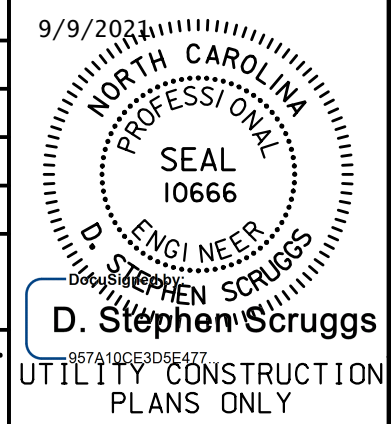


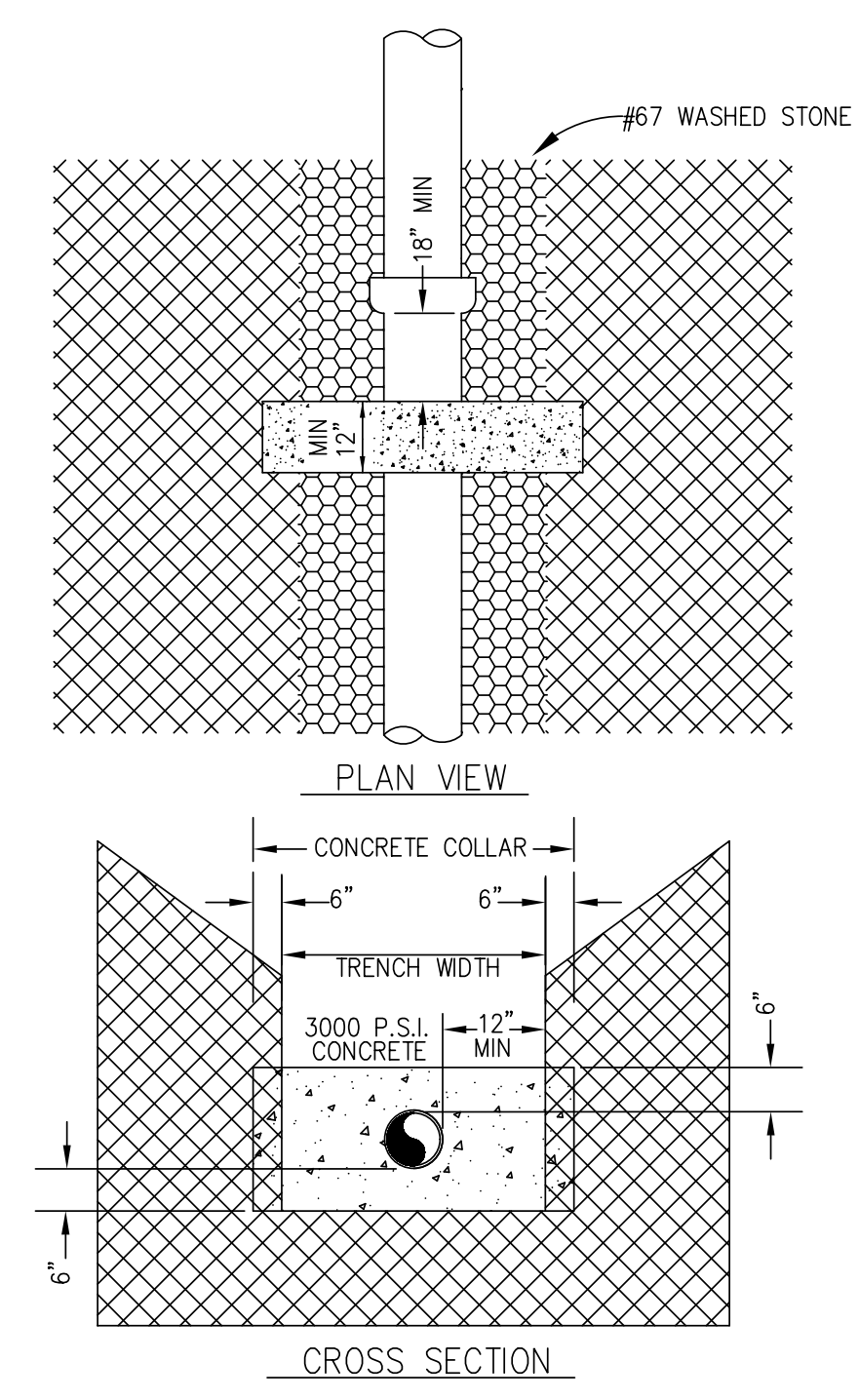
Prepared In the Office of:
AECOM
 AECOM TECHNICAL SERVICES OF NORTH CAROLINA, INC.
 701 CORPORATE CENTER DRIVE, SUITE 475, RALEIGH, NC 27607
 919-854-6200 919-854-6259 (fax)
 F - 0342

