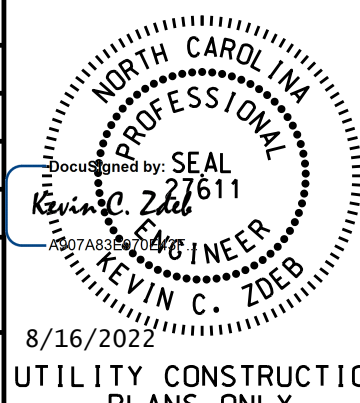
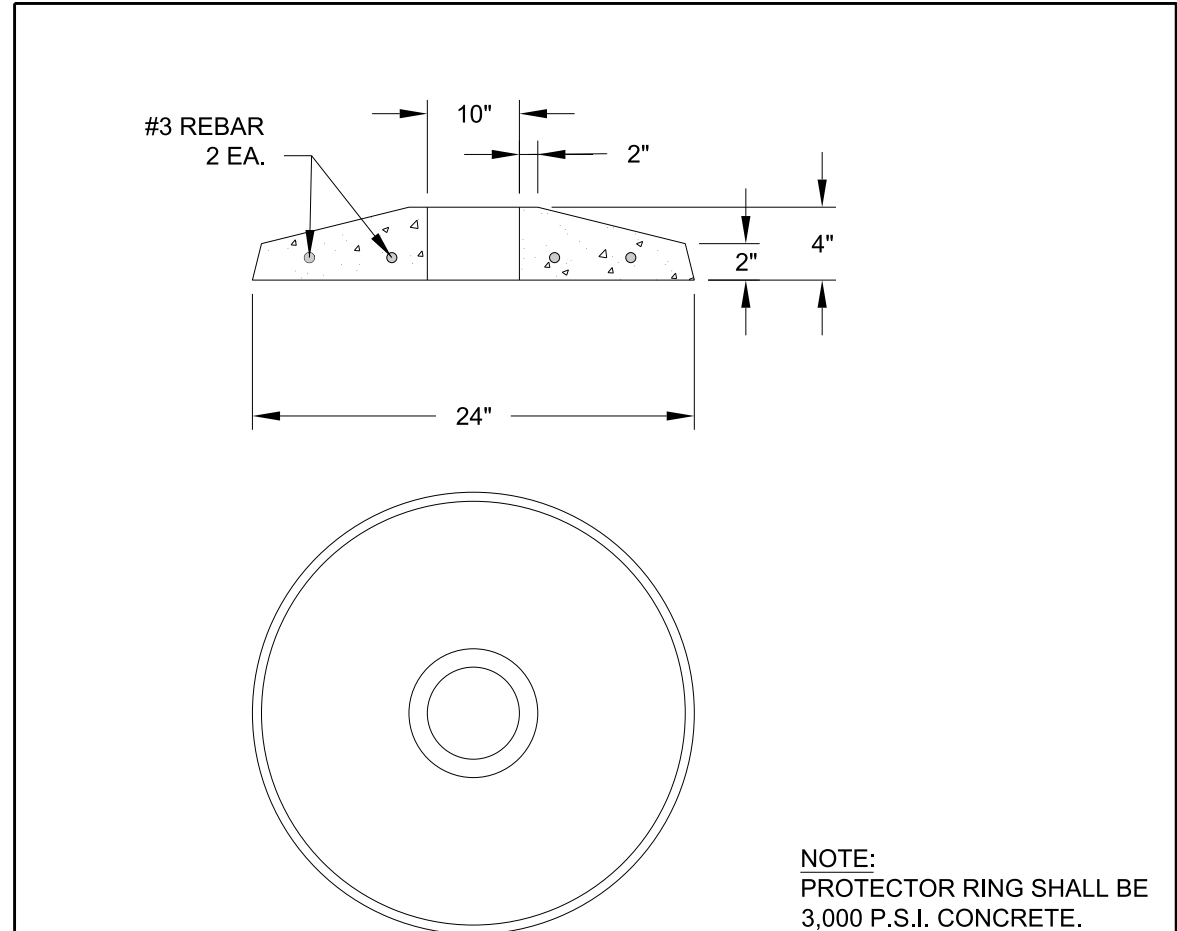


