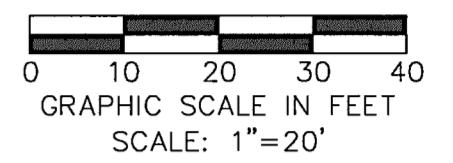


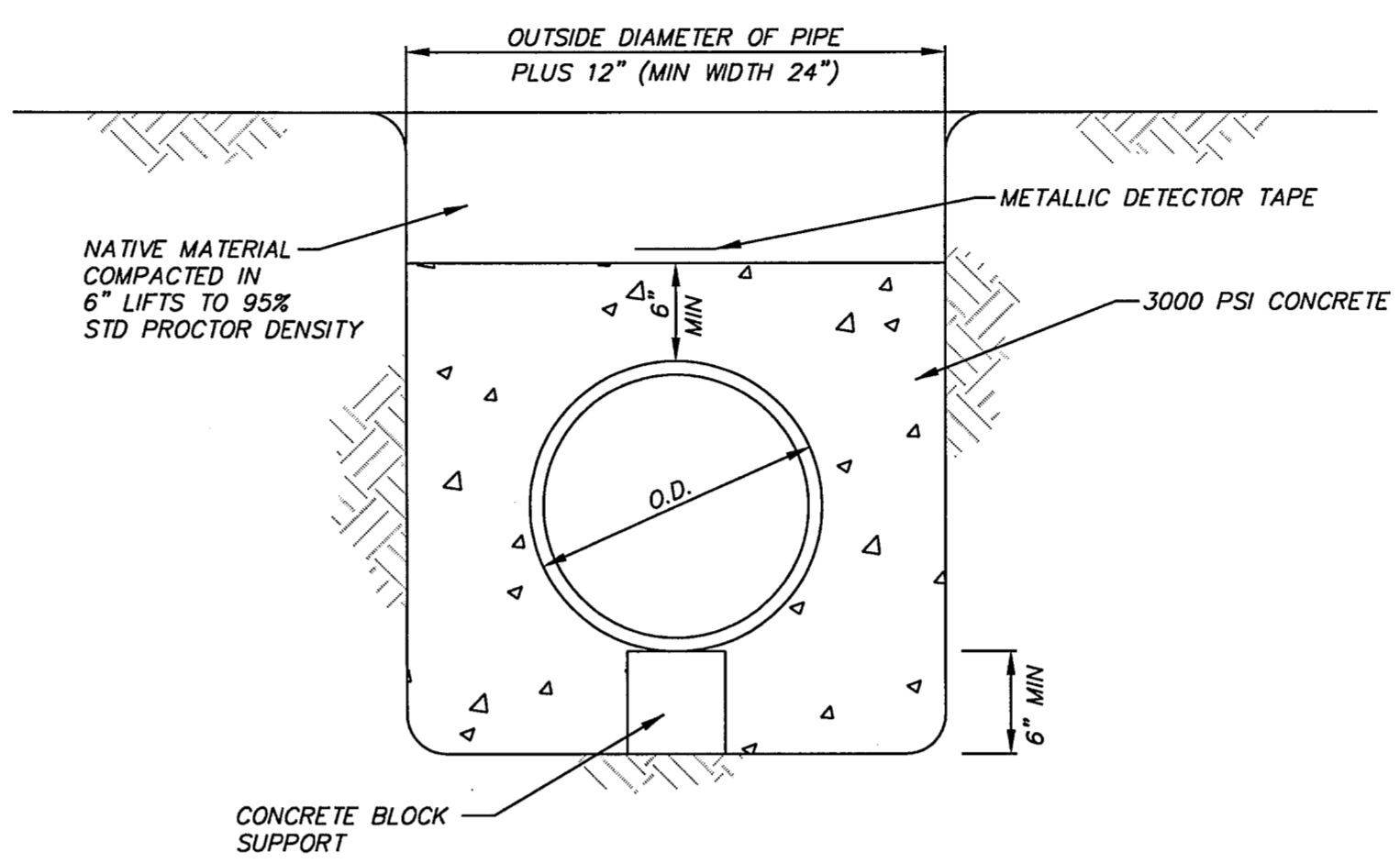
**WARNING**

CONTRACTOR IS TO CONTACT TEXAS ONE-CALL SYSTEM (1-800-245-4545) OR OTHER UTILITY LOCATING SERVICES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. ICON CONSULTING ENGINEERS, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA NOR FOR DESCRIBING THE EXACT LOCATIONS OF UTILITIES ON THESE DRAWINGS.



