

OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

FHWA REGION	STATE	FEDERAL PROJECT	
5	OHIO		



PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINI		NET LENGTH MILES	TOWNSHIP	CITY	VILLAGE
				BEGIN	END				
1	FRA	SR315	(12.63 - 12.74)	12.63	12.78	0.15		COLUMBUS	
2	FRA	SR315	(12.78 - 13.09)	12.78	13.81	1.03			
3	DEL	SR315	(0.00 - 1.42)(1.95)	0.00	8.68	8.46			
4	DEL	SR315	(1.73 - 1.78)	1.73	1.95	0.22			POWELL
5	DEL	SR750	(0.00)(3.11)(3.42)	0.00	3.98	2.43			
6	DEL	SR750	(1.67 - 2.85)(3.31)	1.67	3.42	1.55			POWELL

1987 SPECIFICATIONS

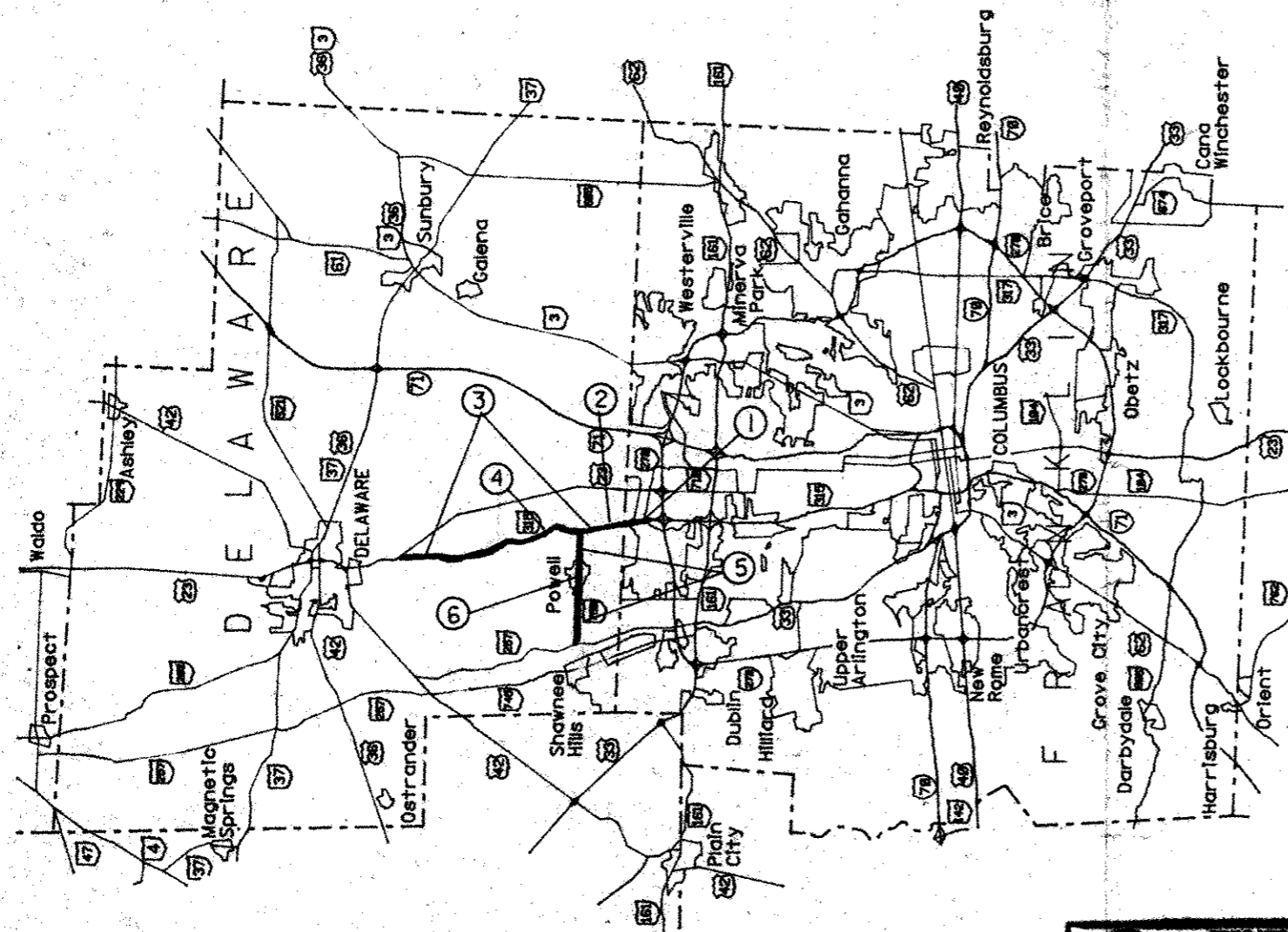
THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

[Signature]
COLUMBUS CITY ENGINEER 2-29-88
DATE

[Signature]
COLUMBUS TRAFFIC ENGINEER 3-7-88
DATE

LOCATION MAP



— PORTIONS TO BE IMPROVED



Approved Date 1-26-88 *[Signature]*
District Deputy Director of Transportation

Approved Date _____
Engineer, Bureau of Bridges and Structural Design

Approved Date _____
Deputy Director, Operations

Approved Date _____
Assistant Director, Department of Transportation

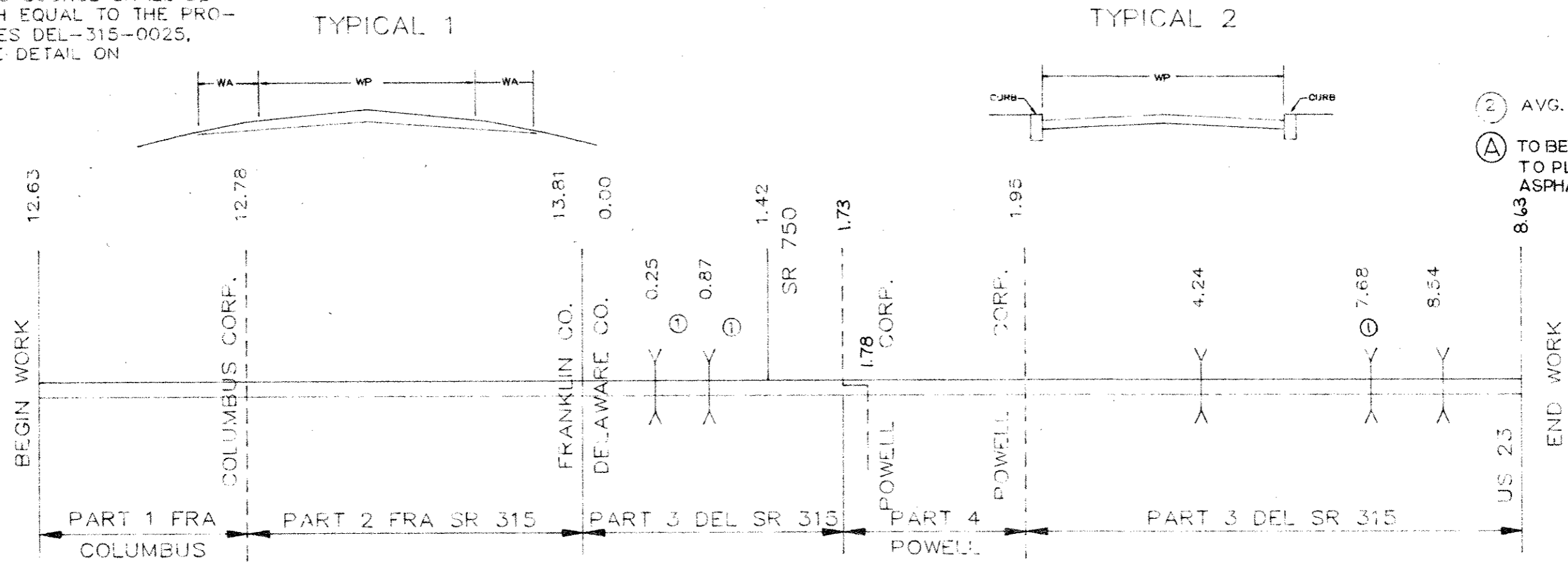
Approved Date _____
Director, Department of Transportation

SUPPLEMENTAL SPECIFICATIONS		STANDARD CONSTRUCTION DRAWINGS			
847	10-17-83	BP-5	1-11-85		
947	10-17-83	MT-99.10	11-14-86		
		MT-99.20	11-14-86		
		TC-35.10	8-29-84		
		MC-4	7-26-76		
		GR-1	(1-11-85)		
		GR-2B	(2-5-82)		
		GR-4	(2-5-82)		

ASPHALT CONCRETE

PLAN NO.

① 202 WEARING COURSE REMOVED
THE EXISTING WEARING COURSE SHALL BE REMOVED TO A DEPTH EQUAL TO THE PROPOSED ON STRUCTURES DEL-315-0025, 0087, AND 0768. SEE DETAIL ON SHEET # 8



② AVG. WIDTH
Ⓐ TO BE APPLIED PRIOR TO PLACEMENT OF 404 ASPHALT.

PAVEMENT DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		WP FEET	TYPICAL	EXISTING TYPE PAVEMENT	PAVEMENT AREA SQ. YDS.	PROPOSED PAVEMENT				CATCH BASINS ADJUSTED TO GRADE EACH	RAISED MONUMENT PAVEMENT BOXES REMOVED FOR STORAGE EACH	MONUMENT BOXES ADJUSTED TO GRADE EACH	WEARING COURSE REMOVED SQ. YD.
			MILES	LIN. FT.					407		ASPHALT CONCRETE					
									Ⓐ TACK COAT 0.08 gal./s.y. GALS.	COVER AGGR. lbs./s.y. TONS	ITEM 404 THICK INCHES MIN. CU.YDS.	ITEM THICK INCHES AVE. CU.YDS.				
1	SR 315	12.63 - 12.74	0.11	581	26	1	404	4067	325	1.5	169					
	FRA	12.74 - 12.78	0.04	211	26	1		610	49	1.5	25					
		EXTRA AREAS FROM PAGE #4						400	32	1.5	17					
1		TOTALS PART 1	0.15	792			404	5077	406		211			20	1	
2	SR 315	12.78 - 13.09	0.31	1637	26	1	404	4729	378	1.5	197					
	FRA	13.09 - 13.81	0.72	3802	20	1		8449	676	1.5	352					
		EXTRA AREAS FROM PAGE #4						2848	228	1.5	119					
2		TOTALS PART 2	1.03	5439			404	16024	1282		668		1	136		
3	SR 315	0.00 - 1.73	1.73	9134	20	1	404	20298	1624	1.5	846					122
	DEL	1.95 - 8.68	6.73	35534	20	1		78964	6317	1.5	3290					64
		EXTRA AREAS FROM PAGE #4						3015	241	1.5	126					
3		TOTALS PART 3	8.46	44668			404	102277	8182		4262			1031		186

ASPHALT CONCRETE

PLAN NO.

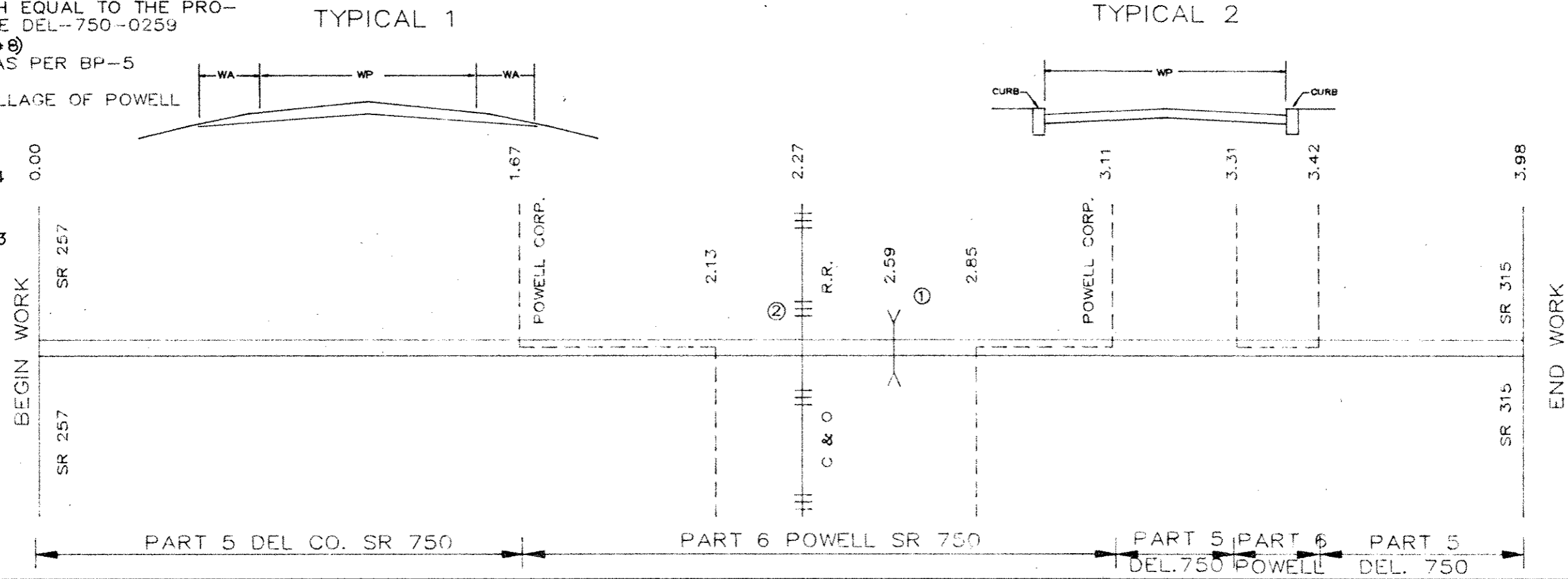
① 202 WEARING COURSE REMOVED
THE EXISTING WEARING COURSE SHALL BE REMOVED TO A DEPTH EQUAL TO THE PROPOSED ON STRUCTURE DEL-750-0259
(SEE DETAIL ON SHT#8)

② FEATHER TO R.R. AS PER BP-5

* SPLIT CORP 1/2 VILLAGE OF POWELL
1/2 RURAL

Ⓐ TO BE APPLIED PRIOR TO PLACEMENT OF 404 ASPHALT.