PROJECT REFERENCE NO.	SHEET NO.
R-5021	UC-31
DESIGNED BY:	9/9/2004
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	



DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

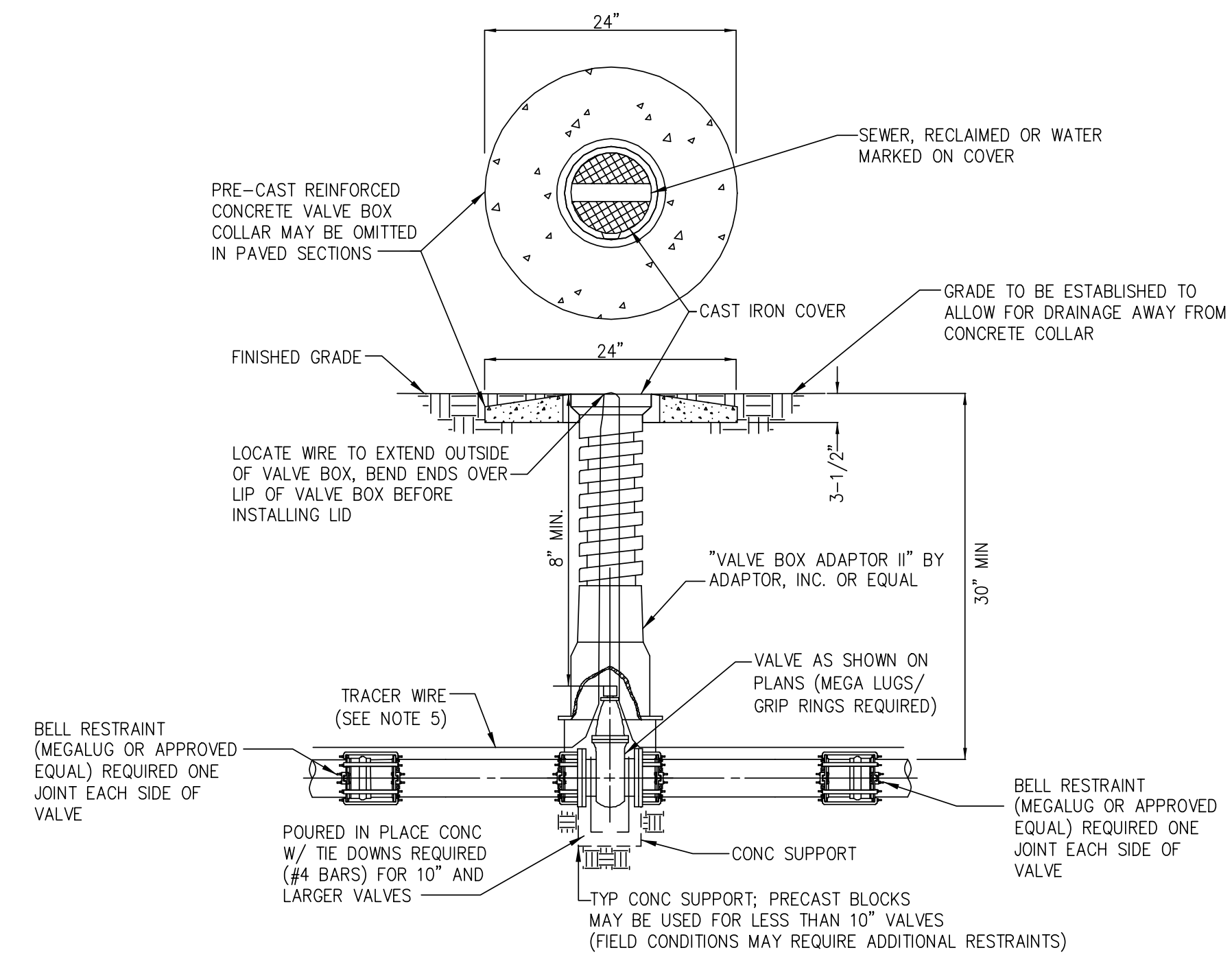
UTILITY CONSTRUCTION



NOTES:

