MINNESOTA DEPARTMENT OF TRANSPORTATION

THE COUNTY OF OLMSTED

CONSTRUCTION PLAN FOR AGGREGATE BASE & BITUMINOUS SURFACING

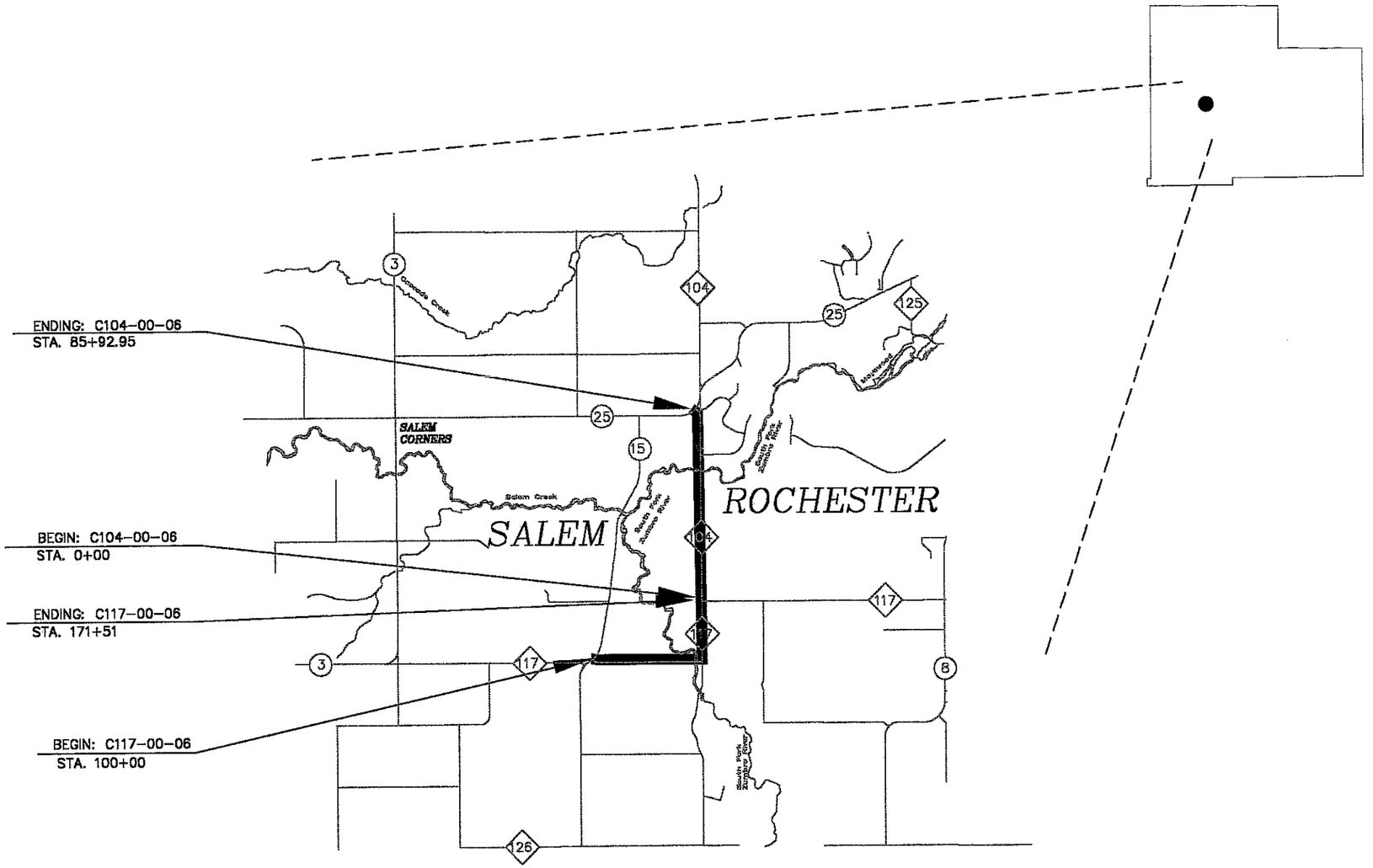
LOCATED ON C.R. 117 BETWEEN C.S.A.H. 15 AND C.R. 104 (GEOGRAPHIC DESCRIPTION)

