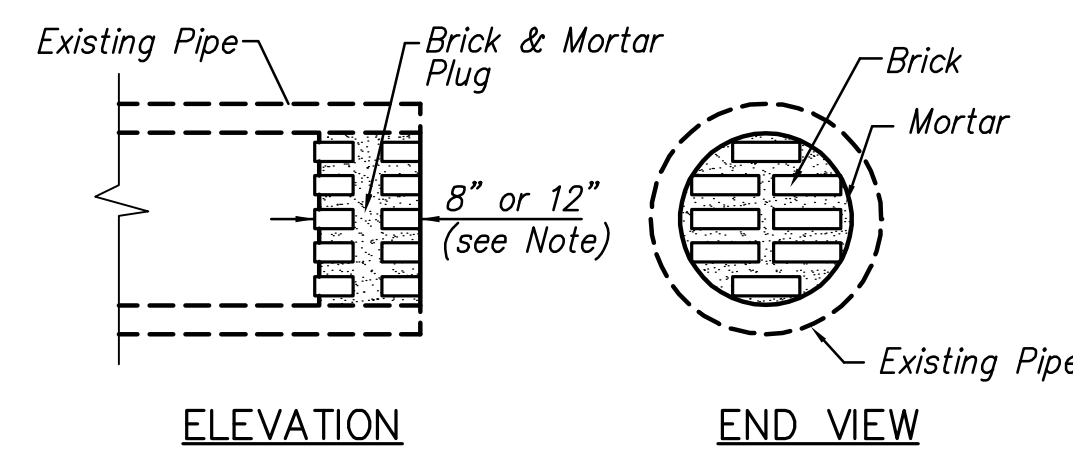


**TYPICAL UTILITY BOX-OUT DETAILS**

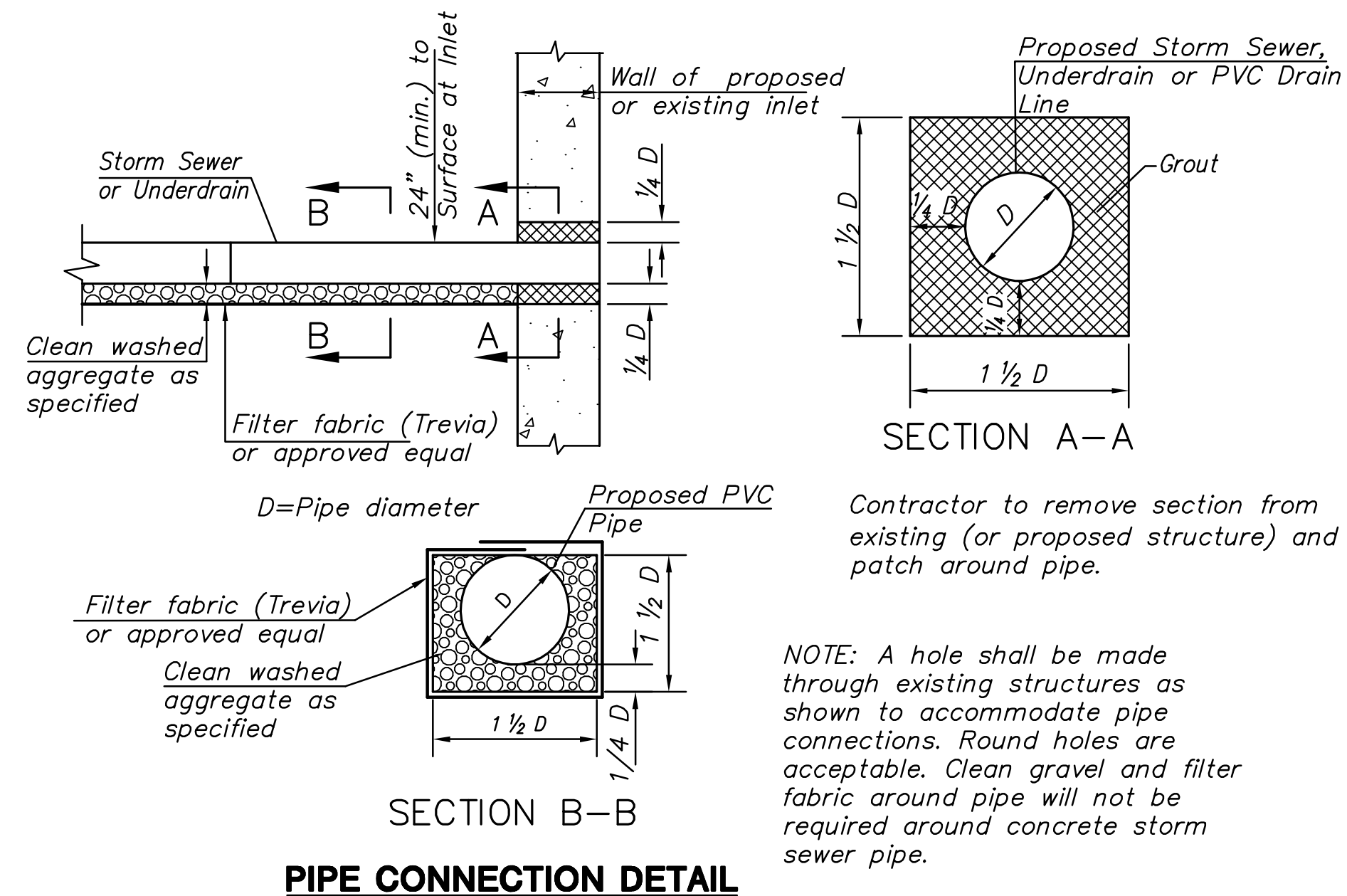
Note: Contractor shall construct box-outs around all surface utility fixtures, as shown, when fixtures fall on or near concrete joints, or as directed by the Engineer. All other fixtures shall have an isolation joint or bond breaker between them and concrete pavement. Cost shall be subsidiary.



