

City of Fort Worth

Utility Construction Policy- 2019

The following policy shall govern all pavement cuts or excavations within the City of Fort Worth rights of way (ROW) and easements.

Purpose

The purpose of this policy is to effectively manage street closures, minimize disruptions to traffic flow, minimize damage, and ensure the proper repair to the street pavement while allowing for utility construction and maintenance.

A. General

The Director of the Transportation and Public Works Department or his/her designated representative ("Director") shall specify methods and materials that are acceptable for utility construction within public rights of ways, and all plans and specifications shall be reviewed and approved by the Director. Any variance to this policy must be approved by the Director.

1. Variance Procedure:

The request must include the following:

- 1) Project/permit number with a description of the work being done.
- 2) Provide supporting information that justifies the need for the variance.
- 3) Provide an exhibit depicting the proposed limits of restoration.

Right-of-Way Management staff will review the variance request and forward the initial determination to the Transportation & Public Works Director's office for processing and final review. Once a final determination is made, the ROW user will be notified. The ROW user must not start construction without an approved permit. Reduced restoration limits are not allowed within a driveway approach and restoration should conform to the expansion joint in the curb if one exists.

B. Planning and coordination

1. Advanced Planning: Maps and projected schedules for the current city fiscal year for all construction planned or anticipated by each utility including water, sanitary sewer, electric, gas, telecommunications, cable, etc., are to be submitted to the Director each October 1. The City will review and distribute this information, which can be conceptual and tentative, through a monthly coordination meeting with other utilities for purpose of project planning, coordination and/or consolidation of projects.

2. Permit Requirement: All pre-planned utility construction within public right-of-way, including drainage or other applicable easements, must have a Street Use Permit for Utility Construction ("Permit") prior to construction. A permit may also be required for any work on Texas Department of Transportation ("TxDOT") right-of-way that is located within the Fort Worth city limits. One (1) electronic copy of engineering plans must be received by the Director a minimum of ten (10) working days prior to anticipated construction (excludes emergency work). All plans for service connections must be received by the Director a minimum of five (5) working days prior to anticipated construction. An approved Permit will become void if construction has not begun within 30 calendar days after approval of the permit. If the work cannot begin within the specified time period, the permit holder must request an extension at least three (3) working days prior to expiration. All construction work authorized by the Permit must be completed by the time specified therein. If the work cannot be completed within the specified time period, the permit holder must request an extension at least three (3) working days prior to expiration. A copy of the Permit, including an approved Traffic Control Plan, and approved engineering plans (if applicable) shall be maintained at the construction site at all times. If any provisions of this policy are not followed, the Permit may be revoked. If a permit holder has not complied with the terms and conditions of this utility policy under a prior permit, new permits may be denied. Permit approval will specify the type of surface restoration required. A responsible representative with decision-making authority for the permit holder shall be on site at all times during active construction.

3. Emergency Repairs: Emergency repairs may be undertaken without first obtaining a permit, however, the utility company or contractor must inform the Director and shall apply for a Permit within 24 hours of the onset of the emergency and provide the City with a written detailed description of the emergency and the work performed, whether completed or ongoing, to remedy the situation. An emergency is defined as a situation presenting an imminent or actual hazard to personal or public health, safety or property.

4. Plans: Plans shall provide a cover sheet outlining the full limits and type of proposed work; requested number of working days; project point of contact name, 24-hour phone number, address; table of contents; complete legend; location of all trenches, directional bores, street right-of-way, curbs, driveway approaches, sidewalks, and landscaping. Information regarding irrigation systems, existing utilities, pull boxes, manholes, street light, traffic signal or other poles; and loop detectors including horizontal and vertical alignment of pipe sizes shall be provided to the extent necessary if it is determined that they may conflict with construction operations. Plans should clearly indicate if the utility is overhead or underground. Detailed drawings of the proposed utility installation should be provided, such as pipe size, number of inner-ducts, profile and other utility structures such as switch gear and transformers. The length and depth of all bores and trenches must be clearly indicated. The engineer's or plan preparer's name, license number (if applicable), and date the plans were finalized shall be on all plan sheets. Review copies shall be distributed to the Director of the Transportation and Public Works Department, Water

Department, Environmental Quality Division of the Code Compliance Department, and the Park and Recreation Department. Engineering plans shall also show the following:

Transportation & Public Works Department

817-392-1234

Water Department

817-392-4477

Contact numbers should also be shown for the other agencies such as Texas Department of Transportation (TxDOT), railroads and gas pipeline companies, as appropriate.

5. Traffic Plan: One (1) electronic copy of the proposed Traffic Control Plan is required. This should be submitted by the permit requestor to the Director with and follow the same general format of the engineering plans in accordance with the latest edition of the *Texas Manual of Uniform Traffic Control Devices* (MUTCD).

6. Storm Water Pollution Prevention Plans and Grading Permits: Utility construction, including linear projects with a total land disturbance of 1.0 acre or greater or that are part of a common plan of development, must prepare a Storm Water Pollution Prevention Plan (SWPPP), obtain permit authorization under the Texas Commission on Environmental Quality (TCEQ) Construction General Permit, implement appropriate Best Management Practices (BMP) to minimize the discharge of pollutants into the Municipal Separate Storm Sewer System (MS4), and submit copies of the SWPPP & state storm water permit(s) to the Environmental Quality Division of the Code Compliance Department. See Chapter 12.5, Article X of the Fort Worth Code of Ordinances.