LOCATED ON C.R. 104 BETWEEN C.R. 117 AND C.S.A.H. 25 (GEOGRAPHIC DESCRIPTION)

FROM APPOX. 2,110' W. OF CENTER SEC. 25 T106N–R15W TO NE COR. SEC. 25 T106N R15W (LEGAL DESCRIPTION)

FROM W. SEC. COR. 19–30 T106N–R14W TO APPROX. 683' N.W. OF W. CENTER SEC. 18 T106N–R104W (LEGAL DESCRIPTION)

(CR 117) C117–00–06				(CR 104) C104–00–06			
GROSS LENGTH	7,151.00	FEET	1.354 MILES	GROSS LENGTH	8,592.95	FEET	1.627 MILES
BRIDGE–LENGTH	227.16	FEET	0.043 MILES	BRIDGE–LENGTH	216.59	FEET	0.041 MILES
EXCEPTIONS–LENGTH	0	FEET	0 MILES	EXCEPTIONS–LENGTH	0	FEET	0 MILES
NET LENGTH	6,923.84	FEET	1.311 MILES	NET LENGTH	8,376.36	FEET	1.586 MILES



MINN. PROJ. NO. .....

GOVERNING SPECIFICATIONS

THE 1988 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION", AS AMENDED BY THE MAY 2, 1994 SUPPLEMENTAL SPECIFICATION SHALL GOVERN.

INDEX

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	ESTIMATE OF QUANTITIES
SHEET NO. 3	TYPICAL SECTIONS
SHEET NO. 4 – 7	TRAFFIC
SHEET NO. 8	SAWING DETAIL
SHEET NO. 9	PAVEMENT MARKING DETAIL

THIS PLAN CONTAINS 9 SHEETS.

DESIGN DESIGNATION (CR 104)

R = ΣN18(20)
ADT (Current Year) = 377(2000) Design Speed 55 MPH
ADT (Future Year) = 603(2020) Based on STOPPING Sight Distance
DHV (Design Hr. Vol.) = Height of eye 3.5' Height of object 0.5'
D (Directional Distr.) = Design Speed not achieved at:
T (Heavy Commercial) = EST. 4% STA. 82+22.41 TO STA. 85+08.77 MPH <30*
SUBGRADE = K=150 STA. TO STA. MPH
SHOULDER WIDTH = 4'
9 TON DESIGN *STOP CONDITION
SOIL FACTOR = 130%

DESIGN DESIGNATION (CR 117)

R = ΣN18(20)
ADT (Current Year) = 79(2000) Design Speed 55 MPH
ADT (Future Year) = 126(2020) Based on STOPPING Sight Distance
DHV (Design Hr. Vol.) = Height of eye 3.5' Height of object 0.5'
D (Directional Distr.) = Design Speed not achieved at:
T (Heavy Commercial) = EST. 4% STA. 100+81.43 TO STA. 102+81.40 MPH 30*
SUBGRADE = K=150 STA. 142+34.76 TO STA. 150+40.57 MPH 40
SHOULDER WIDTH = 4'
9 TON DESIGN *STOP CONDITION
SOIL FACTOR = 130%

DRAWN BY: *S. HOLMES*

LOCAL AGENCY SIGNATURES:

DESIGN ENGINEER: I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE 6/5/00 REGISTRATION NUMBER 19917

