

## CHAPTER 6 EASEMENTS AND PROPERTY ACQUISITION

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### 1. PIPELINE EASEMENTS

- A. All public pipes outside of public road rights-of-ways shall be installed in recorded permanent easements as approved by Charlotte Water.
- B. Permanent easement shall be located at least 10 feet outside the stream top of bank.
- C. Temporary construction easements are project specific and must consider the site conditions and equipment being utilized for construction. Temporary construction easements are typically 10 or 15 feet or as required by Charlotte Water for construction.
- D. Easement width shall be based on the deepest trench. For sanitary sewers, the easement width shall be based on the deepest trench between manholes and shall be a single width from manhole to manhole.
- E. An easement purchased for a single pipeline is assumed to be centered along the pipe.
- F. Minimum widths of permanent easements are provided in Table 6.1 based on pipe diameter and trench depth to pipe invert. When additional fill is approved to be added over existing pipes, additional easement widths shall be required as indicated in the table at the new depth. Note that the required width may vary depending on site specific conditions at Charlotte Water's discretion.
- G. Minimum permanent easement width for all pipes shall be 20 feet.
- H. Charlotte Water reserves the right to require variance in the width of easements at their discretion, on a case-by-case basis.
- I. Utilities placed in a tunnel and/or casing may be required to provide additional easement to facilitate maintenance and/or replacement of the carrier pipe in the future, to be provided at Charlotte Water's discretion.
- J. Additional easement width may be needed for consideration of location of structures and pipe depth, at Charlotte Water's discretion.

<b>Table 6.1: Minimum Permanent Easement Width Requirements (Feet)</b>					
		Pipe Diameter			
		2" – 12"	15" – 18"	20" – 36"	42" and larger
Trench Depth to Pipe Invert (feet)	0.00' – 8.00'	20	20	25	35
	8.01' – 14.00'	30	40	40	50
	14.01' – 20.00'	45	45	50	60

H. For easement widths of pipes with greater than 20 feet of trench depth, use the following calculation:

- 1) Multiply 2 feet of full easement width by each foot of pipe invert depth, plus
- 2) The maximum trench width adder (see Table 6.2), plus

<b>Table 6.2: Maximum Trench Width Allowance</b>		
Pipe Diameter	Trench Width Adder	Maximum Trench Width
8" – 30"	36"	54" – 66"
≥ 30"	42"	Pipe Diameter + 42"

- 3) Allowance of 4 feet for equipment and shoring accessibility, and
- 4) Round up to the nearest 5-foot increment, if needed.

*Example: For a 24-inch sewer pipe with 25 feet of invert depth:*

- 1) *2 feet of easement width x 25 feet to invert depth, plus*
- 2) *3 feet of outside pipe diameter adder, plus*
- 3) *4 feet for equipment and shoring equals 57 feet of total calculated easement width,*
- 4) *Round up to 60 feet of total easement width.*

I. Considerations for multiple pipes within a single easement include:

- 1) Refer to the Water and Sewer Design chapters for minimum separation requirements for parallel pipes within a single easement.
- 2) Additional easement meeting minimum separation requirements for future parallel pipe and protection of existing pipe during future construction activities including blasting of rock.

- 1  
2 3) Additional easement width for protection of existing pipe during construction of new  
3 pipe so as not to impart any additional pipe loads.  
4  
5 4) An existing Charlotte Water easement may be used for new pipe installation unless  
6 prohibited by the existing easement language.  
7

8 **2. ACCESS EASEMENTS**  
9

- 10 A. Access easements shall be provided where Charlotte Water maintenance equipment  
11 cannot easily access easements from public roadways.  
12  
13 B. Provide adequate access at least every 2,000 feet (1,000 feet in each direction) along  
14 the pipeline easement from public roadways. Access easements are to allow Charlotte  
15 Water entry to the pipe easements with equipment without the need to traverse lengthy  
16 distances on private property. The angle of intersection of the access easement to the  
17 public road shall be no less than 85 degrees with a clear sight distance in each direction  
18 of travel a minimum of 300 feet.  
19  
20 C. Access easements should be a minimum of 20 feet wide and have a grade of no steeper  
21 than 15% with a maximum cross-slope of 10%. Vertical curves shall be transitioned over  
22 a minimum 200-foot horizontal distance. The minimum radius of curvature shall be 50  
23 feet.  
24  
25 D. For sewers  $\geq 24"$ , access easements shall be provided to allow tractor trailer access  
26 (AASHTO Interstate Semitrailer WB-67).  
27  
28 E. Gates shall be provided to limit public access to easements and be a minimum of 12 feet  
29 wide. Charlotte Water will provide a master lock for each gate. When access easements  
30 are located in manicured lawns, gates may be located near the back of the lots.  
31  
32 F. Charlotte Water may require additional requirements based on particular site conditions.  
33

34 **3. LIFT STATIONS**  
35

- 36 A. All new lift station sites, existing lift station sites undergoing modifications, and access  
37 drives, including all appurtenances and vehicular turnaround areas, shall be located on  
38 fee simple owned property, owned by the City of Charlotte.  
39

40 **4. MAINTENANCE OF EASEMENTS**  
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- 42 A. All easements shall be graded and smoothed to allow sufficient access and use for  
43 maintenance and mowing equipment with a maximum cross-slope of 10%.  
44  
45 B. No property owner shall place any part of a structure, construction fill material  
46 (temporary or permanent), permanent equipment, irrigation system, or water or  
47 stormwater impoundment on easements. Prohibited structures include such items such  
48 as, but not limited to buildings, houses, air conditioning units/heat pumps, decks, storage  
49 sheds, swimming pools, gazebos, walls, retaining walls including footings, tie backs and  
50 geogrid, and masonry fences.  
51

