

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
HIGHWAY DIVISION 6

# PLANS

**WBS ELEMENT NO.:** 17BP.6.R.78

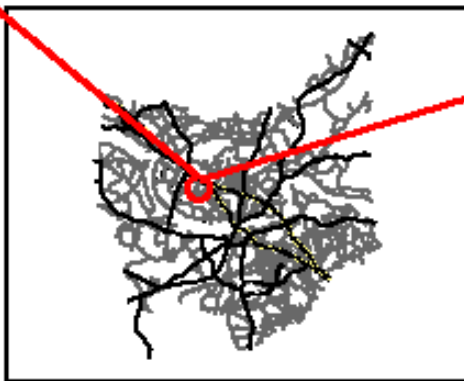
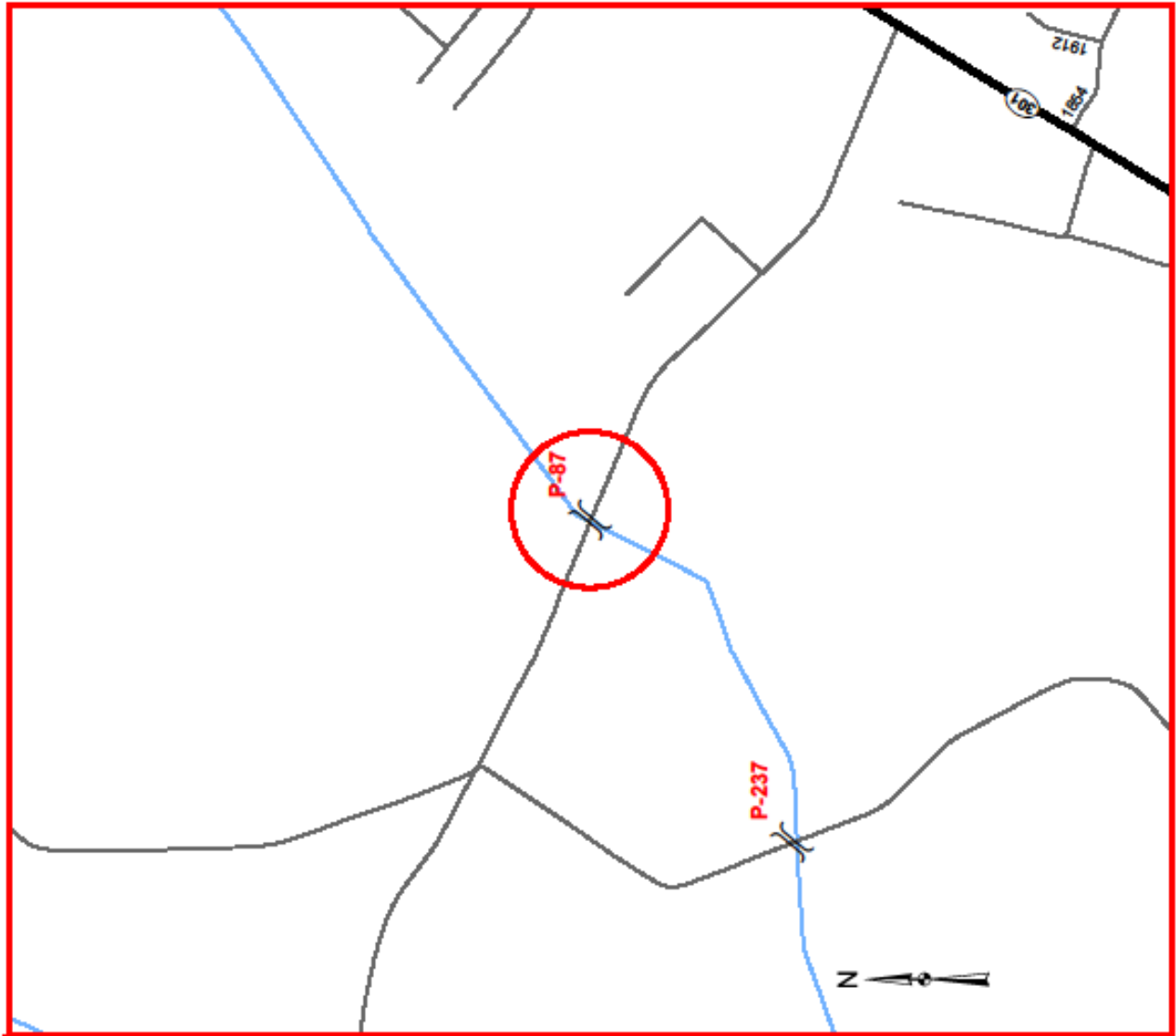
**COUNTY:** CUMBERLAND