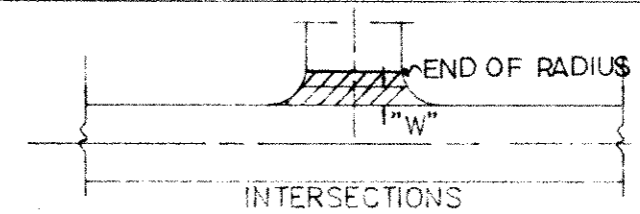
Ⓑ TO BE APPLIED PRIOR TO PLACEMENT OF 403 ASPHALT.



PAVEMENT DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		WP FEET	TYPICAL	EXISTING TYPE PAVEMENT	PAVEMENT AREA SQ. YDS.	PROPOSED PAVEMENT						202 RAISED PAVEMENT MARKERS REMOVED FOR STORAGE EACH	202 WEARING COURSE REMOVED ① SQ. YD.		
			MILES	LIN. FT.					407		ASPHALT CONCRETE		THICK INCHES	CU. YDS.			THICK INCHES	CU. YDS.
									TACK GOAT 0.08 gal./s.y. GALS.	TACK COAT 0.05 gal/sy. GALS.	ITEM 404	ITEM 403						
4	SR 315	1.73 - 1.78*	0.05	* 264	10/10	1	404	587	Ⓐ 47	Ⓐ 91	1	517	1	517				
DEL		1.78 - 1.95	0.17	898	20	1		1996	Ⓐ 160	Ⓐ 160	1	83						
	EXTRA	AREAS FROM PAGE #4						210	Ⓐ 17	Ⓐ 17	1	9						
4		TOTALS PART 4		0.22	1162		404	2793	224			116			26			
5	SR 750	0.00 - 1.67	1.67	8818	19	1	404	18616	Ⓑ 1489	Ⓐ 931	1	517	1	517				
DEL		3.11 - 3.31	0.20	1056	19	1		2229	Ⓑ 178	Ⓐ 111	1	62	1	62				
		3.42 - 3.98	0.56	2957	19	1		6243	Ⓑ 499	Ⓐ 312	1	173	1	173				
	EXTRA	AREAS FROM PAGE #4						2007	Ⓑ 161	Ⓐ 100	1	56	1	56				
5		TOTALS PART 5		2.43	12831			29095	2327	1454		808		808				
6	SR 750	1.67 - 2.13*	0.46	*2429	9.5/9.5	1	404	5128	Ⓑ 410	Ⓐ 256	1	142	1	142				
DEL		2.13 - 2.85	0.72	3802	19	1		8026	Ⓑ 642	Ⓐ 401	1	223	1	223		59		
		2.85 - 3.11*	0.26	*1373	9.5/9.5	1		2899	Ⓑ 232	Ⓐ 145	1	81	1	81				
		3.31 - 3.42*	0.11	*581	9.5/9.5	1		1227	Ⓑ 98	Ⓐ 61	1	34	1	34				
	EXTRA	AREAS FROM PAGE #4						4435	Ⓑ 355	Ⓐ 222	1	123	1	123				
6		TOTALS PART 6		1.55	8185			21715	1737	1085		603		603		59		

EXTRA AREA AND DEDUCTIONS



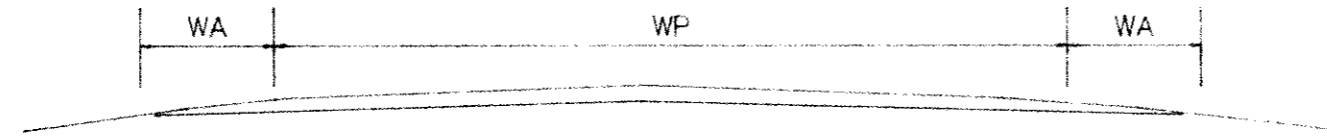
PLAN NO.

4
19

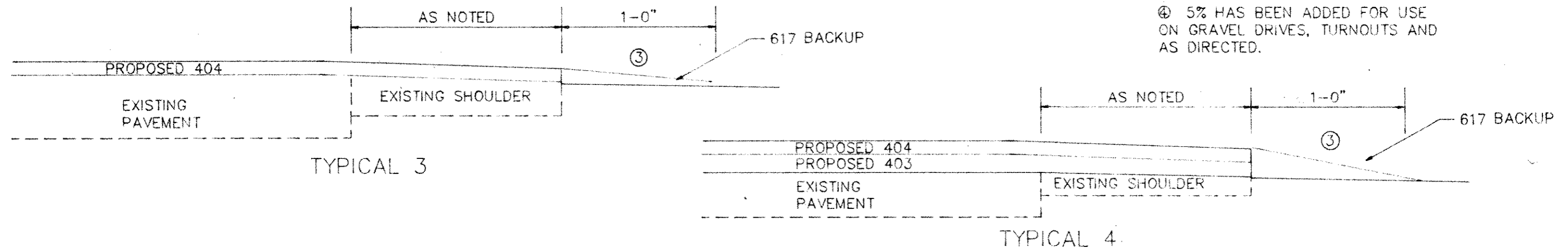
P A R T	ROUTE	LOG POINT TO LOG POINT	SIDE	DESCRIPTION	LENGTH			AREA IN SQ. YDS.	PROPOSED ITEMS									
					MILES	LIN. FT.	WIDTH "W" IN FEET		407		ASPHALT CONCRETE		THICK INCHES	THICK INCHES				
									TACK COAT @..... gal./s.y. GALS.	COVER AGGR. @..... lbs./s.y. TONS	CU. YDS.							
									ITEM	ITEM								
1	SR315	12.63 - 12.78		INTER'T & COMM. DRIVES				400										
1		TOTAL TO PAGE #2						400										
2	SR315	12.78 - 13.81		INTERSECTIONS DRIVES				1900 160										
		12.82	L	EXTRA WIDTH	0.12	634	8	564										
		12.94	R	EXTRA WIDTH	0.06	317	6	211										
		13.06		EXTRA WIDTH FOR STRUC'T			10	11										
2		TOTAL TO PAGE #2						2846										
3	SR315			INTERSECTIONS DRIVES				2600 320										
		00.25		EXTRA WIDTH FOR STRUC'T			13	16										
		00.87		EXTRA WIDTH FOR STRUC'T			23	26										
		04.24		EXTRA WIDTH FOR STRUC'T			12	27										
		07.68		EXTRA WIDTH FOR STRUC'T			17	26										
3		TOTAL TO PAGE #2						3015										
4	SR315	1.73 - 1.95 [POWELL]		INTERSECTIONS DRIVES				200 10										
4		TOTAL TO PAGE #3						210										
5	SR750			INTERSECTIONS DRIVES				1000 150										
		0.00 - 0.04		EXTRA AREA	0.04	211	27	633										
		0.00 - 0.04		EXTRA AREA	0.02	106	19	224										
5		TOTAL TO PAGE #3						2007										
6	SR750	[POWELL]		INTERSECTIONS DRIVES				2100 160										
		2.27		DEDUCT FOR R.R.		-50	20	-111										
		2.38	L	EXTRA WIDTH	0.06	317	10	352										
		2.40	R	EXTRA WIDTH	0.09	475	10	528										
		2.66	R&L	EXTRA WIDTH	0.08	422	24	1125										
		3.04	L	EXTRA WIDTH	0.04	211	12	281										
6		TOTAL TO PAGE #3						4435										

SHOULDER TREATMENT

TYPICAL 1



③ AN AVERAGE OF 2" DEPTH WAS USED FOR CALCULATIONS AND NO DEDUCTION WAS MADE FOR INTERSECTIONS, OR STRUCTURES TO ALLOW FOR LOW BERMS AND FOR EXTRA MATERIAL TO BE USED AS DIRECTED.



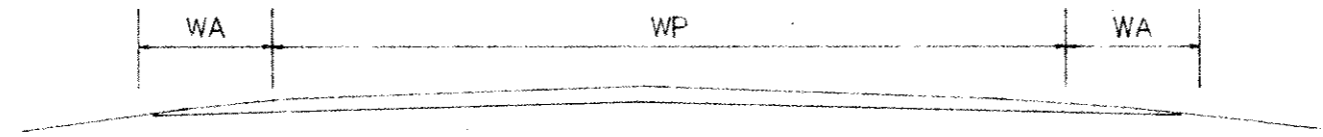
④ 5% HAS BEEN ADDED FOR USE ON GRAVEL DRIVES, TURNOUTS AND AS DIRECTED.

SHOULDER DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		TYPICAL	EXISTING TYPE -- WIDTH (ft.)								AREA SQ. YDS.	407 TACK		ASPHALT CONCRETE				409		617	
						MILES	LIN. FT.	A		B		C			D		Bit. Matl. @ .08 gal./s.y. Gals.	Cover Aggr. @ lbs./s.y. Tons	404		Thick		Bit. Matl. @ gal./s.y. Gals.	c.y./s.y. Cu. Yds.
			Type	Width				Type	Width	Type	Width	Type	Width		Thick	Cu. Yds.			Inches	Cu. Yds.	Sq. Yds.	Cu. Yds.		
			Type	Width		Type	Width	Type	Width	Type	Width	Type	Width		Inches	Cu. Yds.	Inches	Cu. Yds.	Sq. Yds.	Cu. Yds.				
1	FRA SR315	12.63-12.78	0.15	792	1&3	404	2	404	2				352	28		1.5	15					176	10	
2	FRA SR315	12.78-13.81	1.03	5438	1&3	404	2	404	2				2417	193		1.5	101					1208	67	
3	DEL SR315	0.00-1.42	1.42	7498	1&3	404	2	404	2				3332	267		1.5	139					1666	④ 97	
		1.42-1.73	0.31	1637	1	617	2	617	2													728	④ 42	
		1.95-8.68	6.73	35534	1&3	404	2	404	2														7896	④ 461
3	TOTAL PART 3		8.46	44669										1530			797							600
PART TOTALS CARRIED TO GENERAL SUMMARY																								

SHOULDER TREATMENT

TYPICAL 1



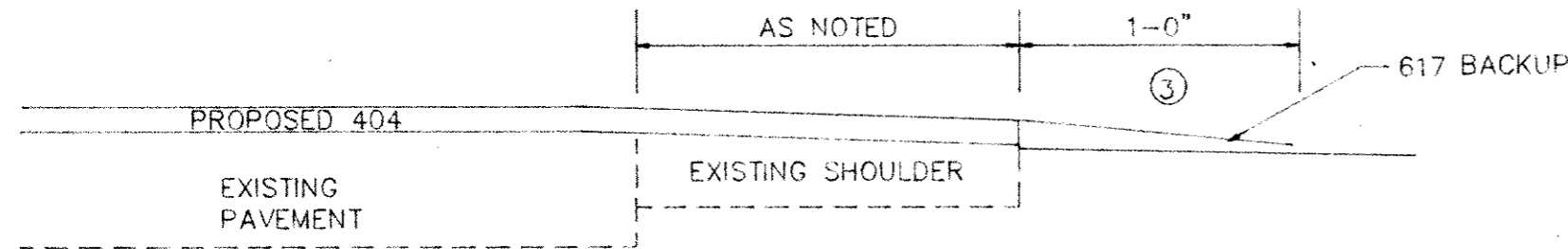
③ AN AVERAGE OF 2" DEPTH WAS USED FOR CALCULATIONS AND NO DEDUCTION WAS MADE FOR INTERSECTIONS, OR STRUCTURES TO ALLOW FOR LOW BERMS AND FOR EXTRA MATERIAL TO BE USED AS DIRECTED.

④ 5% HAS BEEN ADDED FOR USE ON GRAVEL DRIVES, TURNOUTS AND AS DIRECTED.

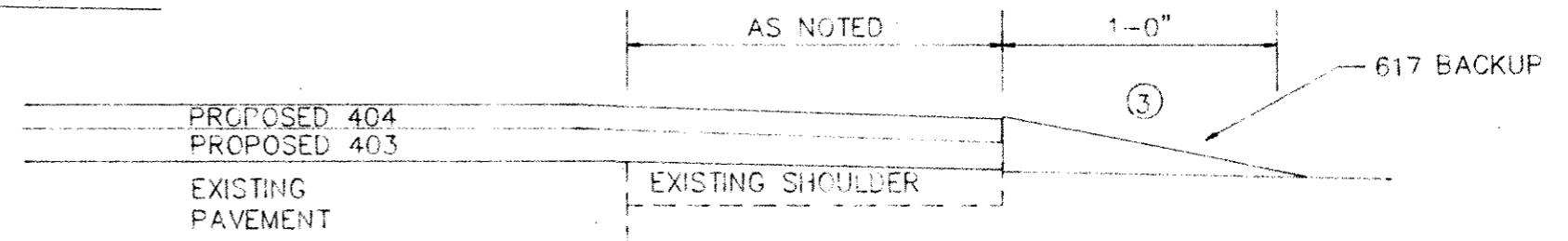
⑤ RURAL

Ⓐ TO BE APPLIED PRIOR TO PLACEMENT OF 404 ASPHALT.

