to convey the Existing Facilities described herein; that said Property is free and clear from all restrictions, easements or encumbrances, except for encumbrances of record as of the
date of this Deed which do not affect the easements granted herein to GRANTEE and the lien of local property taxes; that the Existing Facilities are free and clear from all encumbrances whatsoever; and that it shall, and its heirs, executors, administrators and assigns shall, warrant and defend the title to said easements and rights and the Existing Facilities against the lawful claims and demands of any and all persons whomsoever. GRANTOR further covenants that the individuals executing this document on behalf of GRANTOR have all necessary and appropriate authority to bind GRANTOR to the obligations and conveyances granted herein, and, in the event that GRANTOR is a corporation or similar entity, that the execution of this document has been authorized by all appropriate and necessary corporate action.

TO HAVE AND TO HOLD the rights and easements and the Existing Facilities hereby granted to GRANTEE and its successors in title forever; it being agreed that the rights and easements hereby granted are appurtenant to and run with the Property now owned by GRANTOR.

[SIGNATURES ON FOLLOWING PAGES]
IN TESTIMONY WHEREOF, the GRANTOR has hereunto set its hand and seal, the day and year first above written.

_________________________________________(SEAL)
(Print Name) ____________________________

STATE OF NORTH CAROLINA
COUNTY OF ____________________________

I certify that the following person personally appeared before me this day, acknowledging to me that he/she signed the foregoing document for the purpose(s) stated therein, in the capacity indicated therein: ________________________________.

Date: ____________________________

Signature of Notary Public

______________________________
Notary's printed or typed name

My commission expires: _________________

(Official Seal)

Notary seal or stamp must appear within this box.
CAPE FEAR PUBLIC UTILITY AUTHORITY joins in the execution of this Easement and Conveyance for the limited purpose of acknowledging acceptance of this conveyance and agreeing to all terms, restrictions and obligations contained herein.

CAPE FEAR PUBLIC UTILITY AUTHORITY

By: _________________________________
Printed Name: _______________________
Title: _______________________________

STATE OF NORTH CAROLINA
COUNTY OF _______________________

I certify that the following person personally appeared before me this day, acknowledging to me that he/she signed the foregoing document for the purpose(s) stated therein, in the capacity indicated therein: ________________________________.

Date: _______________________________  
Signature of Notary Public

______________________________
Notary’s printed or typed name

My commission expires: ________________

(Official Seal)

Notary seal or stamp must appear within this box.
EXHIBIT A
PROPERTY

All of that certain tract or parcel of land located in New Hanover County depicted on that certain Map entitled "[MAP TITLE]" recorded in Map Book ___, at Page(s) ____ through _____, in the Office of the Register of Deeds of New Hanover County.
Supplemental DOCUMENTS

7.0 Plats

7.A Plat Inspection Checklist

7.B CFPUA Plat Certification
PLAT INSPECTION CHECKLIST

DATE: ________________

Ownership of Utilities

PROPERTY LINES MATCH

WATER: ________________

SEWER: ________________

Additional Comments:

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<th>V - COMPLETED</th>
<th>X - INCOMPLETE</th>
<th>N/A - NOT APPLICABLE</th>
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<tbody>
<tr>
<td>1</td>
<td>Mylar and CD received</td>
<td></td>
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<tr>
<td>2</td>
<td>Property lines match</td>
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<tr>
<td>3</td>
<td>All lots on plat are served with active water and sewer</td>
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<tr>
<td>4</td>
<td>Waterline hydrostatic pressure test and consecutive water samples passed</td>
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<td>5</td>
<td>Water line is certified</td>
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<td>6</td>
<td>Water line is activated</td>
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<td>7</td>
<td>Sewer line(s) camera inspected and accepted</td>
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<td>8</td>
<td>Sewer line is certified</td>
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<td>9</td>
<td>Sewer line is unplugged and active</td>
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<td>10</td>
<td>Walk thru completed</td>
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<tr>
<td>11</td>
<td>10' utility easement on all lots is shown or noted</td>
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<td>12</td>
<td>All additional water/sewer easements are properly shown</td>
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<tr>
<td>13</td>
<td>Easements shown on as-builts match the plat</td>
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Additional Comments:
I, ____________________, Review Officer for the Cape Fear Public Utility Authority, New Hanover County, North Carolina, certify that the map or plat to which this certification is affixed meets all Authority standards and requirements for the public utilities as set forth by ordinances. With the recordation of this plat, the Cape Fear Public Utility Authority accepts the owner's offer of dedication for the public water and/or sewer purposes all easements, common areas, and/or rights of way shown on the plat as dedicated for public utility purposes. Approval of this plat does not guarantee the availability of water and sewer services from the Cape Fear Public Utility Authority.

CAPE FEAR PUBLIC UTILITY AUTHORITY

By: ________________________________
    Review Officer        Title        Date
Carel Vandermeuden, PE, Director of Engineering

Development Services
Staff

Kent Harrell, PE, Development Services Division Manager
Bernice Johnson, Project Manager
David Dailey, Project Engineer
David Selke, Construction Manager
Alan Layh, Construction Inspector
Kyle Lewis, Construction Inspector
Skip Age, Construction Inspector
Austin Wurmb, Construction Inspector
Fred Wissert, Construction Inspector
Danielle Smith, Engineering Technician
Lorraine Furr, Customer Liaison

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