Kaye M Brenicke

APPROVED: COUNTY DESIGN ENGINEER

DATE 6/6/00 REGISTRATION NUMBER 10397

Michael Sheehan

APPROVED: COUNTY ENGINEER

~~S.A.P. NO.~~ C104–00–06
~~S.A.P. NO.~~ C117–00–06 SHEET NO. 1 OF 9 SHEETS

STATEMENT OF ESTIMATED QUANTITIES

	ITEM NO.	ITEM	UNIT	QUANTITIES				
				CR 117		CR 104		TOTAL
	2211.501	AGGREGATE BASE CLASS 5	TON	5901		3897		9798
	2211.501	AGGREGATE BASE CLASS 5 MODIFIED	TON	1708		7245		8953
①	2211.601	AGGREGATE BASE TYPE SPECIAL	TON	3415				3415
②	2221.501	AGGREGATE SHOULDERING CLASS 2	TON	3174		3594		6768
	2331.603	SAWED/SEALED JOINT	LIN FT	2496		5160		7656
	2331.603	SEASONAL SAW CUT	LIN FT	600				600
③	2350.609	TYPE MV4 WEARING COURSE MIXTURE	TON	1845		2163		4008
	2350.609	TYPE MV4 NON WEARING COURSE MIXTURE	TON	4696		5529		10225
	2502.521	4" TP PIPE DRAIN	LIN FT	288		384		672
	2502.541	4" PERF PE PIPE DRAIN	LIN FT	13814		16350		30164
	2502.601	PRECAST CONCRETE HEADWALL	EACH	24		32		56
	2563.601	TRAFFIC CONTROL	LUMP SUM	.45		.55		1
	2564.603	4" SOLID LINE WHITE-EPOXY	LIN FT	14048		16752		30800
	2564.603	4" BROKEN LINE YELLOW-EPOXY	LIN FT	1030		1460		2490
	2564.603	4" SOLID LINE YELLOW-EPOXY	LIN FT	800		800		1600
	2564.603	4" DOUBLE SOLID LINE YELLOW-EPOXY	LIN FT	1800		1280		3080
	2580.502	TEMPORARY LANE MARKING	LIN FT	1662		2010		3672

① SEE SPECIAL PROVISIONS FOR GRADATION.

② C.R. 117 INCLUDES 590 TONS FOR 8 RESIDENTIAL, 10 FIELD ENTRANCES AND 1 ROAD APPROACH.
C.R. 104 INCLUDES 662 TONS FOR 8 RESIDENTIAL, 10 FIELD ENTRANCES, AND 2 ROAD APPROACHES.

③ C.R. 117 INCLUDES 279 TONS FOR 8 RESIDENTIAL, 10 FIELD ENTRANCES AND 1 ROAD APPROACH.
C.R. 104 INCLUDES 320 TONS FOR 8 RESIDENTIAL, 10 FIELD ENTRANCES, AND 2 ROAD APPROACHES.

STANDARD PLATES

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT.

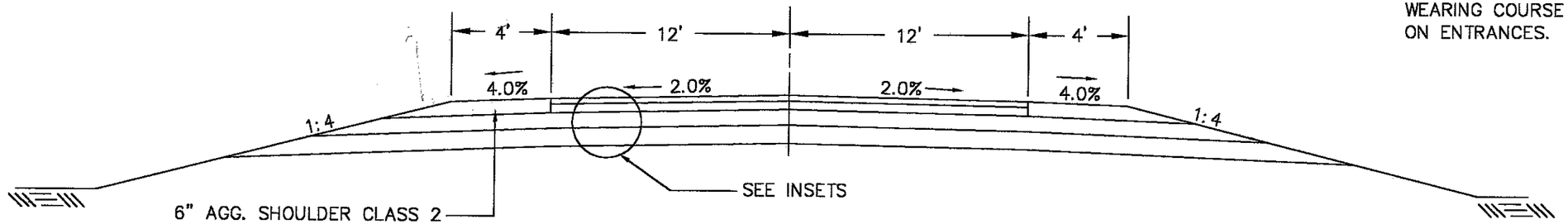
PLATE NO.	DESCRIPTION
8000I	STANDARD BARRICADES
9000C	APPROACHES AND ENTRANCES

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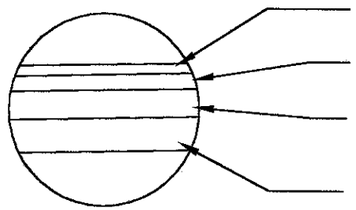
ESTIMATED QUANTITIES

