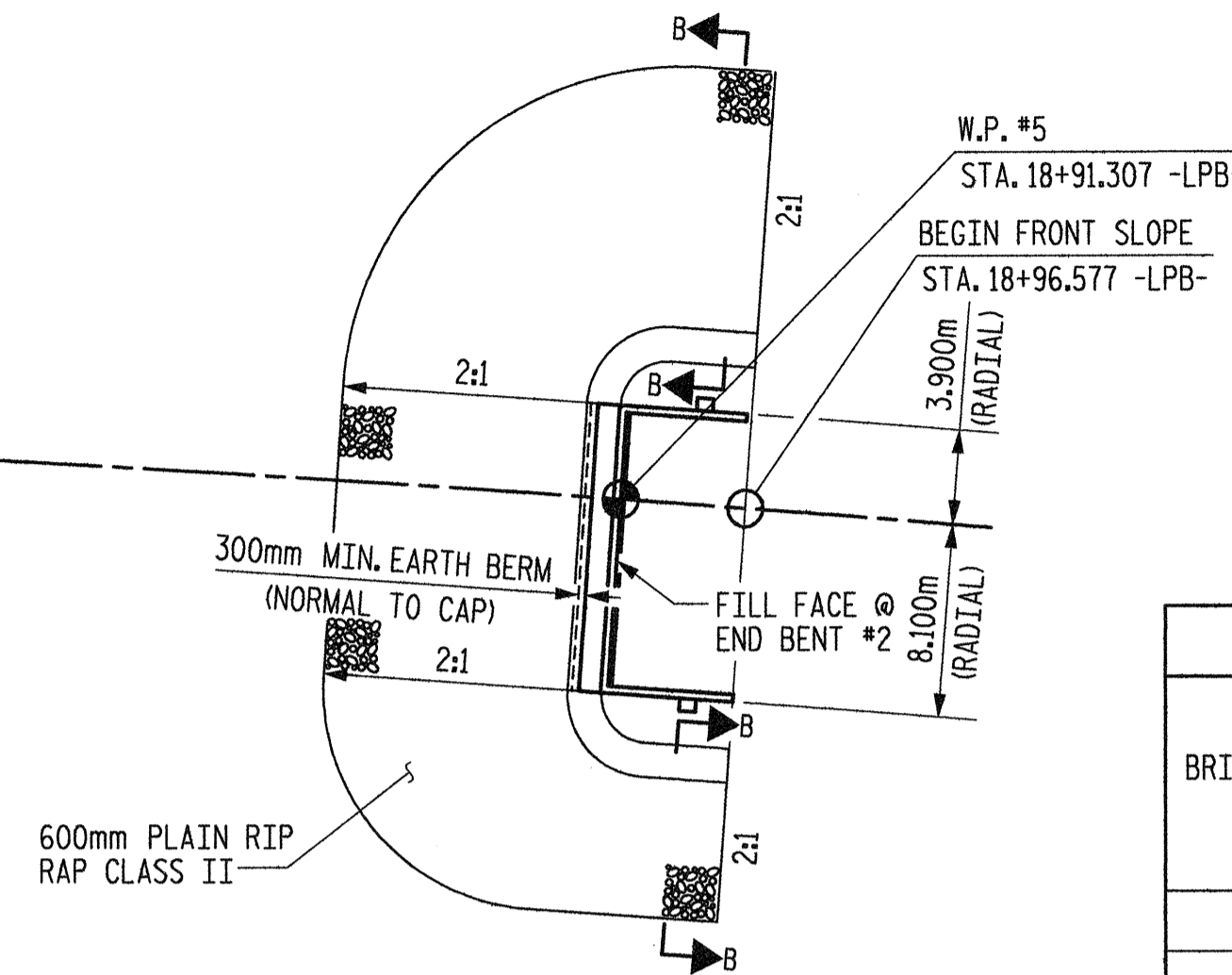


**PLAN AT END BENT #1**  
(ALTERNATE "A" SLOPE PROTECTION)



**PLAN AT END BENT #2**  
(CLASS II RIP RAP)

**GENERAL NOTES**

SLOPE PROTECTION SHALL BE PLACED UNDER THE ENDS OF THE BRIDGE AS SHOWN IN THE DETAILS. THE CONTRACTOR, AT HIS OPTION, MAY USE ALTERNATE "B" ONLY FOR HIGHWAY OVER HIGHWAY GRADE SEPARATIONS WITH 2:1 END BENT SLOPE IN RURAL, UNPOPULATED AREAS. STRAIGHT EDGING WILL NOT BE REQUIRED UNLESS, IN THE OPINION OF THE ENGINEER, VISUAL INSPECTION INDICATES A NEED FOR IT. METHOD OF MEASUREMENT AND BASIS OF PAYMENT SHALL BE AS PRESCRIBED IN SECTION 462 OF THE STANDARD SPECIFICATIONS. FOR BERM WIDTH, SEE GENERAL DRAWING.