**ROUTE NO.:** SR 1722, SR 2249 & SR 2255

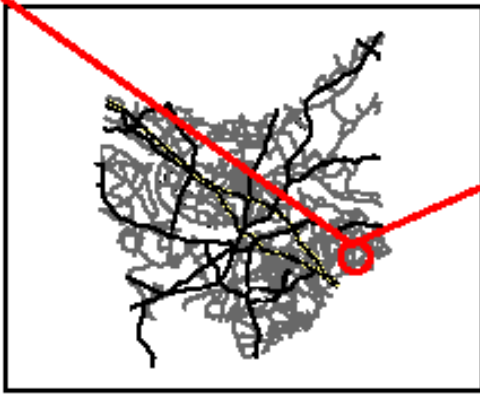
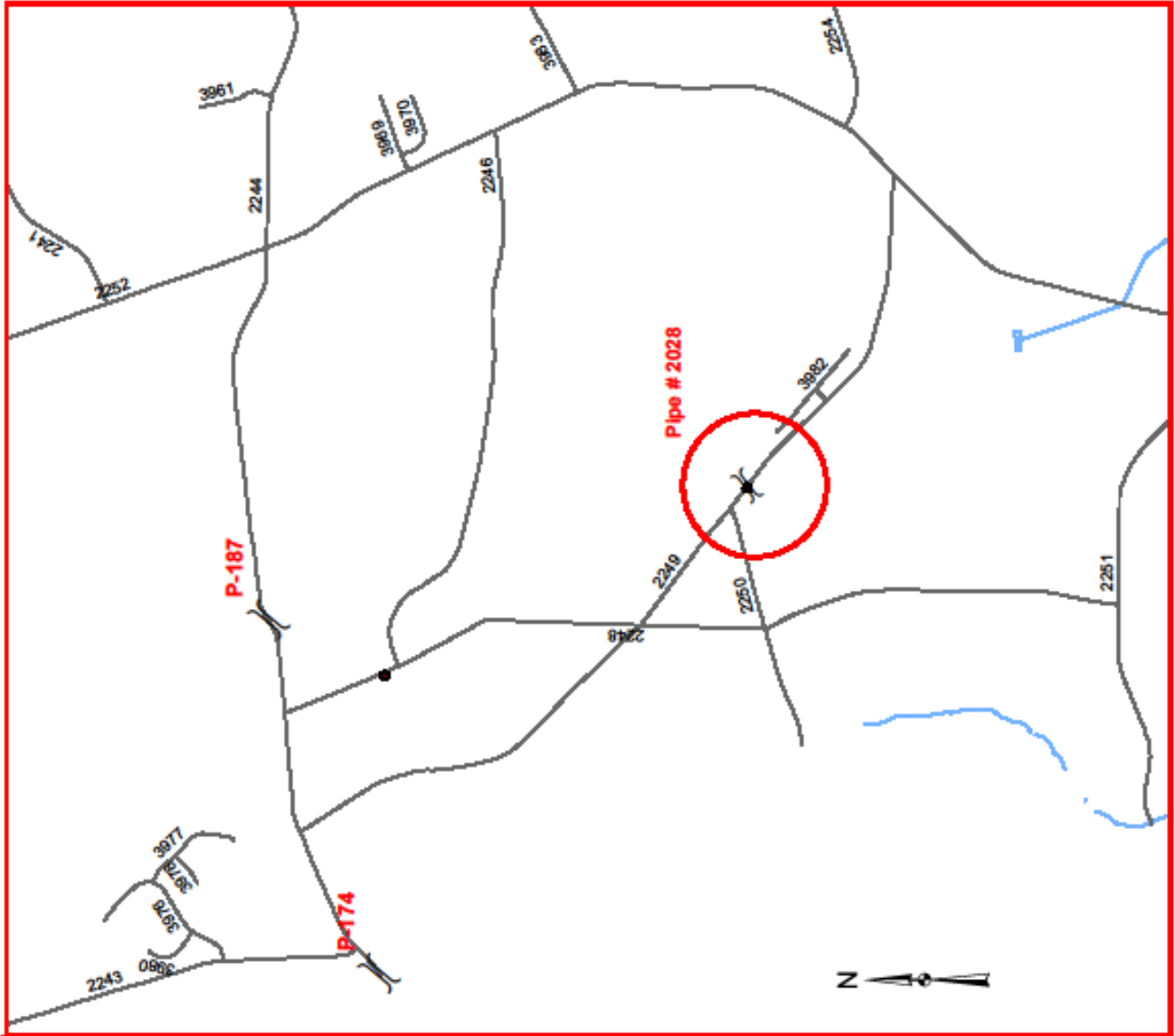
**LOCATION:** PIPE #87 – 0.4 MI. EAST OF SR 1721  
PIPE #2028 – 0.1 MI. EAST OF SR 2250  
PIPE #2032 – 0.2 MI. NORTH OF SR 2257