Any project that disturbs 1.0 acre or greater or that is part of a common plan of development must obtain an approved City of Fort Worth grading permit prior to the disturbance of land. All disturbed areas of the project including construction zone, laydown or staging areas, spoils and stock piles, and parking areas must be considered in the determination of the total land disturbance.

Projects that will disturb less than 1.0 acre do not require a SWPPP or grading permit, but are regulated by City Ordinance to minimize the discharge of pollutants into the MS4. See Chapter 12.5, Article IV, Division 1 of the Fort Worth Code of Ordinances.

Trash, concrete cut slurry, boring mud and water must be captured and not allowed to enter the MS4. All disturbed areas must obtain final stabilization throughout the project. All temporary sediment and erosion controls shall be removed and the area cleaned after final stabilization has been achieved.

7. Deep Trenches: Any trenches must meet OSHA requirements including OSHA minimum safety systems and programs.

8. Utility Locates: The contractor is responsible for obtaining utility locates under the Texas One-Call or DigTest (or equivalent) programs prior to construction, and for diligently utilizing the locate information during construction. Utility locates for City of Fort Worth owned utilities may be obtained from the following list:

Transportation & Public Works Department

817-392-1234

Water Department

811

For City water and/or sewer pipes sixteen (16) inches in diameter or greater, field verification (hydro excavation) of the alignment and elevation must be performed prior to digging. Any exceptions to this requirement will require the approval of the Fort Worth Water Department Director or his/her designated representative.

9. Notification:

1. Prior to beginning construction on any block in the project, on a block-by-block basis, prepare and deliver a doorhanger or flier of the pending construction to the front door of each residence or business that will be impacted by construction. The notice shall be prepared as follows:

- a. Post doorhanger or flier 7 days and 1 day prior to beginning any construction activity on each block in the project area.
- b. Prepare doorhanger or flier with the template. Electronic versions of the sample doorhangers can be obtained from the City of Fort Worth Accela Citizens Access website.
- c. No construction will be allowed to begin on any block until the doorhanger or flier is delivered to all residents of the block.

2. In the event it becomes necessary to temporarily shut down water or wastewater service to residents or businesses during construction, prepare and deliver a doorhanger or flier of the pending interruption to the front door of each affected resident.

- a. Post doorhanger or flier 24 hours prior to the temporary interruption on each block in the affected area.
- b. Prepare doorhanger or flier with the template. Electronic versions of the sample doorhangers can be obtained from the City of Fort Worth Accela Citizens Access website.
- c. No interruption of water or wastewater service can occur until the doorhanger has been delivered to all affected residents and businesses.

In addition, the contractor shall install a project identification sign on each end of the work site 48 hours in advance of the start of construction. The sign shall state the name and phone numbers as shown in FIGURE D019 UTILITY REPAIR DESIGNATION SIGN.

10. Coordination: The City reserves the right to coordinate and manage multiple traffic disruptions, including street and lane closures, and to delay or deny issuance of permits which unduly restrict traffic movement or for other public or private events near which the closure of streets for planned (not emergency) work would disrupt the event or the traffic associated therewith.

C. Traffic Management

The contractor must plan and execute the utility construction in a manner that minimizes the disruption of traffic and in accordance with the City of Fort Worth Traffic Engineering Manual. A maximum of one (1) lane ONLY may be closed for construction work in the downtown area and along arterials unless otherwise authorized by the Director. Work must be scheduled between the hours of 9:00 AM and 4:00 PM in the downtown and along arterials unless extended hours are authorized by the Director. Normal traffic flow will be maintained at all major intersections during peak hours without restriction. Work must be scheduled on all other streets between 7:00 AM and 6:00 PM unless extended hours are authorized by the Director. Adequate traffic control devices are to be installed and maintained in accordance with the approved Traffic Control Plan. The Director and/or his/her designee may require additional traffic control devices.

D. Construction Requirement

1. Horizontal & Vertical Clearances: Where buried under roadway pavement, the facility being constructed must be at least 42 inches below top of pavement and should normally be placed under water, sanitary sewer and stormwater pipes; Within the parkway, a minimum depth of 24 inches from street grade shall be required.

a. **Stormwater Clearances:** A minimum clearance of three (3) feet shall be maintained both horizontally and vertically for pipes and associated manholes and inlets. Where the utility crosses under a stream or other open channel, it shall be constructed a minimum of four (4) feet below the bottom of the streambed or channel, or more if improvements are planned by the City. If the utility passes over a stream or other open channel, it must be at least two (2) feet above the 100-year storm elevation and provide sufficient clearance for the passage of maintenance equipment underneath. The contractor must restore the right-of-way, including all public infrastructure, to equal or better condition than before the disturbance upon completion of the project. The utility shall coordinate with Stormwater Management - Planning to verify whether improvements are planned which might conflict with the utility's plans. Where the minimum clearances cannot be accommodated, less than the minimum clearance may be allowed at the discretion of the Stormwater Staff.

b. **Water, Wastewater, and Reclaimed Water Infrastructure:** Horizontal and vertical clearances shall be in compliance with the City of Fort Worth Installation Policy and

Design Criteria for Water (Section 5.6), Wastewater (Section 6.5), and Reclaimed Water Infrastructure (Section 7.4).