PROJECT REFERENCE NO. B-5644	SHEET NO. UC-3A
DESIGNED BY: AJC	
DRAWN BY: AJC	
CHECKED BY: KSH	
APPROVED BY: KCZ	
REVISED:	8/16/2022
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	UTILITY CONSTRUCTION PLANS ONLY
UTILITIES ENGINEERING, SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

Weston & Sampson
 WSE of North Carolina, PC
 588 East Chatham Street
 Phone: 919.297.0220

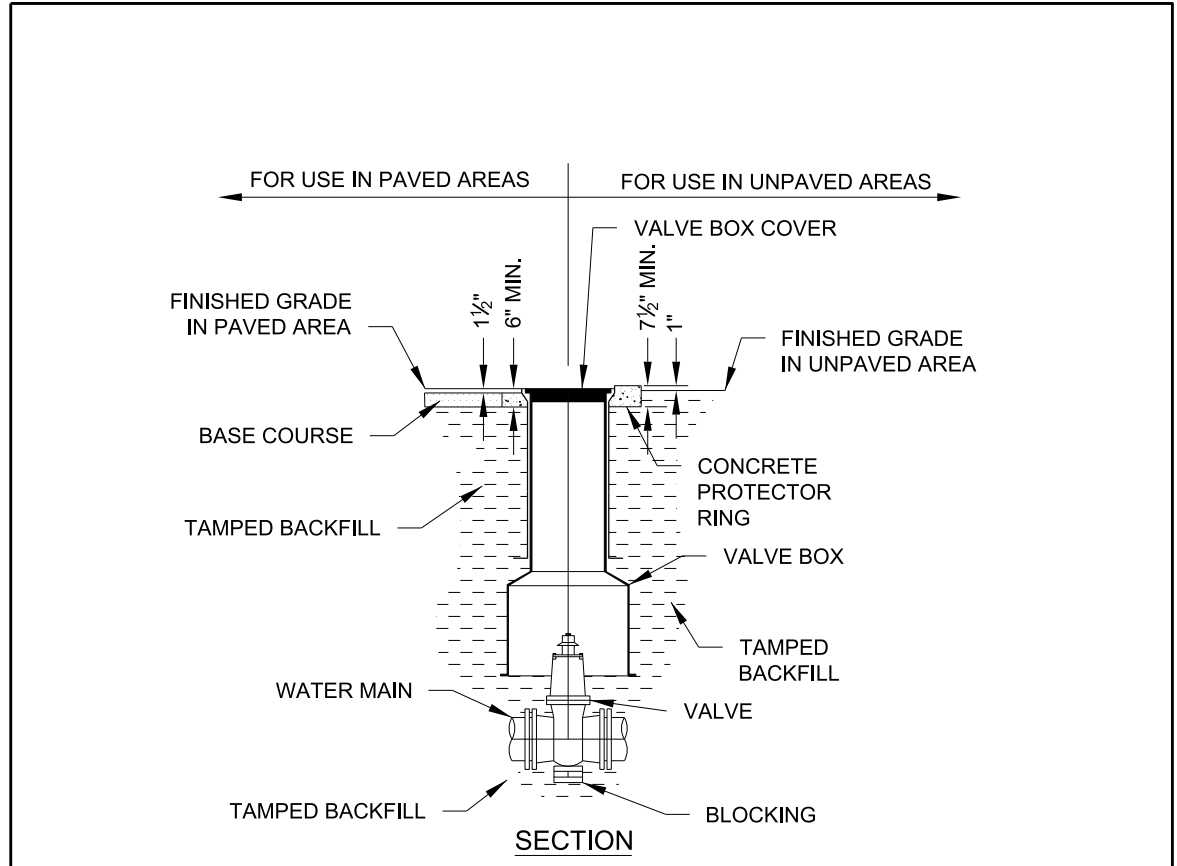
NC License: C-4847
 Cary, NC 27511
 Fax: 919.297.0221