**TYPE OF WORK:** PIPE REPLACEMENTS

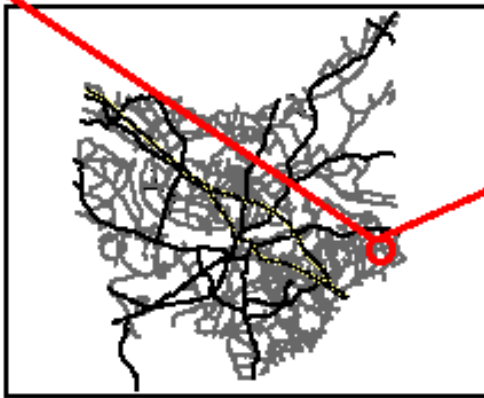
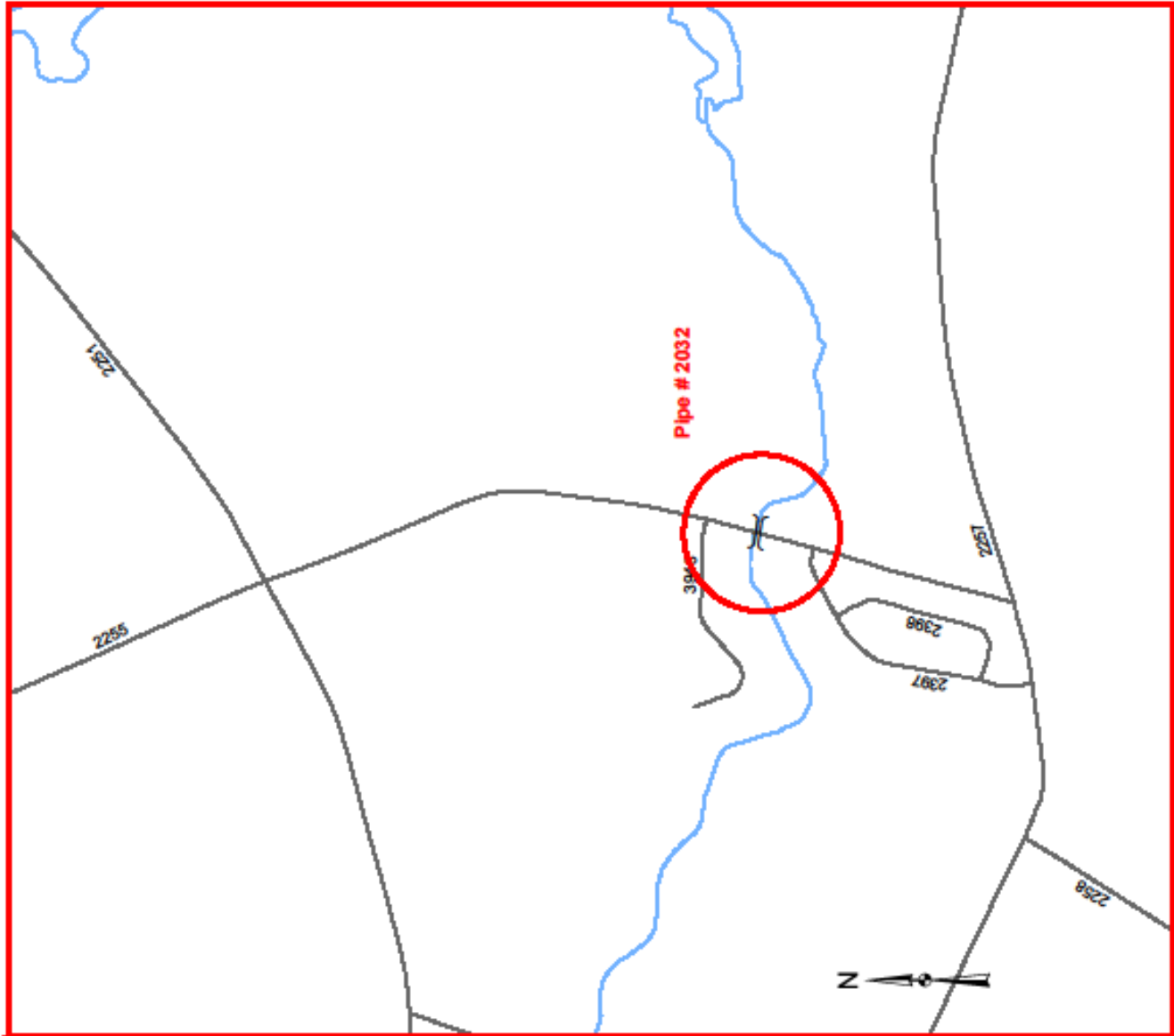
**VICINITY MAPS**



Cumberland County  
VICINITY MAP  
SR 1722  
0.4 MI East of SR 1721  
Pipe # 87

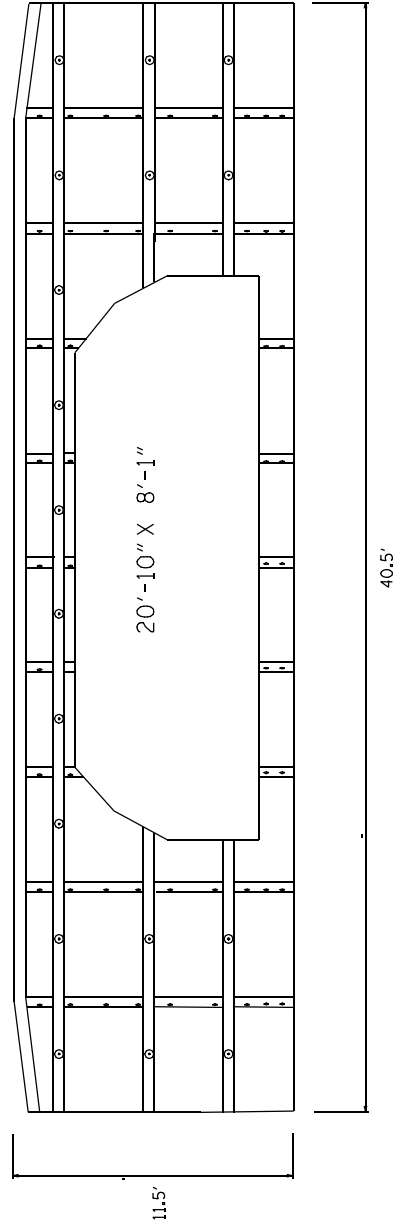


Cumberland County  
VICINITY MAP  
SR 2249  
0.1 MI East of SR 2250  
Pipe # 2028



Cumberland County  
VICINITY MAP  
SR 2255  
0.2 MI North of SR 2257  
Pipe # 2032