**PIPE PLUGGING DETAIL**

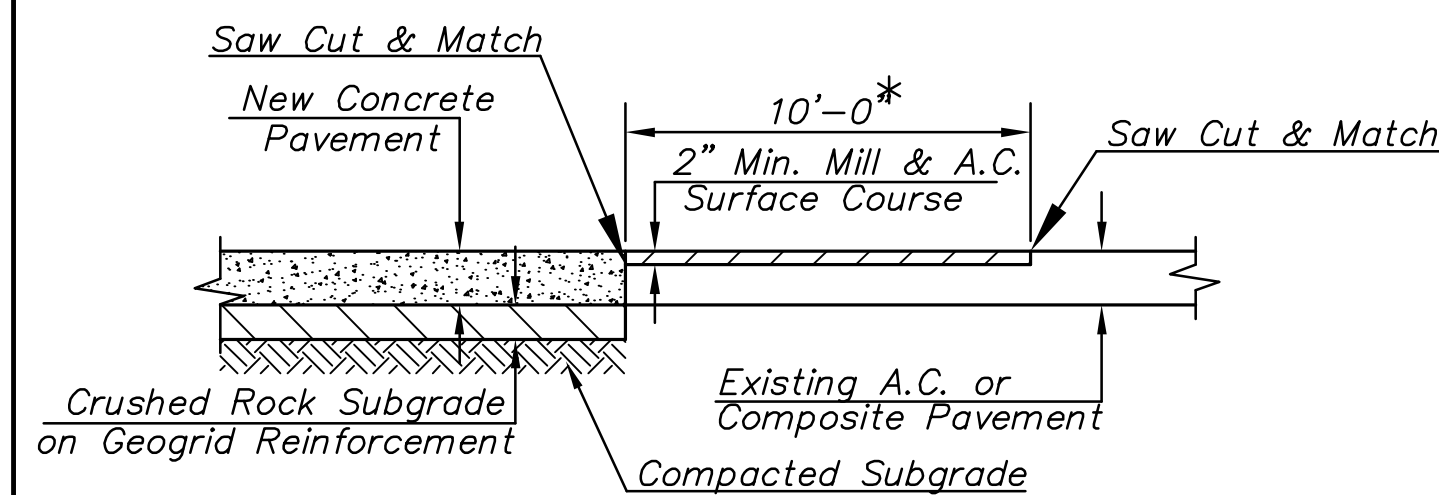
Note: Pipe Plugs Shall Be Constructed Of Brick Masonry, With Construction Requirements And Materials Conforming To The Same Requirements As Specified For A Masonry Construction In The Std. Specs. Pipes Having Diameters Of 18" Or Smaller Shall Be Plugged With 8" Thick Plug. Pipes Having Diameters Larger Than 18" Shall Be Plugged With 12" Thick Plug. The Construction Of Pipe Plugs Shall Not Be Paid For Directly, But Shall Be Considered Subsidiary To Pipe Installation.

