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Longitudinal Joints (Flexible Pavement)

Longitudinal joints between a pavement lane and adjoining shoulder or speed change lane, and between a speed change lane and the adjoining shoulder shall be made the same day. All longitudinal joints shall be hot with the exception of one cold joint per roadway. Locate the cold joint along the centerline or a lane line. Longitudinal joint locations shall be as approved by the Engineer. Each ramp shall have a maximum of one longitudinal cold joint located approximately halfway across the ramp.

Item 251 - Partial Depth Pavement Repair (442), As Per Plan A

This item shall be used for the repair unsound, cold patch, or pop-out areas of longitudinal joints consisting of existing asphalt or concrete as directed by the Engineer. The work shall be performed prior to the planing operation. The depth of the repair shall be 4.5" below the top of the existing asphalt surface. The width of the repair shall be 12" centered over the existing joint.

Use replacement materials conforming to the requirements of Item 442, 19mm.

The following estimated quantity has been carried to the General Summary:

Item 251 – Partial Depth Pavement Repair (442), As Per Plan A..... 600 Sq Yd

Item 251 - Partial Depth Pavement Repair (442), As Per Plan B

This item shall be used for the repair unsound, cold patch, or pop-out areas of transverse joints and cracks of existing asphalt or concrete as directed by the Engineer. The work shall be performed prior to the planing operation. The depth of the repair shall be 4.5" below the top of the existing asphalt surface. The width of the repair shall be 12" centered over the existing joint.

Use replacement materials conforming to the requirements of Item 422, 19mm.

The following estimated quantity has been carried to the General Summary:

Item 251 – Partial Depth Pavement Repair (442), As Per Plan B..... 950 Sq Yd

Item 253 – Pavement Repair

This work item is for use as directed by the Engineer for the purpose of pavement repair. All labor and material necessary to perform this work and section 250 of the CMS shall be included for payment under Item 253.

Depth of pavement repair removal shall typically be 5" measured after the pavement has been planed. The depth of repair shall be as directed by the Engineer if unsound material is encountered after the removal of the 5".

Use replacement materials conforming to the requirements of Item 441, Type 2.

The following estimated quantity has been carried to the General Summary:

<u>Item 253 – Pavement Repair, As Per Plan</u>

This work item is for use as directed by the Engineer for the purpose of pavement repair at two locations identified in the plans that show excessive settlement. In order to correct the grade, variable depth repairs are needed in the outside lane and outside shoulder. All labor and material necessary to perform

this work and section 250 of the CMS shall be included for payment under Item 253. In addition to the variable depth repairs, the curb will be removed and replaced in these sections, as needed, to correct the curb reveal.

Location 1 is at Sta. 19+50 along SR-2 WB and Location 2 is at Sta. 50+85 along the SR-2 WB connection ramp from IR-90 WB.

Depth of pavement repair removal at location 1 shall typically be 7" (avg.) measured after the pavement has been planed. Depth of pavement repair removal at location 2 shall typically be 6" (avg.) measured after the pavement has been planed. The depth of repair shall be as directed by the Engineer if unsound material is encountered after the removal of the average depths.

Use replacement materials conforming to the requirements of Item 441, Type 2.

The following estimated quantities have been carried to the General Summary:

Item 609 - Curb Type 6 125 Ft

<u>Item 253 - Pavement Repair, As Per Plan</u>

This item shall be used for the repair of existing pressure relief joints at Sta. 176+43 where the asphalt has deteriorated and/or has humped up over time. The depth of the repair shall be 3" ± below the top of the surrounding concrete roadway pavement or as Directed by the Engineer. Replacement material shall be a Type 1, 448 Material, placed in 2 lifts.

The following estimated quantity has been carried to the General Summary to be used as Directed by the Engineer to complete the above noted work.

tem 254 - Pavement Planing, Asphalt Concrete, As Per Plan

This item shall be used to remove the existing asphalt overlay full width at an average depth of 1-1/2" as specified in the plans on SR-2. Areas which have transverse wedges (butt joints) are to be removed in two passes as required for maintaining traffic. No additional payment shall be made for the second pass.

Item 442 - Asphalt Concrete Surface Course, 12.5mm, Type A, (447), As Per Plan. PG 76-22M

The coarse virgin aggregate for this item shall be limited to a blend of air cooled blast furnace slag (ACBFS) or Trap Rock from Ontario and limestone. The Contractor shall use a minimum 60% of ACBFS or Trap Rock from Ontario with limestone comprising the remaining percentage. At least 50% of fine virgin aggregate for this item shall be limited to ACBFS or Trap Rock from Ontario.