- UNRESTRAINED SEWER LINES ON 20% SLOPE OR GREATER SHALL BE ANCHORED SECURELY WITH CONCRETE COLLARS. MINIMUM 1 CONCRETE COLLAR PER PIPE JOINT. ADDITIONAL COLLARS MAY BE REQUIRED BY ENGINEER.
- COLLARS FOR ANTI-SEEPAGE (PIPING) CONTROL FOR PIPELINES CONSTRUCTED THROUGH WETLANDS SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS.

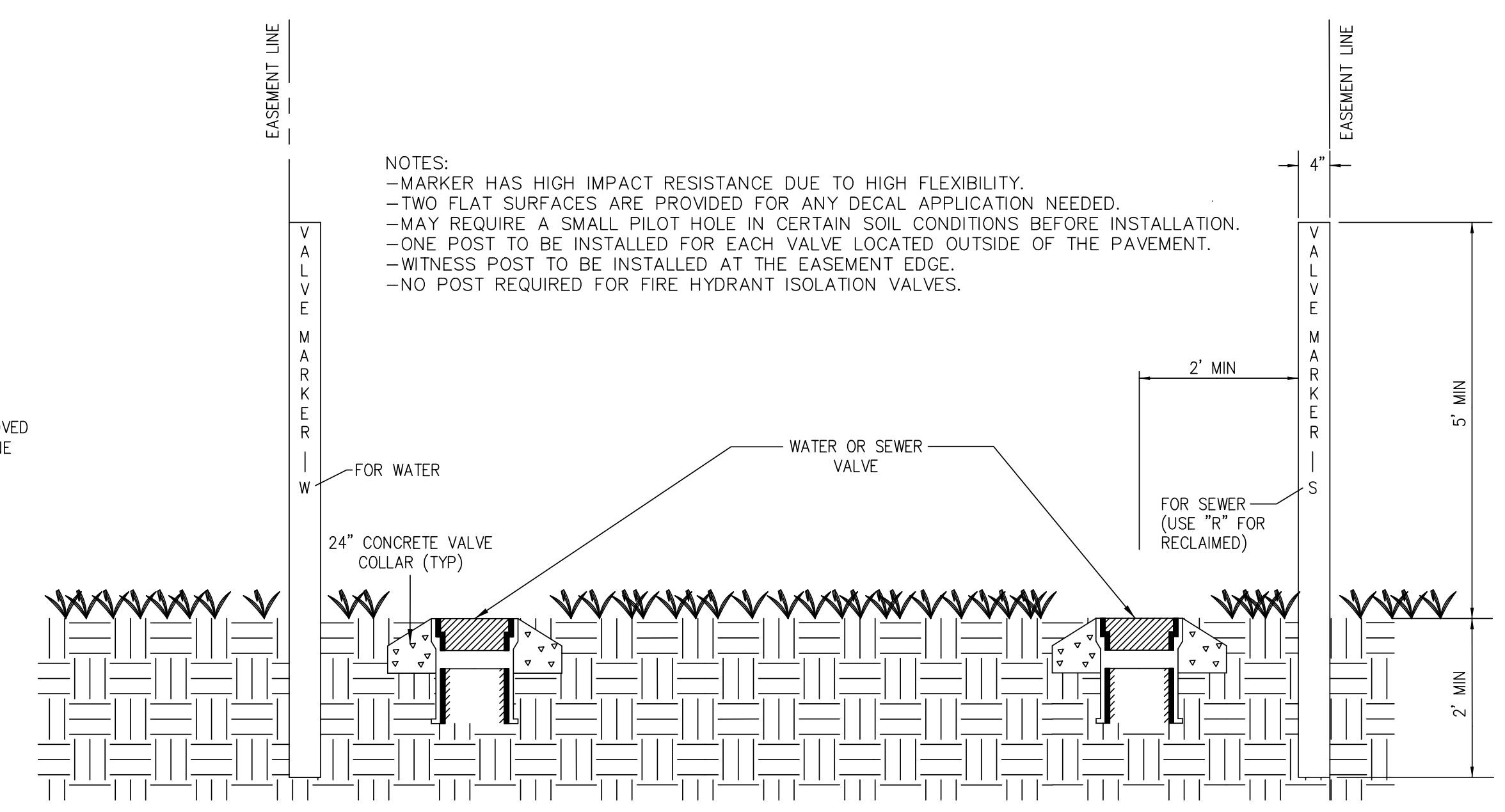
PIPE COLLAR DETAIL
 WS-8



NOTES:

- TOP OF VALVE BOX AND COLLAR SHALL BE PAINTED GREEN FOR SEWER FM, PURPLE FOR RECLAIMED WATER, AND BLUE FOR WATER.
- EXTENSION STEM WILL BE REQUIRED TO BE WITHIN 2 FEET OF THE SURFACE IF OPERATING NUT WOULD OTHERWISE BE OVER 5 FEET BELOW GRADE. EXTENSIONS SHALL BE PERMANENTLY ATTACHED TO VALVE NUT AND SHALL BE PROVIDED WITH HORIZONTAL SPACERS FOR VERTICAL ALIGNMENT WITHIN THE VALVE BOX.
- MINIMUM CLEARANCE TO EXTENSION IS 8".
- WIRE COLORS REQUIRED: SEWER-GREEN/WATER-BLUE/RECLAIMED WATER-PURPLE OR GREEN WITH PURPLE STRIPE
- 12 GA. COPPERHEAD SUPER FLEX TRACER WIRE OR APPROVED EQUAL.