Ⓑ TO BE APPLIED PRIOR TO PLACEMENT OF 403 ASPHALT.



TYPICAL 3



TYPICAL 4

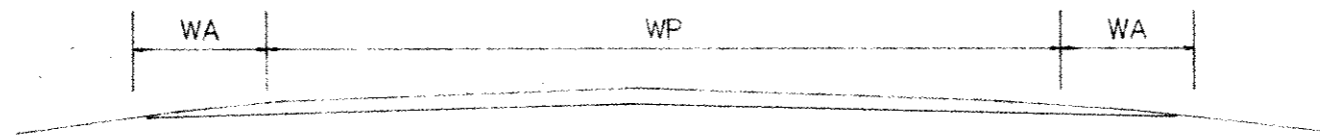
SHOULDER DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		TYPICAL	EXISTING TYPE - WIDTH (ft.)								AREA SQ. YDS.	407 TACK		ASPHALT 404		CONCRETE 403		409		617 Compacted Aggregate	
			MILES	LIN. FT.		A		B		C		D			Bit. Matl. @ .08 gal./s.y. Gals.	Cover Aggr. @ .005 gal./s.y. GALS.	Thick Inches	Cu. Yds.	Thick Inches	Cu. Yds.	Bit. Matl. @ gal./s.y. Gals.	c.y./s.y. Cu. Yds.	Sq. Yds.	Cu. Yds.
						Type	Width	Type	Width	Type	Width	Type	Width											
4	DEL SR315	1.73-1.78	0.05	264	1 & 3	404	2	404	⑤	2											59	3		
		1.78-1.95	0.17	898	1 & 3	404	2	404	2												200	④ 12		
		TOTAL PART 4	0.22	1162																			15	
5	DEL SR750	0.00-1.67	1.67	8818	1 & 4	404	2	404	2												1960	④ 114		
		3.11-3.31	0.20	1056	1 & 4	404	2	404	2												235	④ 14		
		3.42-3.98	0.56	2957	1 & 4	404	2	404	2												657	④ 38		
5	TOTAL PART 5	2.43	12831																			166		

SHOULDER TREATMENT

TYPICAL 1

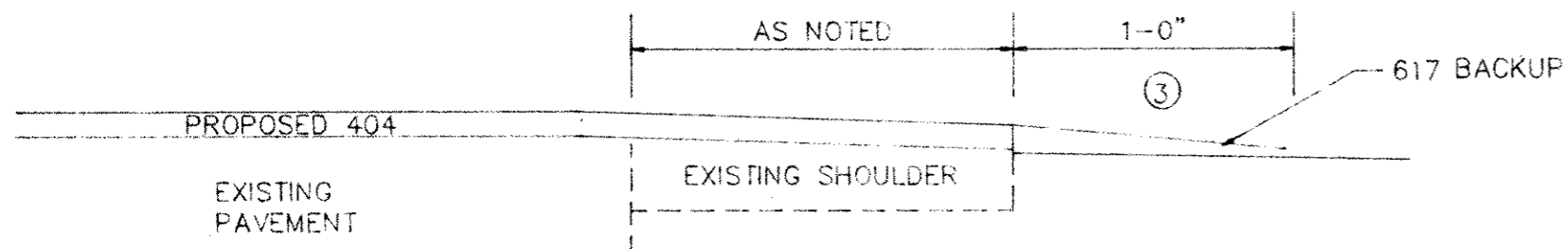
- Ⓐ TO BE APPLIED PRIOR TO PLACEMENT OF 404 ASPHALT.
- Ⓑ TO BE APPLIED PRIOR TO PLACEMENT OF 403 ASPHALT.



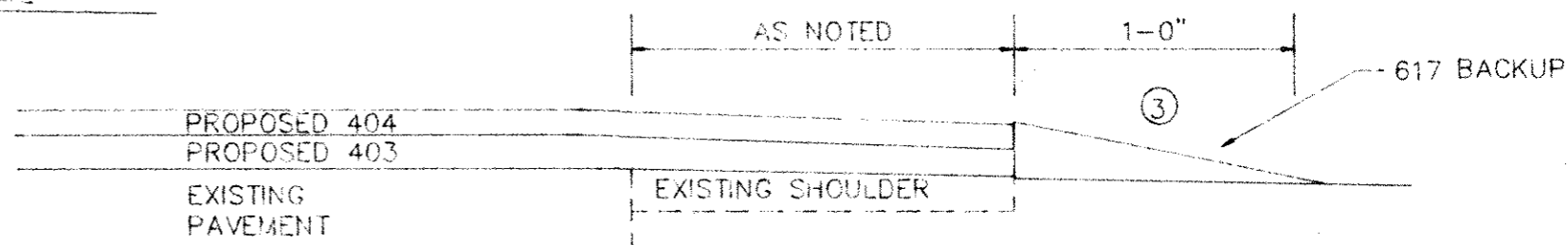
③ AN AVERAGE OF 2" DEPTH WAS USED FOR CALCULATIONS AND NO DEDUCTION WAS MADE FOR INTERSECTIONS, OR STRUCTURES TO ALLOW FOR LOW BERMS AND FOR EXTRA MATERIAL TO BE USED AS DIRECTED.

④ 5% HAS BEEN ADDED FOR USE ON GRAVEL DRIVES, TURNOUTS AND AS DIRECTED.

⑤ RURAL



TYPICAL 3

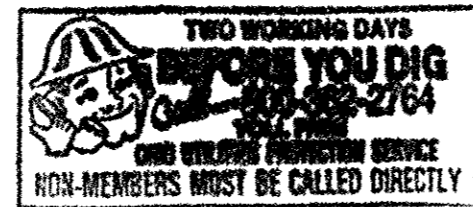
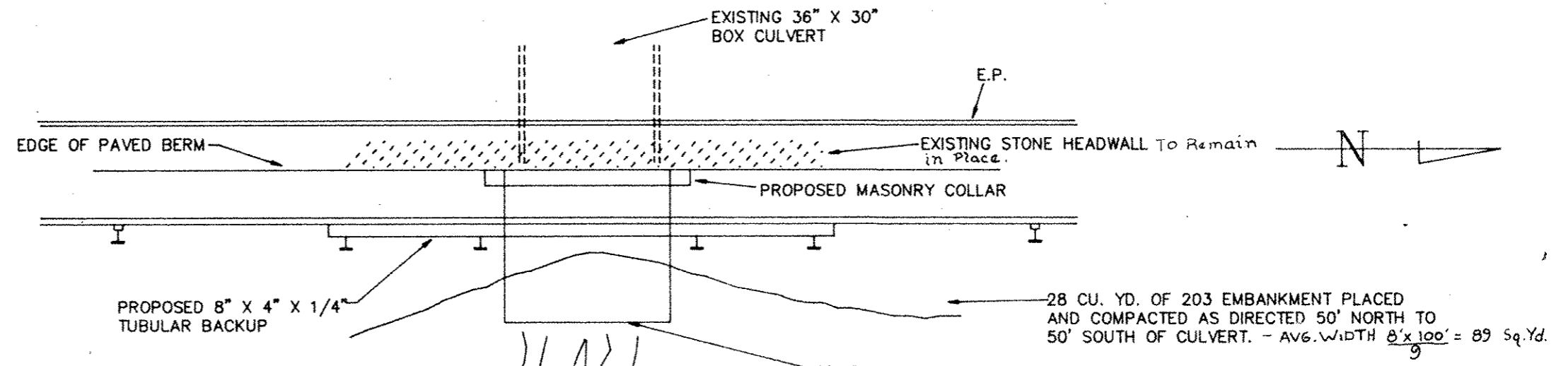


TYPICAL 4

SHOULDER DATA

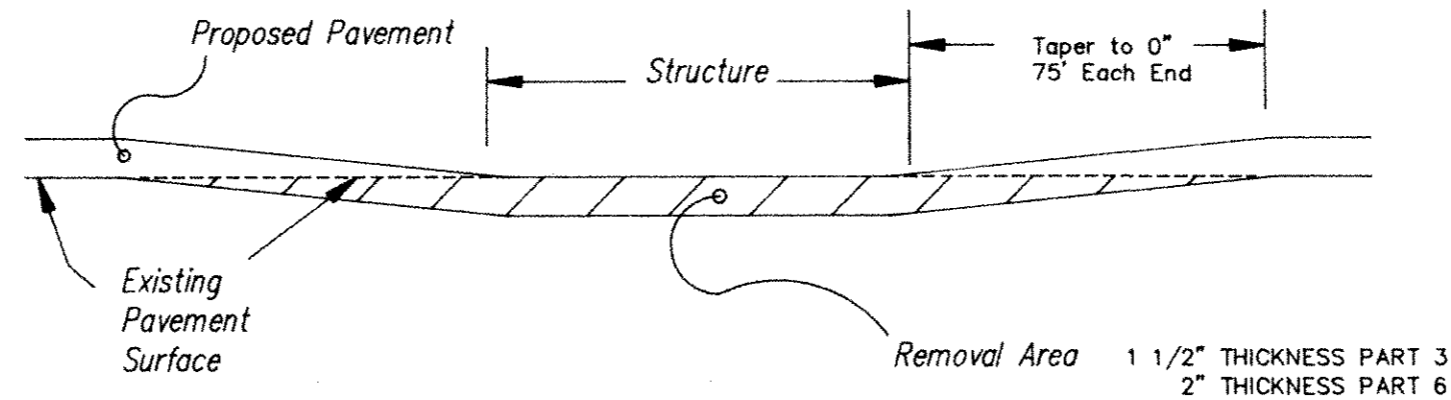
PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		TYPICAL	EXISTING TYPE - WIDTH (ft.)								AREA SQ. YDS.	407 TACK		ASPHALT CONCRETE				409		617				
			MILES	LIN. FT.		A				B					Bit. Matl. @ .08 gal./s.y. Gals.	Bit Matl. @ .005 gal./s.y. GALS.	404		403		Bit. Matl. @..... gal./s.y. Gals. @..... c.y./s.y. Cu. Yds.	Compacted Aggregate				
						Type	Width	Type	Width	Type	Width	Type	Width				Thick	Cu. Yds.	Thick	Cu. Yds.			Sq. Yds.	Cu. Yds.			
															Inches	Cu. Yds.	Inches	Cu. Yds.									
6	DEL SR750	1.67-2.13	0.46	2429	&4	404	2	404	⑤	2				⑧	86	⑨	54	1	30	1	30			540	④	32	
		2.13-2.85	0.72	3802	1&4	404	2	404	2				⑧	135	⑨	85	1	47	1	47			845		47		
		2.85-3.11	0.26	1373	1&4	404	2	404	⑤	2			⑧	49	⑨	31	1	17	1	17			305	④	18		
		3.31-3.42	0.11	581	1&4	404	2	404	⑤	2			⑧	21	⑨	13	1	7	1	7			129	④	8		
6		TOTAL PART 6	1.55	8185										291	183												105

CULVERT EXTENTION DETAIL @ DEL.-315-0704



- ITEM-659 - Seeding AND Mutching - 89 Sq.Yd.
 - ITEM-659 - Commercial Fertilizer - 0.001 Ton
 - ITEM-659 - Water - 1 M.Gal.
 - ITEM - 203 - EMBANKMENT, AS PER PLAN - 28 CU. YD.
 - ITEM - 603 - 49\"/>
- TOTALS CARRIED TO GEN. SUM.

ITEM TOTALS CARRIED TO GENERAL SUMMARY



REMOVE AND REPLACE DETAIL ITEM 202 WEARING COURSE REMOVED

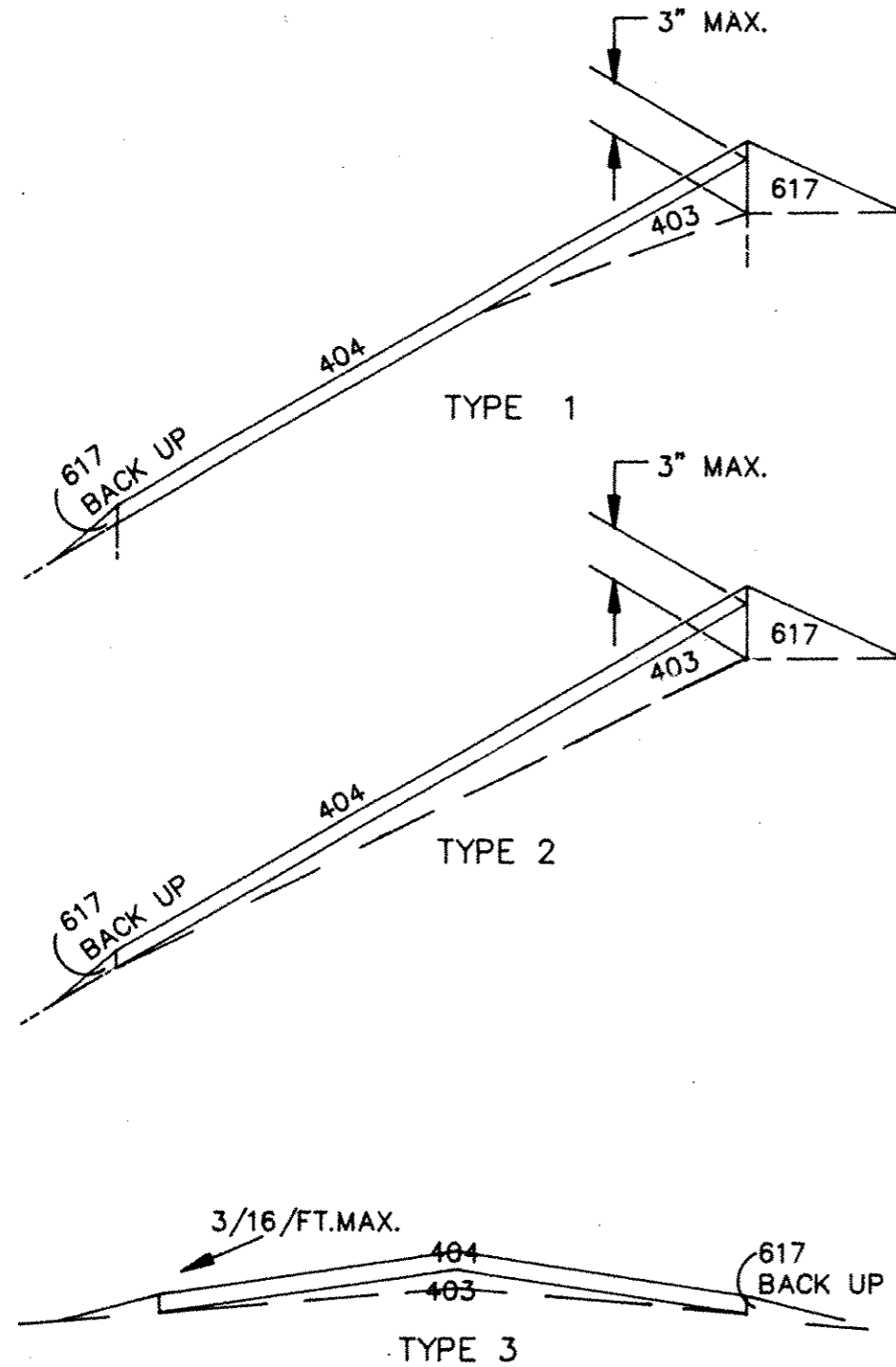
AT LOCATIONS DEL-315-0025, 0087, 0768 AND DEL-750-0259 THE EXISTING WEARING COURSE SHALL BE REMOVED TO A DEPTH EQUAL TO THE PROPOSED, WITH A 75' TAPER AT EACH END.