# INLET

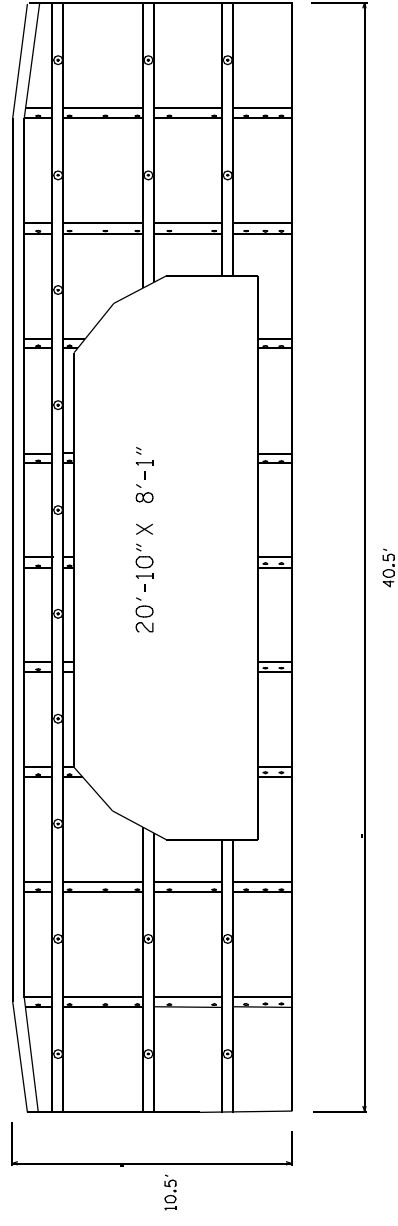


— TW = 99.0

— INV = 89.5

— BW = 87.5

# OUTLET



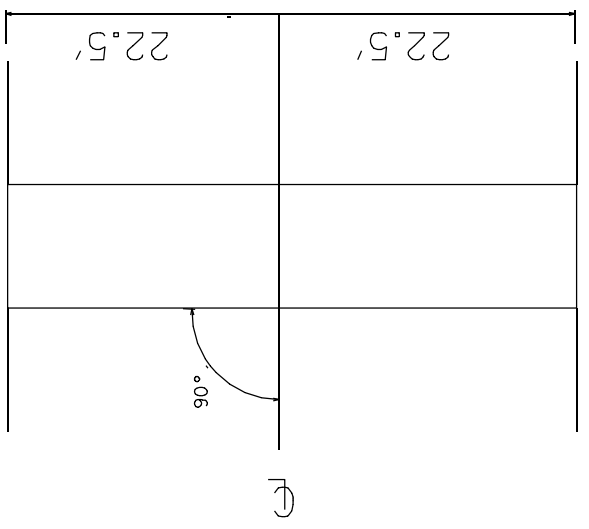
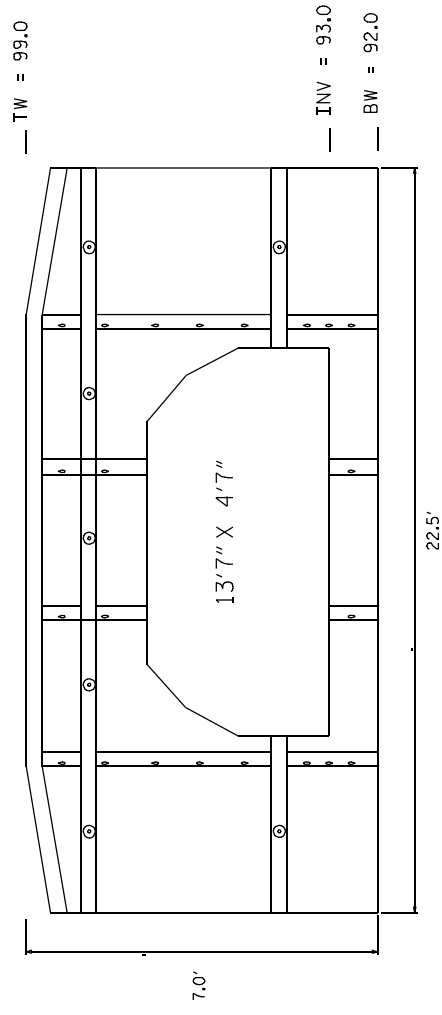
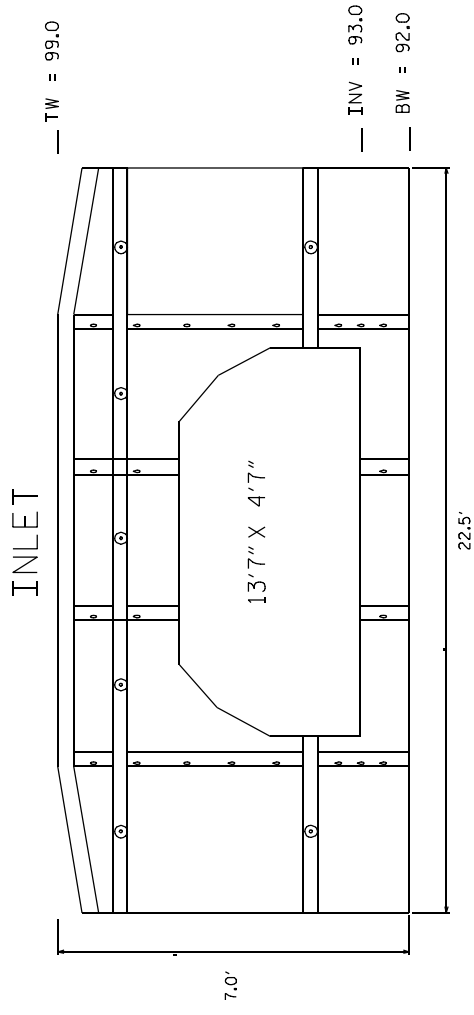
— TW = 99.0

