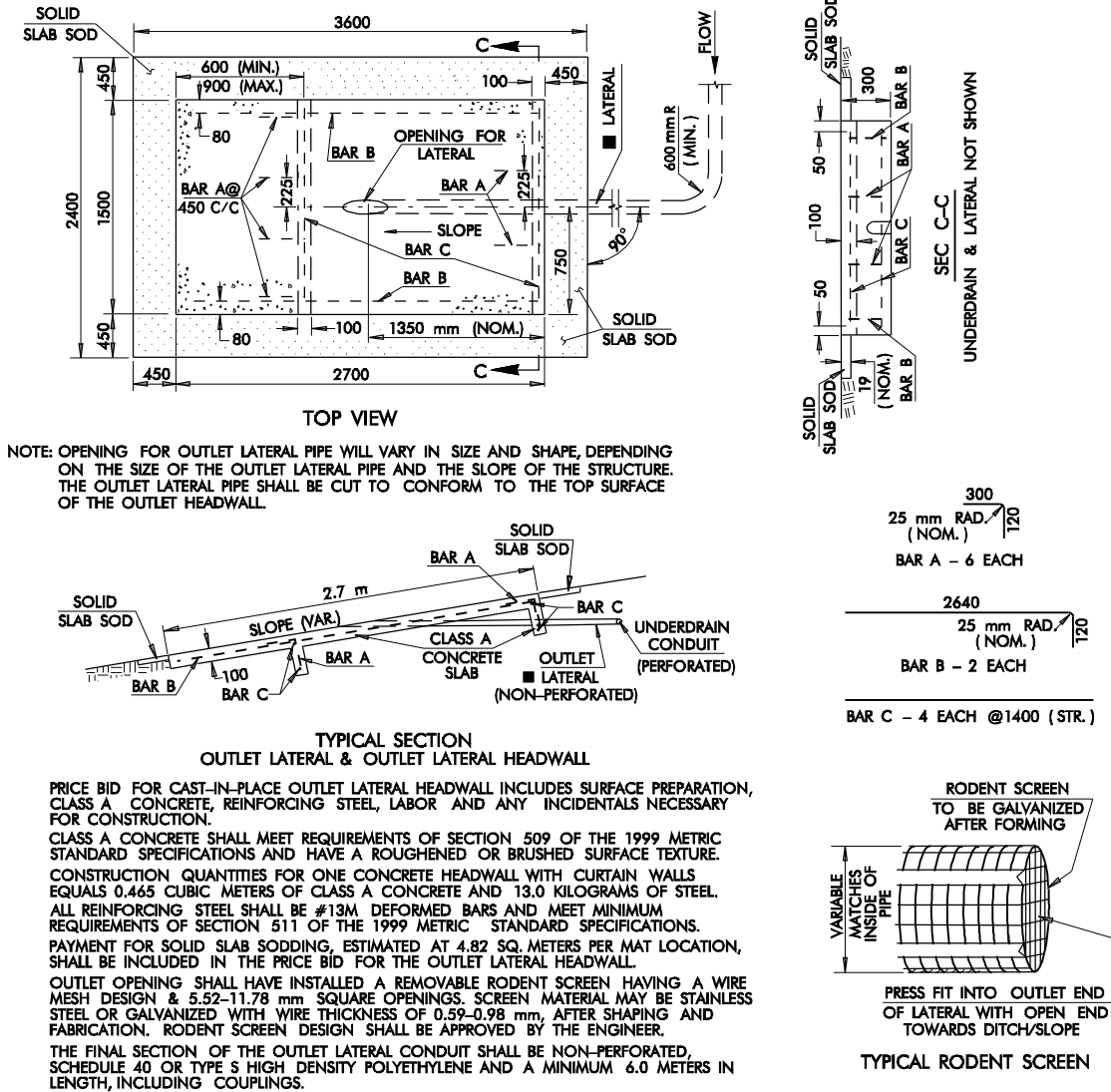
