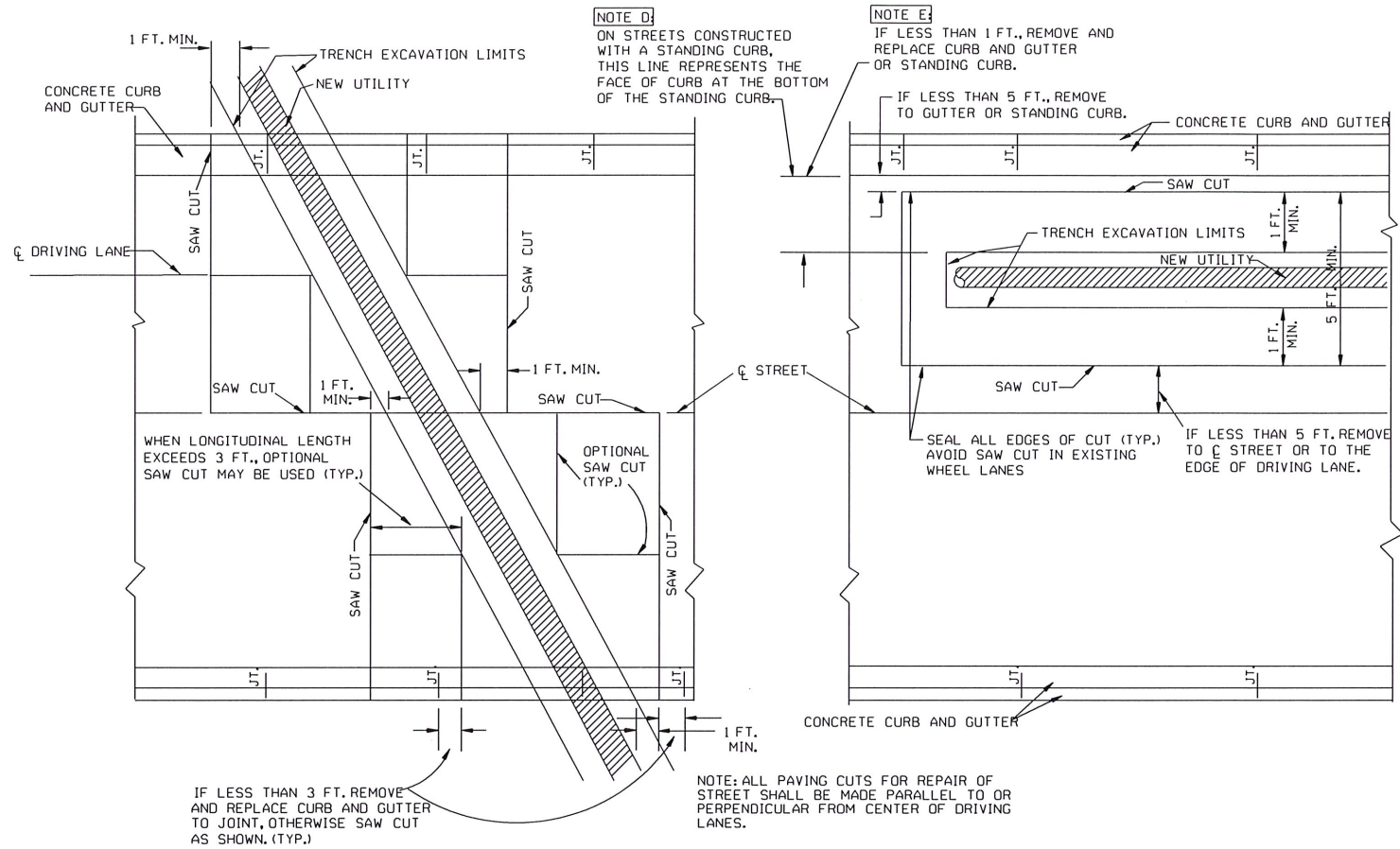


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**DIAGONAL INSTALLATIONS**

**LONGITUDINAL INSTALLATIONS**

**GENERAL NOTES**

1. A STREET CUT PERMIT SHALL BE OBTAINED FOR ANY STREET CUTS BEFORE WORK PROCEEDS.
2. MATERIAL WITHIN 4 IN. OF PIPE SHALL BE EITHER COMPACTED 3/4" TO NO. 4 CRUSHED STONE, FLOWABLE FILL CONCRETE, OR MAY BE ANY SUITABLE MATERIAL APPROVED IN WRITING BY THE ENGINEERING DIRECTOR. IF FLOWABLE FILL IS USED AS BACKFILL MATERIAL, THEN EMBEDMENT MATERIAL MUST BE FLOWABLE FILL.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT ODOT SPECIFICATIONS, THE CITY OF TULSA STANDARDS AND SPECIAL PROVISIONS AS NOTED.
4. WHERE MATERIALS ARE TRANSPORTED IN THE PROSECUTION OF THE WORK, VEHICLES SHALL NOT BE LOADED BEYOND THE LOADING CAPACITY RECOMMENDED BY THE MANUFACTURER OF THE VEHICLE OR PRESCRIBED BY ANY FEDERAL, STATE, OR LOCAL LAW OR REGULATION. WHERE IT IS NECESSARY TO CROSS CURBING OR SIDEWALKS, PROTECTION AGAINST DAMAGE SHALL BE PROVIDED BY THE CONTRACTOR AND ANY DAMAGE TO ROADS, CURBING, OR SIDEWALKS SHALL BE REPAIRED BY THE C.O.T. PAVEMENT CUT CONTRACTOR AT THE EXPENSE OF THE PERMIT BIDDER.
5. TRAFFIC CONTROL: ALL WORK SHALL BE DONE IN COOPERATION WITH THE CITY TO ESTABLISH, INSTALL, MAINTAIN, AND OPERATE COMPLETE, ADEQUATE, AND SAFE TRAFFIC CONTROL DURING THE ENTIRE CONSTRUCTION PERIOD. BARRICADES, SIGNS, LIGHTS, AND ALL TRAFFIC CONTROL ITEMS SHALL BE PROMPTLY REMOVED UPON COMPLETION OF THE WORK.
6. ALL LONGITUDINAL TRENCHES EXCEEDING 300 LINEAR FEET SHALL BE BACKFILLED AND MADE DRIVEABLE PRIOR TO EXCAVATING ANY ADDITIONAL TRENCH.
