

DIVISION 32 – EXTERIOR IMPROVEMENTS

SECTION 32 10 00 – PAVING

PART 1: GENERAL

1.01 Scope of Standards

- A. This standard provides legal protection & safety concerning the specific preferences of the Texas State University for Paving.
- B. Texas State University recognizes that project conditions and requirements vary, thus precluding the absolute adherence to the items identified herein in all cases. However, unless there is adequate written justification, it is expected that these guidelines will govern the design and specifications for Texas State University projects.

1.02 Design Guidelines for Streets Owned by City of San Marcos

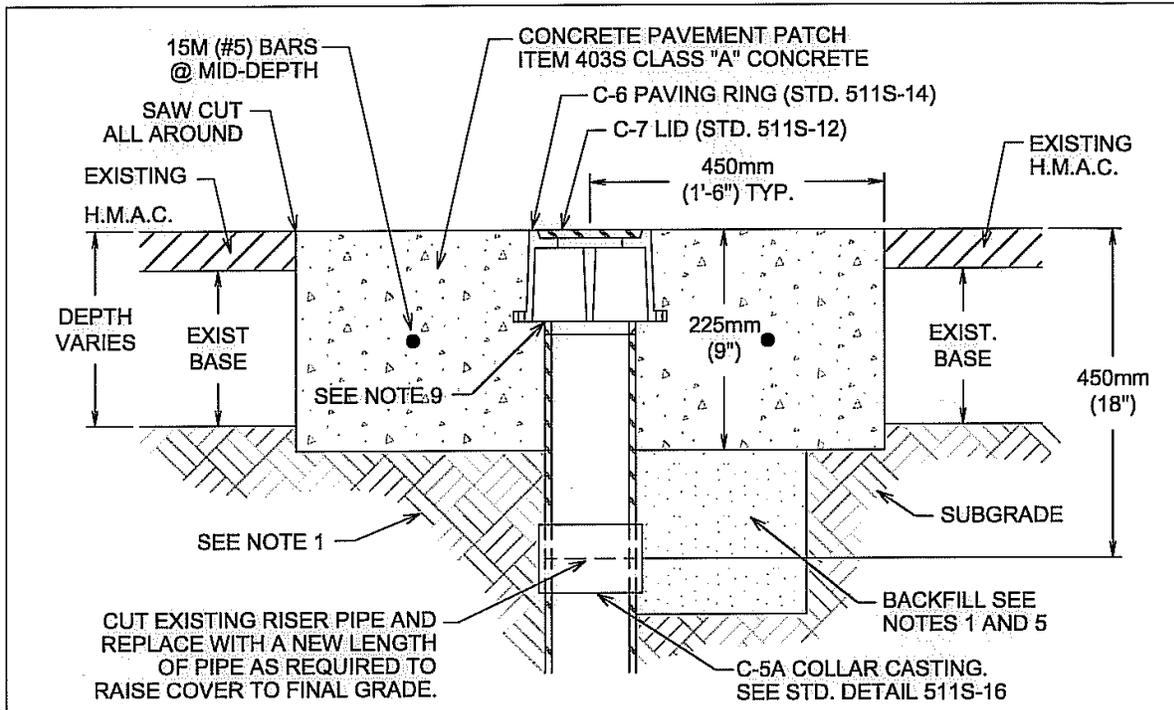
- A. Refer to Design Guideline, V. Working on City of San Marcos Property, for procedures of Street Construction.
- B. Contractor must provide certification and follow the procedures for the most current TXDOT Work Zone Traffic Control & Flagging Standards & provide separate personalized certificates for each flagger person working on a City Street.
- C. Must provide an appropriate TXDOT Typical Application Plan Number or an approved (by City's Engineering Department) plan drawn and stamped by a qualified Engineering Study using Engineering Judgment that meets the Standard in the current Texas Manual on Uniform Traffic Control Devices.
- D. Must obtain and provide the following on City of San Marcos Streets minimum of one week notice.
 - 1. Approved Street and Lane Closure Permit from the Engineering Department, with copy attached (copy attached phone # 512-393-8134).
 - 2. Approved Street Cut Permit from the Public Works Department, with copy attached (copy attached phone # 512-393-8036).
- E. Contractors will provide signage and barricades that also meet the above standards and maintain them daily, checking them as required for day and night time.
- F. Follow the Texas One Call System's procedures and use the appropriate colors for marking lines. (Copy Attached) see www.texasonecall.com and call 1-800-545-6005 one week prior to any digging. Notify remarks with confirmation number after two weeks.
- G. Request University utilities be marked by TELCOM and the following Facility Department shops, (Grounds/Irrigations, Tech Services, A/C & Chill Water, Steam Distribution and Plumbing for Water, Sewer, Drains, and University gas lines, and Electric for pole lights and high voltage, also Bus Transportation Company and Notify University (Patricia Prado) one week ahead).