**BM #1 REF. ELEVATION = 559.47**  
 SQUARE CUT IN TOP OF CURB, SOUTH MEDIAN END NOSE, MARSH LANE  
 1127' NORTH OF VITRUVIAN WAY.

**BM #2 REF. ELEVATION = 547.84**  
 SQUARE CUT IN TOP OF CURB, NORTH MEDIAN END NOSE, AT INTERSECTION  
 OF VITRUVIAN WAY AND MARSH LANE.



**CONCRETE ENCASEMENT**  
 NOT TO SCALE

**UTILITY NOTES**

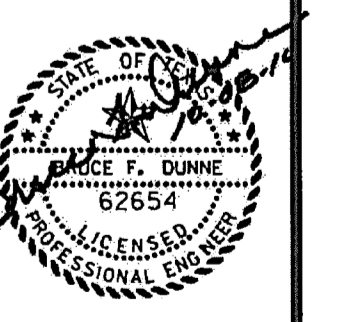
1. **GENERAL CONSTRUCTION NOTES:** REFER TO SHEET C100 "GENERAL CONSTRUCTION NOTES, LEGEND AND ABBREVIATIONS" FOR THE GENERAL CONSTRUCTION NOTES FOR THE PROJECT.
2. **INSPECTION AND TESTING:** THE CONTRACTOR SHALL COORDINATE INSPECTION AND TESTING WITH THE APPROPRIATE GOVERNING AUTHORITIES PRIOR TO BACKFILLING TRENCHES FOR ALL UTILITIES.
3. **TRENCH COMPACTION:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING COMPACTION TO A MINIMUM OF 95% STANDARD PROCTOR IN AREAS OF PROPOSED AND FUTURE PAVEMENT AND ALL AREAS EXCAVATED AT THE BUILDING FOOTINGS FOR UTILITY SERVICE ENTRIES. TRENCHES WHICH LIE OUTSIDE THESE AREAS SHALL BE COMPACTED TO A MINIMUM OF 90% STANDARD PROCTOR.
4. **CONFLICTS:** THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ASSURE PROPER DEPTHS ARE ACHIEVED. IN THE EVENT OF A CONFLICT BETWEEN WATER LINES AND STORM DRAIN OR SANITARY SEWER PIPING, THE CONTRACTOR SHALL ADJUST THE WATER LINE DOWNWARDS IN SUCH A MANNER SO THAT THE PIPE MANUFACTURER'S RECOMMENDATIONS ON THE PIPE DEFLECTIONS AND JOINT STRESS ARE NOT EXCEEDED.
5. **CONNECTION TO EXISTING UTILITIES:** THE CONTRACTOR SHALL VERIFY THE SIZE, TYPE, ELEVATION, CONFIGURATION, AND ANGLE OF EXISTING WATER, SANITARY SEWER AND UTILITY LINES PRIOR TO CONSTRUCTION OF TIE-IN MATERIALS. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR REPAIRS TO EXISTING FACILITIES DAMAGED BY HIS ACTIVITIES.
6. **WATER METERS:** THE CONTRACTOR SHALL ACQUIRE BOTH DOMESTIC AND IRRIGATION METERS FROM THE GOVERNING AUTHORITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING METERS INSTALLED IN BOXES AND CONNECTING PUBLIC TO PRIVATE WATER LINES.
7. **PIPE COVER:** TOP OF ALL WATER LINES SHALL BE INSTALLED WITH A MINIMUM COVER OF 42".
8. **HORIZONTAL BLOCKING:** HORIZONTAL BLOCKING FOR WATER LINES HAS BEEN OMITTED FOR CLARITY, HOWEVER, BLOCKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' STANDARD DETAILS.
9. **THRUST BLOCKING:** THRUST BLOCKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' STANDARD DETAILS. DO NOT COVER BELLS OR FLANGES WITH CONCRETE. THE CONTRACTOR SHALL REMOVE EXISTING THRUST BLOCKING OR RESTRAINTS WHERE NECESSARY TO ALLOW THE WORK TO PROCEED, AND SHALL REPLACE THE THRUST BLOCKS WHERE REQUIRED, THE COST TO REMOVE, REPLACE OR PROVIDE THRUST BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