UTILITY CONSTRUCTION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



CONCRETE PROTECTOR RING

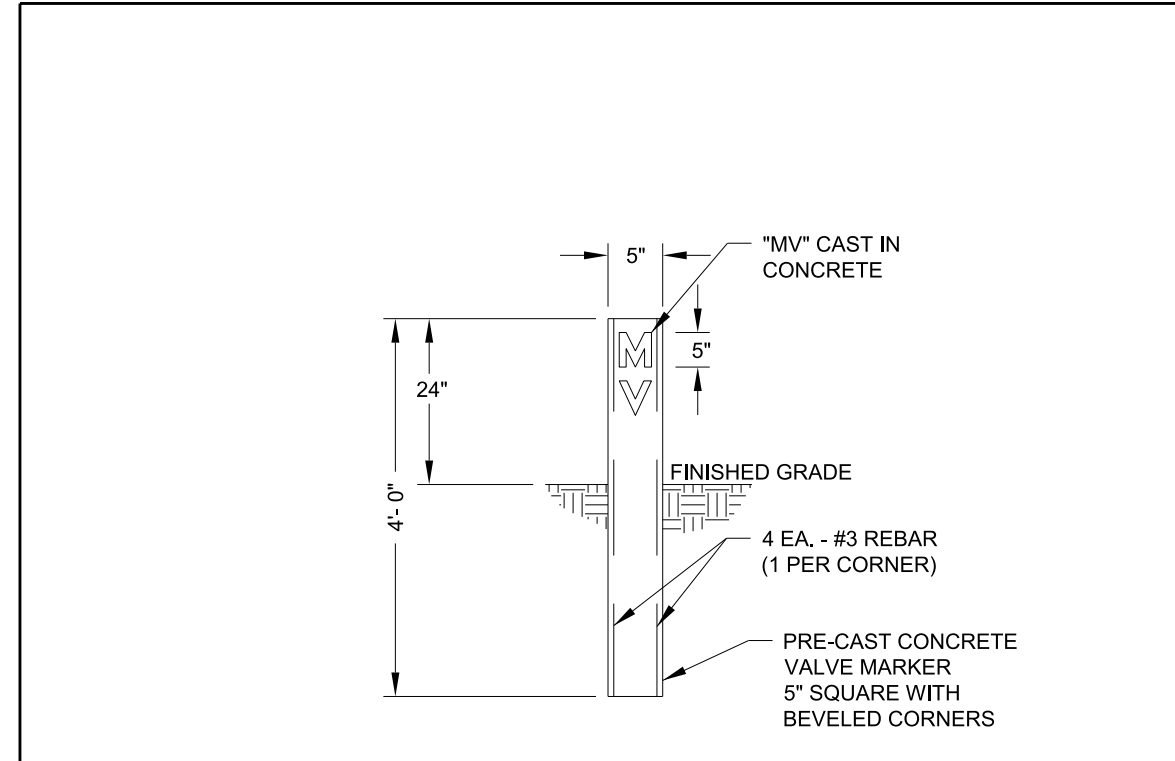
NOT TO SCALE



VALVE AND VALVE BOX INSTALLATION

NOT TO SCALE

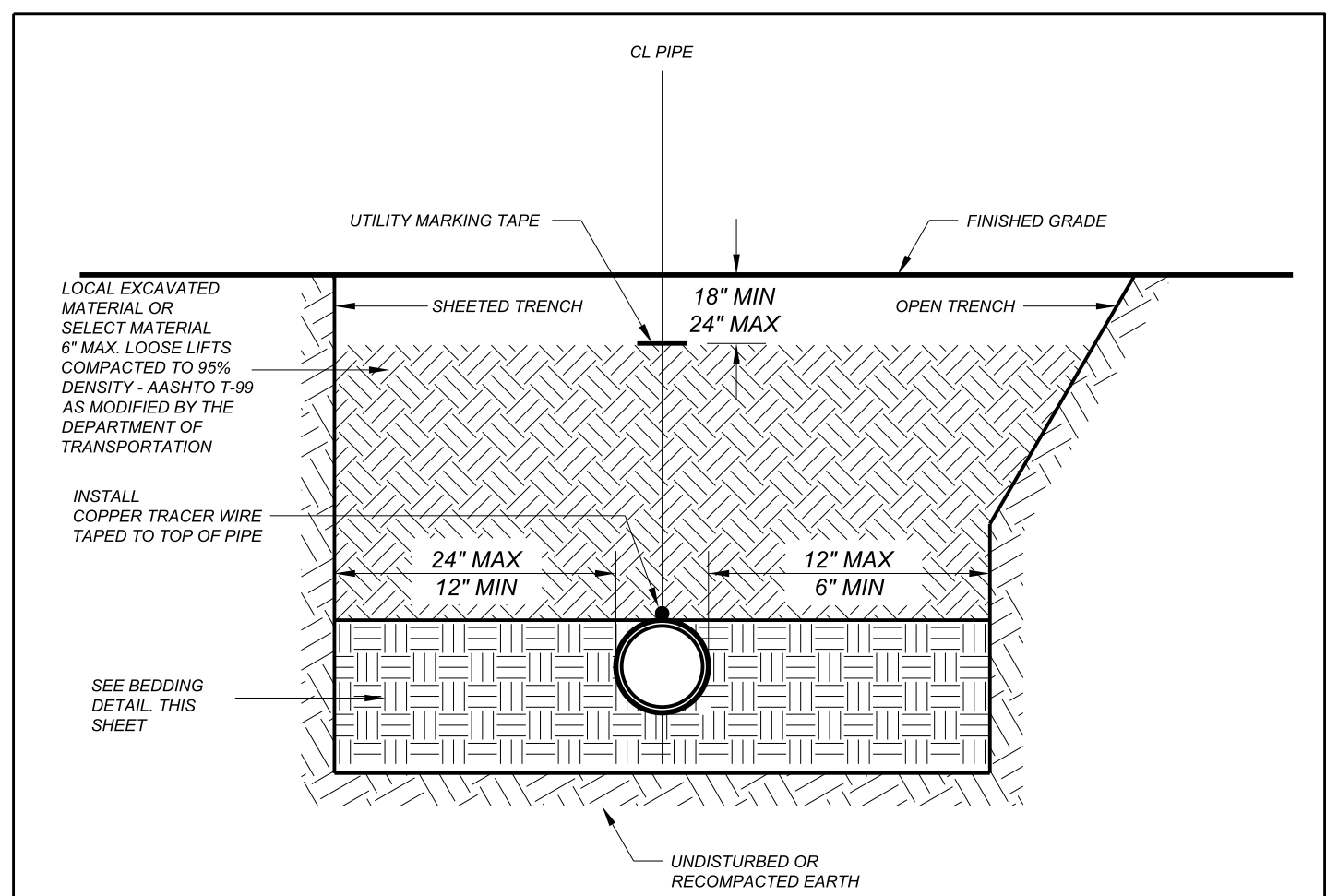
- NOTES:
1. VALVE COVER SHALL BE SET 1/2" BELOW THE TOP OF CONCRETE PROTECTOR RING IN UNPAVED AREAS.
 2. CONCRETE PROTECTOR RING SHALL BE USED IN ALL UNPAVED AREAS.
 3. DO NOT ALLOW VALVE BOX TO REST ON THE VALVE OR WATER MAIN.
 4. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST CONFORM TO NSF61 AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.