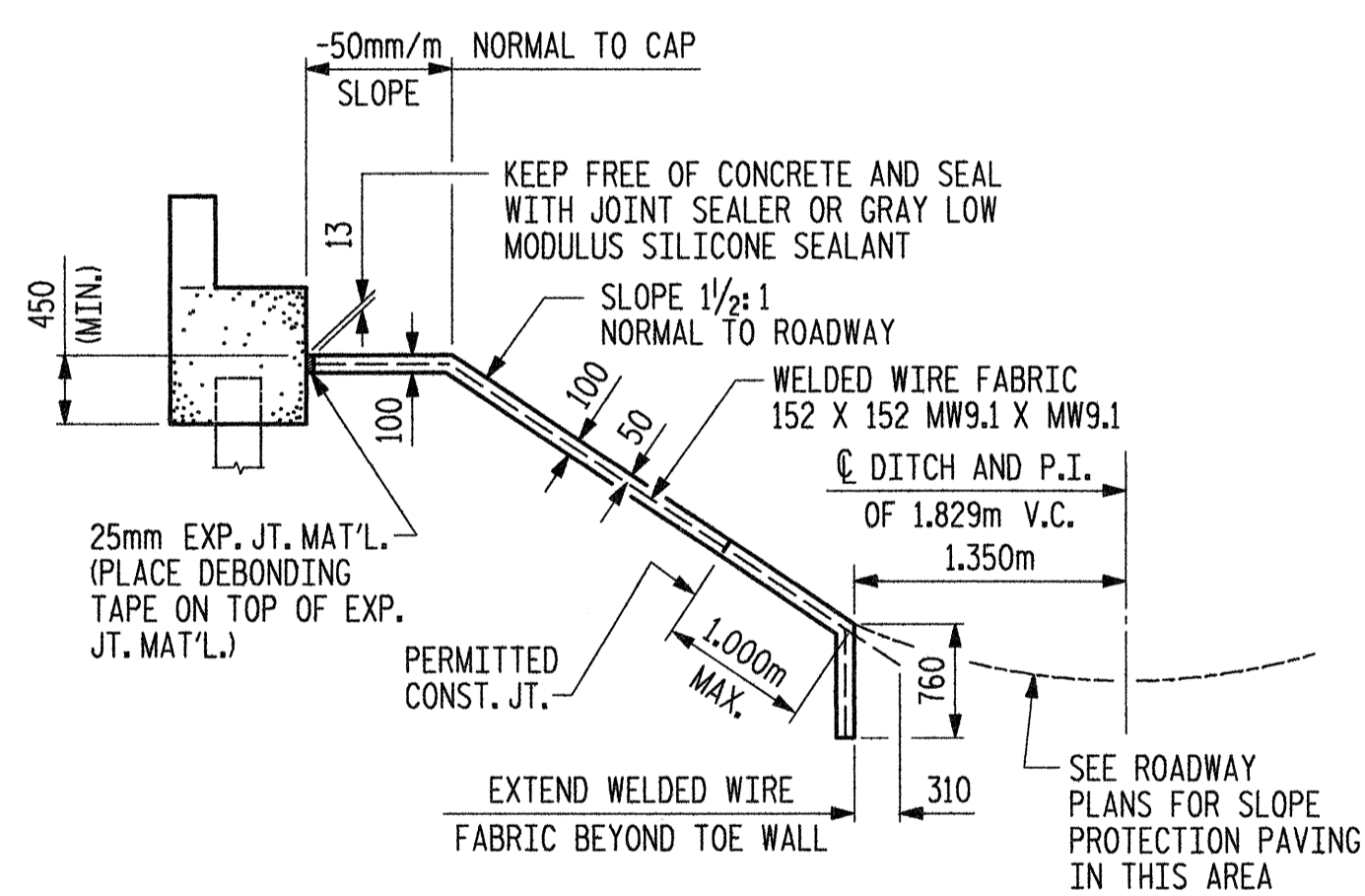
**ALTERNATE "A"**

ALTERNATE "A" SHALL CONSIST OF 100mm POURED-IN-PLACE CONCRETE PAVING AS SHOWN IN THE DETAILS ON THIS SHEET. CONCRETE SHALL BE CLASS "B". THE CONCRETE SURFACE SHALL BE FLOATED WITH A WOODEN FLOAT AND FINISHED. WELDED WIRE FABRIC REINFORCING SHALL BE 152 X 152 - W9.1 X W9.1, 1520mm WIDE. SLOPE PROTECTION SHALL BE POURED IN 1520mm STRIPS AS SHOWN IN THE "POURING DETAIL" WITH 600mm LONG #13 BARS PLACED ALONG