10. **ADDITIONAL BENDS:** THE CONTRACTOR SHALL SUPPLY AND INSTALL ANY ADDITIONAL BENDS WITH THRUST BLOCKING AND OTHER APPURTENANCES REQUIRED TO ASSURE PROPER INSTALLATION OF WATER MAINS AND LATERALS. THE CONTRACTOR MAY PULL PIPE AS NEEDED AT THE BENDS WHERE THE DEFLECTION ANGLE OF THE PIPE DOES NOT MATCH THE ANGLE OF THE BEND PROVIDED THE PIPE DEFLECTION IS WITHIN TOLERABLE MANUFACTURER'S LIMITS. THE COST FOR ADDITIONAL BENDS AND BLOCKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
11. **POLYETHYLENE WRAP:** ALL VALVES, DUCTILE IRON AND CAST IRON PIPE, FITTINGS AND SPECIALS SHALL BE POLYETHYLENE WRAPPED.
12. **ADJUSTMENTS:** THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ALL MANHOLES, CLEANOUTS, VALVES, BOXES, VAULTS AND HYDRANTS TO FINAL GRADE. THE COST SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
13. **APPURTENANCES:** ALL VALVES AND OTHER APPURTENANCES ON ALL FIRE PROTECTION LINES SHALL BE UL/FM APPROVED. THE COST SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
14. **FIRE PROTECTION WORK:** ALL FIRE PROTECTION WORK MUST BE PERMITTED AND APPROVED BY THE GOVERNING AUTHORITIES FIRE DEPARTMENT. THE CONTRACTOR SHALL CONDUCT ALL REQUIRED PRESSURE TESTS ON THE FIRE PROTECTION LINES TO THE SATISFACTION OF THE FIRE MARSHALL FOR THE GOVERNING AUTHORITY AS WELL AS THE DEVELOPER'S INSURANCE CARRIER.
15. **SANITARY SEWER PIPE:** ALL SEWER PIPE SHALL BE SDR-35, IN ACCORDANCE WITH ASTM SPECIFICATIONS D-3034 FOR 4" THROUGH 15", AND ASTM F-879 FOR 15" THROUGH 27".
16. **WATER PIPE:** ALL WATER MAINS 4 INCH THROUGH 12 INCH SHALL BE C-900 (SDR - 18), WATER MAINS 14 INCH THROUGH 36 INCH SHALL BE C - 905 (SDR - 18). WATER LINES LESS THAN 4" SHALL BE TYPE K COPPER.
17. **STORM DRAIN PIPE:** ALL STORM DRAIN PIPE SHALL BE PVC SDR-35, IN ACCORDANCE WITH ASTM SPECIFICATIONS D-3034 FOR 4" THROUGH 15".
18. **STORM DRAIN PIPE GROUTING:** ALL PIPE ENTERING PUBLIC STORM DRAIN STRUCTURES SHALL BE GROUTED TO ASSURE WATERTIGHT CONNECTIONS.

NO.	REVISION	DATE
1	ISSUED FOR CONSTRUCTION	07/01/10
2	REVISED ISSUED FOR CONSTRUCTION	08/18/10
3	ICE POINT OF SERVICE	10/06/10
4	ADD REFERENCE TO FOUNTAIN RPZ REQUIREMENT	10/08/10

**icon** Consulting Engineers, Inc.  
 Civil Engineers - Designers - Planners  
 Bicentennial Financial Center  
 250 W. Southlake Blvd., Suite 117  
 Southlake, TX 76092  
 Phone: (817) 552-0210  
 Fax: (817) 552-3126

**UTILITY PLAN**

**Vitruvian Park  
 Monument Sign South  
 Vitruvian Way & Marsh Lane  
 Addison, Texas**



Date: 07/01/10  
 Scale: 1"=20'  
 Drawn By: ICE  
 Reviewed By: ICE  
 Project: 5019-07

**SHEET  
 C501**