2. Boring: Utilities installed longitudinally along the street may be bored or open cut. Utilities installed across the street shall be bored unless otherwise authorized by the Director.

3. Trench Design Standard: Dimensions and materials for open trenches shall conform to the City of Fort Worth Standard Specification Document. Steel plates must be used to cover a trench temporarily. See FIGURE D018 STEEL PLATE PLACEMENT FOR TRENCH REPAIRS.

4. Driveways: It is preferred to bore under all driveways. If open trench methods are used, all areas disturbed must be restored to equal or better condition prior to demobilizing from the site.

5. Trees and Landscaping: All work performed under this policy shall be in accordance with the City of Fort Worth's Code of Ordinances, Chapter 33: Trees, Shrubs, etc. The contractor must restore any damage to trees, shrubs and other landscaping in the right of way or easement. For new construction or total reconstruction of the roadway, manholes must be placed outside of the drip line of a tree or 15 feet from the tree trunk, whichever is greater. Trees that are adjacent to the workspace and within the right of way and parkway will require tree protection fencing at the dripline and all the way around to restrict activity inside, keeping the root zone from being compacted by equipment and reducing the potential for damage to the trunk. Boring, rather than an open trench, must be used within the drip line of a tree. Variations to the tree and landscaping requirements shall be approved by the City Forester.

6. Pavement Surface Restoration: In order to maintain an acceptable riding surface on the street, the utility company, developer, or contractor shall replace the pavement surface according to the age, Pavement Condition Index (PCI) and type of the pavement. Backfill and compaction testing in accordance with the City of Fort Worth Standard Specification 33 05 10 may be followed in lieu of flowable fill. However, flowable fill is required to backfill all trenches in downtown streets. Any damage to the street surface caused by the utility construction project, including damage related to staging operations and material storage, must be properly repaired at the contractor's expense. Replacement of pavement shall adhere to the following guidelines:

New Pavement

If a utility company, developer, or contractor desires or is required to cut the street within the first two (2) years of construction or reconstruction, the entity must receive approval from the Director. For concrete streets less than two (2) years old, effective June 1, 2019, the entity must replace each whole slab with flowable fill, High Early Strength (HES) concrete according to City Specification 31 13 13 or better, and meet a 12-foot

straightedge requirement with a maximum allowable deviation of ¼ inch. For asphalt streets less than two (2) years old, effective October 1, 2019, the entity must mill and overlay the existing asphalt a minimum of two (2) inches using a paving machine from curb to curb and block to block.

Concrete Pavement:

Effective June 1, 2019

2 years to 10 years or greater than 85 PCI	Entire Panel
More than 10 years and less than 85 PCI	Entire Panel with some exceptions

Partial panel replacement of concrete pavement more than ten (10) years old and less than 85 PCI, may be allowed, if the panel is larger than 20 feet. The partial panel replaced shall be equal to a half panel and the remaining half panel must be intact without any identifiable damage as shown in FIGURE 320129-D020 PARTIAL PANEL CONCRETE REPLACEMENT.

Asphalt Pavement:

Effective October 1, 2019

2 to 10 years or greater than 85 PCI	Overlay half of pavement, curb to centerline, for 50 feet in length
More than 10 years and less than 85 PCI	Overlay 1 lane width (approximately 12') for 30 feet in length

If a street is scheduled for construction start within 6 months and programmed for total reconstruction under a Capital Improvement Program or resurfacing under a Street Maintenance Program, permanent trench repair is acceptable.

7. Other City Property: The permit holder is responsible for reimbursing the City for the cost of replacing any signal cabinet controllers, light and/or traffic signal poles, wiring or conduit, pavement markings, sprinkler systems, landscaping or any other City property, damaged during construction.

8. Emergency Utility Breaks and New Utility Service (Spot Repairs): Pavement surface restoration for concrete streets must follow guidelines in Item D6 above and applicable city standard specifications. All such repair of asphalt streets shall use the T-cut method to cut back and have a minimum rectangular size of 10 by 10 feet. Irregular shapes shall not be permitted. The four sides of the cut shall be neatly sawed without rough edges. The rectangular area will be extended to the edge of the gutter as needed to avoid a cut surface within five (5) feet of edge of the gutter. Any remaining asphalt pavement between spot repairs must be a minimum of ten (10) feet in all directions, see FIGURE 320117-D021 PARTIAL ASPHALT REPLACEMENT. All emergency temporary repairs will be constructed to permanent base and pavement repair within 14 calendar

days and mill and overlay within 60 calendar days of permit issuance unless otherwise authorized by the Director.

9. Manholes, Vaults, and Valve Boxes: For new construction or total reconstruction of the roadway, manholes and vaults in the street pavement must be located mid-lane between the tire path and be flush with the pavement. Valve boxes must be flush with the pavement.

10. Splice Pits: Construction shall be scheduled in such a manner that all splice pits shall be backfilled within ten (10) working days unless otherwise authorized by the Director.

11. Inspection: All trench repair and pavement restoration must be in accordance with the City of Fort Worth Standard Specification. All work shall be subject to inspection by Transportation and Public Works personnel.