The Contractor May Use Other Methods To Plug Existing Pipe If Approved By The Project Engineer.



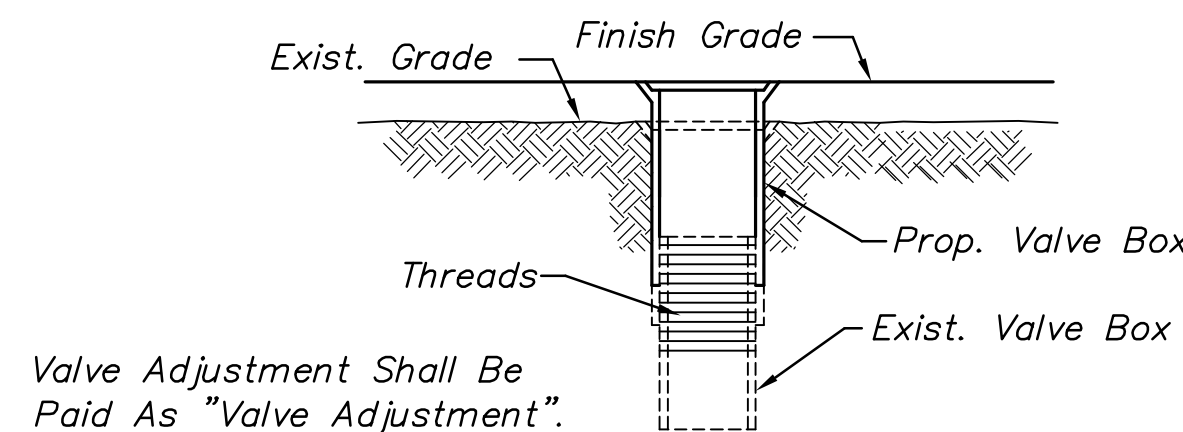
**PIPE CONNECTION DETAIL**

NOTE: A hole shall be made through existing structures as shown to accommodate pipe connections. Round holes are acceptable. Clean gravel and filter fabric around pipe will not be required around concrete storm sewer pipe.