7. ALL SIDEWALK AND/OR CURB CONSTRUCTION OR RECONSTRUCTION, WITHIN THE STREET RADIUS, SHALL INCLUDE THE INSTALLATION OF A STANDARD WHEELCHAIR RAMP AS A PART OF THE CONSTRUCTION.
8. CONTACT THE CITY OF TULSA TRAFFIC ENGINEERING DIVISION AT 918-596-9766 BEFORE REMOVING OR REPLACING ANY TRAFFIC CONTROL DEVICES, INCLUDING, BUT NOT LIMITED TO, STRIPING AND REFLECTORS, SCHOOL CROSSING STRIPING AND DEVICES, ETC.
9. ALL EXISTING PAVEMENT CONTROL JOINTS SHALL BE RE-ESTABLISHED.
10. COMPACTION SHALL BE PER SECTION 303.04.E OF THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AND APPLICABLE SUPPLEMENTS, AS PUBLISHED BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION.
11. MINIMUM PAVING PANEL DIMENSIONS SHALL BE 5 FEET BY 5 FEET.
12. THE MAXIMUM RATIO OF PAVING PANEL DIMENSIONS SHALL BE 1.5:1
13. JOINTS SHALL NOT BE PLACED IN VEHICLE WHEEL PATH.

**CONSTRUCTION NOTES**

1. BACKFILL
  - 1A. BACKFILL UNDER PAVEMENT SHALL BE BY ONE OF THE FOLLOWING METHODS:
    1. AGGREGATE BASE MATERIAL SHALL BE PLACED IN 8 IN. MAXIMUM LIFTS AND SHALL BE COMPACTED TO 95% STANDARD DENSITY AASHTO T99 AS MEASURED BY THE NUCLEAR DENSITY METHOD. COMPACTION SHALL BE DONE BY A VIBRATORY HAND TAMPER, PER GENERAL NOTE 10.
    2. QUICK-SET FLOWABLE FILL
  - 1B. BACKFILL OUTSIDE OF PAVEMENT COMPACTION SHALL BE 95% STD. DENS. PER SECTION 303.04.E OF THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AND APPLICABLE SUPPLEMENTS, AS PUBLISHED BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION.
  - 1C. AGGREGATE BASE MATERIAL THIS MATERIAL COMMONLY CALLED 1-1/2 IN. TYPE A AGGREGATE BASE SHALL HAVE THE FOLLOWING GRADATION WHICH IS ODOT SECTION 703.01.C TYPE A.
 