E. Project Completion

Red-line drawings/field notes must be furnished 30 calendar days after completion of each construction segment. Record (“as-built”) Drawings must be provided within 30 calendar days after time of final completion of the project. Submissions shall be provided in portable document format (PDF).

F. Drawings

FIGURE 320117-D520 TRENCH REPAIR HMAC PAVEMENT

FIGURE 320129-D521 TRENCH REPAIR REINFORCED CONCRETE PAVEMENT

FIGURE 321416-D522 TYPICAL BRICK SURFACE & REINFORCED CONCRETE
BASE

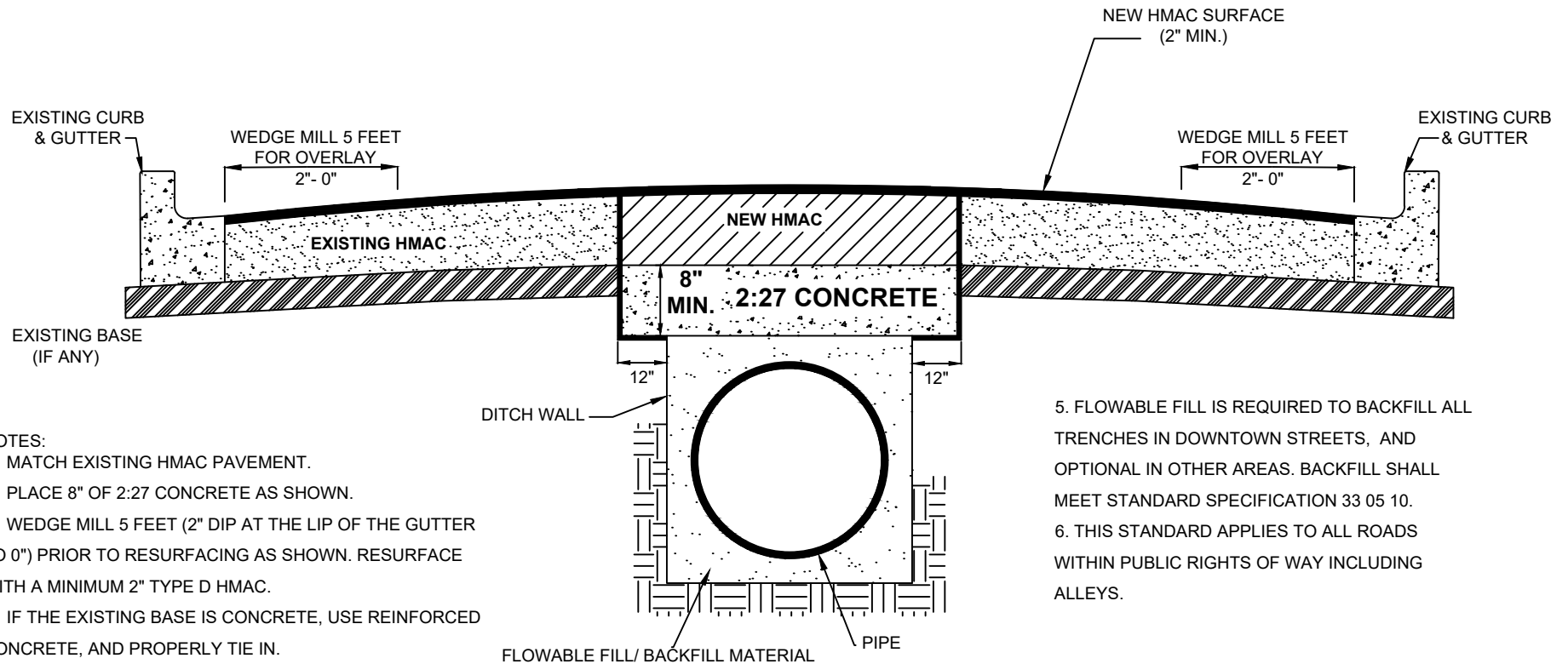
FIGURE D018 STEEL PLATE PLACEMENT FOR TRENCH REPAIRS