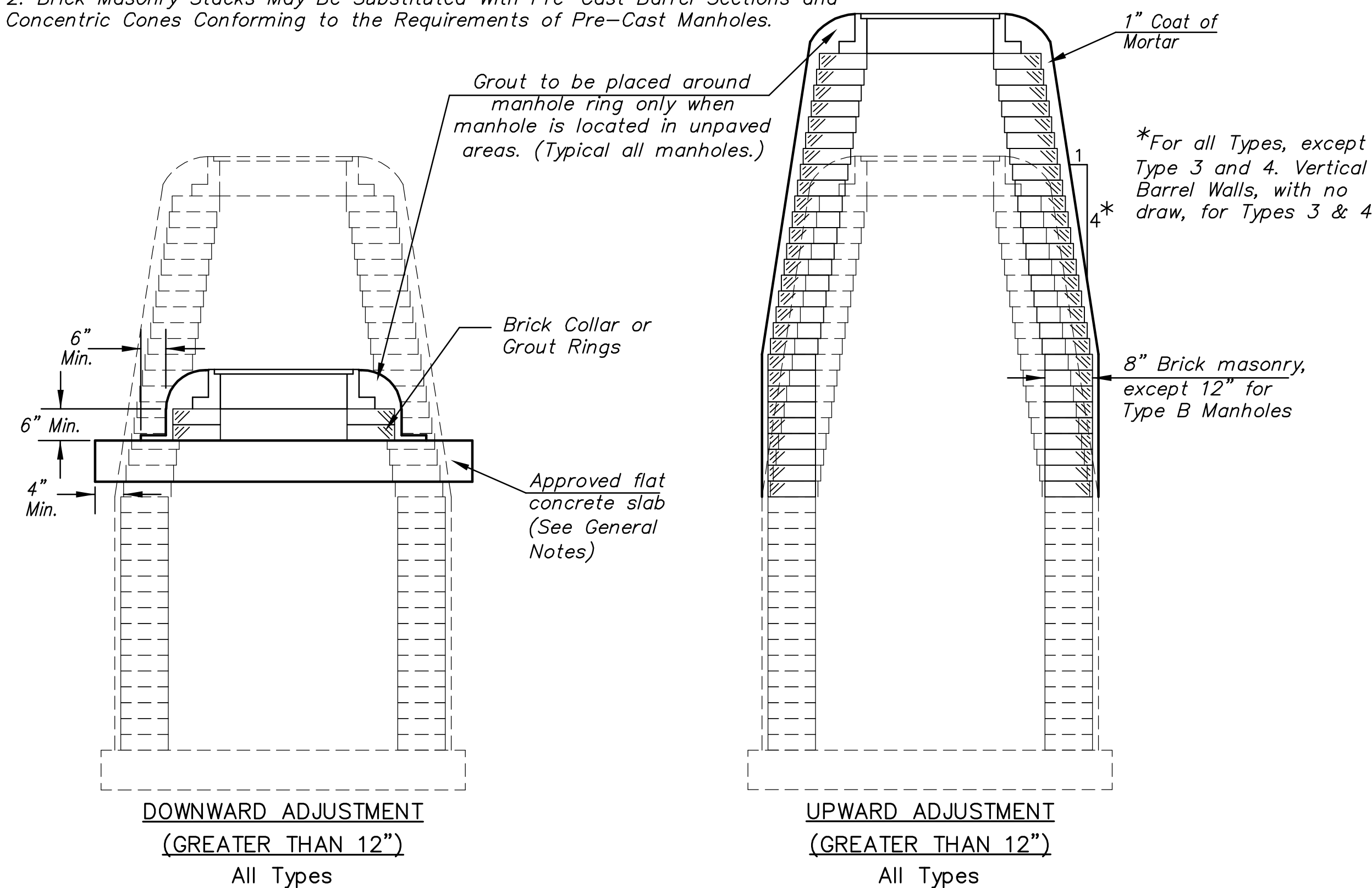
**A.C. PAVEMENT HOOKUP DETAIL**

\*Holyoke varies, See plan



**WATER VALVE BOX ADJUSTMENT DETAIL**

NOTES:  
1. Adjustments Less Than 12" Shall Be Achieved By Adding Or Removing The Required Thicknesses Of Brick And/or Grout Rings.  
2. Brick Masonry Stacks May Be Substituted With Pre-Cast Barrel Sections and Concentric Cones Conforming to the Requirements of Pre-Cast Manholes.