SUPER AND CROWN CORRECTION DETAILS

DEL. CO. - 315 - PART 3

NOTE:

QUANTITIES ARE APPROXIMATE; ALL WORK ON SUPER CORRECTION AND CROWN CORRECTION SHALL BE PERFORMED AS DIRECTED.



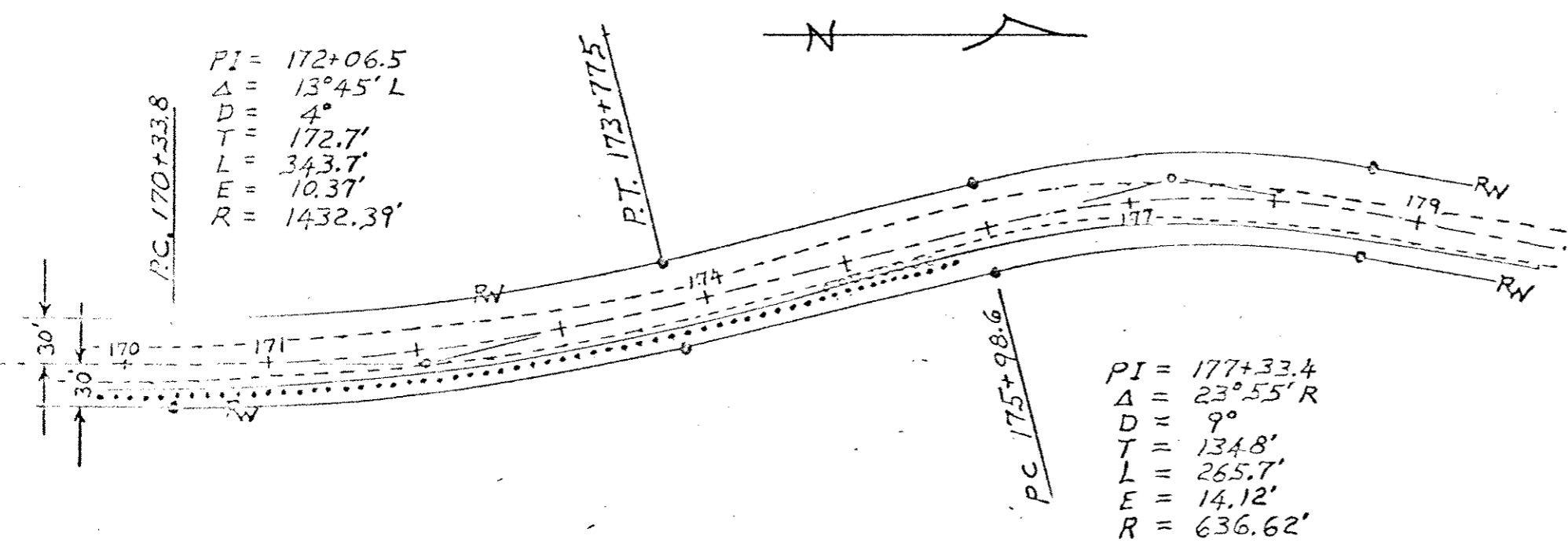
LOCATION S.L.M.	DETAIL TYPE	MAX DEPTH	FULL DEPTH LENGTH	TRANSITION LENGTH EA. END	WIDTH	403	TACK COAT ● 0.08 GAL./S.Y.	EXTRA 403 FOR DRIVES OR INTERSECTIONS	TOTAL 403	617 WIDTH	617 FOR EXTRA EDGE DEPTH	
		IN.	FT.	FT.	FT.	CU.YD.	GAL.	CU.YD.	CU.YD.	FT.	CU.YD.	
1.67	1	3"	150'	150'	12'	16.66	37	2.57	19.23	3	5	
2.19	2	2"	300'	100'	21'	25.92	75		25.92	2	3	
2.46	1	1.5"	375'	75'	11'	11.46	44		11.46	2	3	
2.71	2	3"	375'	150'	21'	51.04	98	3.39	54.43	3	9	
3.22	1	3"	400'	125'	22'	53.58	103		53.58	3	10	
3.32	1	3"	350'	125'	22'	53.58	103		53.58	3	10	
3.60	2	3"	220'	150'	21'	35.97	69		35.97	3	6	
4.53	3	1.875"	300'	100'	21'	24.31	75		24.31			
4.94	1	1.5"	300'	75'	11'	9.55	37		9.55	2	2	
5.02	1	2"	530'	100'	11'	21.39	62		21.39	2	5	
5.32	1	1.5"	320'	75'	11'	10.69	41		10.69	2	3	
5.52	1	1.5"	700'	75'	11'	19.73	76		19.73	2	5	
5.90	1	1.5"	320'	75'	11'	10.69	41		10.69	2	3	
6.16	2	2"	370'	100'	21'	30.46	88		30.46	2	4	
6.26	2	2"	650'	100'	21'	48.61	140		48.61	2	6	
6.42	1	1.5"	900'	75'	11'	24.83	95		24.83	2	7	
6.90	2	3"	475'	150'	21'	60.76	117		60.76	3	11	
7.03	1	2"	160'	100'	11'	8.83	25	1.54	10.37	2	2	
7.15	2	3"	370'	150'	21'	50.56	97		50.56	3	9	
7.29	2	2"	750'	100'	21'	55.09	159		55.09	2	7	
7.52	2	3"	475'	150'	21'	60.76	117		60.76	3	11	
7.74	2	3"	220'	150'	21'	35.97	69		35.97	3	6	
8.11	2	3"	425'	150'	21'	55.90	107		55.90	3	10	
8.25	2	2"	260'	100'	21'	23.33	67		23.33	2	3	
TOTALS FOR PART 3 CARRIED												
TO GENERAL SUMMARY							1942 GAL.		807 CU.YD.		140 CU.YD.	

MATERIAL FOR WIDENING AND PAVED SHOULDER-402-ASPHALT CONCRETE-CU.YD.
BEGIN @ 169 + 00 AND END @ 180 + 25
 $1125' \times 5' \times 0.667' = 139 \text{ CU.YD.}$

27
659 - SEEDING AND MULCHING - FROM 168 + 50 TO 180 + 50
 $1200' \times \text{AVG. } 10' \text{ WIDE} = 12000 \text{ SQ.FT.} = 1333 \text{ SQ.YD.}$
659 - COMMERCIAL FERTILIZER
 $12000 \text{ SQ.FT.} \times 20 \text{ LBS.} = 240 \text{ LBS.} = 0.12 \text{ TON}$
1000 SQ.FT.
659 - WATER = 6 M.GAL.

203 LINEAR GRADING
203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
230 EMBANKMENT

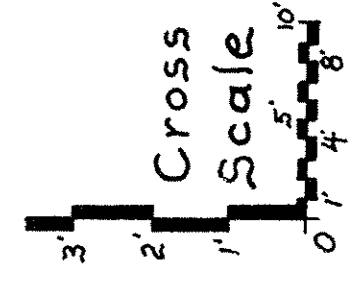
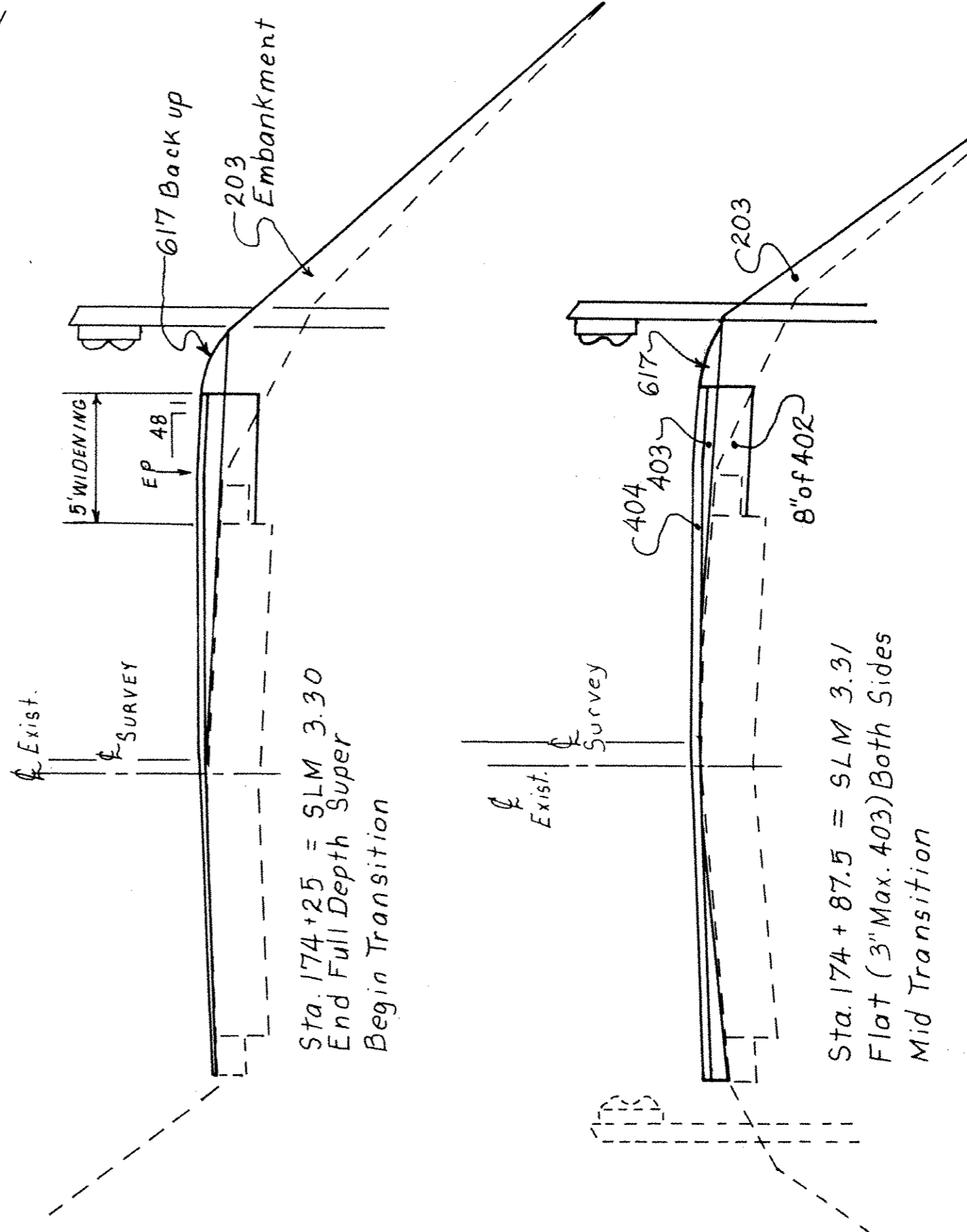
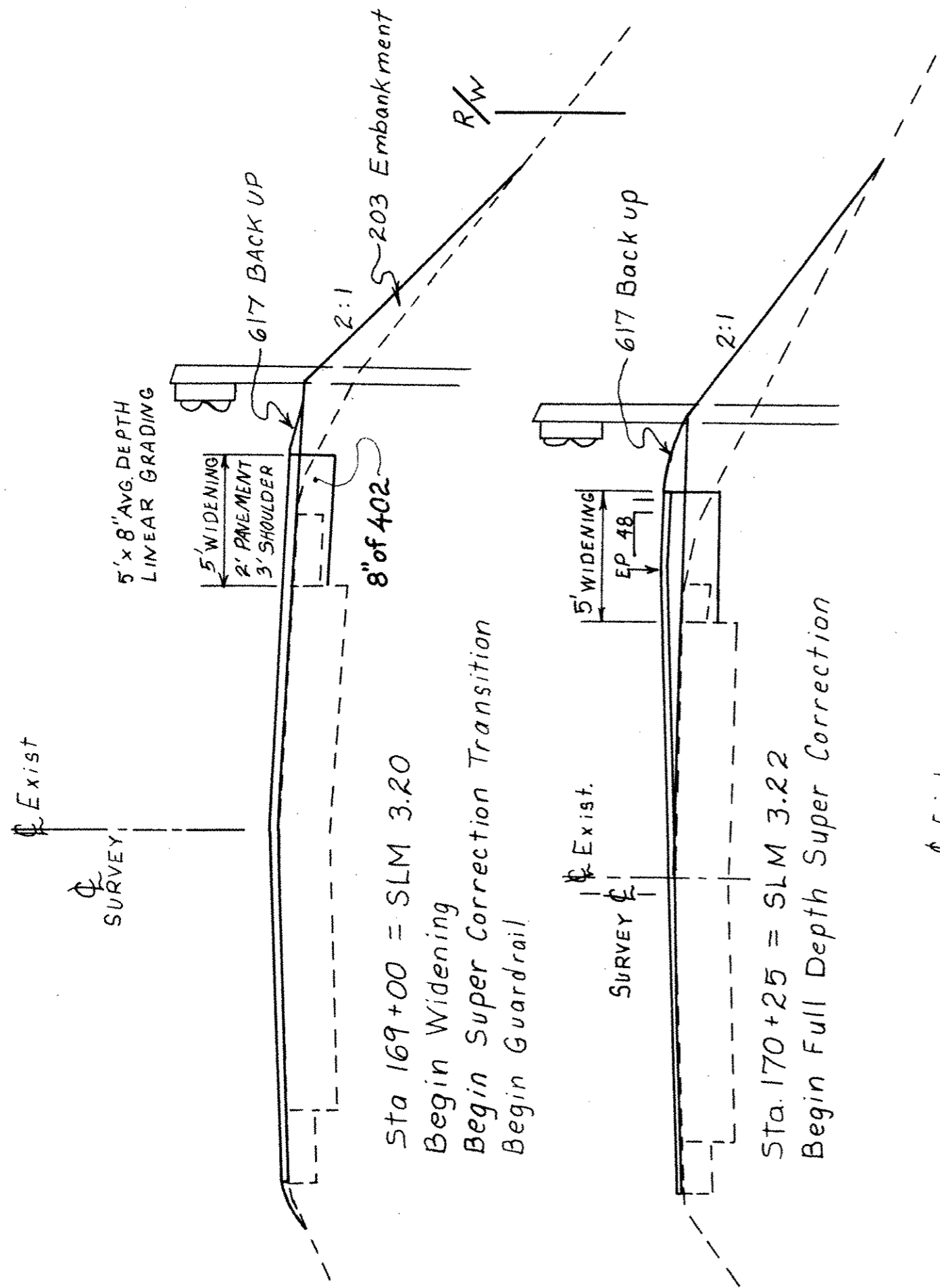
ALL TOTALS CARRIED TO
GENERAL SUMMARY SHEET
PART 3