THE SLOPE BETWEEN STRIPS AT 450mm MAXIMUM SPACING. SLOPE PROTECTION MAY BE POURED IN ALTERNATE 1220mm AND 1520mm STRIPS AS SHOWN IN THE "OPTIONAL POURING DETAIL" WITH ADJACENT RUNS OF WELDED WIRE FABRIC LAPPING AT LEAST 152mm. THE COST OF THE WELDED WIRE FABRIC AND #13 BARS, IF USED, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER SQUARE METER FOR SLOPE PROTECTION.

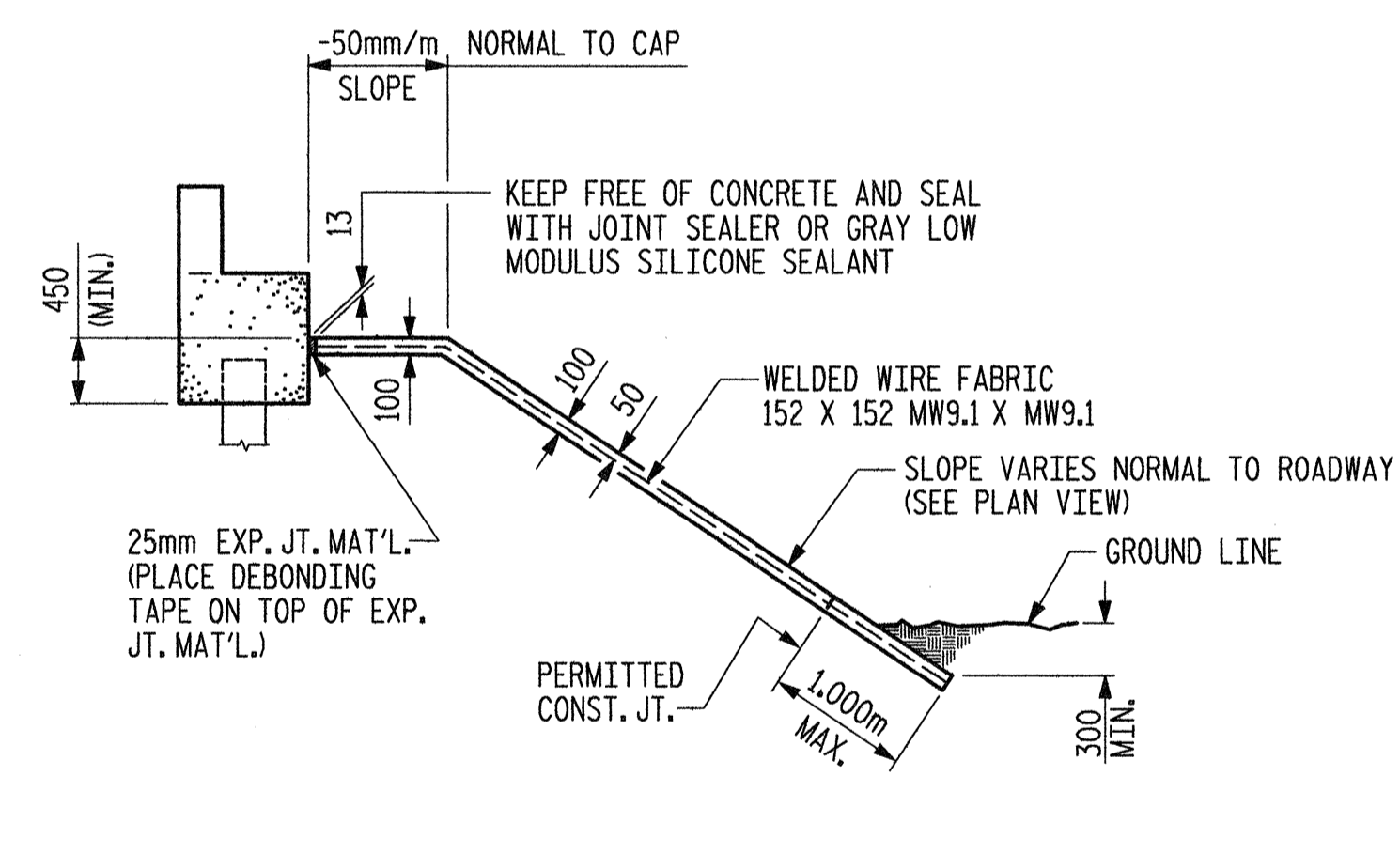
FOR BERM WIDTH DIMENSIONS, SEE GENERAL DRAWING.