TYPICAL SECTION

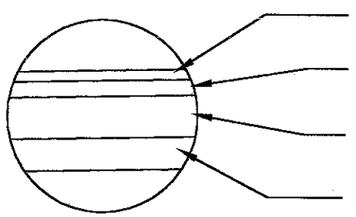
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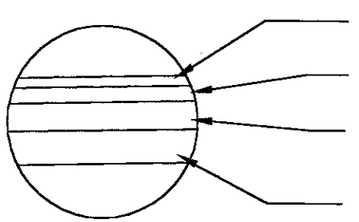
NOTE: PLACE 3" OF BITUMINOUS WEARING COURSE (MVWE45035B) ON ENTRANCES.



C.R. 117 STA. 100+00 TO STA. 144+37.09 (West End of Bridge)
C.R. 104 STA. 56+63.30 TO STA. 85+92.95

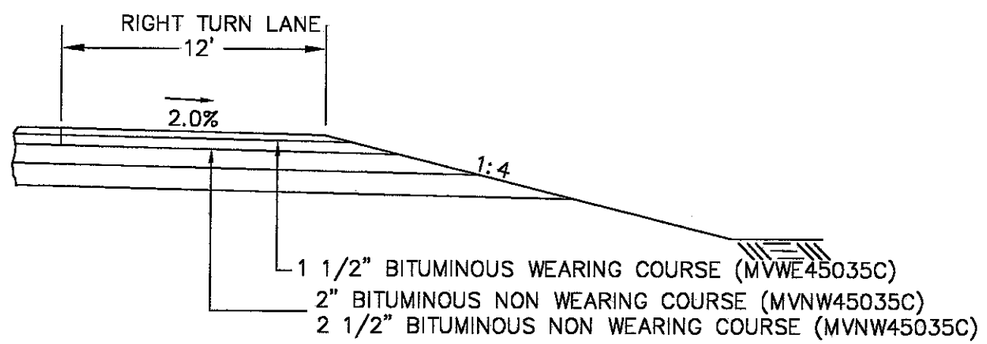


(East End of Bridge)
C.R. 117 STA. 146+64.25 TO STA. 171+51



C.R. 104 STA. 0+00 TO STA. 54+46.71

RIGHT TURN LANE



C.R. 117 STA. 167+71 TO STA 171+51

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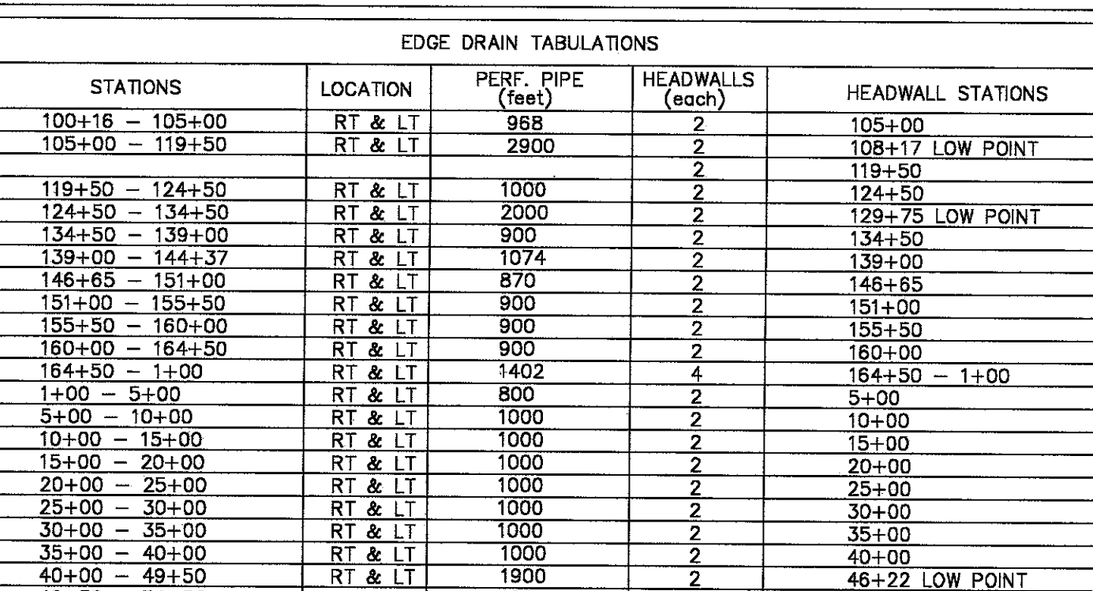
TYPICAL SECTION