SQUARE (MM)	TYPE A
1-1/2 IN. (37.5)	100
3/4 IN. (19.0)	40-100
3/8 IN. (9.5)	30-75
NO. 4 (4.75)	25-60
NO. 10 (2.00)	20-43
NO. 40 (0.425)	8-26
NO. 200 (0.075)	4-12
  - 1D. THE SAND SHALL HAVE 100% PASSING THE 3/4 INCH SIEVE AND 0% - 20% PASSING THE NO. 200 SIEVE.

FLOWABLE FILL			
RAPID SET		QUICK-SETTING MASTER BUILDERS	
RAPID SET CEMENT	100 LBS.	TYPE I CEMENT	100 LBS.
FLY ASH	0 LBS.	FLY ASH	0 LBS.
SAND	2970 LBS.	SAND	2925 LBS.
WATER	500 LBS.	WATER	585 LBS.
CITRIC RETARDER	2%	POZZUTEC 20	80 OZ.
FLOW	4-1/2 IN. MIN.	FLOW	4-1/2 IN. MIN.

28 DAY COMPRESSIVE STRENGTH SHALL BE 25 PSI TO 60 PSI

2. CONCRETE
 

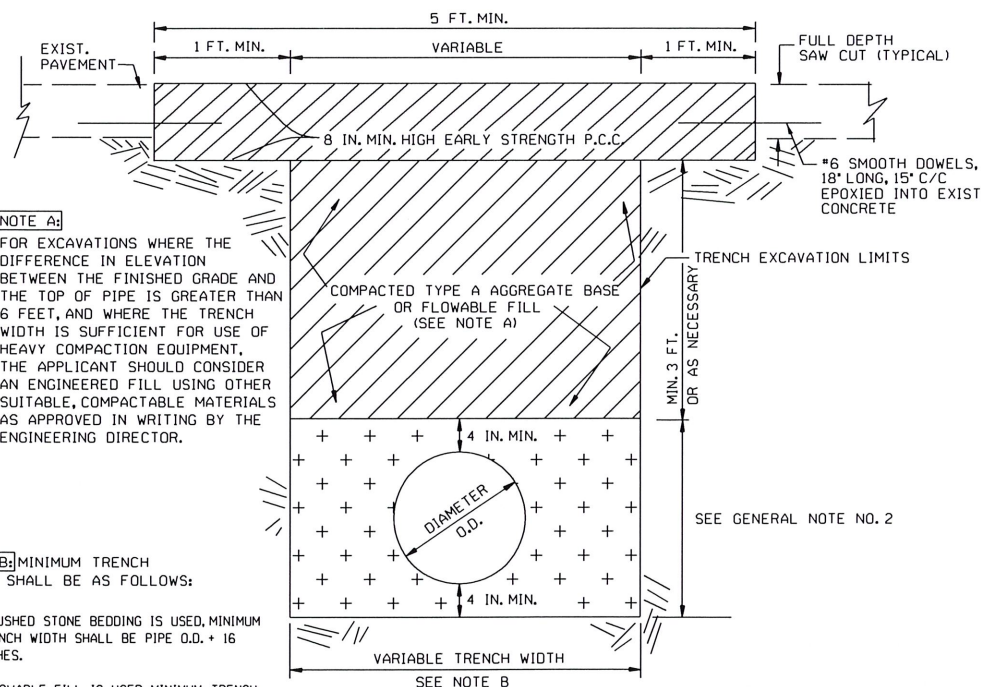
BEFORE ANY RESTORATION, PAVEMENT THAT HAS BEEN UNDERMINED SHALL BE REMOVED TO STABLE MATERIAL BY SAWCUT AS PER DETAIL. ALL PAVEMENT REMOVAL SHALL BE A MINIMUM OF 5 FEET BY 5 FEET. CONCRETE FOR THE REPLACEMENT OF PAVEMENT, CURBS, AND SIDEWALKS SHALL BE HIGH EARLY STRENGTH CLASS A AS PER ODOT SECTION 701.01.
3. REVEGETATION
 