BRIDGE @ STA. 27+51.601 -I1Y1-	ESTIMATED QUANTITIES			
	100mm SLOPE PROTECTION SQUARE METERS	* WELDED WIRE FABRIC 1520mm WIDE APPROX. METERS	600mm PLAIN RIP RAP CLASS II METRIC TON	FILTER FABRIC FOR DRAINAGE SQUARE METERS
END BENT #1	230	150	—	—
END BENT #2	—	—	500	520

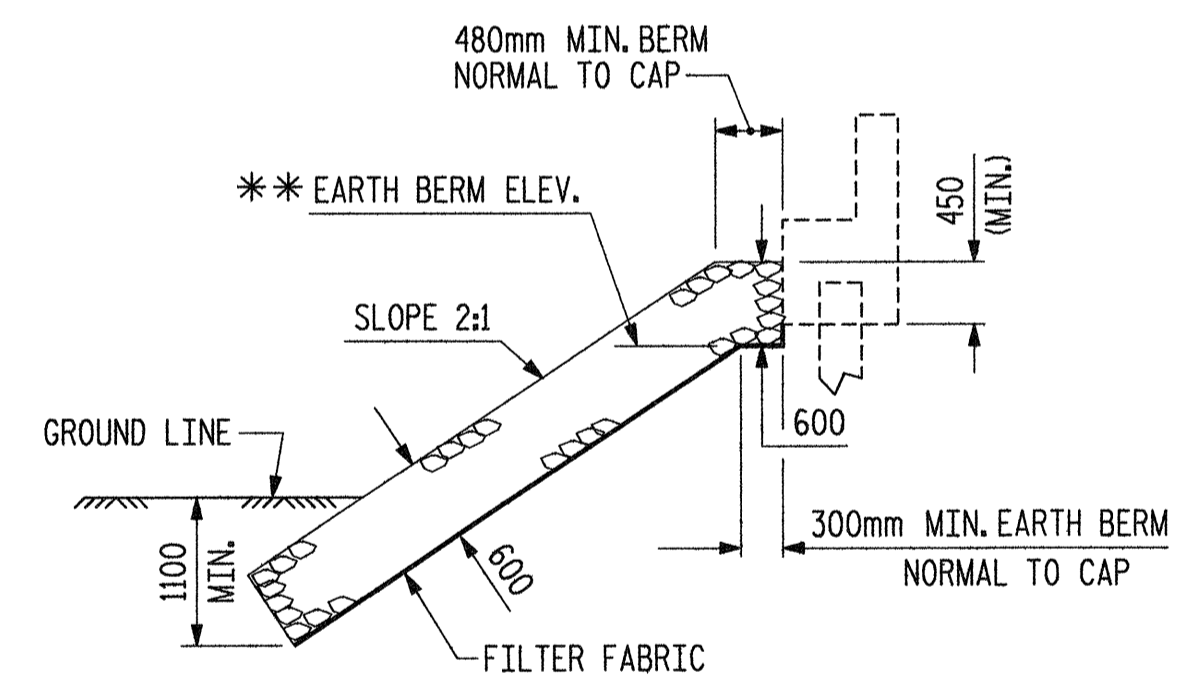
\* QUANTITY SHOWN IS BASED ON 1520mm POURS.



