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Standards Update Transmittal

Reference Number: 2024-14
Standards: Standard Construction Specifications, Section 38
Improvement Standards, Section 9-11, 9-12, 9-24, 9-25
Update: Standard Drawings, ST-10 & SD-23

1. Modification to Standard Construction Specifications:
 - a. Section 38-9.03, was a reserved section. This section will now be titled “Plastic Pipe Deflection Testing.”
2. Modifications to Improvement Standards:
 - a. Section 9-11, HYDRAULICS, 9-12, CLOSED CONDUITS, 9-24, DRAINAGE IN RURAL AREAS and 9-25, STORM DRAIN SYSTEMS IN PRIVATE STREETS.
3. Modifications to Standard Drawings:
 - a. Standard Drawing ST-10, TRENCH SECTIONS IN IMPROVED AREAS HORTICULTURE, LAWN, OR CULTIVATED AREAS and SD-23, PIPE CONNECTIONS
4. Deletion of Standard Drawings:
 - a. Standard Drawings SD-20, DRAINAGE INLET TYPE H, SD-21.1, CORRUGATED METAL PIPE DRAINAGE INLET TYPE I (PG 1 OF 2), SD-21.2, CORRUGATED METAL PIPE DRAINAGE INLET TYPE I (PG 2 OF 2) and SD-22, CORRUGATED PIPE FITTINGS

Effect of Update:

1. Modifications are as follows:
 - a. Standard Construction Specifications Section 50 added a new section, “Plastic Pipe.” Section 38, “Plastic Pipe Deflection Testing” is being added to the Standard Construction Specifications to ensure the final product does not exceed the deflection limitations.
2. Modifications are as follows:
 - a. Sections 9-11, 9-12, 9-24 and 9-25 are being modified due to:
 - i. Metal Pipe is no longer being allowed in the City limits. Metal pipe references and specifications are deleted.
 - ii. Polypropylene Dual Wall Pipe is being allowed within City limits for drainage only. Specifications were updated to allow this type of pipe.
3. Modifications are as follows:

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- a. Standard Drawing ST-10 was edited to show bedding under the pipe and clarify the excavation backfill areas.
- b. Standard Drawing SD-23 deletes details that included metal pipe.
- 4. Modifications are as follows:
 - a. Standard Drawings SD-20, SD-21.1, SD-21.2 and SD-22 are being deleted because metal pipe is no longer allowed within the City limits.

Request for Update Initiated By: Standard Review Committee 09/30/2023

Update Reviewed for Conformity and Consistency to Standards:

Shoaib Ahrary 4/25/2024 | 1:29 PM PDT
Shoaib Ahrary, PE, ESD Manager Date

Update to Standards Approved:

Jeffrey R. Werner 4/29/2024 | 5:53 AM PDT
Jeffrey R. Werner, PE, City Engineer Date

38-9.03 Plastic Pipe Deflection Testing

The deflection testing shall be conducted by the Contractor at the Contractor's expense and witnessed by the Engineer throughout the testing process unless otherwise specified. Deflection testing shall be performed after the completion and acceptance of backfill operations and prior to the placement of subgrade, curb, gutter and sidewalk, and pavement unless otherwise directed and approved by the Engineer.

One hundred percent (100%) of the installed storm drain pipe system shall be tested for deflection using a pre-sized rigid mandrel or "Go-No-Go" device that is five percent (5%) smaller than the inside diameter of the pipe. The mandrel or "Go-No-Go" devices shall be approved by the Engineer before the start of any deflection testing.

The Contractor shall inform the Engineer in writing a minimum of ten (10) days prior to testing. Deflection testing shall be conducted no sooner than four (4) days following completion and acceptance of backfill operations, unless otherwise approved by the Engineer. The pipe shall be thoroughly flushed and clean. The mandrel or "Go-No-Go" device shall be drawn through the pipe using only the force that can be exerted by one individual on the end of a rope, using no mechanical advantage. Under no condition shall the mandrel or "Go-No-Go" device be attached to a cleaning ball.

Storm drain pipe sections that do not pass the mandrel test shall be replaced at the Contractor's expense, including excavation, re-bedding, replacing pipe, and backfilling. Re-rounding, shaping or other attempts to reduce deflection beyond the allowable deflection shall not be acceptable. Retesting the replaced storm drain pipe section(s) will require re-testing the replaced section by this method, and a minimum of one full section of pipe on either side of the replaced section at the Contractor's expense.