VALVE BOX
 DETAIL WS-9

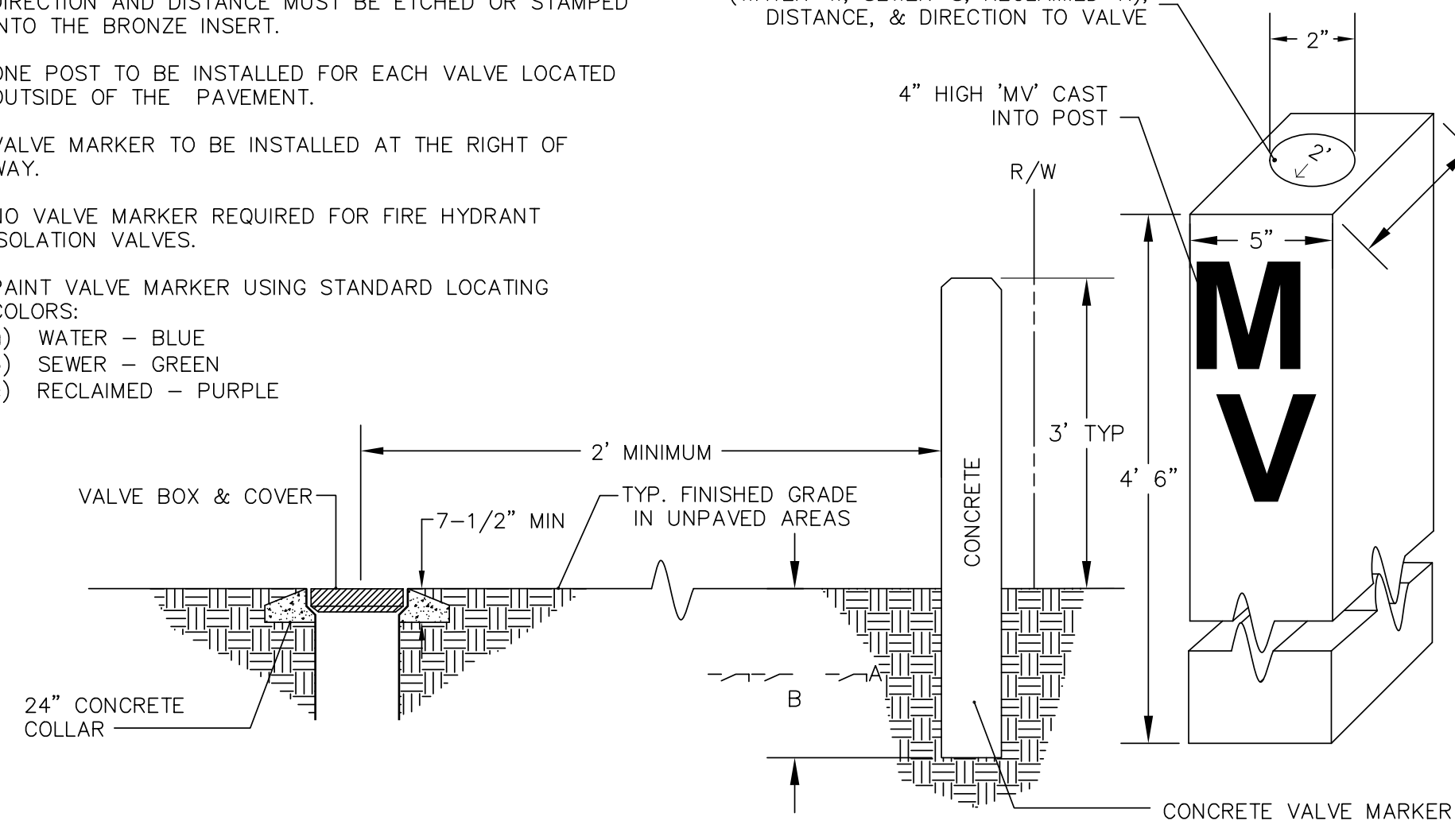


VALVE MARKER IN EASEMENTS (UNPAVED)
 DETAIL WS-10

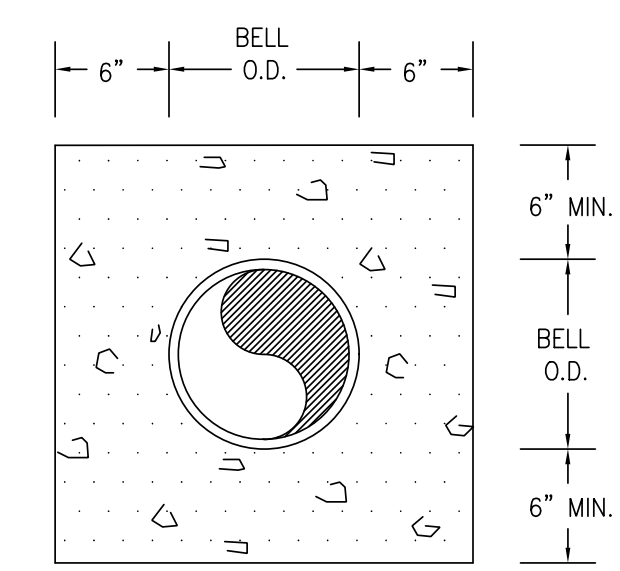
NOTES:

- VALVE MARKER TO BE INSTALLED UPRIGHT WITH THE CAST 'MV' FACING THE NEAREST STREET.
- DIRECTION AND DISTANCE MUST BE ETCHED OR STAMPED INTO THE BRONZE INSERT.
- ONE POST TO BE INSTALLED FOR EACH VALVE LOCATED OUTSIDE OF THE PAVEMENT.
- VALVE MARKER TO BE INSTALLED AT THE RIGHT OF WAY.
- NO VALVE MARKER REQUIRED FOR FIRE HYDRANT ISOLATION VALVES.
- PAINT VALVE MARKER USING STANDARD LOCATING COLORS:
 a) WATER - BLUE
 b) SEWER - GREEN
 c) RECLAIMED - PURPLE