VALVE MARKER DETAIL

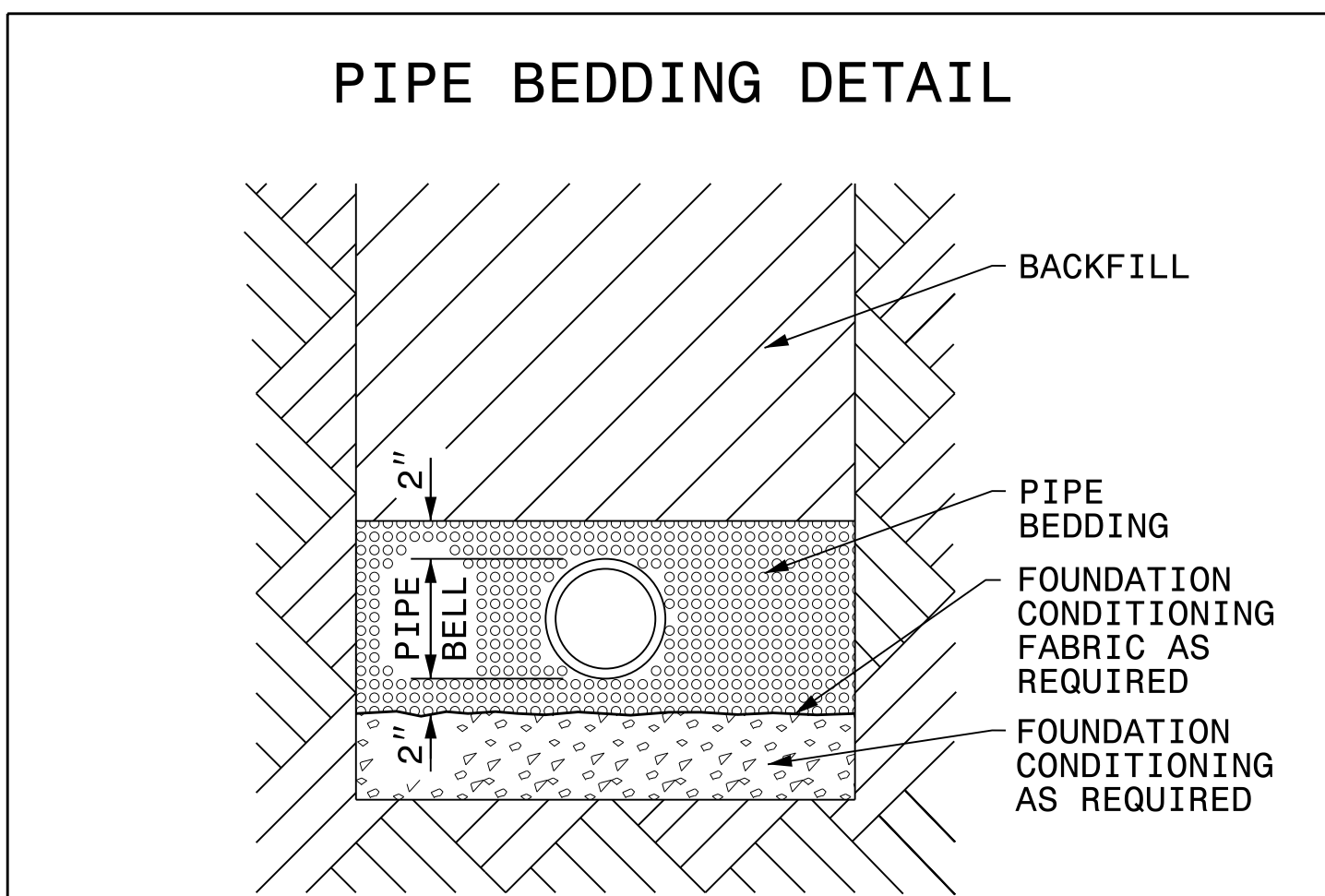
NOT TO SCALE

- NOTES:
1. VALVE MARKERS SHALL BE PRE-CAST CONCRETE WITH 3000-PSI COMPRESSIVE STRENGTH.
 2. VALVE MARKERS SHALL BE PAINTED BLUE WITH THE RECESSED LETTERS "MV" PAINTED BLACK.
 3. VALVE MARKERS SHALL BE SET PLUMB AND PLACED AT OR INSIDE THE R/W LINE AWAY FROM TOE PROTECTION, AS DIRECTED BY THE ENGINEER.
 4. THE LETTERS "MV" SHALL FACE TOWARDS THE VALVE LOCATION.



GENERAL TRENCH DETAIL
 NTS

- NOTES:
1. ALL SHORING AND TRENCHING SHALL COMPLY WITH CURRENT OSHA SAFETY STANDARDS FOR THE CONSTRUCTION INDUSTRY.
 2. ALL BACKFILL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH.
 3. BELL HOLES FOR PIPE NOT SHOWN.



PIPE BEDDING DETAIL

- NOTES:
1. PLACE FOUNDATION CONDITIONING MATERIAL BELOW BEDDING IF REQUIRED, AS DIRECTED BY ENGINEER. PIPE BEDDED IN SELECT MATERIAL, CLASS II (TYPE 1) OR CLASS III.
 2. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL.
 3. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH.
 4. COMPACTION SHALL BE TO APPROXIMATELY 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.

RESTRAINED JOINT DESIGN TABLE FOR PVC PIPE

FITTING	REQUIRED RESTRAINED LENGTH (FT) OF PVC PIPE ON EACH SIDE OF FITTING
BENDS	
8 INCH - 11.25 DEG	10
8 INCH - 22.5 DEG	20
8 INCH - 45 DEG	40
8 INCH - 90 DEG	90
OTHER FITTINGS	
8 INCH - VALVE	90
8 INCH - PLUG	90

- NOTES:
1. RESTRAINED LENGTHS TAKEN FROM THE PENDER COUNTY UTILITIES (PCU) STANDARD DETAIL.
 2. ALL FITTINGS AND JOINTS SHALL BE RESTRAINED JOINT USING MJ GRIP RINGS, UNLESS OTHERWISE APPROVED BY THE ENGINEER AND PCU.