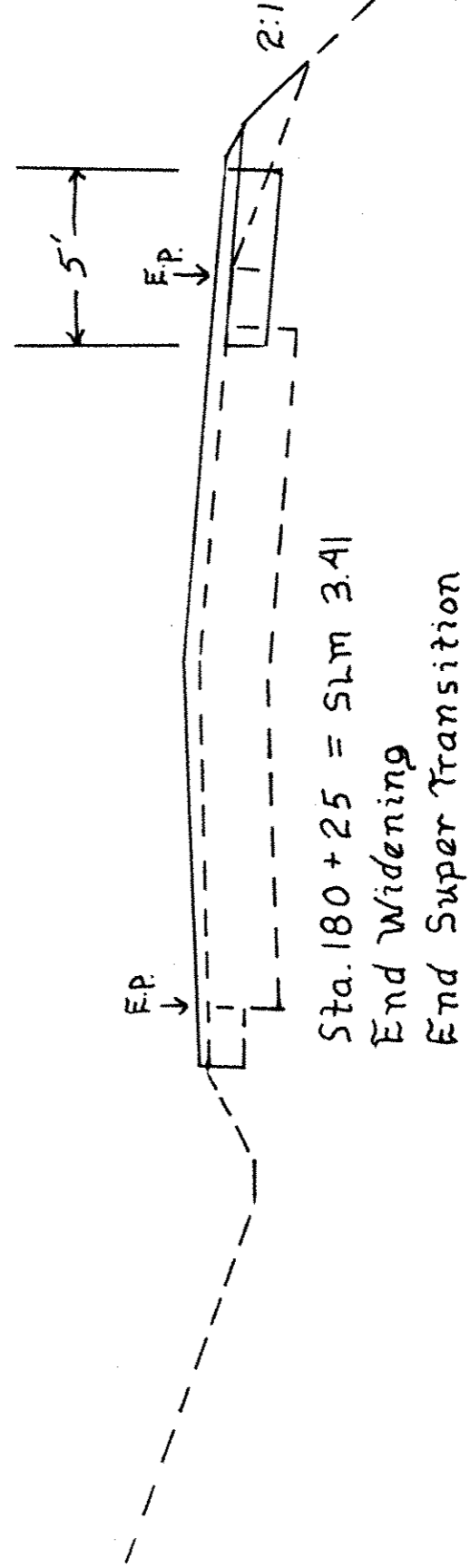
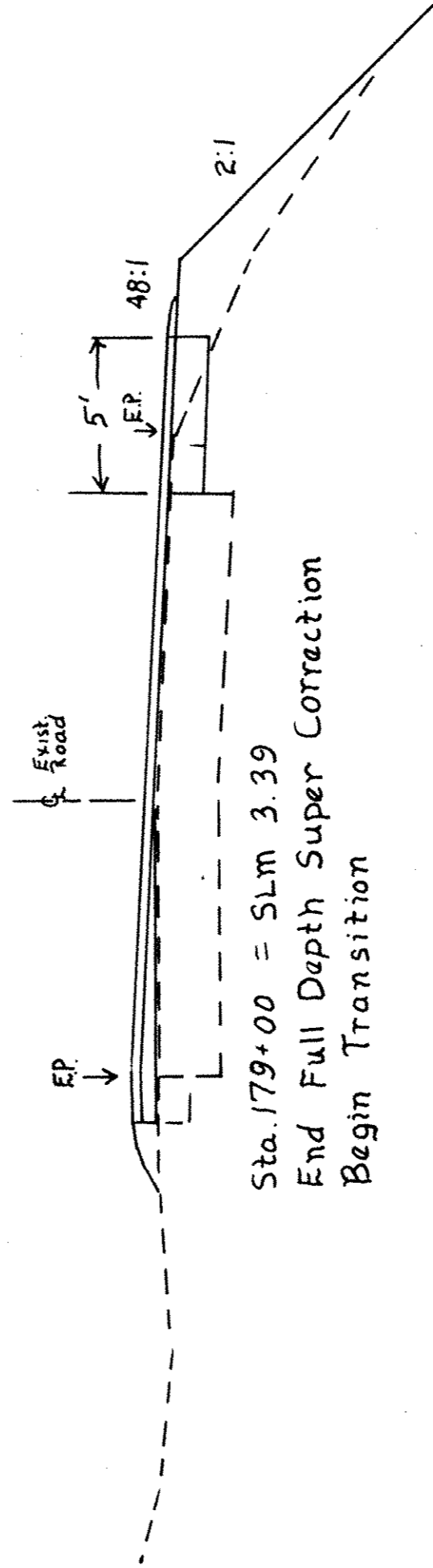
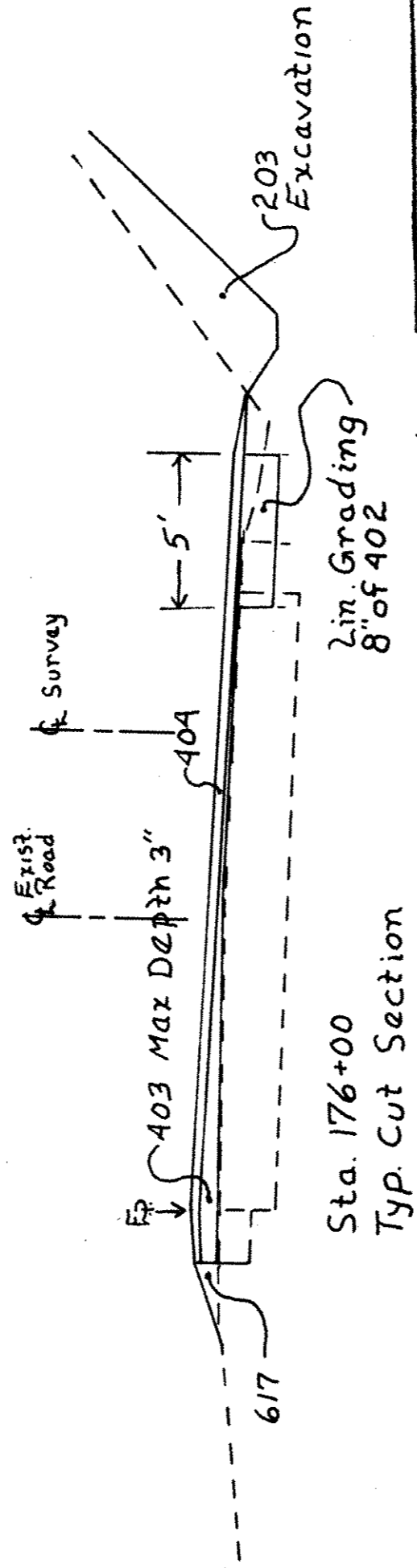
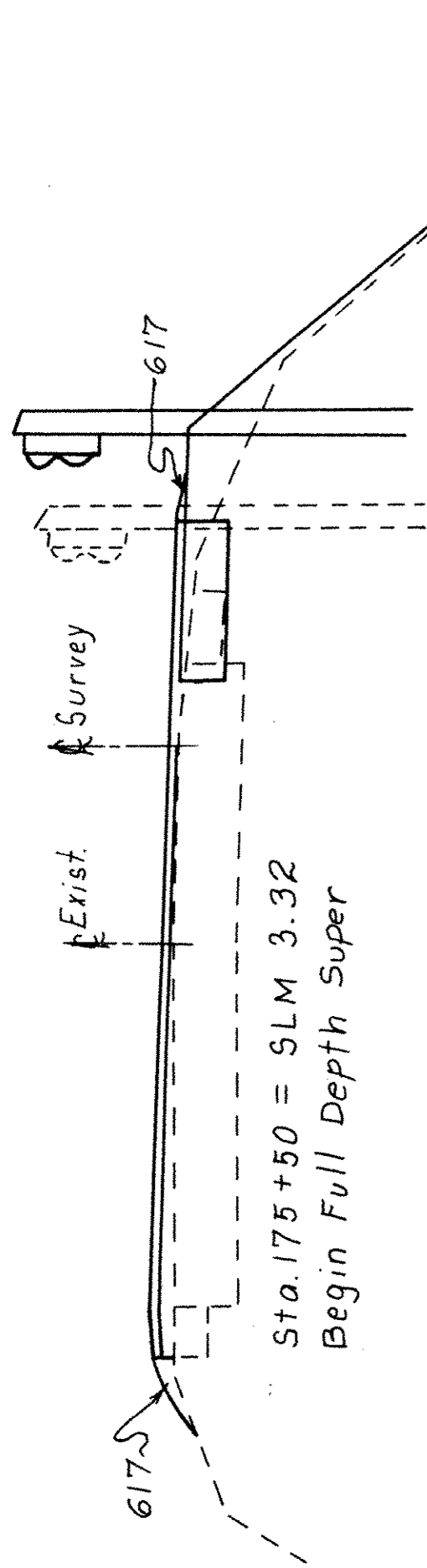
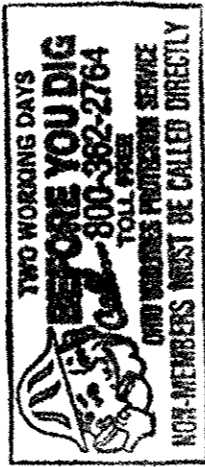


1. ITEM 203 LINEAR GRADING: This work shall consist of preparing a subgrade for the shoulder paving by excavating the existing shoulder material to the depth shown in the plan, or as directed by the Engineer to remove any unstable material and by shaping and compacting the subgrade. The unsound or broken edge of bituminous pavement shall first be trimmed to a line established by the Engineer. The existing shoulder then shall be excavated and the subgrade shaped and compacted. Compaction shall be carried out to the satisfaction of the Engineer by means of a trench roller, 401.11. Areas graded in excess of depths specified or directed by the Engineer shall be backfilled to desired grade using 617 Compacted Aggregate at the Contractor's expense. Excavated material shall be disposed of as indicated in the plan.
 - a. Used to back up shoulders where required; the balance to be disposed of as directed by the Engineer. All excavated bituminous mix material shall be disposed of by the Contractor at his own responsibility outside the limits of the right of way. No excavated material to be used in yard sections.
2. ITEM 402 ASPHALT CONCRETE: Prior to the placing a bituminous mixture for widening and shoulder paving, the edge of the existing pavement, for the full depth of the trench, shall be coated with bituminous material in accordance with 401.12.
3. ITEM 301 BITUMINOUS AGGREGATE BASE: May be used in lieu of Item 402 Asphalt Concrete.