ALL AREAS OUTSIDE THE PAVED PORTION OF THE RIGHT OF WAY WHERE VEGETATION HAS BEEN REMOVED SHALL BE RESTORED BY SODDING, AND MAINTAINED UNTIL FINAL ACCEPTANCE.
4. JOINTS
 

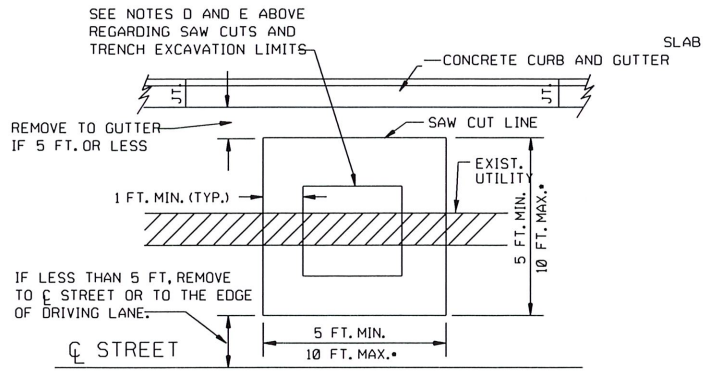
WHEN ONE OR MORE LONGITUDINAL CONSTRUCTION JOINT IS REMOVED FOR A STREET CUT, THE JOINT SHALL BE RE-ESTABLISHED AS PER THE PAVEMENT STANDARDS FOR PORTLAND CEMENT CONCRETE.
5. DOWEL BARS
 

DOWEL BARS SHALL BE INSTALLED IN ACCORDANCE WITH THE ENGINEERING SERVICES DEPARTMENT CRITERIA FOR LOAD TRANSFER DEVICES.

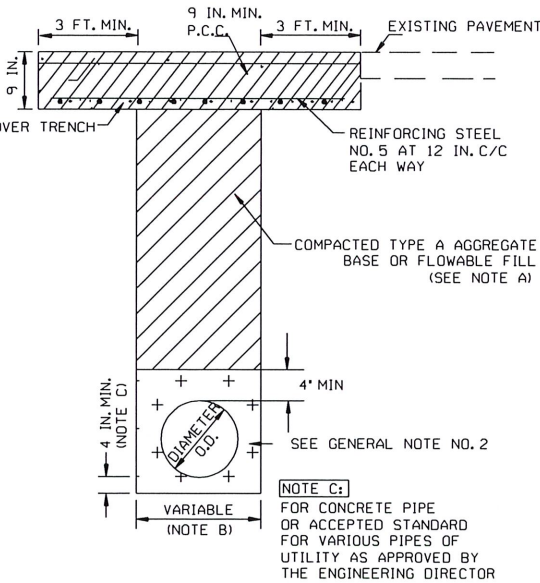
  - FOR TRANSVERSE JOINT ALIGNED WITH EXIST. DOWELLED JOINT, USE 1-1/4" X 18" L @ 12" C/C.
  - FOR MID-SLAB TRANSVERSE JOINT USE #10 DEF. BAR 18" L @ 18" C/C.
  - FOR LONGITUDINAL JOINT USE #5 DEF. BARS 30" L @ 30" C/C.
6. IF FLOWABLE FILL IS UTILIZED, IT SHALL BE PLACED IN LIFTS TO PREVENT FLOTATION OF THE PIPE AND BE A MINIMUM OF 3 FEET BY 3 FEET FOR PAVEMENT REMOVAL.



**TYPICAL SECTION**



**TYPICAL UTILITY REPAIR**



**TYPICAL SECTION**

FOR STATE HIGHWAYS THAT ARE ARTERIAL STREETS

REVISION	BY	DATE

*[Signature]*  
CITY ENGINEER

*[Signature]*  
DESIGN MANAGER

CITY OF TULSA, OKLAHOMA  
ENGINEERING SERVICES DEPARTMENT

STANDARD CONCRETE PAVEMENT  
CUT AND REPAIR

DATE: MARCH 2022      STD. 731