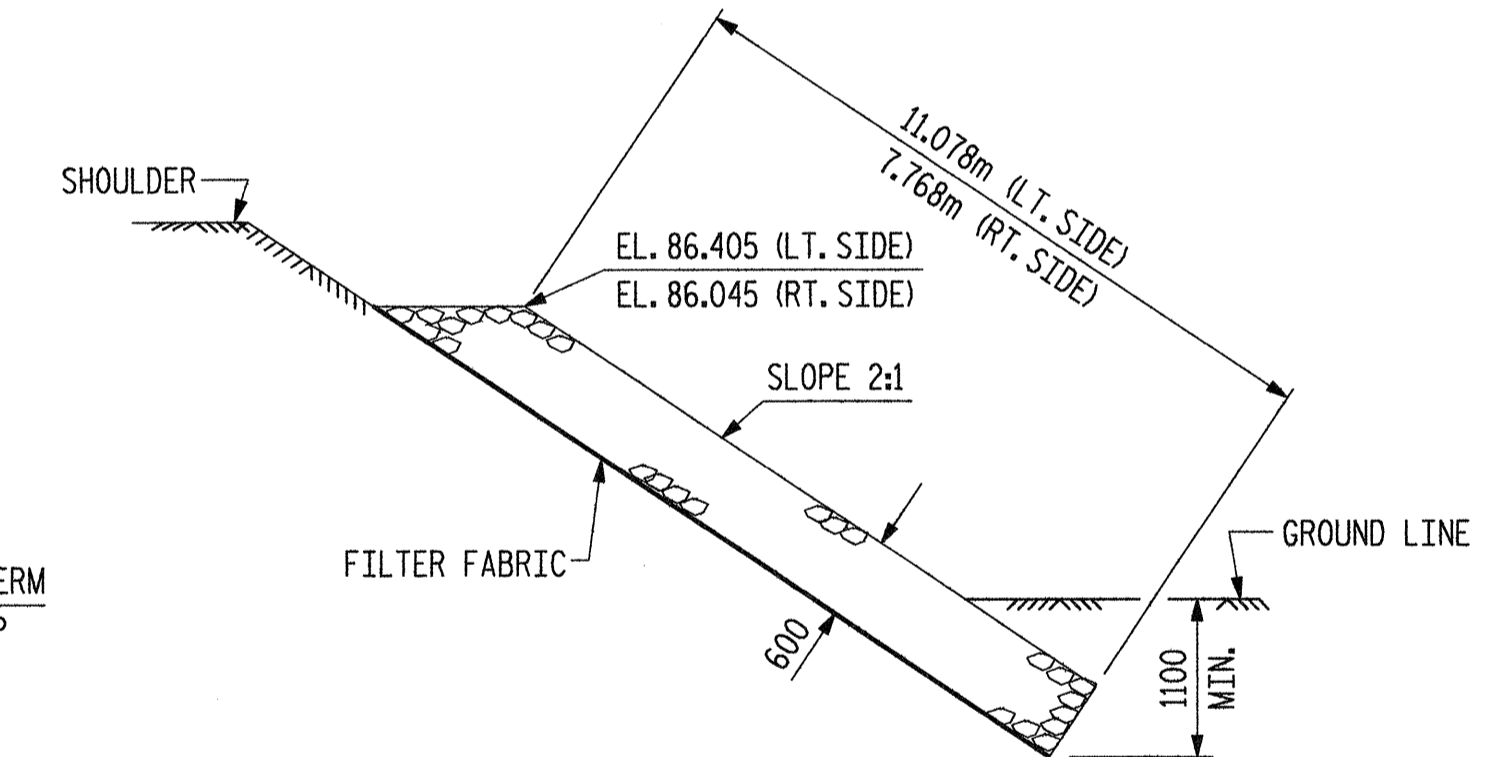
SECTION ALONG  $\text{\textcircled{C}}$  ROADWAY WHEN FILL CATCHES IN DITCH