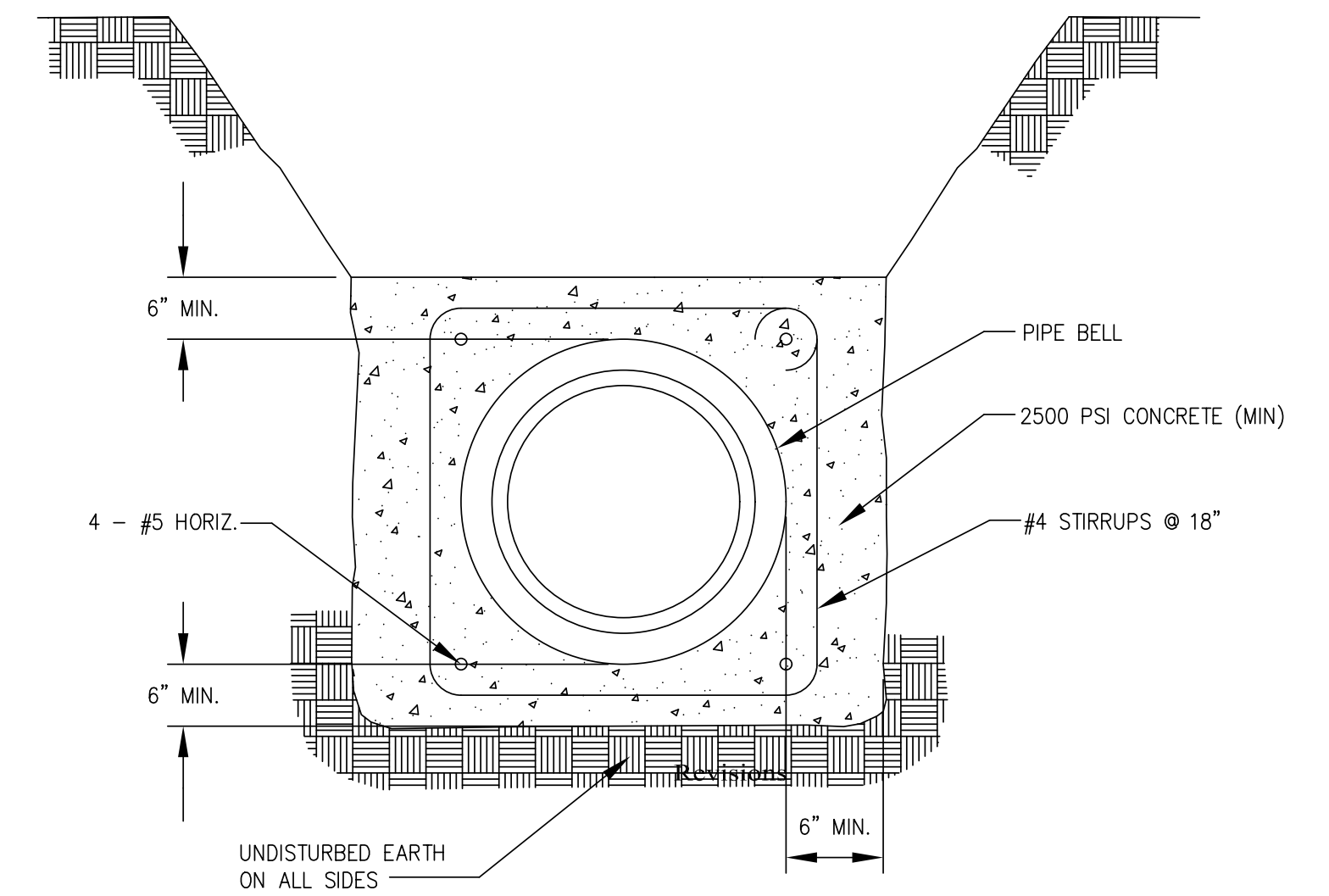
2" Ø STAMPED BRONZE INSERT WITH TYPE (WATER-W, SEWER-S, RECLAIMED-R), DISTANCE, & DIRECTION TO VALVE