C104-00-06/C117-00-06 SHEET 3 OF 9 SHEETS

EDGE DRAIN TABULATIONS

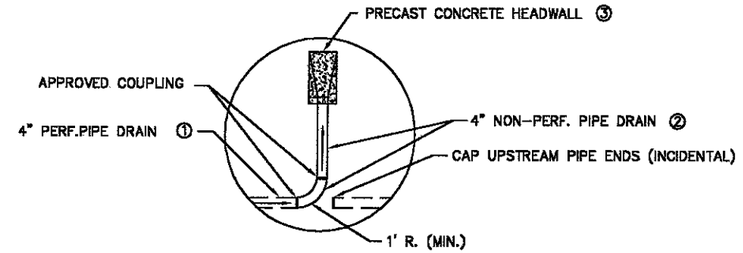
STATIONS	LOCATION	PERF. PIPE (feet)	HEADWALLS (each)	HEADWALL STATIONS
100+16 – 105+00	RT & LT	968	2	105+00
105+00 – 119+50	RT & LT	2900	2	108+17 LOW POINT
			2	119+50
119+50 – 124+50	RT & LT	1000	2	124+50
124+50 – 134+50	RT & LT	2000	2	129+75 LOW POINT
134+50 – 139+00	RT & LT	900	2	134+50
139+00 – 144+37	RT & LT	1074	2	139+00
146+65 – 151+00	RT & LT	870	2	146+65
151+00 – 155+50	RT & LT	900	2	151+00
155+50 – 160+00	RT & LT	900	2	155+50
160+00 – 164+50	RT & LT	900	2	160+00
164+50 – 1+00	RT & LT	1402	4	164+50 – 1+00
1+00 – 5+00	RT & LT	800	2	5+00
5+00 – 10+00	RT & LT	1000	2	10+00
10+00 – 15+00	RT & LT	1000	2	15+00
15+00 – 20+00	RT & LT	1000	2	20+00
20+00 – 25+00	RT & LT	1000	2	25+00
25+00 – 30+00	RT & LT	1000	2	30+00
30+00 – 35+00	RT & LT	1000	2	35+00
35+00 – 40+00	RT & LT	1000	2	40+00
40+00 – 49+50	RT & LT	1900	2	46+22 LOW POINT
49+50 – 54+50	RT & LT	1000	2	49+50
56+65 – 64+00	RT & LT	1470	2	59+06 LOW POINT
64+00 – 69+00	RT & LT	1000	2	64+00
69+00 – 74+50	RT & LT	1100	2	69+00
74+50 – 84+90	RT & LT	2080	4	74+50 – 84+90
	TOTAL	30,164	56	

