Utility Right of Way Management Program
Standards and Provisions
Last Updated 10/10/07

The following standards and provisions are intended to provide reasonable parameters to the owners of public and private utility facilities located in the existing street right of way. As of January 1, 2008, these standards govern the installation, upgrade, relocation and maintenance of all utility facilities. Please note that the adoption of these standards is not a mandate on Utility Companies to up fit their existing systems to meet the defined standards. However, the City's expectation is that Utility Companies will comply with the standards on all future installation, upgrade, relocation and maintenance projects.

The City recognizes that the manner that past facilities were installed greatly varies depending on the environmental and economic conditions of any given location. The City understands that accommodations will need to be made depending on the specifics of a given project. Therefore, it is the intent of the City to work closely with the Utility Companies to find mutually agreeable solution to all justifiable requests to deviate from the standards outlined below. Finally, please note that quicker review turn around times can be expected of those projects requiring few to no deviations from the standards.

1.0 General

1.1 **These standards shall apply equally to all City-maintained road right-of-ways. Exceptions may be granted by the City on a case by case basis.**

1.2 If crossing another entities right-of-way the standards and requirements of that entity may differ from or supersede these standards.

1.3 All utilities shall be designed and installed in accordance with appropriate industry standards and national and state building codes, including but not limited to the National Electric Code and the National Electric Safety Code.

1.4 Utility entities or their representatives shall notify other utilities in accordance with NC G. S. 87-102 of proposed excavation activities allowing sufficient time (48 Hours Minimum) for those utilities to mark their existing underground facilities either through the North Carolina One-Call Center (www.ncocc.org) at 1-800-632-4949 for those utilities which are members or directly for those utilities which are not members.

1.5 Utility entities or their representatives shall take all reasonable steps necessary to protect and support existing utilities, facilities and structures. Utilities, facilities and structures as addressed by these standards do not include transmission facilities which are typically within their own dedicated rights-of-way such as electric transmission lines, poles and towers or gas transmission pipelines.

1.6 All utilities shall be marked in accordance with NC G. S. 87-112.

1.7 The placement of new utility facilities or the major rebuild/upgrade of existing utility facilities shall be consistent with the proposed Urban Street Design Guidelines and associated cross-sections. The cross-sections show preferred locations under ideal conditions. Where these conditions to not exist, it may not be possible for utility facilities to be placed as shown in the cross-sections.

1.8 Utilities are encouraged to consolidate wherever feasible onto one pole line or in one joint-trench or duct bank.

1.9 Pole lines consisting of continuous runs of distribution facilities paralleling a roadway shall be limited to one side of the roadway except when the facilities are within a 3/4 mile radius of existing or future Duke Energy Distribution substation. This standard does not prohibit pole lines from moving from one side of the street to the other or service lines crossing the street.

1.10 Installation of utility facilities on highway structures such as bridges or culverts is generally prohibited. CDOT will review such proposed installations on a case by case basis.

1.11 Any relocation involving a streetlight requires prior approval from CDOT.

1.12 The ROW shall be restored to equal or better condition than existed prior to relocation of utilities.

1.13 Utilities shall maintain documentation of their respective facility locations/relocations and shall provide such documentation to the City of Charlotte upon written request for project specific purposes. The City recognizes the proprietary nature of such information and shall limit access accordingly.

2.0 Aboveground

2.1 Poles shall be of materials meeting Duke Energy or BellSouth standards.

2.2 Where not otherwise required to be underground (UMUD) and where pole lines located in the planting strip in urban development districts (TOD, UMUD, and MUDD), the lowest facility attached to the pole line shall be a minimum of 25 feet above existing grade. This distance will allow the city to plant small maturing trees (20 foot tall or less) with a minimum clearance to the lowest overhead facility of 5 feet. This standard shall apply to permit requests for new facilities where three or more consecutive poles are installed.

2.3 The maximum pole height above grade shall be 50 feet.

2.4 The longitudinal location of above ground facilities shall be behind the sidewalk as near as practical to the right-of-way line or easement line on a uniform alignment and as close to side property lines as possible.

2.5 If an above ground facility is determined by CDOT to be in a location that has a higher than average accident potential, CDOT may require that the facility be relocated.

2.6 Utility pole guy wires crossing an existing or proposed sidewalk shall allow a clear zone equal to the width of sidewalk plus one foot and a height of 8 feet.

2.7 Damaged poles or above ground facilities shall be "made safe" by the owner immediately following notification by CDOT. Full repair or replacement shall be scheduled to occur within 90 days or as soon as replacement materials are available.

2.8 Abandoned poles shall be removed by the owner within 30 days following notification by CDOT.

2.9 Poles and pedestals shall have a mark or tag identifying the owner.

3.0 Underground

3.1 Pull boxes and hand holes 4 feet by 4 feet in area or smaller shall be acceptable. Larger pull boxes, hand holes, manholes, and vaults may be permitted on a case by case basis as determined by CDOT.

3.2 Pull boxes, hand holes, manholes, and vaults shall not be located in driveways or within the intersection corner radius. A minimum 30-foot (20-foot in Uptown Mixed Use District) corner radius shall be recognized, where the existing corner radius is smaller. If the existing corner radius is greater then the facility shall be placed beyond the end of the radius.