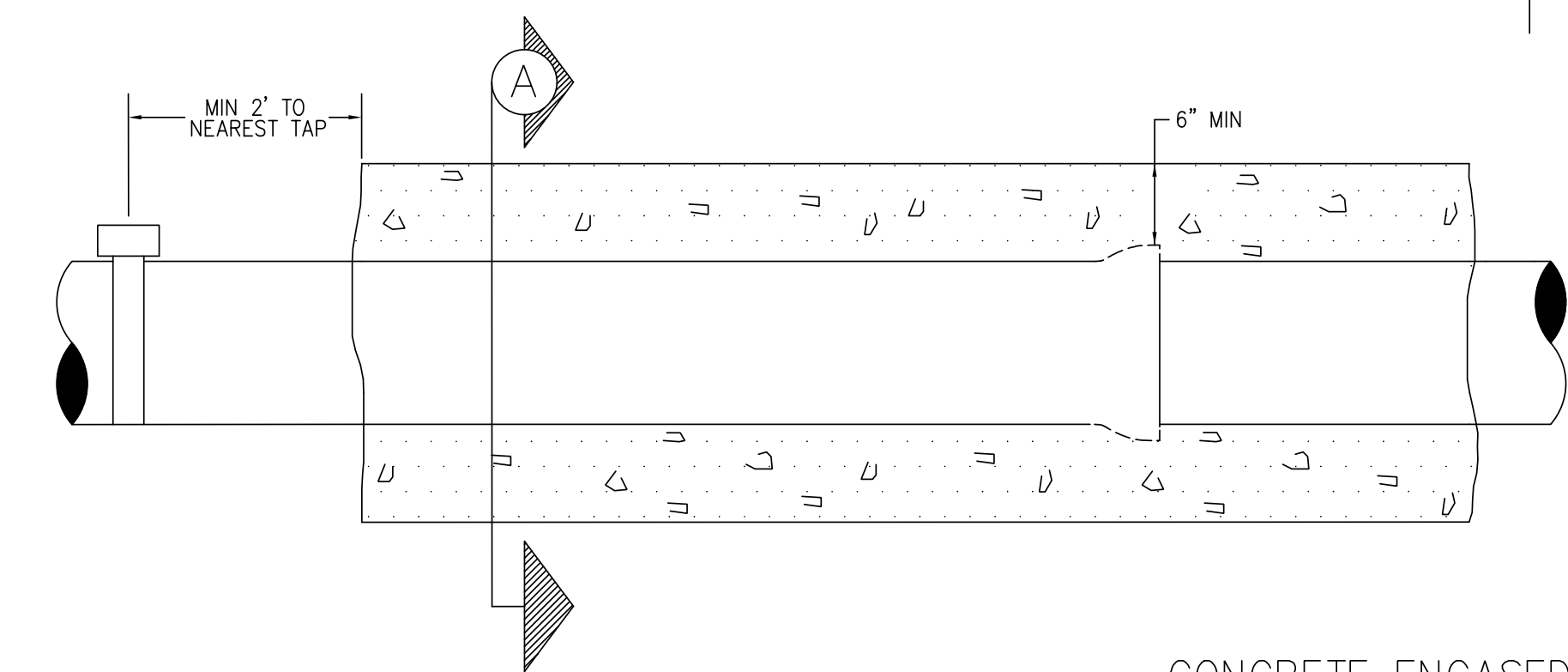
VALVE MARKER IN RIGHT OF WAY (PAVED)
 DETAIL WS-11



SECTION "A"

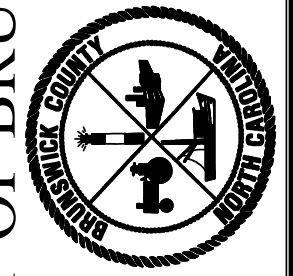


CONCRETE ENCASEMENT DETAIL



CONCRETE ENCASED PIPE
 DETAIL WS-12

COUNTY OF BRUNSWICK



GENERAL WATER & SEWER DETAILS
 FOR
BRUNSWICK COUNTY
 NORTH CAROLINA

Date: 06-12-12
 Scale: NTS
 Drawn By: JDM
 Checked By: WLP

- 1.1 - DATED 7/15/2015
 Mod collar dim. WS-9 & 10
- 1.2 - DATED 3/10/2017
 Revise WS-9
- 1.3 - DATED 7/31/2018
 Revise WS-11

DATE: 8/13/2021
 TIME: 10:37:40 PM
 DGN: P:\6048203\900_Works\916_Jiminy_Construction\NF-5021_UC_UC3.dgn