— INV = 89.5

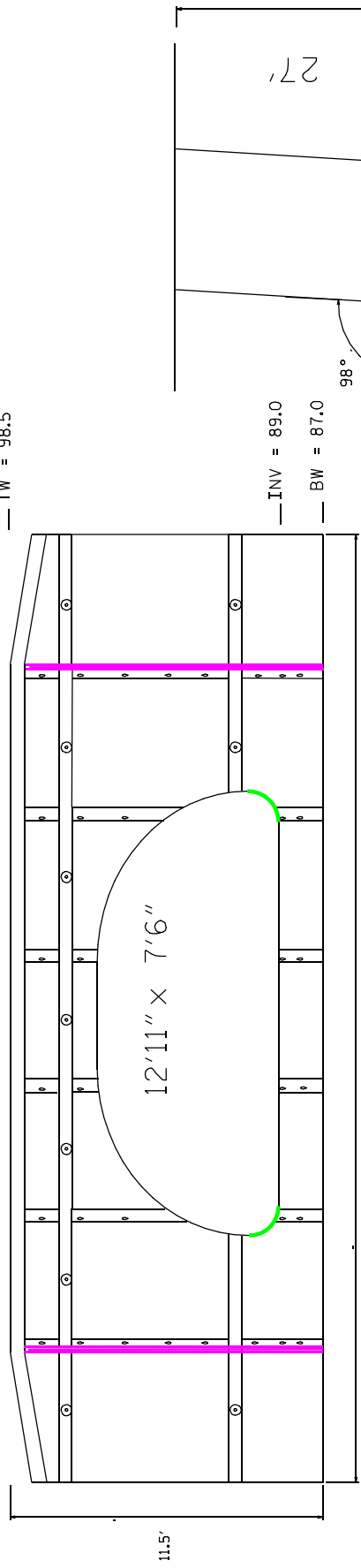
— BW = 88.5

COUNTY:	CUMBERLAND
LOCATION:	SR 1722
EXISTING:	2 = 96' CMP W/TIMBER HEADWALLS
PROPOSED:	1 = 20'10"X8'1" ALUM. BOX W/HEADWALL
ESTIMATE:	TBA

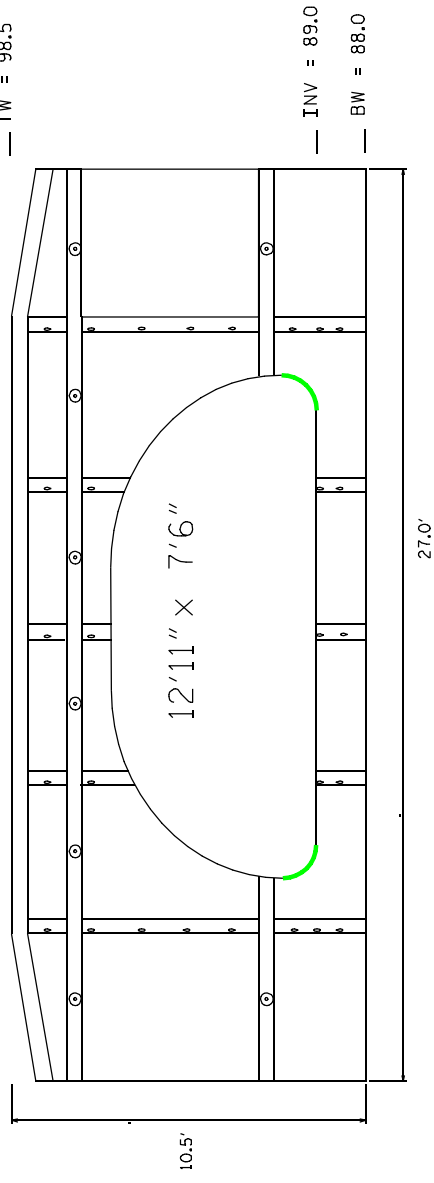
COUNTRY:	CUMBERLAND
LOCATION:	SR 2249
EXISTING:	1= 60" CMP
PROPOSED:	1= 13'7" X 4'7" ALUM. BOX W/ HEADWALL
ESTIMATE:	TBA



