



Public Works and Environmental Sciences Department

**WATER & WASTEWATER - ENGINEERING**

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## **GUIDELINE FOR MINIMUM CLEARANCES BETWEEN WWS FACILITIES AND OTHER FEATURES**

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This document approved by the Broward County Water & Wastewater Services Technical Standards

A handwritten signature in blue ink, appearing to read "Steven W. Uhrick", is written over a faint circular stamp.

Steven W. Uhrick, P.E., Chair

*No technical changes were made to this document since its last issuance. The only change to this document since the last issuance was re-titling the document and formatting.*

No guideline can completely cover all possible clearance circumstances. The intent of this document is to provide information that covers most circumstances. Water and Wastewater Services (WWS) reserves the right to act in the best interests of its existing customers. See Standard Details 105, 106, 107 and 167 for additional, sometimes more stringent, criteria.

1. The minimum horizontal clearance below grade between a WWS pipeline and other buried features running more or less parallel to the WWS pipeline is 36 inches. Other agencies may have more stringent rules, such as the clearance between a source of pollution and a potable water facility.
2. The minimum horizontal clearance above grade between a WWS pipeline and structural surface features (walls, permanent fences, large signs, structures, etc.) is 1.5 times the depth of the WWS pipeline, with a 7.5 foot minimum. Within this horizontal clearance zone, WWS requires a minimum vertical clearance of 13 feet 6 inches between final grade and any overhead obstruction.

3. The minimum horizontal clearance between a WWS pipeline and a drainage structure or exfiltration trench is 6 feet between the edge of the pipe and the edge of the structure or exfiltration trench. When the pipeline is deeper than the drainage structure or exfiltration trench the horizontal clearance is 1.5 times the depth of the WWS pipeline, with a 7.5 foot minimum. Within this horizontal clearance zone, WWS requires a minimum vertical clearance of 13 feet 6 inches between final grade and any overhead obstruction. When a WWS pipeline crosses an exfiltration trench, the exfiltration trench will be stopped 6 feet on either side of the pipeline.

4. WWS pipelines are not allowed below or through structural features. The one exception to this is conflict structures for drainage pipes (wastewater piping only). WWS pipelines are allowed to cross under buried duct banks.

5. WWS pipelines shall not be buried under more than 3 feet of non-structural fill without being cased. The height of the fill is measured from the surrounding final grade.

6. WWS pipelines shall be installed in a casing or a trench with removable access where WWS pipelines are buried under more than 10 inches of asphalt or non-reinforced concrete pavement. This guideline applies to newly constructed WWS facilities purposely installed under more than 10 inches of pavement. It does not apply to situations where successive pavement layers have accumulated to more than 10 inches.

7. Maximum casing length(s) shall be limited to 300 feet. All terminal ends of said casing(s) shall have an accessibility zone to allow maintenance equipment to service the carrier pipelines as required. This zone shall be appropriately designed to allow removal of pipelines if necessary, and/or to allow repair operations without hindrance. Minimum roadway requirements shall be in accordance with the FDOT Utilities Accommodation Guide or as specified by WWS Engineer in unique situations.

8. Landscaping (except groundcover with a mature height of less than three feet) shall not be planted in the horizontal clearance zone described in #2 without the specific written approval of WWS. Outside the horizontal clearance zone but within easements, any tree on the FPL list of recommended trees list (suitable for planting adjacent to overhead power lines) is acceptable. As of June 1, 2011, those trees are:

- a. Geiger Tree – mature height 15-20 feet and spread of 20 feet
- b. Glaucous Cassia – mature height 15-20 feet and spread of 15-20 feet
- c. Silver Buttonwood – mature height 15-20 feet and spread of 20-30 feet
- d. Spanish Stopper – mature height 15-20 feet and spread of 15 feet
- e. Florida Thatch Palm – mature height 6-15 feet and spread of 6 feet