FIGURE D019 UTILITY REPAIR DESIGNATION SIGN

FIGURE 320129-D020 PARTIAL PANEL CONCRETE REPLACEMENT

FIGURE 320117-D021 PARTIAL ASPHALT REPLACEMENT

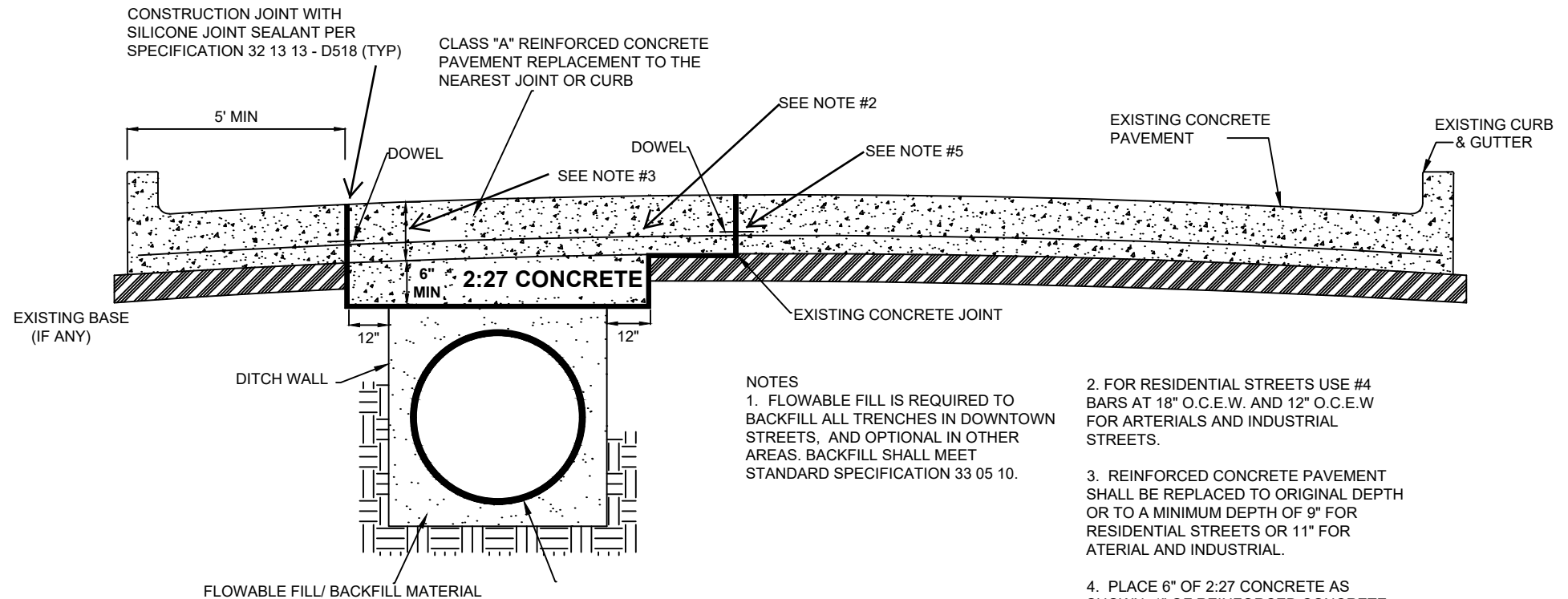
ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH
CITY OF FORT WORTH STANDARD SPECIFICATIONS.



TYPICAL SECTION - TRENCH REPAIR
HMAC PAVEMENT

RECOMMENDED BY: 	APPROVED BY: David V. Magaña, P.E. City Engineer		CITY OF FORT WORTH, TEXAS TYPICAL SECTION - TRENCH REPAIR HMAC PAVEMENT	REVISED: 06-01-2019
				32 01 17 - D520

ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH
CITY OF FORT WORTH STANDARD SPECIFICATIONS.



NOTES

1. FLOWABLE FILL IS REQUIRED TO BACKFILL ALL TRENCHES IN DOWNTOWN STREETS, AND OPTIONAL IN OTHER AREAS. BACKFILL SHALL MEET STANDARD SPECIFICATION 33 05 10.

2. FOR RESIDENTIAL STREETS USE #4 BARS AT 18" O.C.E.W. AND 12" O.C.E.W FOR ARTERIALS AND INDUSTRIAL STREETS.

3. REINFORCED CONCRETE PAVEMENT SHALL BE REPLACED TO ORIGINAL DEPTH OR TO A MINIMUM DEPTH OF 9" FOR RESIDENTIAL STREETS OR 11" FOR ATERIAL AND INDUSTRIAL.

4. PLACE 6" OF 2:27 CONCRETE AS SHOWN. 1" OF REINFORCED CONCRETE MAY BE SUBSTITUTED FOR EVERY 2" OF 2:27 CONCRETE.

5. FOR RESIDENTIAL STREETS, USE #4X18" PREFORMED BARS, DOWEL AND EPOXYED A MIN 6" INTO EXISTING PAVEMENT AT 18" O.C. (TYP), AND 12" O.C. FOR ARTERIAL AND INDUSTRIAL STREETS.

RECOMMENDED BY:

APPROVED BY:

David V. Magaña, P.E.
City Engineer

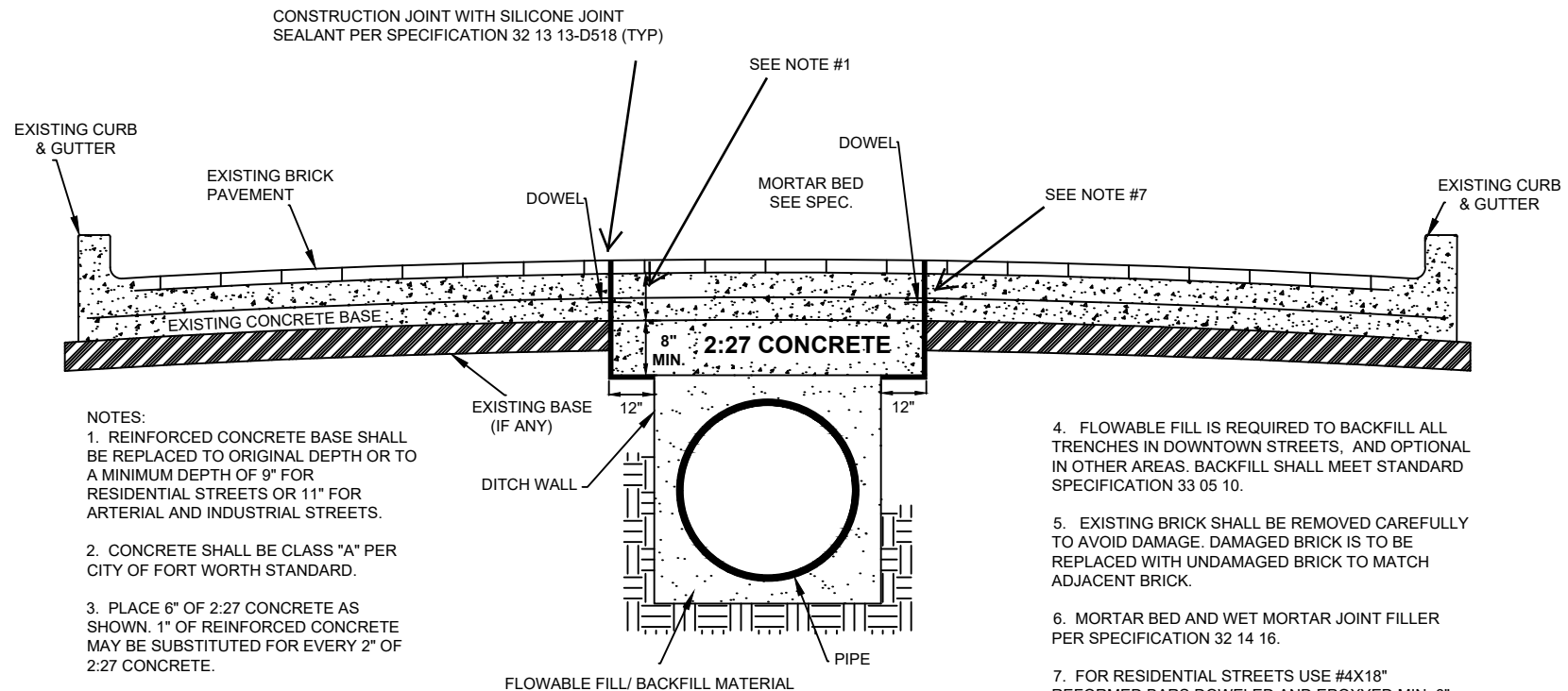


CITY OF FORT WORTH, TEXAS
TYPICAL SECTION -
TRENCH REPAIR
REINFORCED CONCRETE
PAVEMENT

REVISED: 06-01-2019

32 01 29 - D521

ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH
CITY OF FORT WORTH STANDARD SPECIFICATIONS



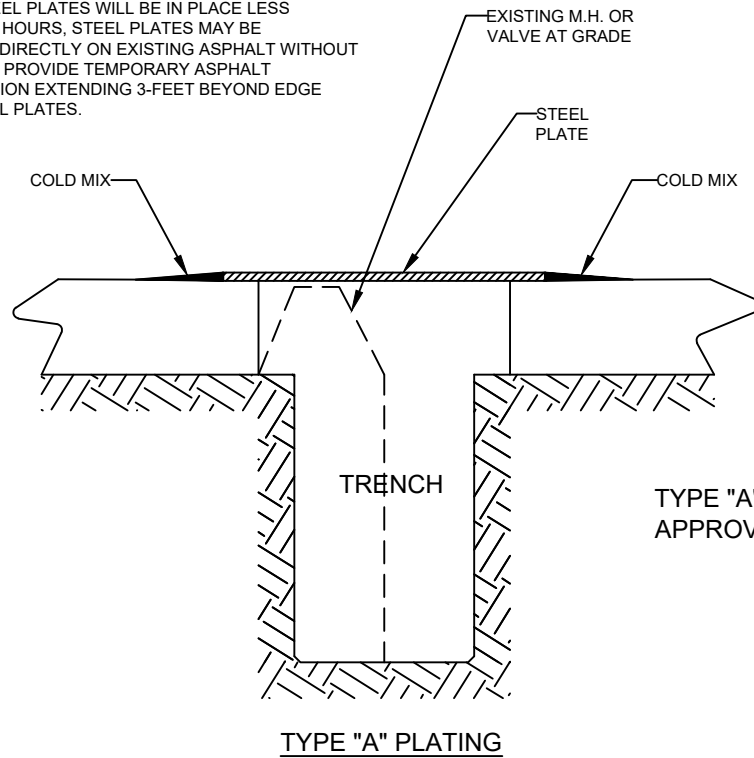
TYPICAL SECTION - TRENCH REPAIR
TYPICAL BRICK SURFACE &
REINFORCED CONCRETE BASE

RECOMMENDED BY:	APPROVED BY:		CITY OF FORT WORTH, TEXAS TYPICAL SECTION - TYPICAL BRICK SURFACE & REINFORCED CONCRETE BASE	REVISED: 06-01-2019
	David V. Magaña, P.E. City Engineer			32 14 16 - D522