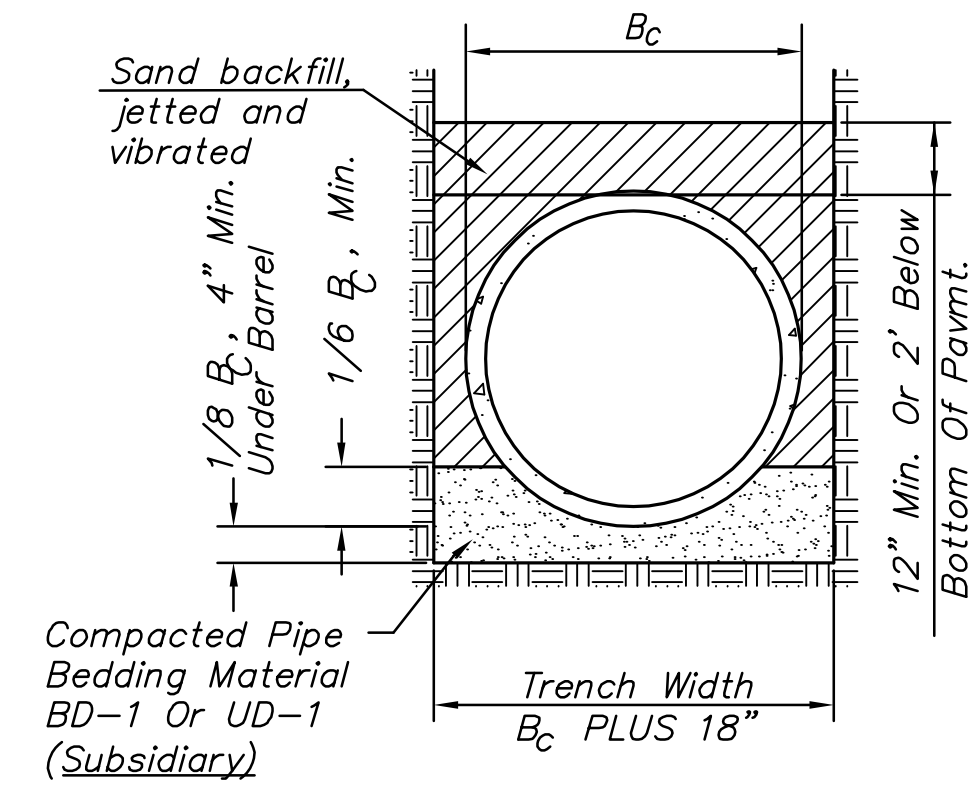


The appropriate portions of the draw and barrel of Type A, B, C, D, 1 and 2 manholes shall be removed. A flat concrete slab shall be placed and the ring and cover reset. All work and materials shall conform to the details shown and the General Notes.

Courses of brick barrel supporting the wide flange ring for Type 4 Manholes and flat concrete slab for Type 3 Manholes shall be removed as necessary prior to re-setting the wide flange ring or flat concrete slab and ring. All work and materials shall conform to the details shown and the General Notes.

The entire draw of Types A, B, C, D, 1 and 2 Manholes shall be removed, the manhole barrel raised the appropriate amount, a new draw constructed, and the ring and cover reset. The upper portion of Type 3 Manholes shall be removed to the bottom of the flat concrete slab, the brick masonry barrel supporting the slab shall be raised the appropriate amount, and the slab and ring and cover reset. The wide flange ring and cover of Type 4 Manholes shall be removed, the brick masonry barrel supporting the ring shall be raised the appropriate amount and the ring and cover reset. All work required for a greater than twelve inch (12") upward adjustment of any manhole shall be accomplished with brick masonry in accordance with the details shown and the General Notes.