SECTION ALONG  $\text{\textcircled{C}}$  ROADWAY WHEN DITCH IS NOT PROVIDED

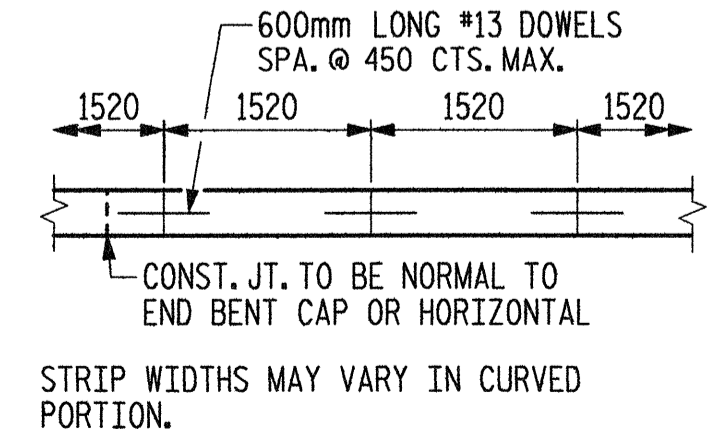


**SECTION BERM RIP RAPPED**  
\*\* FOR BERM ELEVATIONS, SEE GENERAL DRAWING.

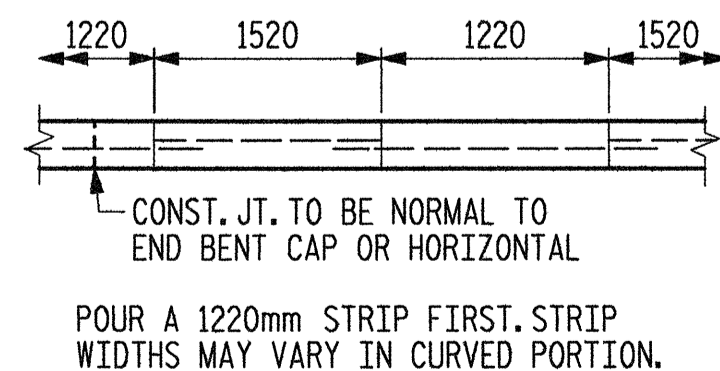


SECTION B-B

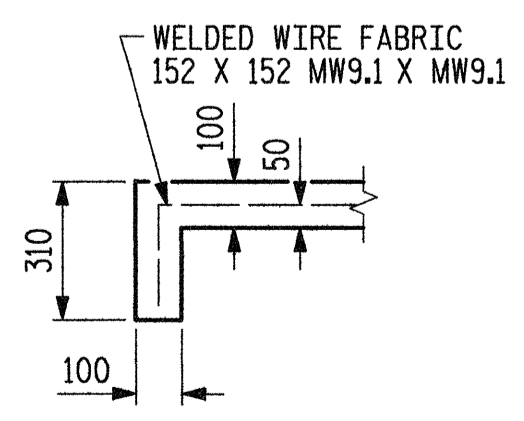
**DETAILS FOR ALTERNATE "A"**



POURING DETAIL

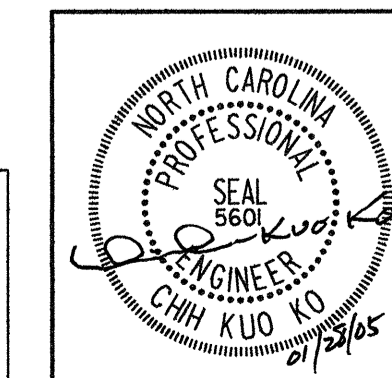
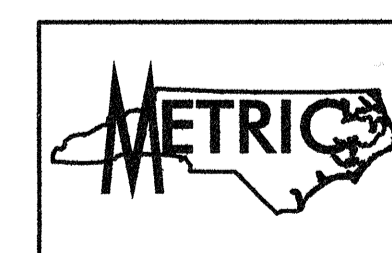


OPTIONAL POURING DETAIL



SECTION A-A

PROJECT NO. R-2552AA  
WAKE-JOHNSTON COUNTY  
STATION: 27+51.601 -I1Y1-



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
**SLOPE PROTECTION AND RIP RAP DETAILS**

Plans prepared by:  
**KO & ASSOCIATES, P.C.**  
Consulting Engineers  
1011 SCHAUB DR. SUITE #202  
RALEIGH, N.C. 27606  
For Division of Highways

REVISIONS						SHEET NO. S-79
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 429
2			4			

DWG. NO. 43