3.3 Pull boxes, hand holes, manholes and vaults, if permitted to be in pedestrian/non-motorized areas, shall have lids identifying the utility owner with a skid resistant surface. Lids shall have a minimum vertical load capacity of 20,000 lbs in accordance with ANSI/SCTE 77 and ANSI Tier 15 test provisions. Lids shall be one piece for boxes 30 inches by 48 inches and smaller.

3.4 Pull box, hand hole, and manhole lids shall be centered within a single section of sidewalk.

3.5 Conduit proposed to be installed by horizontal directional drilling shall be approved with minimum review by CDOT. Drilling details shall be provided on the construction plans and installation shall conform to the requirements noted below for horizontal directional drilling.

3.6 All proposed facility installations crossing laterally at intersections shall be drilled, bored or tunneled to minimize open cuts. If drilling, boring or tunneling are agreed upon by CDOT to not be cost effective, then open cutting may be permitted.

3.7 Open cuts and trenching may be permitted by CDOT on a case by case basis. Open cuts, if permitted, shall conform to CDOT Street Maintenance Utility Cut Specification Manual and Attachments.

3.8 All proposed utilities shall be placed in such a way as to not interfere with the operation and maintenance of existing utilities, facilities, roadway or walkways within the public rights-of-way or easements.

3.9 Facilities shall be placed in accordance with the NCDOT "Policies and Procedures for Accommodating Utilities On Highway Rights of Way" (most recent edition).

3.10 Pull boxes, hand holes, manholes and vaults, located in the planting strip, shall be located outside the drip line of existing trees. The City of Charlotte Arborist shall be contacted at 704-336-4262 for a determination of tree retention or replacement.

3.11 Vault access panels shall not be placed in the sidewalk. Exceptions shall be considered by CDOT on a case by case basis.

3.12 Damaged facilities shall be made safe within 24 hours after notification by CDOT. Repair or replacement may take longer.

3.13 All non-metallic underground facilities shall be installed with a tracer wire providing the ability to be tracked from the surface by conventional electronic tracing technology.

4.0 Underground Construction Methods

4.1 Horizontal Directional Drilling

4.1.1 Horizontal Directional Drilling should follow the construction and safety practices as described in the "Horizontal Directional Drilling Installation Guidelines" manual, current edition, published by the National Utility Contractors Association (NUCA).

4.2 Jack Sleeve and Bore

4.2.1 Jack Sleeve and Bore operations should follow the construction and safety practices as described in the "Guide to Pipe Jacking and Microtunneling Design" manual, current edition, published by the National Utility Contractors Association (NUCA).

4.2.2 All bore pits less than 5 feet deep shall be a minimum distance of 5 feet from the back of curb or from the edge of pavement. All bore pits 5 feet deep or greater shall be a minimum distance from the back of curb or from the edge of pavement based on a ratio of one foot of separation per one foot of depth. By example, a 10 foot deep bore pit shall be a minimum of 10 feet from the back of curb or edge of pavement.

4.2.3 Bore pits shall be protected and made safe by fencing around or plating over.

5.0 Other Provisions

5.1 The City's permit approval does not authorize any construction on private property, rail right-of-way, utility easement, or state

maintained streets. Any crossing or parallel routing of a system along state maintained streets requires an Encroachment Agreement with the North Carolina Department of Transportation (NCDOT). To obtain a NCDOT Encroachment Agreement in the Charlotte area, contact 704-596-6900.

5.2 All right-of-way lines are to be shown on submitted plans. City tax plat information is not to be used as right-of-way data. Review of the utility plans by the City is not an approval or verification of the right-of-way lines shown on the plans. The City of Charlotte does not guarantee the right of way of the road, nor will it be responsible for claims for damages brought by any property owner.

5.3 A pre-construction meeting may be required with CDOT prior to beginning any construction.

5.4 The contractor shall utilize "door hangers," telephone contact, e-mail contact or some other form of notice to notify residents and businesses of pending utility work when the work is of such magnitude and duration that is will unduly limit access or damage the property such as blocking or closing driveways for extended periods of time or open cut excavation. Door hangers shall include the project name; a brief job description; the contractor's 24-hour contact information; and the proposed schedule for work in the immediate area. The contractor shall distribute the door hangers to provide a minimum advance notice of 3 days.

5.5 The contractor shall comply with requirements of the City's Noise Ordinance.

5.6 Special attention shall be given to the placement of construction equipment (such as boring rigs and contractor vehicles) and materials to comply with City Ordinance 19-245, "Obstructions to cross visibility at intersections."

5.7 The contractor shall not close or block sidewalk on both sides of a street or more than two consecutive blocks on the same side of a street.

5.8 Restoration of all improvements shall be completed on a block-by-block basis to reestablish functionality of the ROW as soon as possible. The contractor must begin restoration of the "first" block upon starting the new installation of the "second" block. In lieu of this requirement a temporary and permanent restoration plan prescribing specific restoration phasing may be included with the permit application.

5.9 CDOT shall be provided notice of the final inspection upon completion of the installation. All punch list items shall be addressed within 30 days.

5.10 Record drawings shall be submitted to CDOT/Development Services within 90 days of the completion of the work in the right-of-way when significant deviations from the plans occur in the final location of facilities or in their scope.