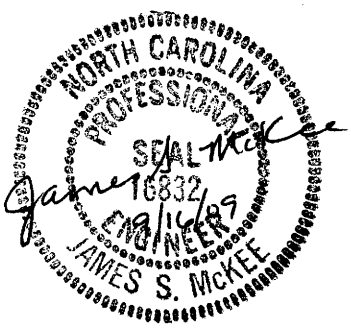

PROJECT SPECIAL PROVISIONS

Utility Construction

I. GENERAL CONSTRUCTION REQUIREMENTS:

Specifications:

The proposed utility construction shall meet the applicable requirements of the NC Department of Transportation's "Standard Specifications for Roads and Structures" dated July 2006, the City of Raleigh Standard Water and Sewer Details of the City's Public Utilities Handbook dated 2005, and the following provisions:

Owner and Owner's Requirements:

The existing utilities belong to the City of Raleigh. The Contractor shall provide access for the owner's representatives to all phases of construction. The owner's shall be notified two weeks prior to commencement of any work and one week prior to service interruption. The Contractor must call the Public Utilities Construction Inspections at 250-2744 and give the location, project name, individual's name, company name, start date and indicate if it involves water relocations.

Interruption of water service on main lines shall be limited to a maximum of 4 hours unless approved by the Engineer.

Valve Operations:

No valve in the existing City of Raleigh system shall be operated without following the procedure outlined below. Failure to comply with these requirements shall be grounds for suspension of pipe-laying operations until written assurances can be obtained from a company official that such noncompliance will not occur again. The Contractor should be aware that the City of Raleigh regards violations of these requirements as justifying punitive measures.

Notification procedures are as follows:

a. The Contractor shall notify the City of Raleigh Public Utilities Department's Maintenance Division at 250-2737 in order to request the operation of any valves. At least forty-eight hours notice should be given to the Public Utilities Department, and at least twenty-four hours notice must be given to each consumer affected by a water cut-off. The Contractor is responsible for notifying the affected consumers. All valve operations shall be

done by a Public Utilities Department valve crew or by the City's inspector for a particular project. It is illegal for anyone other than a City of Raleigh employee to operate on an existing water main valve, unless accompanied by a City of Raleigh employee.

b. The Contractor shall provide the following information when calling for the Water Distribution Division valve operation:

(1)Name of person calling
(2)Name of company;
(3)Telephone number of company;
(4)Location of valve and map number if available;
(5)Reason for requesting operating and whether to be closed or open;
(6)Time valve to be opened or closed, and
(7)Approximate time water line to be out of service.

c. Each time a Contractor needs a valve operated, he/she shall again secure permission, following the steps outlined.

d. System valves shall be defined as any valve, which has main pressure against either gate face. Newly installed tapping valves and control valves to networks not yet accepted for service are considered as system valves. Valves within a network still under construction are not considered as system valves.

In case of an emergency, the Contractor shall be allowed to take such steps with the valves and hydrants as are necessary for the protection of life and property. Notification must be made after a break in a 4 inch or larger water main, or where ruptured smaller lines are causing property damage. After an emergency valve operation, the Contractor shall notify the Maintenance Division and give the details for that operation.

Hydrants shall not be operated without following the above procedures relative to requesting operating permission and reporting emergency use of hydrant.

Construction Water:

The City of Raleigh Public Utilities Department does not provide free or otherwise unmetered construction water for any construction project. Hydrant meters may only be moved with express written permission of the Public Utilities Department. In residential areas hydrant meters may only be used for the filling of swimming pools unless prior approval of the Public Utilities Department. Contractors are responsible for adequate construction water for their job sites in one of the following approved manners:

a. Apply for permanent water service connection at the Inspections Department Permit Office, 4th floor, Raleigh Municipal Building, 222 West Hargett Street, (890-3450). Sufficient lead-time (6 weeks) should be provided for all new service taps and all fees must be paid in full prior to the work order being authorized.

b. Apply in person with the Public Utilities Meters Division Office, 3304 Lake Woodard Drive, for rental of a hydrant meter. There are a limited number of these meters and they are reserved in advance by contacting the Meter Division (250-2797). A deposit is required along with a per month rental fee per account plus the cost of the water used, at the outside City rate. Hydrant meters are read in 100 cubic feet (ccf). There is a minimum rental fee and an administration fee for billing and closing an account. A service charge is charged when accounts are closed. Customers are responsible for notifying the Meters Division if the meter is not registering usage. The following information is required:

(1) Meter location;
(2) Billing address, telephone number, responsible party name, and federal tax id#;
(3) Location of hydrant;
(4) Water to be used for;
(5) Duration of use and frequency of meter reading,
(6) Meters must be brought to the Utilities Operations Center for monthly reading.

c. Upon application approval, the City shall install hydrant meters and approved backflow prevention Devices on the fire hydrant requested by the customer, but acceptable to the City, within three (3) business days of the application and deposit being received.

d. Hydrant meters accounts are billed monthly. Failure to report usage in a timely manner for billing or accounts that are not paid in full will result in the loss of water service and the closing of the account with the City.

e. Hydrant meters will only be set when the temperature is over 35 degrees. Damage to meters from cold weather or abuse will be charged to the customers.

f. Hydrant meters used for long term use shall be returned at the end of every one year block for inspection.

g. Upon completion of hydrant usage, deposits shall be refunded to customers within 30 days provided the following has occurred:

1. Hydrant meter and backflow device have been returned in good condition, with no excessive wear nor damage.

2. All outstanding water usage charges and rental charges for the meter and backflow device have been paid in full by the customer.

h. The cut off to apply for new accounts is 3:00 PM each business day.

i. It is a violation of the City Code to establish a direct connection to a fire hydrant to fill a tank or tank vehicle. It is also illegal to use a RP or Double detector check valve on a domestic or fireline service for temporary water service. Violations of the City Code will result in loss of service, fines, and other measures as specified by the code.

j. Continued use of a hydrant meter, when usage readings are not being registered is considered theft of City water and subject to civil penalties of $500.00/day. It is the responsibility of the customer to notify the Meters Division at 250-2737 when the meter is not registering/recording the water usage properly.

k. Hydrant meters and backflow assemblies approved for use in this program is the property of the City of Raleigh Utilities Department. Failure to return the hydrant meter and backflow preventor at the end of the rental period will be considered theft of City property and prosecuted to the fullest extent of the law.

Note: Individuals caught using water unmetered and/or unauthorized by the Public Utilities Department will be prosecuted to the fullest extent of the law.

Relocating Fire Hydrants:

The Contractor shall relocate fire hydrants where shown on the plans using the existing valve and tee connection.

Setting Hydrants:

Specific directions are required for the setting of all hydrants. In streets where paving is proposed in the near future, the Contractor will be given line and grade stakes for hydrants. It is mandatory for the Contractor to preserve these stakes for the inspector to verify that the hydrant was set correctly. In areas where paving is not anticipated in the near future, hydrants shall be set according to the inspector's directions. When fire hydrants are installed behind guardrails the breakaway flange will be flush with top of

the guardrail. In general, hydrants shall be located in a manner to provide complete accessibility and minimize possibility of damage from vehicles or injury to pedestrians.

Hydrant installation shall be as shown in details and will be rodded from the main to the hydrant with a maximum one rod coupling. When hydrants are used as blow-offs assemblies, the valves shall be rodded to a thrust block. Restraining rods and accessories shall be "hot dipped" galvanized.

Before a hydrant is set, all dirt and foreign matter shall be removed from the interior of the hydrant.

Hydrants shall be bagged, to indicate "out of service", until all testing is complete and the mains are placed in service. Bags shall be large enough to cover entire hydrant and shall be black in color. Bags shall be secured with duct tape at the base of the hydrant and shall be removed immediately after the hydrants are placed in service.

Interior Linings for Force Mains, Sewer Mains, Interceptors, and Sewer Service Pipe

All force mains, gravity interceptors, and fittings shall be lined with an amine cured novalac ceramic epoxy containing at least 20% by volume of ceramic quartz pigment. The lining material shall have a permeability rating of zero when tested in accordance with Method A - ASTM E96-66, Procedure A with test duration of 30 days. The lining shall be applied by a competent firm with a successful history of applying linings to the interior of ductile iron pipe and fittings. Within 8 hours of surface preparation, the interior of the pipe shall receive 40 mils nominal DFT. No lining shall take place when the substrate or ambient temperature is below 40° F. The surface shall also be dry and dust free. The lining shall not be used on the faces of the flanges (if applicable).