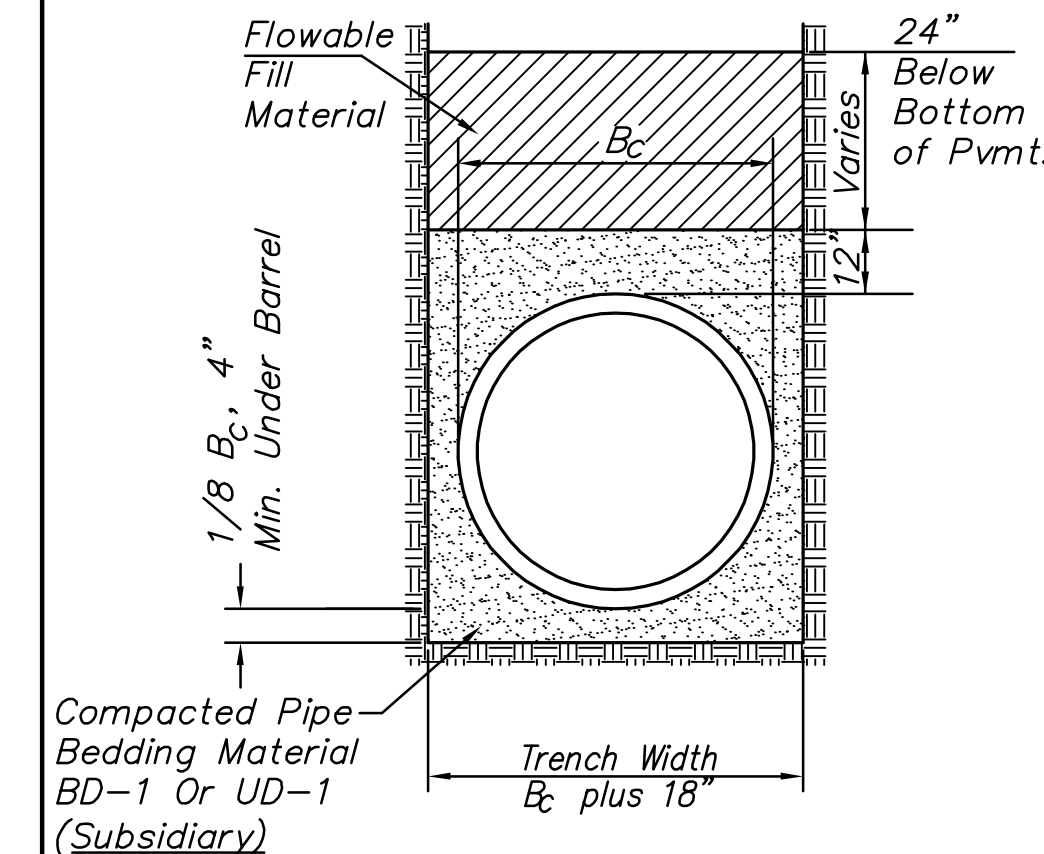
**MANHOLE ADJUSTMENTS**



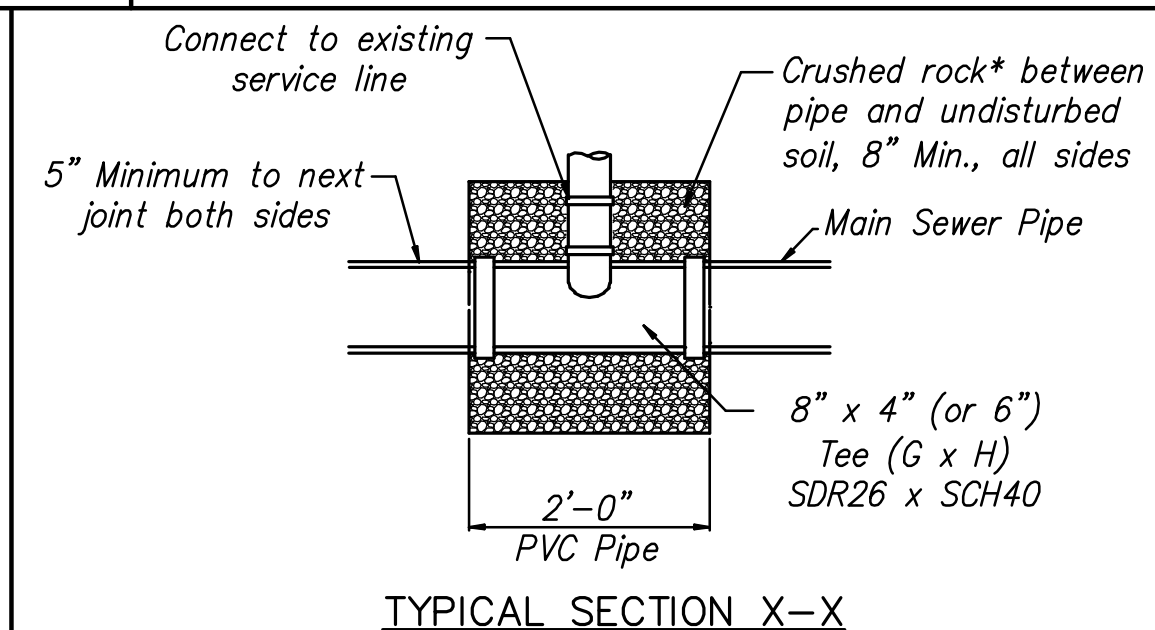
**STORM SEWER TRENCH DETAIL**

(Storm Sewer Pipe)

STATE	PROJECT NO.	YEAR	SHEET NO.	SHEETS
KANSAS	87 N-0349-01	2009	55	133



**SANITARY SEWER TRENCH DETAIL**



\*Crushed rock used for encasement and bedding shall conform to ASTM C-33, Gradation No. 67, and shall meet all requirements for portland cement concrete pavement coarse aggregate, Section 406.2, City of Wichita Standard Specifications. All crushed rock for bedding and encasement shall extend to the limits of the manhole excavation.

**SANITARY SEWER SERVICE BACKFILL**

SEWER SERVICE TABLE				
NO.	TYPE	LOCATION		
		ADDRESS	LINE NO.	STATION/DIRECTION
1	TEE SERVICE CONNECTION	1801 N Estelle	1	10+65.5/RT.
2	TEE SERVICE CONNECTION	1808 N Green	1	11+16.8/LT.
3	TEE SERVICE CONNECTION	1807 N Estelle	1	11+20.7/RT.
4	TEE SERVICE CONNECTION	1812 N Green	1	11+69.1/LT.
5	TEE SERVICE CONNECTION	1811 N Estelle	1	11+72.0/RT.