STATION	FILL END AREA SQ.FT.	CUT END AREA SQ.FT.	FILL CU.YD.	CUT CU.YD.	8"x5' LIN. GRADING
168 + 50	0	-	-	-	-
169 + 00	5.4	-	5	-	BEGIN
169 + 50	12.3	-	16.4	-	
170 + 00	8.6	-	18.4	-	
170 + 50	6.0	-	13.5	-	
171 + 00	16.00	-	20.3	-	
171 + 50	13.5	-	27.3	-	
172 + 00	6.2	-	18.2	-	
172 + 50	10.8	-	15.7	-	
173 + 00	11.0	-	20.2	-	
173 + 50	11.5	-	20.8	-	
174 + 00	14.0	-	23.6	-	
174 + 50	8.5	-	20.8	-	
175 + 00	16.5	0	23.1	-	
175 + 50	21.5	0	35.2	0	
176 + 00	0	14.0	19.9	13.0	
176 + 50	0	23.0	0	34.3	
177 + 00	0	24.2	0	43.7	
177 + 50	0	6.0		28.0	
178 + 00	0	0		5.6	
178 + 50	0	0		0	
179 + 00	4.7	0	4.4	-	
179 + 50	6.0	-	9.9	-	
180 + 00	1.2	-	6.7	-	END 180+25
180 + 50	0	-	1.1	-	
TOTALS			322	125	11.25 STA.

PLAN NO.





GUARDRAIL DATA

PART	ROUTE	STARTING LOG POINT	SIDE	ITEM 202 GUARDRAIL REMOVED			ITEM 606 GUARDRAIL AS PER PLAN				ANCHOR ASSEMBLY			ITEM 517 RAILING, (DEEP BEAM RAIL W/ STEEL TUBULAR BACKUP AND STEEL POSTS) [8"x4"x1/4" BACKUP]	GUARD POSTS	9' GUARD RAIL POSTS	BERM RESHAPING	617 COMPACTED AGGREGATE FOR BERM TO BE PLACED AS DIRECTED	DISTANCE FROM FACE OF RAIL TO EXIST. PAINTED EDGE LINE	* NOTES	
				REMOVED	FOR STORAGE	FOR RE-USE	TYPE	GUARD RAIL	REBUILT	CURVED RAIL ELEMENTS		TYPE T (GR-4A)	SINGLE RAIL (GR-4) TYPE-A								FLAIRED END ONLY (GR-1)
										LENGTH	RADIUS										
UN.FT.	UN.FT.	UN.FT.		UN.FT.	UN.FT.	UN.FT.	UN.FT.	UN.FT.	FT.	EACH	EACH	EACH	UN.FT.	EACH	EACH	UN.FT.	CU. YD.	FT.			
3	SR-315	01.59	LT.		62.5		5	25					2				75	5	4	*2,3,5	
		01.88	LT.		37.5		5				25	16	1	1			50	2	4	*2,3,5,6,7	
		03.13	LT.		75		5				12.5	8	2		12.5		75	5	3	*2,3,5,6,7	
			RT.		62.5		5	12.5					2		12.5		75	5	2.6	*2,3,5	
		03.20	RT.		75		5	57.5					2			80			7	*2,4	
		03.81	LT.		62.5		5	2.5					2				75	7	4	*2,3,5	
		04.00	LT.		50		5	6.25			12.5	8	1	1	18.75		62.5	8	4	*2,3,5,6,7	
			RT.		75		5	6.25					2		18.75		75	5	3	*2,3,5	
		04.56	RT.		62.5		5	37.5					2			9	87.5	8	4	*2,3,4,5,7	
		04.93	LT.		75		5	12.5					2		12.5		75	7	3.5	*2,3,5	
		06.28	LT.		25												25	5		2,5	
		06.77	LT.		18.75		5				12.5	8	1	1	12.5		50	7	6.7	*2,3,5,6,7	
		07.04	RT.		62.5		5	18.75					2		18.75	4	87.5	12	4	*2,3,4,5	
		05.58	LT.		50.0												50.0			2,5	
PART 3 TOTALS																					
CARRIED TO GEN. SUM.					793.75			718.75			62.5		21	3	106.25	93	862.5	76			

- * NOTES: * All rail to be constructed as directed.
- ITEM 202 GUARDRAIL REMOVED:** Guardrail, posts and miscellaneous hardware designated for removal become the property of the contractor and shall be disposed of. Payment for the above shall be included in the unit price bid for Item 202 Guardrail Removed.
 - ITEM 202 GUARDRAIL REMOVED FOR STORAGE:** Guardrail, standard terminals, posts and miscellaneous hardware designated for salvage shall be stored ODOT DISTRICT HEADQUARTERS 400 E WILLIAMS ST. DEL. OH. 43015 as directed by the Engineer for removal by State forces. All material not considered salvageable shall be disposed of by the Contractor as directed. Payment for the above shall be included in the unit price bid for Item 202 Guardrail Removed for Storage.
 - Guardrail shall, as nearly as possible, be centered over culvert; or with longest run on leading end; without disturbing adjacent trees. Tubular backup also shall be centered over culvert where applicable.
 - 9' GUARDRAIL POSTS:** An estimated number of nine (9) foot long guardrail posts have been listed to be used as directed by the Engineer to obtain a reasonable line and elevation of the guardrail elements. Except for length, the posts shall meet the applicable requirements noted in Item 710. The unit price bid for this item shall be the difference for supplying the nine (9) foot long posts in lieu of the standard length guardrail posts included in the 606 guardrail bid items, and shall be paid as each, Item 606 9 ft. Guardrail Posts, As Per Plan.
 - BERM RESHAPING:** Berms at locations where existing guardrail is removed or where new guardrail is to be erected shall be reshaped as directed by the Engineer to insure a smooth surface free of all irregularities. Excess excavation shall be disposed of as directed by the Engineer. Payment for reshaping berms as described shall be included in the contract price bid per lineal foot for Item Special, Berm Reshaping.
 - CURVED RAIL ELEMENTS:** Length of curved rail elements, where called for in a run, shall not be included in the total length of run shown in the guardrail or guardrail rebuilt columns. However, the curved rail element total shall be included with the guardrail or guardrail rebuilt totals on the general summary sheet.
 - Standard length posts required to complete the various runs shall be included in the 606 guardrail bid items.
 - Encase all posts in 4" of class "C" concrete.

Basis of Payment

Basis of payment shall be at the unit price bid for each reflector and shall include all labor, equipment, hardware and incidentals required to perform work as follows:

<u>Item</u>	<u>Unit</u>	<u>Description</u>
Special	Each	Barrier Reflector, Type A
Special	Each	Barrier Reflector, Type B

614 Maintaining Traffic Provisions for Installation of Barrier Reflectors

Traffic shall be maintained on the existing pavement at all times except as approved by the Engineer. The Contractor shall set up and operate his equipment in such a manner that encroachment upon the traveled width of pavement will be kept to a minimum.

All traffic control devices and application shall conform to the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways. When it is necessary to close all or part of a lane, traffic control shall be as shown on sheet 18. When work can be confined to the shoulder, traffic control shall be as shown in figure C-12 of the OMUTCD as applicable. The Engineer may suspend work in order to relieve traffic congestion at any time.

Payments for this work shall be made under Item 614, Maintaining Traffic.

BARRIER REFLECTOR NOTES

ITEM SPECIAL BARRIER REFLECTOR, BY TYPE

Description

This item shall consist of furnishing and installing barrier reflectors (type A) on galvanized steel guardrail and/or barrier reflectors (type B) on concrete barriers in accordance with the plans and specifications.

Material

The barrier reflector shall be as manufactured by Stimsonite, Reflexite or an approved functional equivalent as described below:

- Stimsonite - Model 965 (white & yellow) or
- Reflexite - Model 650 (white & yellow)

The adhesive shall be Franklin Panel and Metal Framing Adhesive as manufactured by Franklin Chemical Industries, PR-365 as manufactured by Products Research and Chemical Corporation or an approved equal.

All adhesives shall have a shelf life of 6 months at 75 degrees F storage minimum guaranteed.

Layout

The contractor shall layout all locations to assure proper placement. The layout shall be approved by the Engineer before installations are started. The layout shall be incidental to the installation operation.

Installation

- (1) On concrete barriers the height of the top of the reflector shall be 26" above the near edge of pavement, but in no case shall the top of the reflector be less than 3" below the top of the concrete barrier. Attachment shall be by the above referenced adhesive and applied per manufacturer's recommendation.
- (2) Guardrail reflectors shall be installed within the concave surface of the guardrail. Attachment may be by bracket which fits under the head of the center guardrail bolt or by the above referenced adhesive and applied per manufacturer's recommendation.
- (3) The above referenced adhesive shall be flashed when applied to achieve maximum bonding strength.
- (4) When mounted on a flat surface, the reflector should be tilted upward from the vertical or plumb position 2-3 degrees to facilitate "rain washing" of the reflector face.
- (5) Two-lane highway - white units shall be placed on the right side of approaching traffic.

Four-lane divided highway - white units shall be placed on the right side of approaching traffic and yellow on the left.

BARRIER REFLECTOR SUB-SUMMARY

PLAN NO.

PART	CO.	ROUTE	S.L.M.		S I D E	S P A C I N G	TYPE A BARRIER REFLECTOR		TYPE B BARRIER REFLECTOR		REMARKS
			BEGIN	END			GUARDRAIL REFLECTOR (WHITE) EACH	GUARDRAIL REFLECTOR (YELLOW) EACH	BARRIER REFLECTOR (WHITE) EACH	BARRIER REFLECTOR (YELLOW) EACH	
3	DEL	315	01.59		Lt.	25	2				
			01.88		Lt.	-	1				
			03.13		Lt.	-	1				
					Rt.	25	2				
			03.20		Rt.	25	2				
			03.84		Lt.	25	2				
			04.00		Lt.	25	2				
					Rt.	25	2				
			04.56		Rt.	37.5	2				
			04.93		Lt.	25	2				
		Lt.	-	1							
		06.77		Lt.	-	1					
		07.04		Rt.	37.5	2					
TOTAL PART 3 CARRIED TO GEN. SUM.							43				