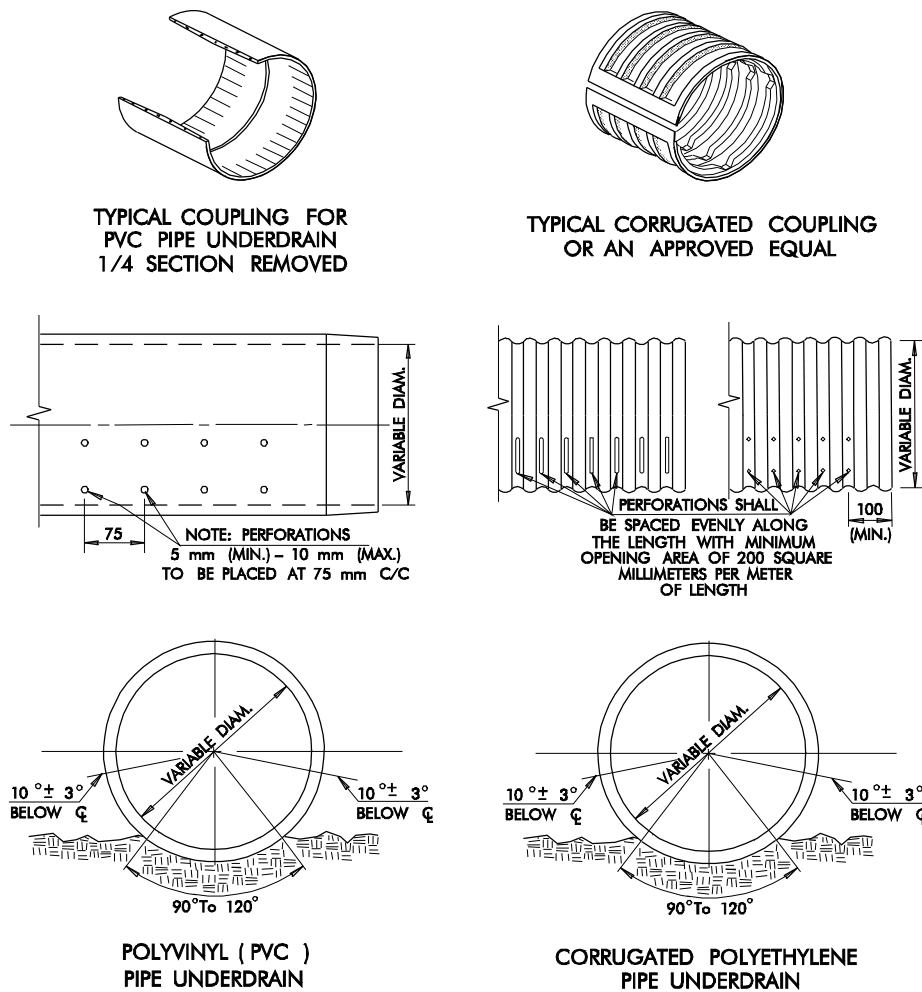