# INLET



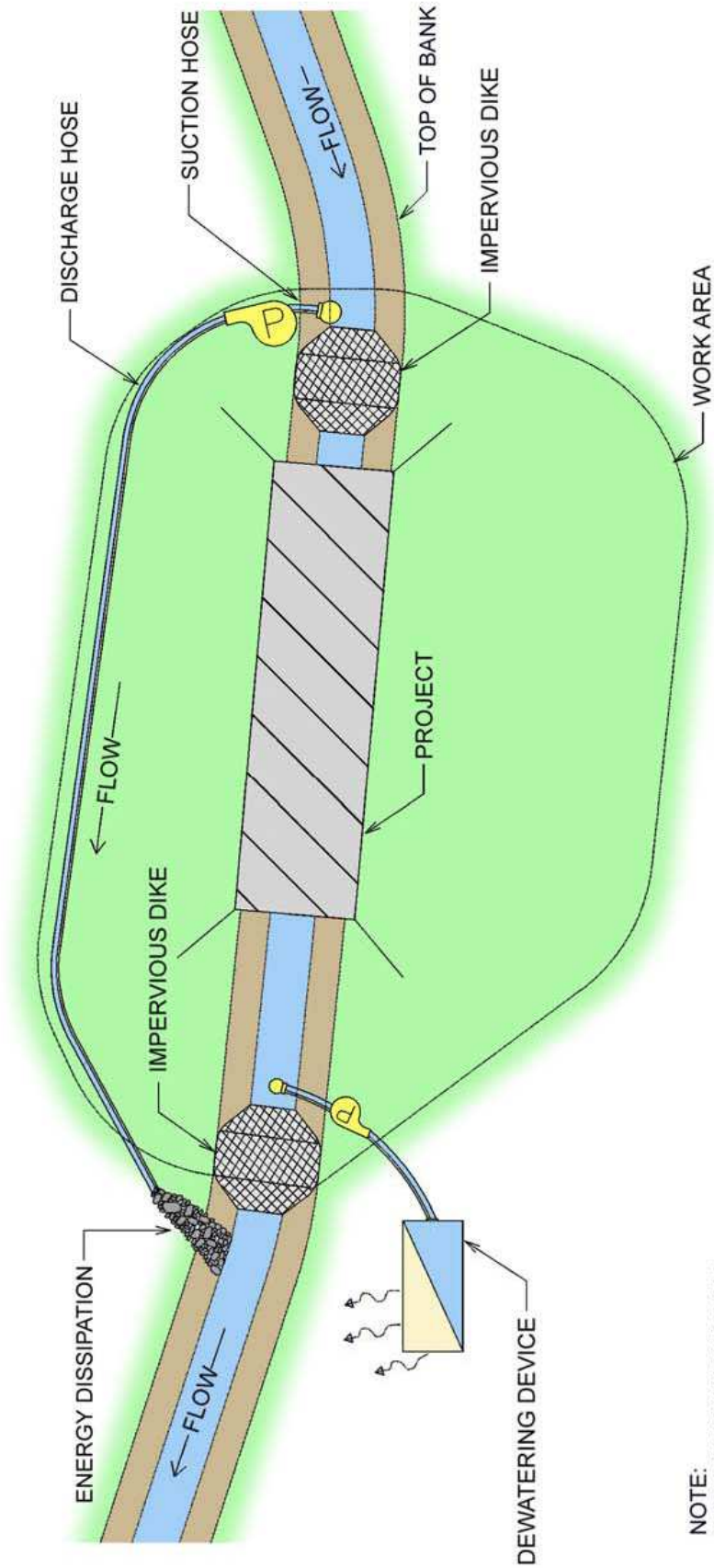
# OUTLET



COUNTY:	CUMBERLAND
LOCATION:	SR 2255 ALTERNATE
EXISTING:	1= 72" CMP
PROPOSED:	1= 12'11" X 7'6" SPPA W/ HEADWALL
ESTIMATE:	TBA

**BYPASS PUMPING**

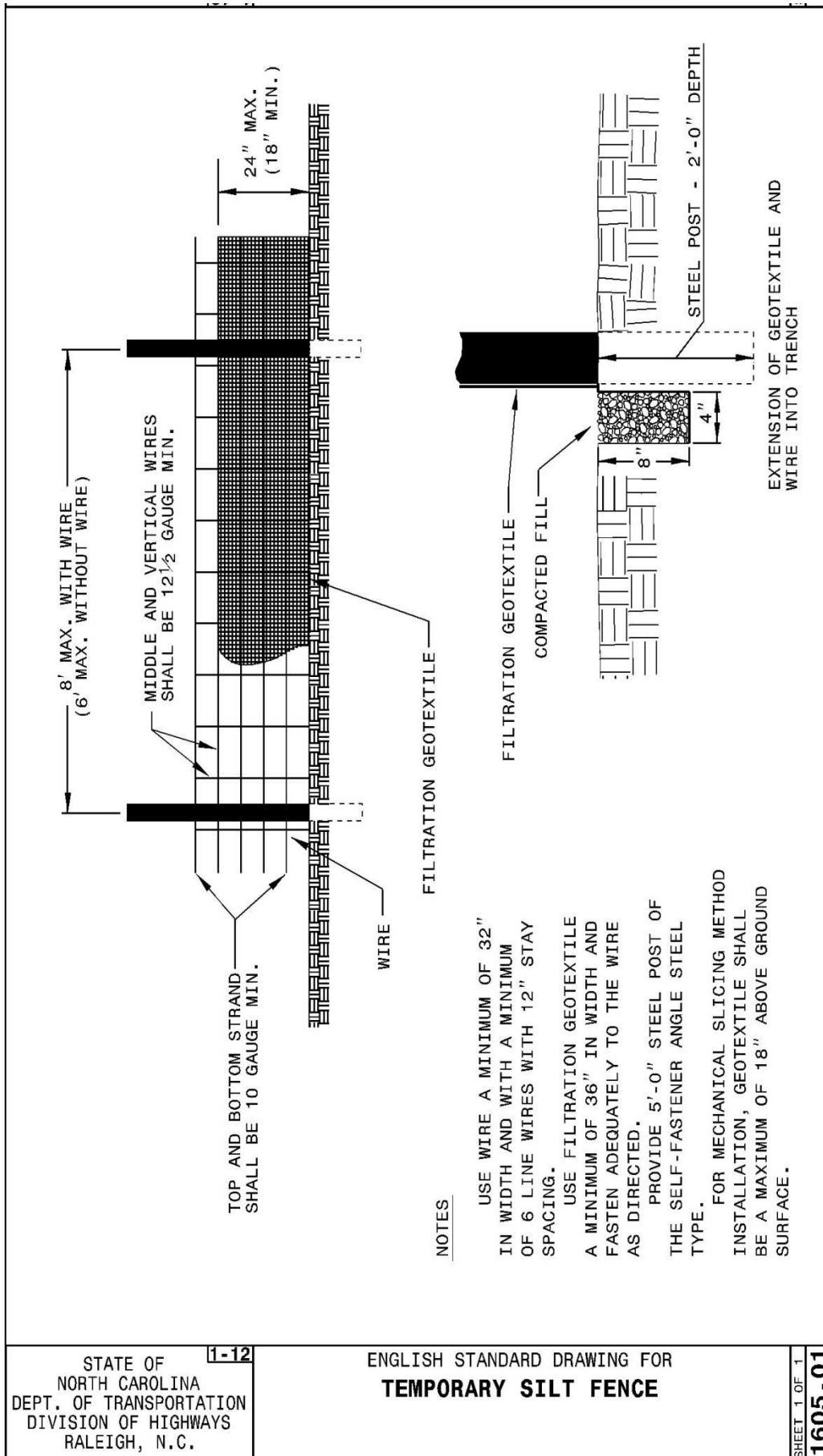
**MANAGING THE WATERCOURSE:  
BYPASS PUMPING**