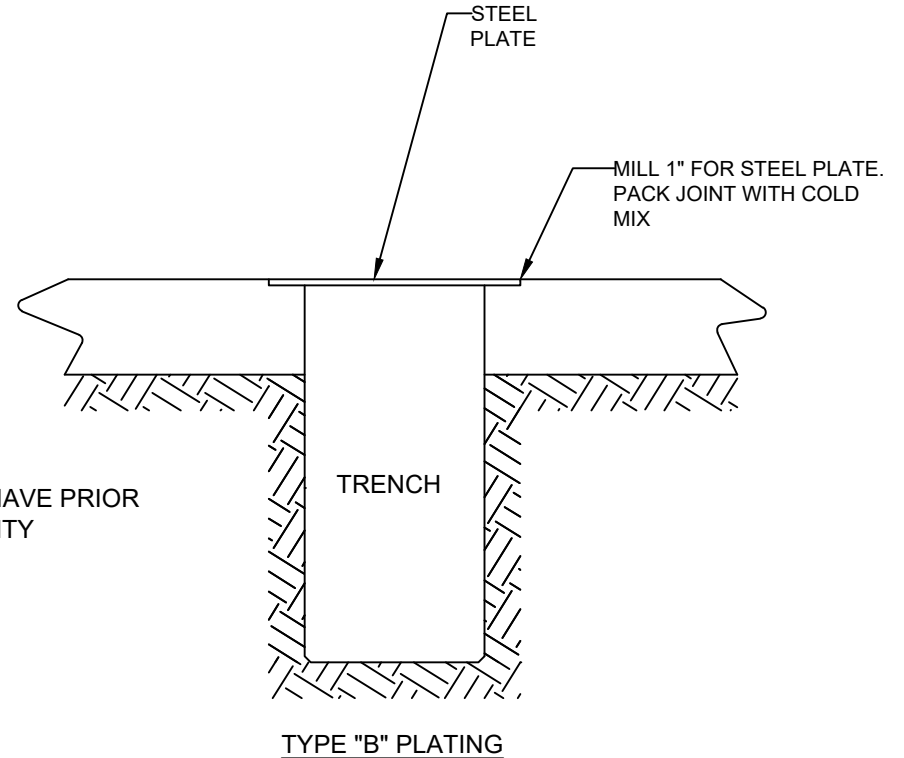
NOTES:

1. PROVIDE ADEQUATE OVERLAP OF PLATE ON ASPHALT TO ASSURE NO SLIPPAGE OF PLATE AND NO COLLAPSING OF TRENCH.

2. IF TRENCH LENGTH IS LESS THAN 5-Feet AND STEEL PLATES WILL BE IN PLACE LESS THAN 48 HOURS, STEEL PLATES MAY BE PLACED DIRECTLY ON EXISTING ASPHALT WITHOUT MILLING, PROVIDE TEMPORARY ASPHALT TRANSITION EXTENDING 3-Feet BEYOND EDGE OF STEEL PLATES.



TYPE "A" MUST HAVE PRIOR APPROVAL OF CITY



RECOMMENDED BY:

APPROVED BY:



CITY OF FORT WORTH, TEXAS

REVISED: 06-01-2019

STEEL PLATE PLACEMENT
FOR TRENCH REPAIRS

D018

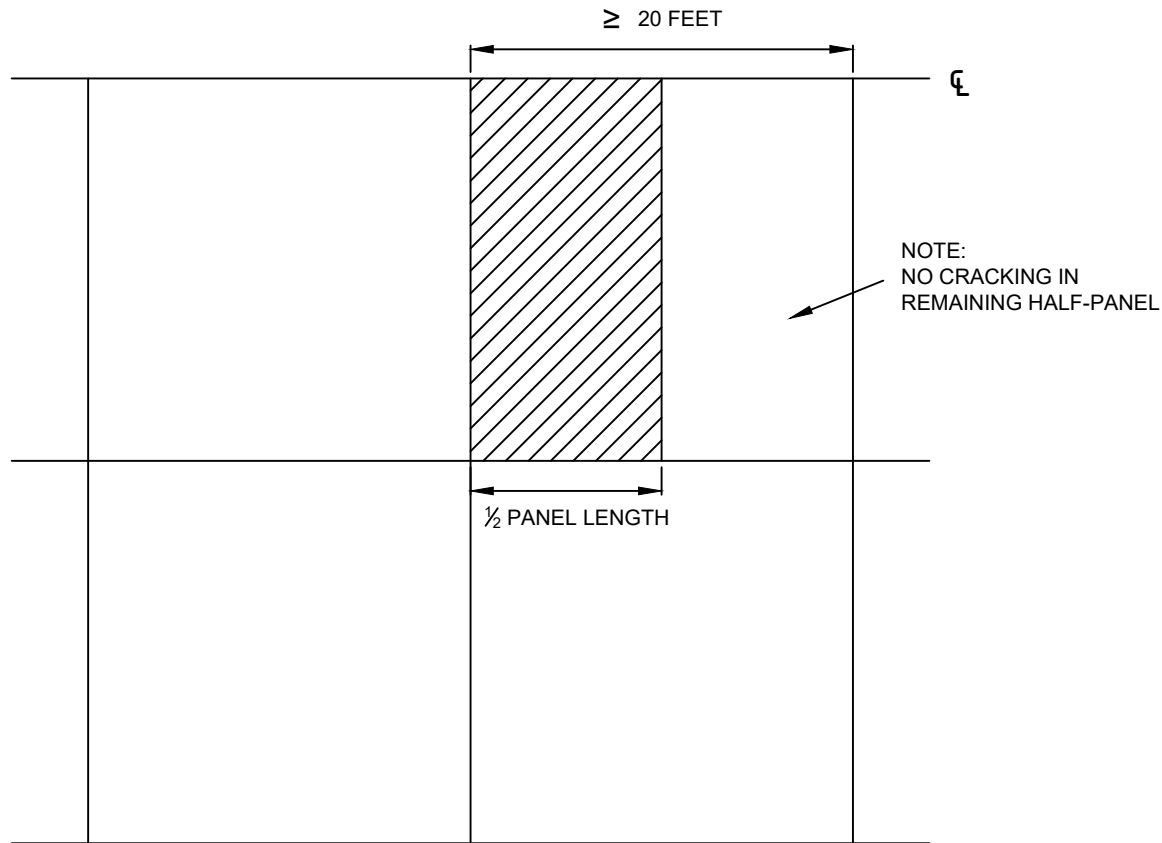
David V. Magaña, P.E.
City Engineer

4' 2' UTILITY CONSTRUCTION UTILITY COMPANY NAME TELEPHONE NUMBER CONTRACTOR'S NAME TELEPHONE NUMBER				
RECOMMENDED BY:	APPROVED BY:		CITY OF FORT WORTH, TEXAS	REVISED: 06-01-2019
	David V. Magaña, P.E. City Engineer		UTILITY REPAIR DESIGNATION SIGN	D019

PARTIAL PANEL CONCRETE REPLACEMENT

CONCRETE PANEL $\geq$ 20 FEET

CONCRETE > 10 YEARS OLD AND < 85 PCI



RECOMMENDED BY:

APPROVED BY:

David V. Magaña, P.E.
City Engineer

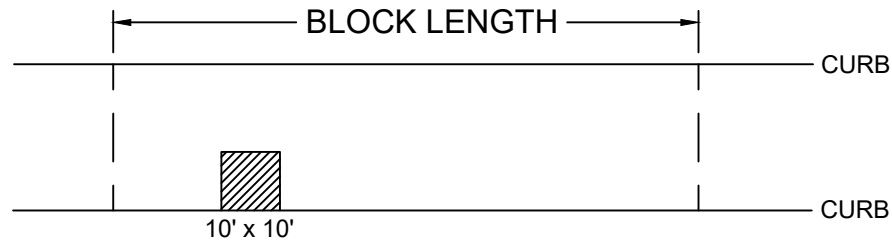


CITY OF FORT WORTH, TEXAS

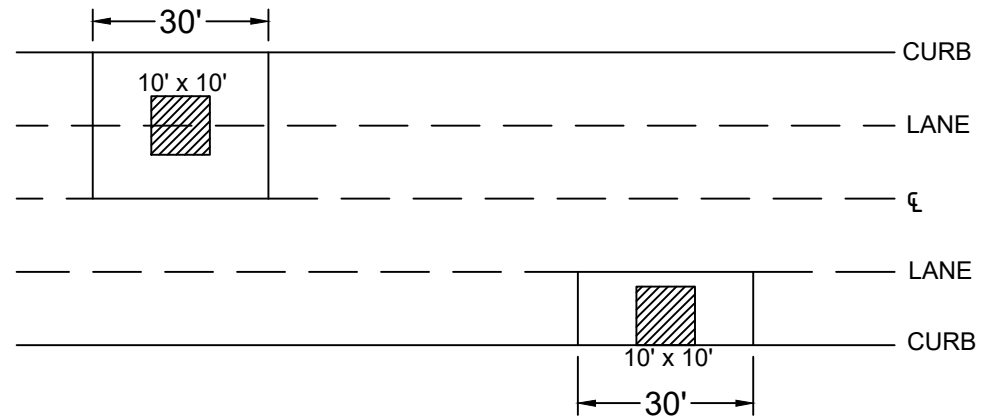
PARTIAL PANEL
CONCRETE
REPLACEMENT

REVISED: 06-01-2019

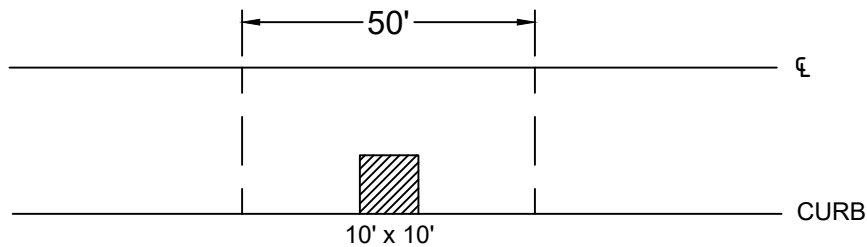
32 01 29 - D020



ASPHALT PAVEMENT < 2 YEAR OLD



ASPHALT PAVEMENT > 10 YEAR OLD OR < 85 PCI



ASPHALT PAVEMENT < 10 YEAR OLD OR > 85 PCI

RECOMMENDED BY:

APPROVED BY:



CITY OF FORT WORTH, TEXAS

PARTIAL ASPHALT
REPLACEMENT

REVISED: 06-01-2019

32 01 17 - D021

David V. Magaña, P.E.
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