

	STV Engineers, Inc. 900 West Trade St., Suite 715 Charlotte, NC 28202 NC License Number F-0991	PROJECT REFERENCE NO. <b>B-5813</b>	SHEET NO. <b>UC-3B</b>
	<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>		DESIGNED BY: <b>VHM</b> DRAWN BY: <b>VHM</b> CHECKED BY: <b>ASV</b> APPROVED BY: <b>XMD</b> REVISED:
		NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
		UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

**UTILITY CONSTRUCTION**

TABLE OF EMBEDMENT DEPTHS BELOW PIPE			
D	a	a	
	MIN SOIL	MIN ROCK	
27" & SMALLER	6"	6"	
30" TO 60"	6"	9"	
66" & LARGER	6"	12"	

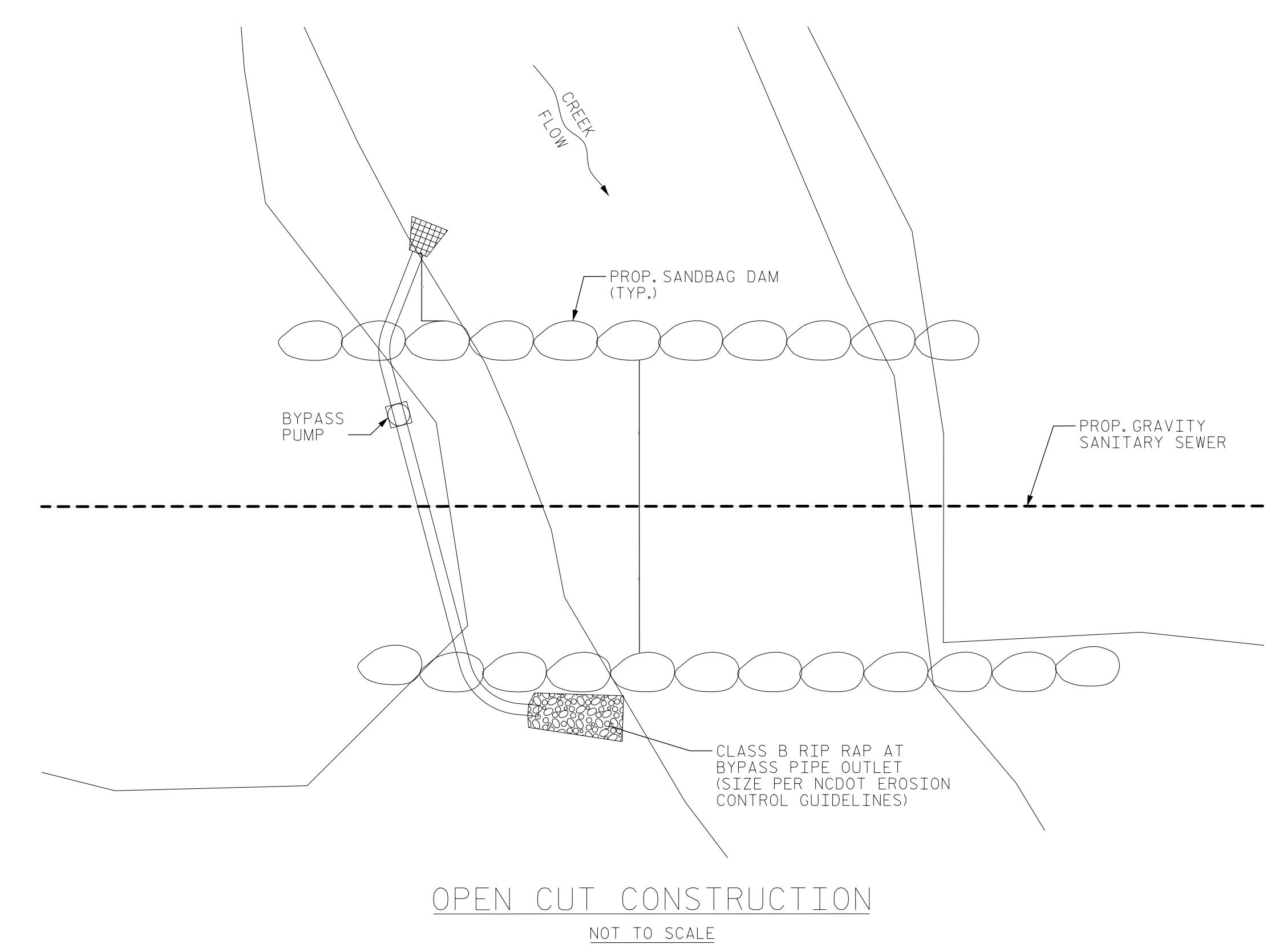
**NOTES:**

- GRANULAR EMBEDMENT MATERIAL SHALL BE CRUSHED ROCK, PEA GRAVEL COARSE AGGREGATE SIZE NUMBER 57. EMBEDMENT MATERIAL SHALL BE PLACED IN LAYERS NOT MORE THAN 6" DEEP AND COMPACTED AS SPECIFIED.
- HAND PLACED EMBEDMENT SHALL BE COMPACTED FINELY DIVIDED MATERIAL FREE FROM DEBRIS AND STONES.
- EMBEDMENT ABOVE THE TOP OF THE PIPE SHALL BE AN UNCOMPACTED LAYER FOR ALL INSTALLATIONS.
- REFER TO SPECIFICATIONS FOR GEOTECHNICAL FABRIC OR SPECIAL EMBEDMENT REQUIREMENTS FOR TRENCHES IN FINE SOILS EXTENDING BELOW GROUNDWATER LEVEL.
- TRENCH OUTLINES DO NOT INDICATE ACTUAL TRENCH EXCAVATION SHAPE, SOIL CONDITIONS, OR PRESENCE OF SHEETING LEFT IN PLACE. EMBEDMENT MATERIAL SHALL EXTEND THE FULL WIDTH OF THE ACTUAL TRENCH EXCAVATION.

**LEGEND**

- Bc: OUTSIDE DIAMETER OF PIPE COVER ABOVE TOP OF PIPE
- D: NOMINAL PIPE SIZE
- a: EMBEDMENT BELOW PIPE (SEE TABLE)
- Hand Placed Embedment