Due to the tolerances involved, the gasket area and spigot end up to 6-inches back from the end of the spigot end must be coated with 6 mils nominal, 10 mils maximum of ceramic epoxy lining material. The Joint Compound shall be applied by brush to ensure coverage. Care should be taken that the Joint Compound is smooth without excess buildup in the gasket seat or on the spigot ends. Coating of the gasket seat and spigot ends shall be done after the application of the lining.

The number of coats of lining material applied and the touch up and repair of the lining shall be as recommended by the manufacturer. The pipe manufacturer shall provide a certification attesting that the application meets or exceeds the requirements of these specifications.

Sealed As Built Plans:

Certified surveyed "As built" plans and profiles, sealed by a Professional Land Surveyor, shall be furnished to the Public Utilities Department, by the Engineer who inspects the utility installation, upon completion and acceptance of the public main by the City and completion of private systems. The surveyed "as built" plans shall have North Carolina Geodetic Survey grid coordinates to all meter boxes, valves, manholes, and mains along with the depth information. The water permit number information must also be included. Surveyed "As built" plans of installed utilities shall be furnished to the City prior to issuance of the letter of acceptance. All service stubs shall be shown on the surveyed "as built" plans.

Certified surveyed "As builts" should be provided in a digital format. The digital file of utilities needs to show the overall water and sewer system layout along with the property of subdivision boundaries and connecting manhole. The water distribution system drawings should show mains sizes, material, hydrants, valves, blow-off assemblies, and any other relevant information (blackflow preventers, air release valves, etc.). The digital file should be delivered in DXF format. If this is not possible, then, DWG, DGN, and SHP are also acceptable formats.

II. COMPENSATION:

No direct payment will be made for utility construction work required by the preceding provisions, which are general requirements applying to utility construction, and all of the requirements stated will be considered incidental work, paid for at the contract unit prices of thee various utility items included in the contract.

The location, size, and type material of the existing utilities shown on the plans are from the best available information. The Contractor will be responsible for determining the exact location, size, and type material of the existing facilities necessary for the construction of the proposed utilities and to avoid damage to existing facilities.

PROJECT SPECIAL PROVISIONS
Utilities by Others

General:

The following utility companies have facilities that will be in conflict with the construction of this project:

A. Progress Energy – Power
B. Wake EMC - Power
C. Windstream Communications – Telephone
D. AT&T - Telephone
E. Time Warner – Cable Television
F. PSNC - Gas

The conflicting facilities of these concerns will be adjusted prior to the date of availability, unless otherwise noted and are therefore listed in these special provisions for the benefit of the Contractor. All utility work listed herein will be done by the utility owners. All utilities are shown on the plans from the best available information.

The Contractor's attention is directed to Article 105.8 of the Standard Specifications.

Utilities Requiring Adjustment:

A. Progress Energy – Power

1. See Utilities by Others plans for details. Proposed utility relocation work shall be completed by 05/01/2010. Contact: Mr. J.B. Jones (919) 481-6153.

B. Wake EMC – Power

1. See Utilities by Others plans for details. Proposed utility relocation work shall be completed by 06/01/2010. Contact: Mr. Danny Mitchell Office: (919) 863-6410 Cell: (919) 612-5859.

C. Windstream Communications – Telephone

1. See Utilities by Others plans for details. Windstream Communications will install their proposed pole line right of –L- line between station 30+90 and station 38+20 and abandon their underground facilities after rough grading is complete. The contractor shall give Windstream Communications two (2) weeks notice prior to beginning work and allow sixty (60) days for them to complete this work. All other proposed utility relocation work shall be completed by 05/01/2010. Contact: Mr. Stephen Bowman (919) 774-8292 Cell:(919) 353-4631.

D. AT&T – Telephone

1. See Utilities by Others plans for details. Proposed utility relocation work shall be completed by 06/01/2010. Contact: Mr. Jerry Thompson (919) 785-7746.

E. Time Warner – Cable Television

1. See Utilities by Others plans for details. Proposed utility relocation work shall be completed by 07/01/2010. Contact: Mr. Bill Lillis Office: (919) 632-7859 Cell: (919) 573-7019.

F. PSNC – Gas

1. See Utilities by Others plans for details. There are (3) drainage crossing that may require relocation work. PSNC requires (1) week notification and (1) week to complete the relocation work for each conflict. Contact: Mr. Frances Grimsley (919) 367-2714.