NOTE:  
ENSURE TO ANCHOR ALL  
PUMPS AND PIPES SECURELY.



### TEMPORARY SILT FENCE DETAIL



8' MAX. WITH WIRE  
(6' MAX. WITHOUT WIRE)

MIDDLE AND VERTICAL WIRES  
SHALL BE 12 1/2 GAUGE MIN.

24" MAX.  
(18" MIN.)

TOP AND BOTTOM STRAND  
SHALL BE 10 GAUGE MIN.

WIRE

FILTRATION GEOTEXTILE

4"

8"

STEEL POST - 2'-0" DEPTH

EXTENSION OF GEOTEXTILE AND  
WIRE INTO TRENCH

**NOTES**

- USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
- USE FILTRATION GEOTEXTILE A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE WIRE AS DIRECTED.
- PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.
- FOR MECHANICAL SLICING METHOD INSTALLATION, GEOTEXTILE SHALL BE A MAXIMUM OF 18" ABOVE GROUND SURFACE.

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

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ENGLISH STANDARD DRAWING FOR  
**TEMPORARY SILT FENCE**

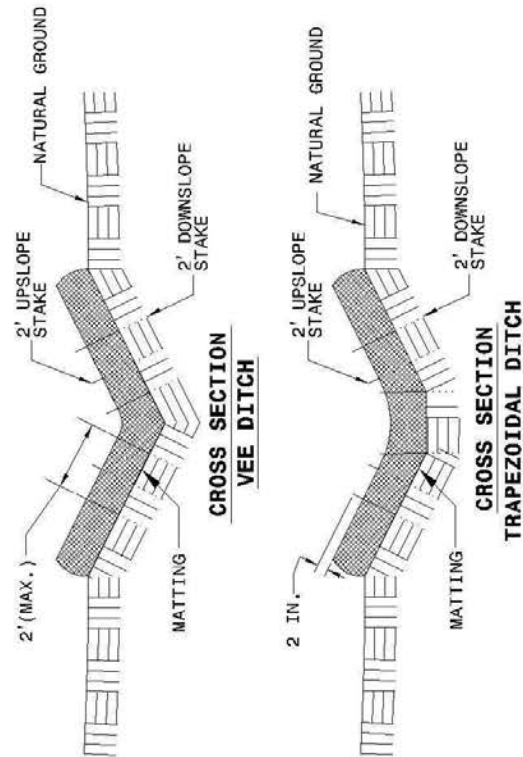
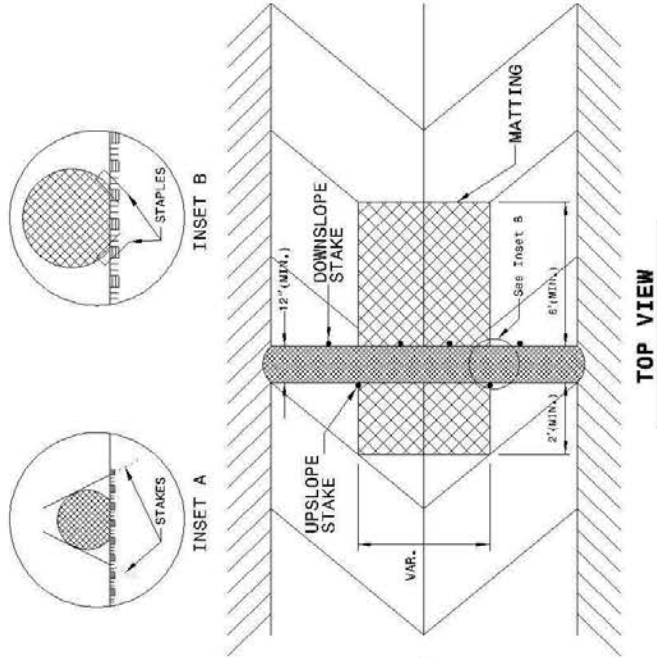
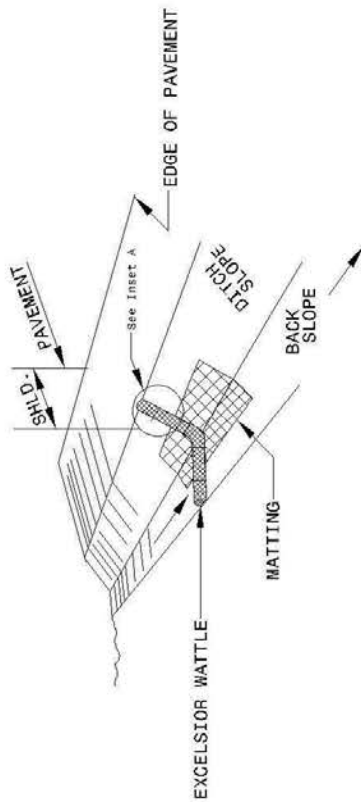
SHEET 1 OF 1  
**1605.01**