- 1 C. Metal, wooden, or plastic fences are allowed across easements if a 12-foot access gate  
2 is provided. Fences shall be placed perpendicular to the easement and up to an angle of  
3 35 degrees across the easement. Fences are not allowed to parallel within the  
4 easement. Charlotte Water will install a lock to be installed with other utility locks as  
5 appropriate with the property owner. Any restricted items that are found within an  
6 easement during maintenance activities will not be replaced at Charlotte Water's  
7 expense.  
8
- 9 D. No trees shall be planted within a permanent easement. No plants with an invasive root  
10 system are allowed within a permanent easement. Allowable groundcover, ornamental  
11 grass, and small shrub plantings are provided in Charlotte Water's *Landscaping/Planting*  
12 *Guidelines within Charlotte Water Permanent Easement Areas, latest revision*  
13 publication on the Charlotte Water's website, [www.charlottenc.gov/water](http://www.charlottenc.gov/water) under:  
14 Development/Projects/Helpful Links/Easement Information/"landscapingguidelines.pdf".  
15
- 16 E. Gardens, crops, shrubs, or other ornamental plants with a shallow root system are  
17 acceptable within an easement but shall not be replaced at Charlotte Water's expense.  
18
- 19 F. Critical easements located off-road, as defined by Charlotte Water, shall be marked with  
20 3-foot tall plastic markers every 300 feet or at the property line, whichever comes first.  
21 Water easements will be marked with white markers and sewer easements with green  
22 markers.  
23
- 24 G. On all developer-donated projects, the developer is required to obtain all necessary  
25 easements to complete the project. Infrastructure may not be installed within an existing  
26 easement by operation of law, until an easement agreement is recorded.  
27
- 28 H. Supplemental easement requirements may be required over existing infrastructure on a  
29 case-by-case basis.  
30

## 31 5. ACQUISITION AND RECORDING OF EASEMENTS

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- 33 A. All easements shall be acquired by the developer for donated projects and dedicated to  
34 the City of Charlotte.  
35
- 36 B. All private services or lateral easements shall be acquired by the developer/property  
37 owner when applicable to confirm land locked customers have established and  
38 maintained access to their services or laterals. Private service and lateral easements are  
39 allowed in these situations:  
40
- 41 a. Property is landlocked, i.e. no frontage on a public street,  
42
- 43 b. Property has Charlotte Water sewer service directly available, but the property owner  
44 prefers to connect in a different location, i.e. to provide gravity service, or  
45
- 46 c. There is no justification to require Charlotte Water sewer or water to be extended to  
47 the property, i.e. all surrounding property is served.  
48

49 The property owner requesting the variance to allow a private service or lateral  
50 easement must provide a recorded easement agreement between the property owners  
51 involved prior to Charlotte Water accepting payment and application for the connection.

1 This easement is NOT to be recorded between the property owner and Charlotte Water  
2 (City of Charlotte), Charlotte Water does not have the authority to acquire or condemn  
3 for the private service or lateral easements.  
4

5 C. Plat or subdivision maps are to be sealed by a surveyor and approved by a review  
6 officer for Mecklenburg County prior to recording. Approval by a review officer is not  
7 required for easement maps attached to deeds.  
8

9 D. All easements (permanent, temporary construction, access) shall be recorded by plat,  
10 where applicable, and by deed of easement prior to construction approval.  
11

## 12 13 **6. EASEMENT MAP REQUIREMENTS** 14

15 A. Maps shall be prepared to meet the North Carolina Board of Examiners for Engineers  
16 and Surveyors Policy for Existing and New Easements, Policy Number: BP-1709-1.  
17

18 B. All maps must be 8 ½-inch x 14-inch size with a standard Charlotte Water title block.  
19

20 C. Title block to include the following:  
21

22 a. Title as: Sanitary Sewer Easement To Serve: (Project Name); or Water Meter (or  
23 Main) Easement To Serve: (Project Name).  
24

25 b. Property of (Current Property Owner).  
26

27 c. Job number, file number, and  
28

29 d. Scale.  
30

31 D. Maps must contain the following minimum information:  
32

33 a. Entire boundary of property where easement is located.  
34

35 b. Deed Book and Page references.  
36

37 c. Tax Code number.  
38

39 d. Vicinity map.  
40

41 e. North Arrow and Basis.  
42

43 f. A detail where required for clarification.  
44

45 g. References of adjoining properties, i.e., Deed Book and Page Numbers, Lot  
46 Numbers, Owners, Tax Code numbers.  
47

48 h. Bearings and distances on centerline of sanitary sewer or water main easement.  
49

50 i. Distances tied to the overall parcel.  
51

- 1 j. Easement must be shaded and labeled as "CLTWater SS Easement" or "CLTWater
- 2 WM Easement".
- 3
- 4 k. Surveyor's Address must be on each individual easement map to be recorded.
- 5
- 6 l. Original recordable easement map with original seal and signature of a North
- 7 Carolina Professional Land Surveyor must be reviewed and stamped by one of the
- 8 Mecklenburg County Review Officers prior to recordation. Mecklenburg County
- 9 Review Officers are located at Charlotte Water and other City and County agencies.
- 10 Original and copy must have an original seal and signature of a North Carolina
- 11 professional land surveyor.