DESCRIPTION	REVISIONS	DATE
RE-ISSUE W/METRIC 1999 SPECS, Update Course Aggr.Mat. Table, Wire Specs.	1	10/7/99



COARSE AGGREGATE COVER MATERIAL GRADATION REQUIREMENTS						
U.S. STANDARD SIEVE SIZE (mm)	12.5	9.5	4.75	2.36	1.18	0.300
PERCENT PASSING	100	90-100	20-55	0-25	0-5	0-2

THE COARSE AGGREGATE COVER MATERIAL SHALL MEET ALL OTHER REQUIREMENTS OF SECTION 703.04.

THE FINE AGGREGATE COVER MATERIAL SHALL MEET ALL THE REQUIREMENTS OF SECTION 703.04.

INSTALLATION TECHNIQUE:

PERFORATED PIPE UNDERDRAIN, WHEN INSTALLED IN A TRENCH, SHALL BE BEDDED ON 100 mm OF COARSE AGGREGATE COVER MATERIAL. THE INSTALLED PIPE SHALL THEN BE CAREFULLY BACKFILLED WITH THE REMAINING COARSE AGGREGATE COVER MATERIAL TO 150 mm ABOVE THE TOP OF THE PIPE. FILTER SAND SHALL BE INSTALLED TO APPROXIMATELY 150 mm BELOW THE ORIGINAL NATURAL GROUND AS APPROVED BY THE ENGINEER.

NON-PERFORATED PIPE UNDERDRAIN, WHEN INSTALLED IN A TRENCH, SHALL BE BEDDED IN A 100 mm LAYER CONSISTING OF COARSE AGGREGATE COVER MATERIAL OR A 50-50 MIX OF COARSE AGGREGATE COVER MATERIAL AND FILTER SAND. BEDDING MATERIAL LAYER SHALL CONFORM TO THE REQUIREMENTS OF SECTION 703.04. COST OF NON-PERFORATED PIPE UNDERDRAIN BEDDING LAYER TO BE INCLUDED WITH PIPE UNDERDRAIN COVER MATERIAL. THE REMAINING BACKFILL MAY BE NATIVE SOIL REMOVED IN THE TRENCHING OPERATION, FILTER SAND OR BACKFILL REQUIRED BY THE ENGINEER, WITH COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

- GENERAL NOTES**
- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 1999 METRIC STANDARD SPECIFICATIONS.
 - THE EXTENT, LOCATION AND DEPTH OF DRAINS MAY BE ADJUSTED BY THE ENGINEER TO SUIT CONDITIONS FOUND DURING CONSTRUCTION.
 - COST OF ALL FITTINGS TO BE INCLUDED IN THE PRICE BID PER LINEAR METER OF PIPE UNDERDRAIN.
 - FOR PIPE UNDERDRAIN OF UP TO 300 mm IN DIAMETER, W = 600 mm WITHOUT SHEETING AND SHORING; W = 900 mm WHEN SHEETING AND SHORING IS USED. SEE ROADWAY STANDARD SPI-3 FOR SHEETING AND SHORING NOTES.
 - FOR PIPE UNDERDRAIN LARGER THAN 300 mm IN DIAMETER, SEE ROADWAY STANDARD DRAWING SPI-3 FOR ADDITIONAL TRENCH EXCAVATION DETAILS.
 - NON-PERFORATED UNDERDRAIN PIPES SHALL BE TREATED AS PIPE CONDUITS. THAT IS, PAY ITEMS SHALL CONSIST OF TRENCH EXCAVATION AND BEDDING MATERIAL.
 - MATERIALS SHOWN HERE ARE TYPICAL ONLY AND ARE NOT THE ONLY CHOICE FOR SUBSURFACE DRAINAGE PURPOSES.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
613.06(P)	■ PERFORATED PIPE UNDERDRAIN-ROUND	METER
613.06(Q)	■ NON-PERFORATED PIPE UNDERDRAIN-ROUND	METER
613.06(R)	PIPE UNDERDRAIN COVER MATERIAL	CUBIC METER
613.06(S)	TRENCH EXCAVATION	CUBIC METER
613.06(T)	STANDARD BEDDING MATERIAL	CUBIC METER
653.06(C)	OUTLET LATERAL HEADWALL	EACH

■ DIMENSION TO BE SPECIFIED IN MILLIMETERS

APPROVED BY ROADWAY ENGINEER		DATE	
OKLAHOMA DEPT. OF TRANSPORTATION ROADWAY STANDARD (METRIC) PIPE UNDERDRAIN INSTALLATION			
1999 SPECIFICATIONS		PUD-2	OOM
ALL DIMENSIONS ON THIS SHEET IN MILLIMETERS UNLESS OTHERWISE NOTED.			R-124M