PLAN VIEW



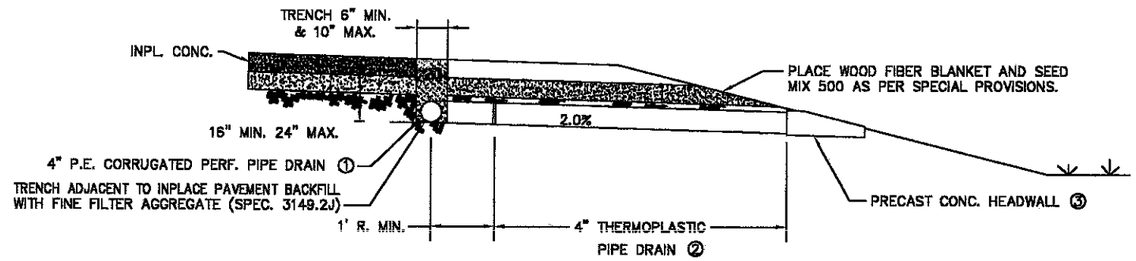
LEGEND

- 4" PERFORATED PIPE DRAIN
- 4" NON–PERFORATED PIPE DRAIN
- PRECAST CONCRETE HEADWALL



DETAIL "A"

X–SECTION VIEW



CONSTRUCTION NOTES

① PAYMENT FOR 4" PERFORATED PIPE DRAIN SHALL BE FULL COMPENSATION FOR TRENCHING, FABRIC WRAPPED P.E. PIPE, INSTALLATION, FILTER AGGREGATE BACKFILL AND COMPACTION, BITUMINOUS OR AGGREGATE CAP, AND ALL OTHER ASSOCIATED WORK.

② PAYMENT FOR 4" NON–PERFORATED PIPE DRAIN SHALL BE FULL COMPENSATION FOR TRENCHING, FURNISHING AND PLACING PIPE AND CONNECTIONS, BACKFILL AND COMPACTION, AND ALL OTHER ASSOCIATED WORK.

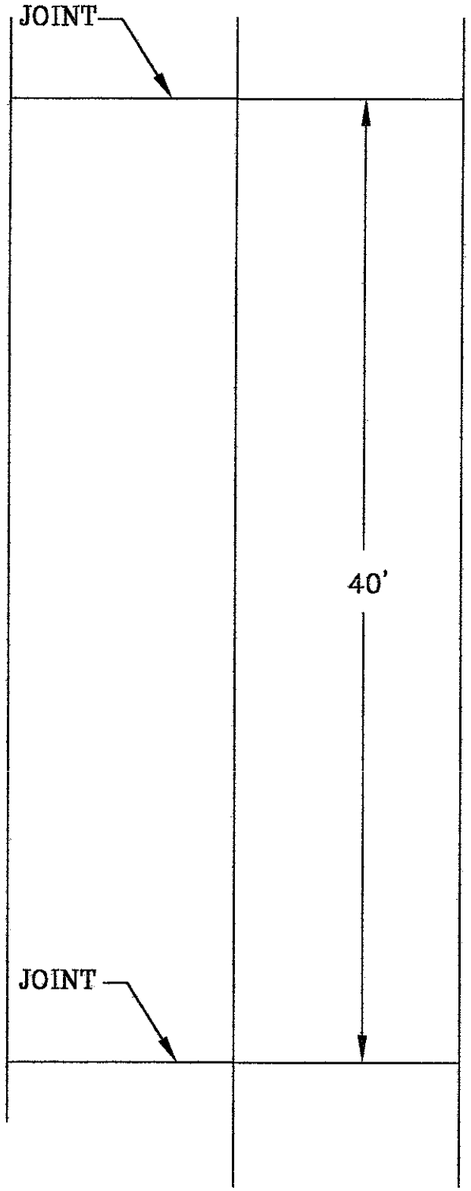
③ PAYMENT FOR PRECAST CONCRETE HEADWALLS SHALL BE FULL COMPENSATION FOR PLACING HEADWALL, WOOD FIBER BLANKET AND SEED, AND ALL OTHER ASSOCIATED WORK.

