TRENCH CUTS AND RESTORATIONS ACROSS ROADWAYS

MISCELLANEOUS UTILITY DETAILS

GENERAL NOTES
1. The details provided in this standard index apply to cases in which jack and bore or directional boring methods are not required by the Engineer.
2. Flowable fill shall not be placed directly over loose, or high plastic, or muck material (see Index No. 305) which will cause settlement due to fill weight. Where highly compressible material exists, the amount, shape and depth of Flowable Fill must be engineered to prevent pavement settlement.
3. These details do not apply to utility cuts parallel to the centerline of the roadway which may require additional use of geotextiles, special bedding and backfill, or other special requirements.
4. Method of construction must be approved by the Engineer.
5. Some pipe may require special granular backfill up to 6" above top of pipe. Geotextiles may be required to encapacitate the special granular material.
6. Whereapped concrete overlays exist over full slab concrete pavement, the replacement pavement shall have an overall thickness of the overamed pipe. The topping shall be the existing asphalt pavement thickness. The topping friction course shall meet the existing friction course. Except structural courses may be used in lieu of dense graded friction courses.
7. Existing broken and cracked pavement shall be treated as flexible pavements.
8. All shoulder pavement, curb curb and gutter, and their substructures disturbed by utility trench cut construction shall be restored in kind.
9. The use of Flowable Fill to reduce the time that traffic is taken off a facility is acceptable but must first be approved by the Engineer. Flowable Fill use is allowed only when properly engineered for pavement construction, whether jack and bore or directional boring, and shall not be instented for significant depths or lengths. The maximum length shall be 75' (23 m) and be limited to a maximum depth of 6" (152 mm) unless supported by an engineering document. The engineering document shall address the evaluation of local groundwater flow interruption and settlement potential.
10. Excavatable Flowable Fill may be used where the Flowable Fill is contained by blankets. Flowable Fill shall not be used within the limits of the pavement and base.

MISCELLANEOUS UTILITY DETAILS

RIGID PAVEMENT CUT

FLEXIBLE PAVEMENT NOTES

Pavement shall be mechanically sawed.

The replacement asphalt shall match the existing structural and friction courses for type and thickness.

The new base material shall be either the same type and composition as the material removed or of equal or greater structural index (see Index No. 505).

BACKFILL

COMPACTED AND STABILIZED FILL OPTION

Backfill material shall be placed in accordance with Section 125 of the Standard Specifications. In Stage #1, construct compacted fill beneath the haunches of the pipe, using mechanical means suitable for this purpose. This compaction applies to the material placed beneath the haunches of the pipe and above any bedding.

In Stage #2, construct compacted fill along the sides of the pipe and up to the bottom of the base, with the upper 12" receiving Type B Stabilization. In lieu of Type B Stabilization, the Contractor may compact below Optional Base Group 3.

FLOWABLE FILL OPTION

If compaction cannot be achieved through normal mechanical methods then Flowable Fill may be used. Flowable Fill is to be placed in accordance with Section 125 of the Specifications, as approved by the Engineer.

Do not allow the utility being installed to float. If a method is provided to prevent flotation from occurring, Stages #1 and #2 may be combined, approved by the Engineer.

In Stage #1, place flowable fill midway up the sides of the utility. Allow to harden before placing Stage #2.

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NOTES FOR UTILITY CONFLICT PIPE

1. These details are for construction field expediency to resolve utility conflicts that cannot be remedied by relocation. For conflicts determined during design, use the construction shop drawings for structure details.

2. Concrete used in conflict structures shall be as specified in ASTM C478. 4000 psi may be used in lieu of Class 4 concrete.

3. Minimum opening for pipe shall be the pipe OD plus 6". Mortar used to seal the pipe into the opening will be of such mix that shrinkage will not cause leakage into or out of the structure.

4. If the conflict structure is round or there are multiple inlet or outlet pipes, then the wall section should be reviewed for strength.

5. If during the plans design or construction process it is determined that a domestic water supply line must pass through a storm drain structure, it must be shown on the design or construction plans and approved by the Florida Department of Environmental Protection (FDEP). Approval for crossing Water in Tallahassee for review and comment. This index provides accepted methods for addressing conflicts when and where they cannot be reasonably avoided. To be submitted along with the plans shall be a justification describing inordinate cost and the impracticality of avoidance. If identified, properly justified, and accomplished in accordance with this index, approval is granted. Upon request, the Utility Agency Owner (UAO) shall provide support data on the cost of relocation or adjustment to the FDOT for submission to the FDEP.

DESIGNER'S NOTE

(Cradle Option Shown)

Allow 2 feet minimum clearance on one side of utility for maintenance purposes and no less than 1 foot clearance on the other side
1. No irregular seams are permitted. All seams must be clean sawed.
2. Pavement cut seams for underground utility structures in rigid pavement are the same longitudinally, but the transverse seams shall extend to the nearest existing joint.
3. See Sheet 1 for replacement pavement.

NONTRENCH PAVEMENT CUTS FOR UNDERGROUND UTILITY STRUCTURES IN PAVEMENT