# WATTLE DETAIL

## WATTLE DETAIL

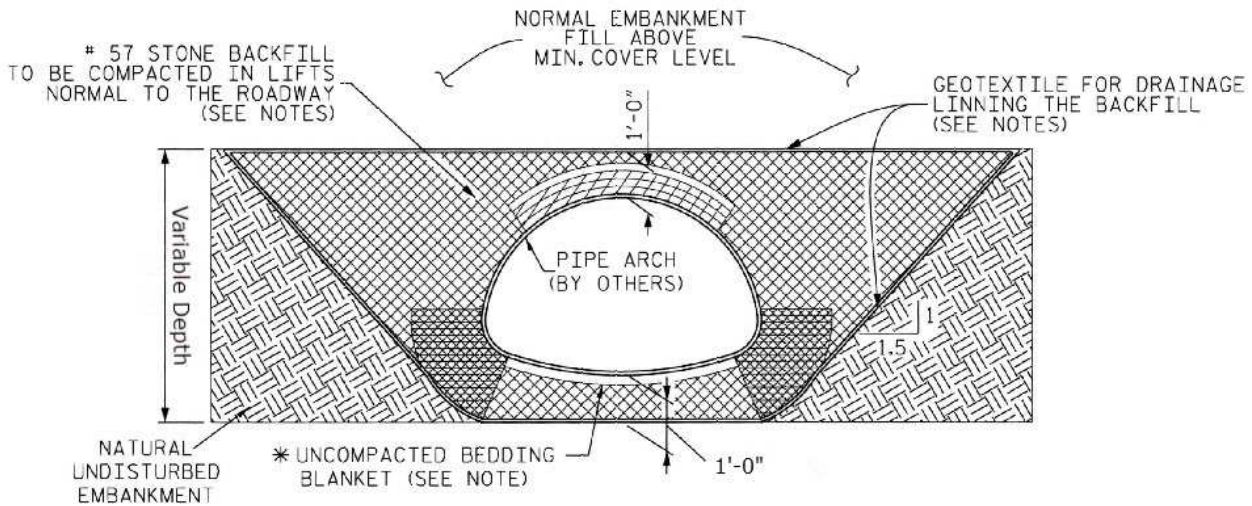
PROJECT REFERENCE NO.	17BP.6.R.78	SHEET NO.	10
DATE	11/11/17	PROJECT NO.	17BP.6.R.78
DESIGNED BY	BOBBI BROWN	CHECKED BY	BOBBI BROWN
DRAWN BY	BOBBI BROWN	INCHES	1/4" = 1'
SCALE		DATE	11/11/17




- NOTES:**
- USE MINIMUM 1/2 IN. DIAMETER EXCELSIOR WATTLE.
  - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
  - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
  - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
  - PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
  - INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
  - INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



FLOW →

**TYPICAL BACKFILL SECTION**



-  CRITICAL BACKFILL ZONE, PRESSURE ON SOIL GREATEST HERE.
-  INITIAL LIFTS OVER CROWN OF STRUCTURE AS INDICATED BY SHADED AREA TO BE COMPACTED TO REQUIRED DENSITY WITH HAND OPERATED EQUIPMENT
-  # 57 STONE BACKFILL LIMITS.

**NOTES:**

ALL BACKFILL TO BE PLACED IN A BALANCED FASHION IN THIN LIFTS (6"-8" LOOSE TYPICALLY) AND COMPACTED TO 90 PERCENT DENSITY PER AASHTO T-180.

GEOTEXTILE FOR DRAINAGE IN FOUNDATION BEDDING AND BACKFILL IS INCIDENTAL TO COST OF PIPE ARCH.

COMPLETE AND REGULAR MONITORING OF THE CSP ARCH SHAPE IS NECESSARY DURING ALL BACKFILLING OF THE STRUCTURE.

PREVENT EXCESSIVE DISTORTION OF SHAPE AS NECESSARY BY VARYING COMPACTION METHODS AND EQUIPMENT.

\* SHAPED BED FOR A MINIMUM WIDTH OF SPAN/2. MINIMUM BEDDING THICKNESS IS TWICE THE CORRUGATION DEPTH.

EMBANKMENT SLOPE TO BE 1.5:1 MINIMUM SUCH THAT A STABLE EMBANKMENT CAPABLE OF RESISTING SIDE PRESSURES FROM CSP PIPE-ARCH SHAPE WILL BE MAINTAINED THROUGHOUT THE LIFE OF INSTALLATION.

**TYPICAL BACKFILL SECTION ALONG PIPE**

NTS