④ IF AN OUTLET HAPPENS TO FALL WITHIN A CROSS–OVER OR DITCH–BLOCK INCREASE THE LENGTH OF THE PERFORATED PIPE TO A POINT WHERE AN OUTLET CAN BE SATISFACTORLY CONSTRUCTED AS DIRECTED BY THE ENGINEER.

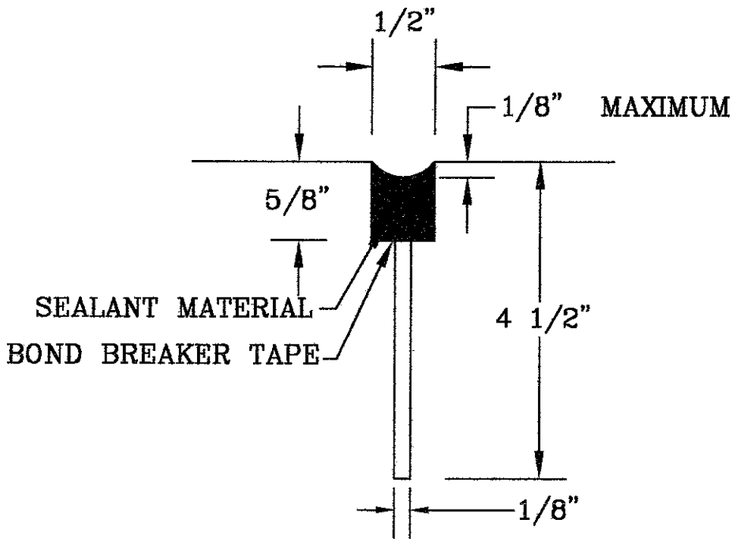
⑤ EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH MN/DOT SPEC. 2104.303.

⑥ NO EDGEDRAINS WILL BE PLACED ON ELEVATED SUPER SIDE AS DIRECTED BY ENGINEER.

TYPICAL SAW CUT



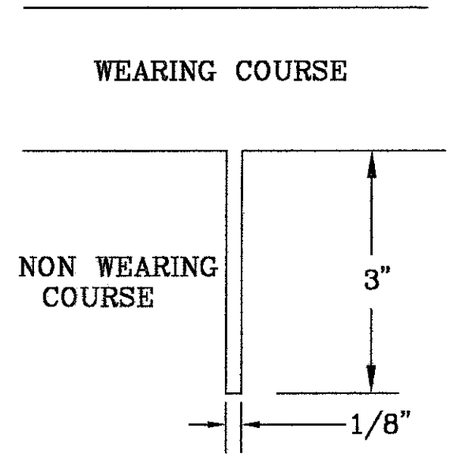
TYPICAL JOINT SECTION



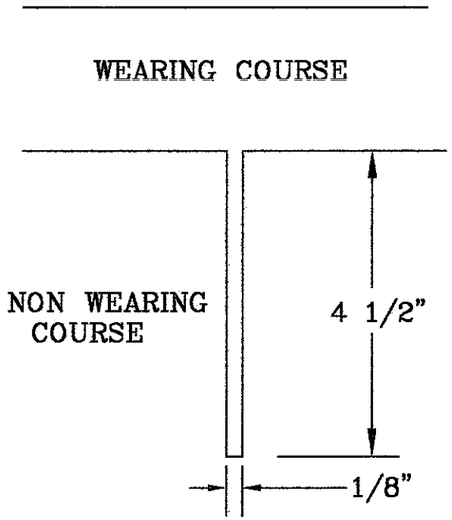
CR 117 STA. 100+00 TO STA. 125+00
STA. 155+00 TO STA. 171+51

CR 104 STA. 0+00 TO STA. 85+80

SEASONAL SAW CUT



CR 117 STA. 130+00 TO STA. 135+00



CR 117 STA. 125+00 TO STA. 130+00

SAW/SEAL JOINT DETAIL

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