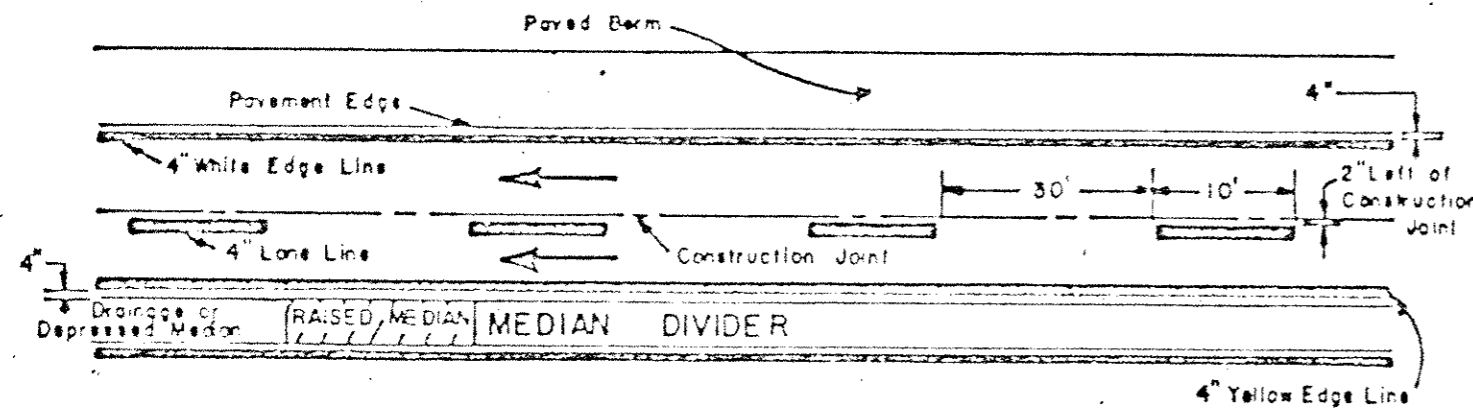
PAVEMENT MARKING TYPICAL DETAILS

FED RD RLY	STATE	PROJECT	
5	OHIO		

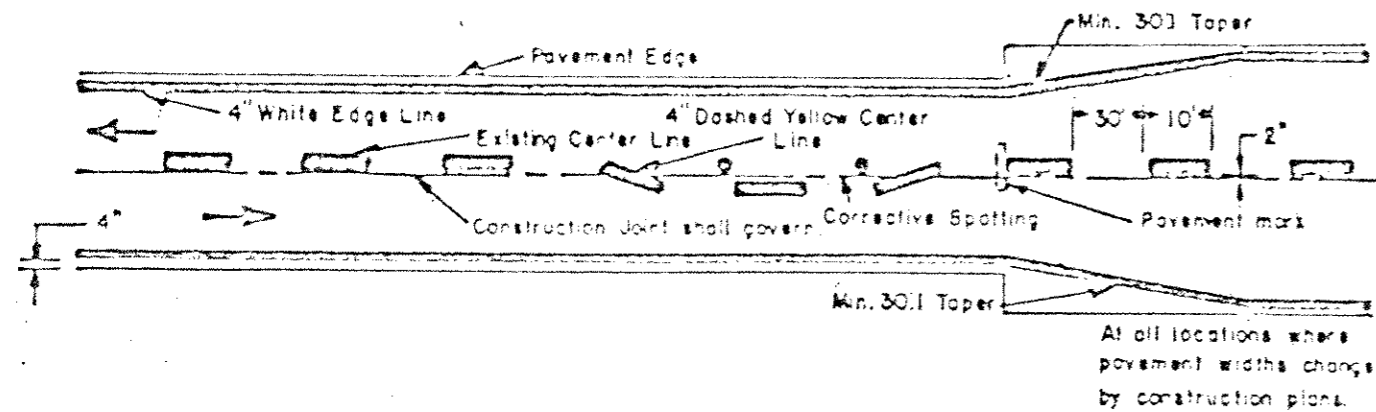
13
19

PLAN NO. _____

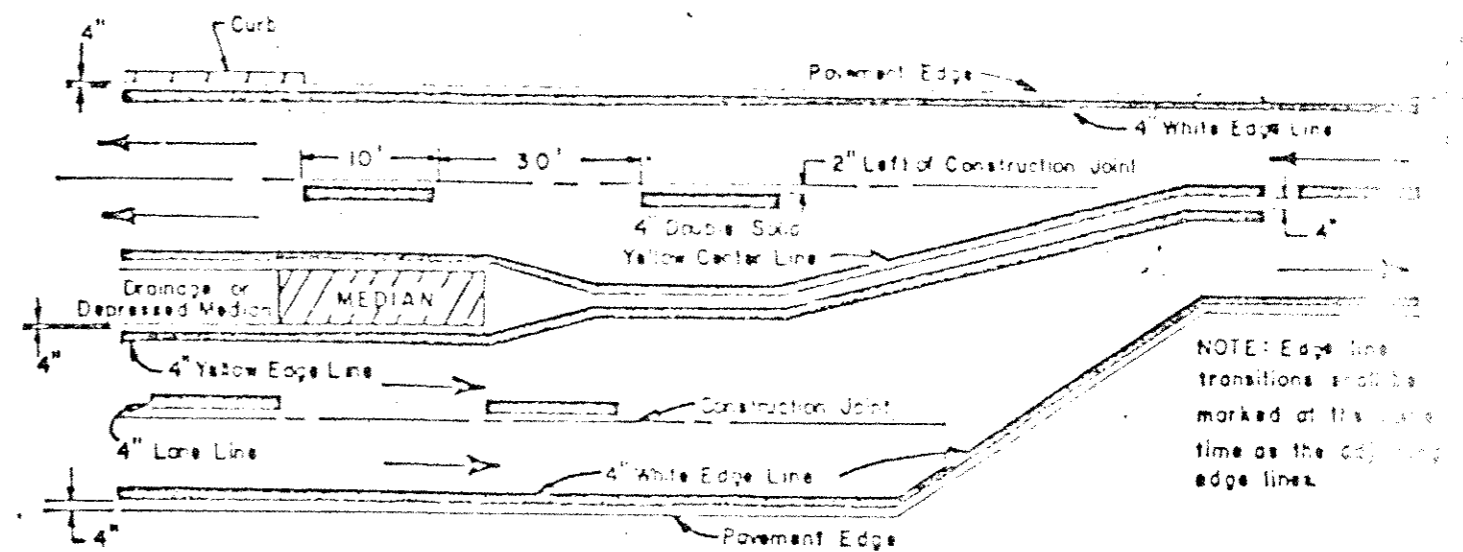
FREEWAY & EXPRESSWAY MAINLINE MARKINGS



TWO LANE MARKINGS



MULTILANE DIVIDED & UNDIVIDED HIGHWAY MARKINGS



NOTES:

1. THE DISTANCE FROM THE PAVEMENT EDGE TO THE NEAR-SIDE EDGE OF THE EDGELINE MAY BE INCREASED WITH THE APPROVAL OF THE ENGINEER IN ORDER TO MAINTAIN UNIFORM LANE WIDTH.
2. SEE TC 72.20 FOR PAVEMENT ENTRANCE AND EXIT RAMP TERMINALS.

OHIO DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING TYPICAL DETAILS	
JDL	CDR

12/81

INITIAL PAVEMENT MARKINGS FOR RESURFACED SECTIONS

GENERAL NOTES

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO		

14
19

PLAN NO.

In addition to the requirements of 621 and 847 the following shall apply:

621 Materials

Glass beads shall be kept dry during storage and prior to use.

621 SPECIAL EQUIPMENT

The Contractor's striper shall be equipped with an odometer graduated to 1/100 of a mile. The Engineer will determine the degree of accuracy of the Contractor's odometer and establish an adjustment factor as may be required to accurately determine the pay item quantities. The Engineer will periodically check the odometer's operation to assure maintenance of accurate measurements.

Failure of the odometer to function properly shall be cause to stop the work until the odometer is made to function properly. On short projects the Engineer may approve alternate methods to accurately measure the length of the various types of markings applied. If measurement of the work has to be done by the Department, the cost of the Department labor and equipment plus 10 percent shall be deducted from payment due the Contractor for the work. When measuring lane, edge and center line marking the odometer shall be started at the first marked line and remain in operation, until the end of the section being marked, where it shall be shut off and the reading of the odometer recorded.

Electrical foot counters shall be provided and installed in the striper. The counters shall individually tabulate the amount of footage applied by each striping gun on the center line carriage and lane line carriage, whether solid or dashed. The counters shall be 6 digit type with a reset feature.

The pavement marking equipment shall be equipped with a pressure regulated air jet which shall remove all debris from the pavement in advance of the applicator gun. The air jet shall operate when marking material is being applied and shall be synchronized with marking material application or remain "on" at all times.

The Contractor shall use an accurate dashing mechanism, capable of being easily adjusted.

Provision for the above special equipment by the Contractor shall be incidental to the application.

847 LAYOUT AND PREMARKING

In addition to the requirements of 847 premarking for auxiliary markings shall be located from schematic forms provided at the pre-construction conference.

621 MATERIAL QUANTITY MEASUREMENT

The quantity of marking material or glass beads per unit of measurement will be computed by the Engineer at the end of each day's work. A day's applied mileage of less than 2 miles may be included in the next day's applied markings for the purpose of computing marking material and bead application rates.

The Contractor shall provide a calibrated measuring device acceptable to the Engineer for measuring material in the striper tanks.

The quantity of marking material used shall be determined by measuring the marking material in the tanks before and after marking material is applied. The Contractor shall cooperate with the Engineer in providing measurements whenever requested. The marking material application rate shall be determined by dividing the total gallons used by the appropriate marking length as determined from the foot counter as described within the Special Equipment Section of these notes. Any determination of pay deduction resulting from shortages in marking quantities shall be based on the measurements obtained by this method. The amount of glass beads applied will be ascertained by the Engineer by observation and from information supplied by the Contractor as to quantity used.

847 AUXILIARY PAVEMENT MARKING

For this project auxiliary markings shall be defined as: stop lines, crosswalk lines, transverse lines, railroad symbol markings, lane arrows, word on pavement and dotted lines except when used to extend edge lines.

STANDARD CONSTRUCTION DRAWING TC 71.10

The dimensions shown on Standard Construction Drawing TC 71.10 are nominal. Letters, numerals and symbols conforming to the requirements of section 3B-17 of the 1978 National Manual On Uniform Traffic Control Devices may also be used. Any of the following standards for letters, numeral or symbol dimensioning may be used: A.) Standard dimensions shown on this detail or B.) Standard dimensions (either metric or their hard converted English unit equivalents) in accord with the 1977 Metric Edition Standard Alphabets For Highway Signs and Pavement Marking with Errata or C.) Standard dimensions shown in figures 3-17, 3-18, 7-2, 7-3, 8-2 or 9-6 of the 1978 National Manual On Uniform Traffic Control Devices.

GENERAL SUMMARY

ITEM	PART 1 COLUMBUS 315	PART 2 FRA.CO. FRA-315	PARTS 1 & 2 FRA-315	PART 3 DEL.CO. 315	PART 4 PDWELL 315	PARTS 3 & 4 DEL-315	PART 5 DEL.CO. 750	PART 6 PDWELL 750	PARTS 5 & 6 DEL-750	GRAND TOTAL	UNIT	DESCRIPTION
407	434	1475	1909	11654	265	11919	4523	3296	7819	21647	GAL.	TACK COAT, AS PER PLAN
202	20	136	156	1031	26	1057				1213	EACH	RAISED PAVEMENT MARKINGS REMOVED FOR STORAGE
402				139		139				139	CU.YD.	ASPHALT CONCRETE AC-20
403				807		807	967	704	1671	2478	CU.YD.	ASPHALT CONCRETE AC-20
404	226	769	995	5059	138	5197	967	704	1671	7863	CU.YD.	ASPHALT CONCRETE AC-20,AS PER PLAN
202				186		186		59	59	245	SQ.YD.	WEARING COURSE REMOVED
604		1	1							1	EACH	CATCH BASINS ADJUSTED TO GRADE
604	1		1							1	EACH	MONUMENT BOXES ADJUSTED TO GRADE
847								2	2	2	EACH	RAILROAD SYMBOL MARKINGS<947.03 TYPE A1> INLAYED
847		40	40	69		69	32	24	56	165	LIN.FT.	STOP LINE <947.03 TYPE A> INLAYED
621	0.30	2.06	2.36	16.92	0.44	17.36	4.86	3.10	7.96	27.68	MILE	EDGE LINE
621	0.15	1.03	1.18	8.46	0.22	8.68	2.43	1.55	3.98	13.84	MILE	CENTER LINE
614	0.15	1.03	1.18	8.46	0.22	8.68	2.43	1.55	3.98	13.84	MILE	TEMPORARY CENTER LINES, CLASS II
614	2	4	6	15		15	7	4	11	32	EACH	WORK ZONE MARKING SIGNS
617		1	1	4		4	1	1	2	7	M.GAL.	WATER
617	10	67	77	816	15	831	166	105	271	1179	CU.YD.	COMPACTED AGGREGATE

GENERAL NOTES

TRAFFIC:

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. THE LENGTH OF RESTRICTED TRAFFIC ZONES SHALL BE KEPT TO A MINIMUM CONSISTENT WITH THE SPECIFICATION REQUIREMENTS FOR PROTECTION OF COMPLETED COURSES.

RAILROAD CROSSINGS:

THE NEW SURFACE COURSE SHALL BE FEATHERED OR BUTT JOINTED TO MEET THE RAIL GRADES AS SPECIFIED.

ALIGNMENT AND PROFILE:

THE WORK PROPOSED BY THIS PROJECT IS FOR THE RESURFACING OF THE EXISTING PAVEMENT. THE ALIGNMENT OF THE EXISTING PAVEMENT WILL NOT BE CHANGED, AND THE PROFILE OF THE PROPOSED SURFACE WILL BE SIMILAR TO THAT OF THE EXISTING PAVEMENT EXCEPT THAT IT WILL BE RAISED AN AMOUNT EQUAL TO THE THICKNESS OF THE RESURFACING COURSE OR COURSES SPECIFIED IN THESE PLANS.

INTERMEDIATE COURSE, SPOT LEVELING AND PATCHING:

THIS MATERIAL SHALL BE PLACED IN A SEPERATE OPERATION WHERE AND AS DIRECTED BY THE ENGINEER.

TACK COAT:

THE RATE APPLICATION OF 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT, AS DIRECTED BY THE ENGINEER. WHEN COVER AGGREGATE IS NEEDED, IT SHALL BE USED AS DIRECTED BY THE ENGINEER, AND IT SHALL BE CONSIDERED INCIDENTAL TO, AND BE INCLUDED FOR PAYMENT IN: ITEM 407 TACK COAT, AS PER PLAN. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.08 OR 0.05 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

ITEM 404 ASPHALT CONCRETE, AC-20, as per plan.

The top surface of the longitudinal and transverse joints shall be painted six (6) inches wide with the same bituminous material used in the 404 mixture as directed. Application rate shall be at least 0.25 gal./s.y. The cost of the operation to be included in the cost of the 404 Asphalt Concrete, Ac-20 as per plan.

FRESH TAR SIGNS

The Contractor shall provide, erect and remove "Fresh Tar" signs in accordance with the O.M.U.T.C.D. Payment for the above to be included in the Unit Price Bid for Maintaining Traffic.

GENERAL SUMMARY

ITEM	PART 1 COLUMBUS 315	PART 2 FRA.CO. 315	PARTS 1 & 2 FRA-315	PART 3 DEL.CO. 315	PART 4 PDWELL 315	PARTS 3 & 4 DEL.-315	PART 5 DEL.CO. 750	PART 6 PDWELL 750	PARTS 5 & 6 DEL.-750	GRAND TOTAL	UNIT	DESCRIPTION
202				794		794				794	LIN.FT.	GUARDRAIL REMOVED FOR STORAGE
203				125		125				125	CU.YD.	EXCAVATION NOT INCLUDING EMBANKMENT, AS PER PLAN
203				11.25		11.25				11.25	STA.	LINEAR GRADING
203				350		350				350	CU.YD.	EMBANKMENT AS PER PLAN
517				106		106				106	LIN.FT.	RAILING (DEEP BEAM RAIL W/STEEL TUBULAR BACKUP AND STEEL POSTS) [8" X 4" X 1/4"]
603				6		6				6	LIN.FT.	49" X 30" CONDUIT, TYPE A
606				781		781				781	LIN.FT.	GUARDRAIL, TYPE 5 AS PER PLAN
606				21		21				21	EACH	ANCHOR ASSEMBLY, TYPE A
606				93		93				93	EACH	9' GUARDRAIL POSTS, AS PER PLAN
606				3		3				3	EACH	FLAIRED END ONLY
SPECIAL				863		863				863	LIN.FT.	BERM RESHAPING
SPECIAL				43		43				43	EACH	BARRIER REFLECTOR, TYPE A
614	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	MAINTAINING TRAFFIC
623				LUMP		LUMP				LUMP	LUMP	CONSTRUCTION LAYOUT STAKES
624	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	MOBILIZATION
659				1422		1422				1422	SQ.YD.	SEEDING AND MULCHING
659				0.12		0.12				0.12	TON	COMMERCIAL FERTILIZER
659				7		7				7	M.GAL	WATER

GENERAL NOTES

MAINTENANCE OF TRAFFIC:

Traffic shall be maintained on the existing pavement without interruption during construction of the work except as otherwise approved by the Engineer. The Contractor shall set up and operate his equipment in such a manner that encroachment upon the traveled width of pavement will be kept to a minimum.