6	TEE SERVICE CONNECTION	1818 N Green	1	12+23.9/LT.
7	TEE SERVICE CONNECTION	1817 N Estelle	1	12+27.1/RT.
8	TEE SERVICE CONNECTION	1822 N Green	1	12+79.4/LT.
9	TEE SERVICE CONNECTION	1823 N Estelle	1	12+82.4/RT.
10	TEE SERVICE CONNECTION	3014 E 17th St N	3	11+19.6/LT.
11	TEE SERVICE CONNECTION	1801 N Lorraine	3	11+21.0/RT.
12	TEE SERVICE CONNECTION	1808 N Chautauqua	3	11+75.5/LT.
13	TEE SERVICE CONNECTION	1805 N Lorraine	3	11+76.5/RT.
14	TEE SERVICE CONNECTION	1812 N Chautauqua	3	12+24.1/LT.
15	TEE SERVICE CONNECTION	1815 N Lorraine	3	12+53.6/RT.
16	TEE SERVICE CONNECTION	1818 N Chautauqua	3	12+75.3/LT.
17	TEE SERVICE CONNECTION	1817 N Lorraine	3	12+78.1/RT.

**SANITARY SEWER SERVICE SCHEDULE**

**MKEC**  
ENGINEERING  
CONSULTANTS, INC.  
411 N. WEBB ROAD  
WICHITA, K.S. 67206  
316-684-9600

17th STREET  
FROM GROVE TO HILLSIDE

**MISC. DETAILS**

SHEET TITLE  
87 N-0349-01  
PROJECT NUMBER

JRA

DESIGN BY

JSB

DRAWN BY

JRA

CHECKED BY

ISSUED

May 28, 2009

REVISED

SHEET NO.

55 of 133