- Granular Embedment
- Concrete

<b>WSACC</b>			
WATER AND SEWER AUTHORITY OF CABARRUS COUNTY			
<b>EMBEDMENTS FOR MAINS</b>			
REVISION NO.	DATE	BY	CHKD
FILE NAME: WS_1.0		DATE: 8/06	



- NOTES:**
- BASE FLOW OF STREAM WILL BE PUMPED AROUND WORK AREA AND RELEASED BACK INTO EXISTING STREAM BELOW THE WORK AREA ONTO CLASS B RIP RAP PAD. BYPASS PUMP SHALL UTILIZE A FLOATING INTAKE.
  - PUMP AROUND SYSTEM SHALL BE SUFFICIENT SIZE TO CARRY BASE STREAM FLOW.
  - SANDBAG MATERIAL: SANDBAG SHALL BE WOVEN POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE FABRIC, MINIMUM UNIT WEIGHT FOUR OUNCES PER SQUARE YARD, Mullen BURST STRENGTH EXCEEDING 300 PSI IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM DESIGNATION D3786, AND ULTRAVIOLET STABILITY EXCEEDING 70% IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM DESIGNATION D4355. USE OF BURLAP IS NOT ACCEPTABLE.
  - SAND FOR SANDBAGS SHALL BE A MINIMUM 110LB/CU. FT MATERIAL.
  - THE CONTRACTOR SHALL TAKE WHATEVER PRECAUTIONS NECESSARY TO PROTECT THE EXISTING WATERLINE FROM LEAKS OR DAMAGE DURING THE EXCAVATION AND CONSTRUCTION OF THE PROPOSED WATERLINE.
  - IT IS THE CONTRACTORS RESPONSIBILITY TO FOLLOW ALL OSHA AND STATE SAFETY REQUIREMENTS PERTAINING TO THIS EXCAVATION.
  - ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE DEPARTMENT.
  - FOR NON-ROCK CREEK BOTTOMS, KEY SANDBAGS ON UPSTREAM SIDE 1' INTO SOIL.
  - PERFORM CROSSING DURING ANTICIPATED DRY WEATHER ONLY. INSTALL PROPOSED UTILITY IN A DRY TRENCH.