Berm reshaping and guardrail removal and construction shall be performed only on one side of the pavement at any given time. The open area due to guardrail removal shall be adequately maintained and protected with temporary guide markers or barricades at all times. Where existing guardrail is removed, new guardrail shall be erected as soon as practical. Any areas left unguarded overnight shall be protected by the use of barricades, drums, or other warning devices satisfactory to the Engineer.

All traffic control devices required inside the work limits, except regulatory, guide signs, and pavement markings shall be furnished, erected and maintained by the Contractor.

GUARDRAIL:

The log points of the proposed guardrail shown are approximate. Exact locations will be determined and marked by stakes or other marks by the Engineer. Mail boxes that interfere with the removal or replacement of guardrail shall be relocated by the Contractor as approved by the Engineer. The cost of this item shall be included in the unit price bid for Item 606 Guardrail.

GUARDRAIL OVER CULVERTS:

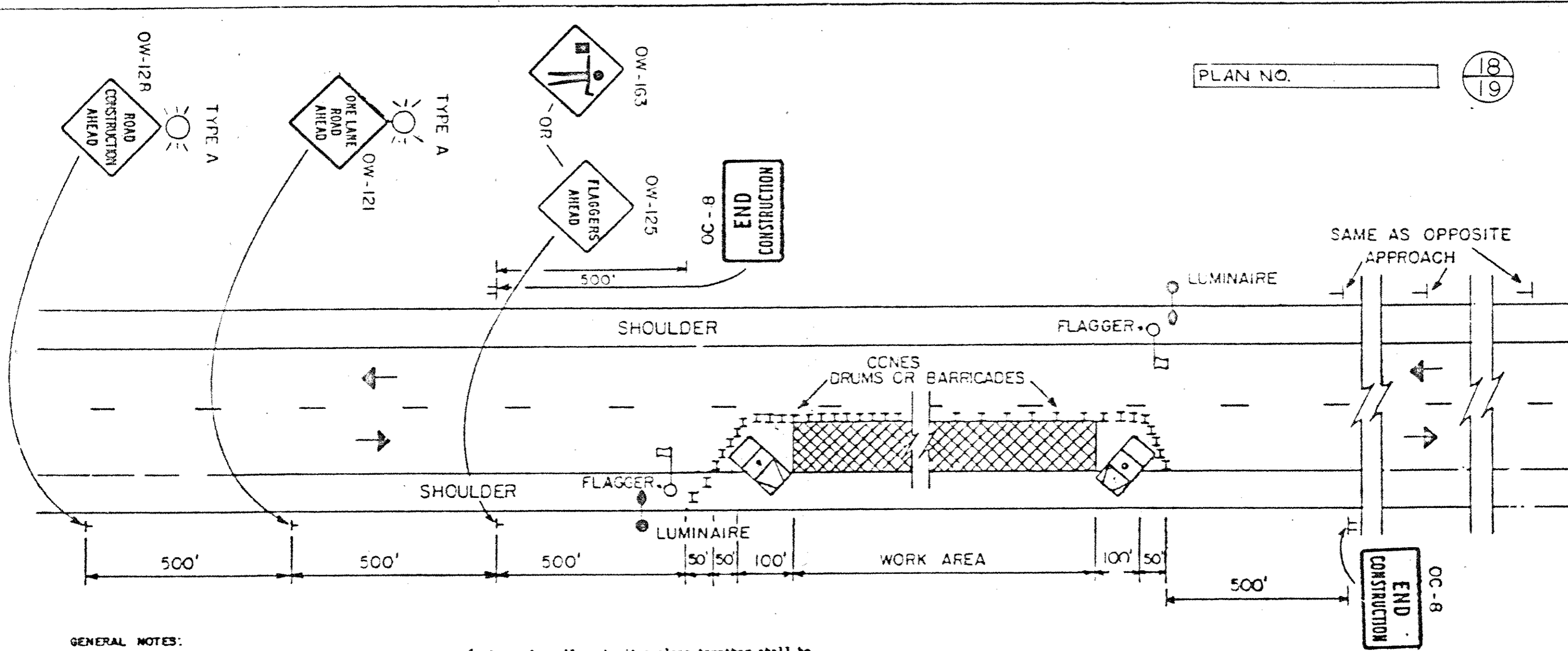
When sufficient post depth is not available due to a culvert, guardrail posts directly over the culvert shall be set in holes, encased in a minimum of 4" thickness of Class C concrete for the full depth of the hole, or as detailed on GR-1 for inlet mounted posts. Method shall be approved by the Engineer. Payment for the above shall be included in the unit price bid for the applicable guardrail item.

GUARDRAIL POST AND GUARD POST HOLES:

All holes remaining after removal of guardrail posts or guard posts shall be filled with granular material, excess material resulting from guardrail reconstruction or excess material from berm reshaping. All fill material shall be approved by the Engineer. Material placed in holes shall be thoroughly compacted and leveled off as directed by the Engineer. Payment for the above shall be included in the unit price bid for the applicable guardrail item.

PLAN NO. _____

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GENERAL NOTES:

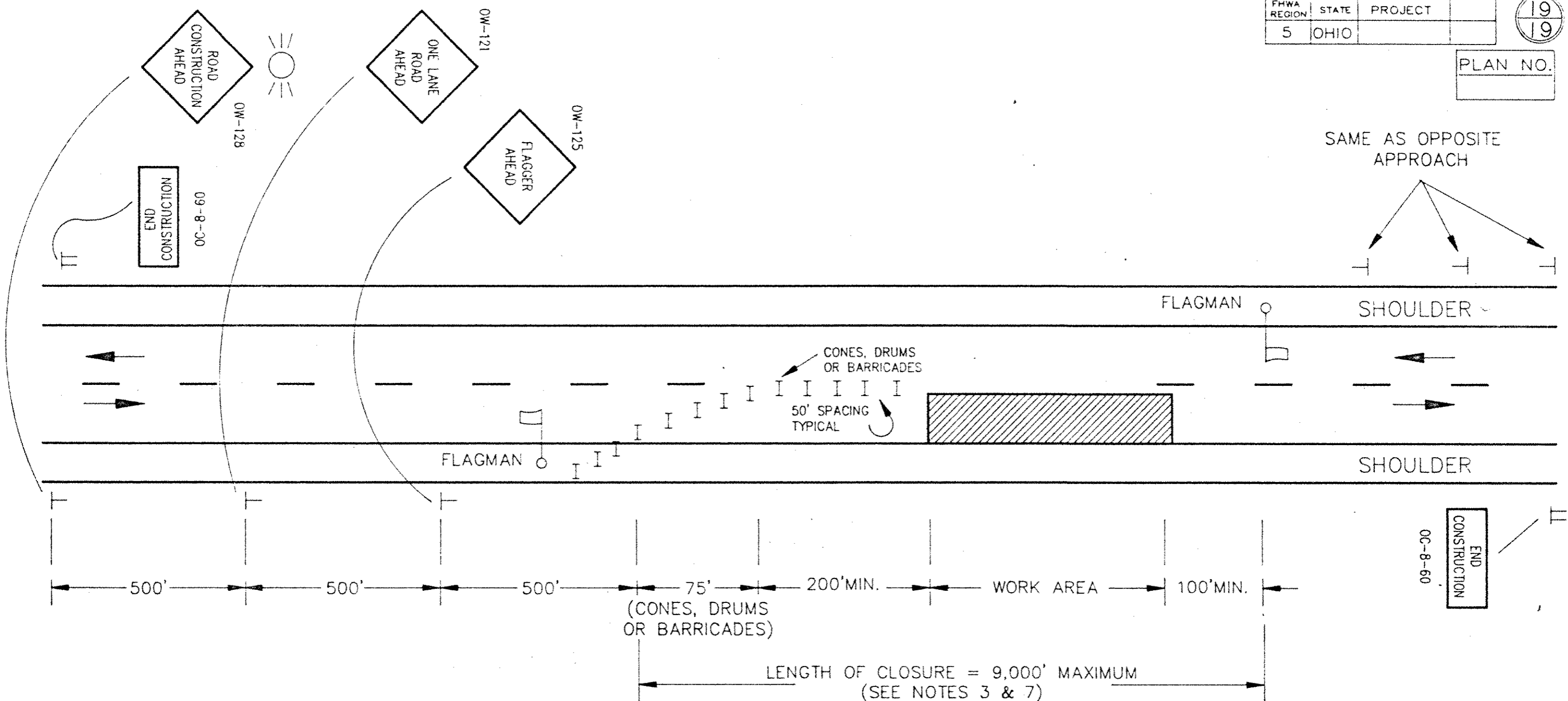
1. The location of the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment. The distances shown are minimums.
2. Flaggers shall be used to control traffic continuously for as long as a one lane operation is in effect. The flaggers shall communicate with each other at all times as described in the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) in Section 7M: Control of Traffic Through Work Areas.
3. Cones drums or barricades shall be spaced at approximately 50' to 60' center to center for the first 1000 feet of the work area and at a maximum of 100' to 120' center to center for the balance of the work area. Cones, drums or barricades on the advance and return tapers shall be spaced at 18' center to center. Cones may be substituted for barricades or drums for the lane closures during daylight hours only.
4. Several small work sites close together shall be combined into one work area to make a closure not more than 2000 feet long including tapers. Closures of more than 2000 feet may be approved by the Engineer. The minimum length between closures shall be 2000 feet. Only one side of the road shall be closed in any one work area.
5. The work vehicles shown at the beginning and end of the work area shall be in place and unoccupied whenever workers are in the work area. These work vehicles shall be removed from the pavement whenever workers are not in the work area. Other protective devices may be used in lieu of the work vehicles shown when approved by the Engineer. The vehicles shall be equipped with a 360° rotating or flashing amber beacon clearly visible a minimum of a 1/4 mile.
6. The Type A flashing barricade warning lights shown on the "Road Construction Ahead" and the "One Lane Road Ahead" signs are required whenever a night lane closure is necessary.
7. Type C steady burning barricade warning lights shall be erected on drums or barricades for night lane closures. The maximum spacing shall be identical to the channelizing device spacing requirements described in Note 3.
8. Adequate area illumination to clearly identify the flagger station at night for long term operations shall be provided by using 150 watt minimum high pressure sodium luminaires or 250 watt minimum mercury luminaires. Luminaires shall be located adjacent to one flagger station for each direction of traffic as shown above. The mounting height for temporary luminaires shall be a minimum of 27 feet above the pavement and the overhead conductor clearance shall be 20 feet above the pavement.

OHIO DEPARTMENT OF TRANSPORTATION	
FLAGGERS CLOSING 1 LANE OF A 2 LANE HIGHWAY	DATE _____
DR _____	CX _____

FHWA REGION	STATE	PROJECT
5	OHIO	

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PLAN NO.



GENERAL NOTES:

- 1 FLAGMEN SHALL BE USED TO CONTROL TRAFFIC CONTINUOUSLY FOR AS LONG AS ONE LANE OPERATION IS IN EFFECT. FLAGMEN SHALL BE ABLE TO COMMUNICATE WITH EACH OTHER AT ALL TIMES EITHER VERBALLY OR BY MEANS OF RADIO OR FIELD TELEPHONES. FLAGMAN STATIONS SHALL BE ADEQUATELY ILLUMINATED FOR NIGHT TIME OPERATIONS BY USE OF A 175 WATT MINIMUM LUMINAIRE.
- 2 CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS FOR THE LANE CLOSURE DURING DAYLIGHT HOURS ONLY.
- 3 WHEN THE AMBIENT TEMPERATURE EXCEEDS 80 DEGREES F. THE ENGINEER MAY INCREASE THE LENGTH OF CLOSURE TO ALLOW FOR SUFFICIENT COOLING OF THE NEW PAVEMENT.

THE ENGINEER MAY SHORTEN THE MAXIMUM ALLOWABLE LENGTH OF CLOSURE TO RELIEVE EXCESSIVE TRAFFIC BACKUPS.

- 4 ALL TRAFFIC CONTROL SIGNS, CHANNELIZING DEVICES, AND FLAGMEN SHALL BE MOVED FORWARD BEFORE THE CLOSURE REACHES THE MAXIMUM ALLOWABLE LENGTH. ONLY ONE SIDE OF THE ROAD SHALL BE CLOSED AT ANY TIME IN A WORK AREA.
- 5 THE TYPE B HIGH INTENSITY BARRICADE WARNING LIGHT SHOWN ON THE ROAD CONSTRUCTION AHEAD SIGN IS REQUIRED WHENEVER NIGHT LANE CLOSURE IS NECESSARY.
- 6 THE TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS OR BARRICADES FOR NIGHT LANE CLOSURES.
- 7 THE ADVANCE WARNING SIGNS "OW-128" "OW-121" AND "OW-125" SHALL BE MOVED BACK AS REQUIRED BY THE QUEUING OF STOPPED VEHICLES.
- 7 WITHIN THE LENGTH OF CLOSURE, PROVISION SHALL BE MADE TO CONTROL TRAFFIC ENTERING FROM INTERSECTING STREETS AND MAJOR DRIVES AS NECESSARY TO PREVENT WRONG WAY MOVEMENTS AND TO KEEP VEHICLES OFF OF NEW PAVEMENT NOT READY FOR TRAFFIC.

OHIO DEPARTMENT OF TRANSPORTATION	
FLAGMEN CLOSING 1 LANE OF A 2 LANE HIGHWAY	DATE 12/80
PAVING OPERATIONS	