- H. Mark proposed work with white temporary spray paint. Maintain markings and notify remarks as needed.

1.03 Design Guidelines for Streets Owned by Texas State University

- A. All types of street construction shall conform to the Texas Department of Transportation Specification DOT TEX-113A5, as a minimum.
- B. Contractor must provide certification and follow the procedures for the most current TXDOT Work Zone Traffic Control & Flagging Standards & provide separate personalized certificates for each flagger person working on a City Street.
- C. Must provide appropriate City of San Marcos or TXDOT Typical details and specifications, approved (by City's Engineering Department), drawn, and stamped by a qualified Engineering Study using Engineering Judgment that meets the Standard in the current Texas Manual on Uniform Traffic Control Devices.
- D. Contractors will provide signage and barricades that also meet the above standards and maintain them daily, checking them as required for day and night time.
- E. Follow the Texas One Call System's procedures and use the appropriate colors for marking lines. (Copy Attached) see www.texasonecall.com and call 1-800-545-6005 one week prior to any digging. Notify remarks with confirmation number after two weeks.
- F. Request University utilities be marked by TELCOM and the following Facility Department shops, (Grounds/Irrigations, Tech Services, A/C & Chill Water, Steam Distribution and Plumbing for Water, Sewer, Drains, and University gas lines and Electric for pole lights and high voltage. The Facilities Project Manager and/or Construction Manager must be notified three weeks in advance, for these utility locates.
- G. Mark proposed work with white temporary spray paint. Maintain markings and notify remarks as needed.
- H. Trenching Procedures: Before any trenching, the contractor shall call the Texas One Call System (1-800-545-6005), for locations of underground utilities.
- I. Trenching or digging is not permitted within 18" of natural gas pipelines.
- J. Erosion Control: Contractor shall conform to EPA standard specifications, as well as, TX DOT standards.
- K. Street Construction Types:
 1. Streets for Buses shall be concrete construction with locations as determined by Texas State University.
 2. Streets and Parking Lots, other than for Buses, shall be Flexible Paving, with locations as determined by Texas State University.
 3. All valves and manholes, located in streets, must have a concrete pavement apron around it, as detailed in EXHIBIT 1 and EXHIBIT 2, attached.

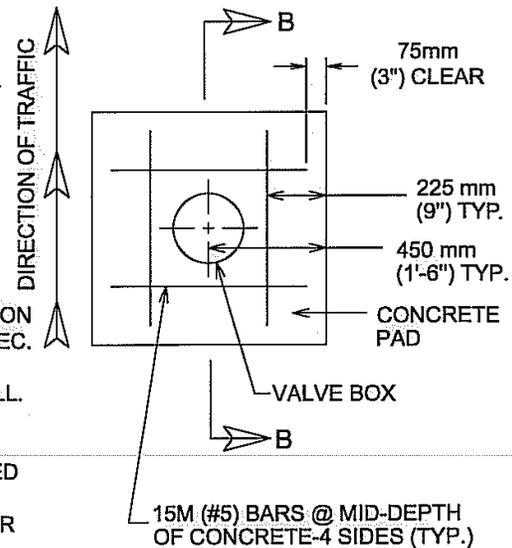
Exhibit 2:



SECTION B-B

NOTES:

1. SUB-GRADE SHALL BE COMPACTED AS PER ITEM 201S, SUB-GRADE PREPARATION.
2. VALVE CASTINGS SHALL BE ADJUSTED TO GRADE AFTER FINAL LIFT OF OVERLAY IS IN PLACE.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE NUT OF THE VALVE; NUT SHALL OPERATE WITH NO OBSTRUCTION.
4. REMOVE EXISTING RISER PIPE DOWN 450mm (18") AND REPLACE TO THE NEW ELEVATION USING NEW PIPE AND A C-5A CASTING.
5. WHERE CAST IRON CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 500mm (20") DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL (SPEC. ITEM 402S) TO THE UNDERSIDE OF THE CONCRETE PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL. REINFORCING STEEL SHALL MEET SPEC. ITEM 406S.
7. NO MORE THAN 2 SECTIONS OF PIPE SHALL BE USED FROM VALVE TO FINAL GRADE.
8. BELL AND SPIGOT IS ACCEPTABLE FOR DEPTH OVER 5.5m (18')
9. PAVING RING SHALL SIT FLUSH ON RISER.

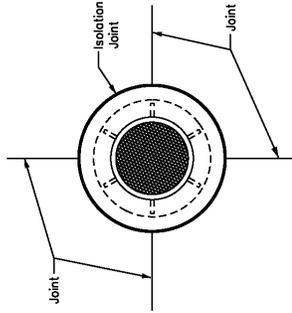


PLAN VIEW

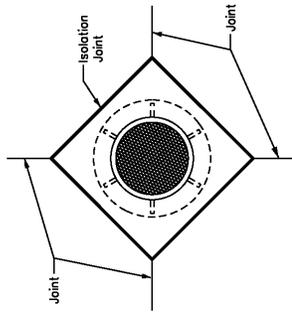
<p>CITY OF AUSTIN AUSTIN WATER UTILITY</p>	<p>WATER VALVE BOX ADJUSTMENT TO GRADE W/FULL DEPTH CONCRETE</p>	
<p><i>Kathi Flowers</i> 8/31/2011</p>	<p>THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.</p>	<p>STANDARD NO. 511S-13A</p>

Exhibit 1:

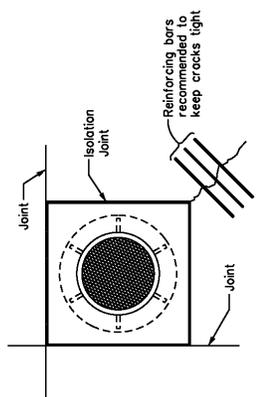
PLAN VIEW:



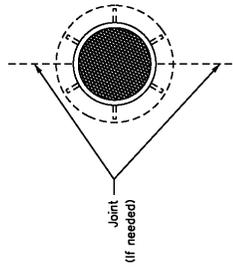
CIRCULAR BOXOUT



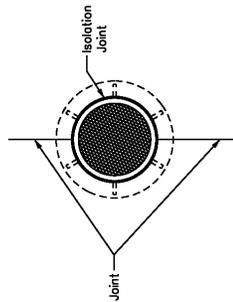
DIAMOND BOXOUT



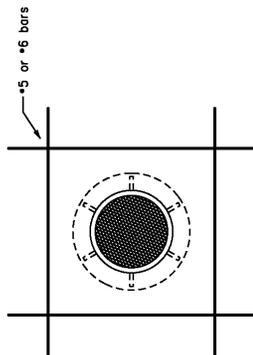
SQUARE BOXOUT



TELESCOPING MANHOLE
(Casting moves with pavement)



NO BOXOUT
(Isolation around manhole)



REINFORCED PANEL
(try to center in panel)

NOTES:

1. Isolation joints should be at least 1/2 in. (12 mm) wide, filled with an appropriate compressible material, and sealed.
2. Boxouts should be large enough to provide 1 ft (0.3 m) clearance between the fixture and the surrounding isolation joint.

 ACPA AMERICAN CONCRETE PAVEMENT ASSOCIATION	Date	6-8-06
	Scale	N.T.S.
MANHOLE BOXOUTS		

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION 32 10 00