Table 442.02-2 applies except No. 4 sieve requirements are 52 to 60 Total Percent Passing. For the No. 4 sieve do not exceed 63 in production.

When ACBFS is used for a fraction of the coarse aggregate, provide a total asphalt binder content greater than or equal to 6.2 percent. If ACBFS makes up 100% of the coarse aggregate, apply the binder content requirements of C&MS

<u>Item 442 – Asphalt Concrete Surface Course, 12.5mm, Type A, (446), As Per</u> Plan, PG 76-22M

Joint coring in accordance with 446.04 is not required for cold longitudinal joints placed over Void Reducing Asphalt Membrane (VRAM). Construct cold longitudinal joints over VRAM using the same techniques, equipment, and roller patterns used on the rest of the mat. Obtain 10 mat cores for each lot of material in accordance with 446.04. Pay factors for each lot of material will be determined according to Table 446.04-2.

The coarse virgin aggregate and at least 50% of fine virgin aggregate for this item shall be limited to air cooled blast furnace slag (ACBFS) or Trap Rock from Ontario.

Table 442.02-2 applies except No. 4 sieve requirements are 52 to 60 Total Percent Passing. For the No. 4 sieve do not exceed 63 in production.

Item 617 - Compacted Aggregate, As Per Plan

This item shall be used to place compacted aggregate at a variable depth only where needed to fill in low spots and eliminate drop offs along shoulders. Material shall be limited to reclaimed asphalt concrete pavement (RAP).

The actual depth of compacted aggregate placed will vary depending upon existing conditions. For estimating purposes, an average depth of one inch (1") has been used. Water, if needed, shall be applied according to 617.05 and shall be included with Item 617 - Compacted Aggregate, As Per Plan.

The following estimated quantity has been carried to the General Summary for use as directed by the Engineer:

Item 618 - Rumble Strips, Shoulder (Asphalt Concrete), As Per Plan

For all freeways, the lateral position of edge line rumble strips shown in SCD BP-9.1 is revised as follows:

- 1. Median and Outside Shoulder Offset for shoulders less than 6': Dimension A and B are equal to 6".
- 2. Median and Outside Shoulder Offset for shoulders 6' to 12': Dimension A and B are equal to half the shoulder width minus 12".
- Median and Outside Shoulder Offset for shoulders greater than 12': Dimension A and B are equal to 5'.

The following estimated quantity shall be used to construct Item 618 – Rumble Strips, Shoulder (Asphalt Concrete), As Per Plan:

Item 618 – Rumble Strips, Shoulder

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														1,000	032	30000	1,000	EACH	ENOSION CONTINUE		
	111													111	611	98631	111	EACH	DRAINAGE CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN	13	4
	22													22	611	99655	22	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	13	
	10,00	0												10,000	SPECIAL	61199820	10,000	LB	MISCELL ANEOUS METAL	13	_
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		600												600	251	01021	600	SY	PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN A	14	
		950 25	\										(950 x 25	253	01001	950 25	SY	PARTIAK DEKTHYAVKMENT RKPANK (442), AS PER PLAN B PAVEMENT REPAIR, AS PER PLAN	14	\mathcal{H}
		25 255	1										`	35	255 \253	102001	25 X35		RAVIMENT REPAIR, AS FER FLAN	14	
		55												55	253	02001	55	CY	PAVEMENT REPAIR, AS PER PLAN	14	
-			-					47,045	57,843	15,032	4,627			124,547	254	01001	124,547	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 1.5"	14	4
								4,705	5,785	1,503	463			12,456	407	20000	12,456	GAL	NON-TRACKING TACK COAT	19	\dashv
								1,691	1,899	536	193			4,319	442	00100	4,319	CY	ANTI-SEGREGATION EQUIPMENT		\exists
			1					1,961	2,410	352 274	193			545 4,645	442 442	10001 10301	545 4,645	CY CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M, 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN, PG76-22M, 1.5"	14	_
								1,501	2,110	211				1,010	112	10301	1,010	67	ASTRACT COMMETE SOUTHER COOKSE, IE.S. MINN, THE ATTITUTE ATTITUTE EETH, 1.5		
		125												125	609	26000	125	FT	CURB, TYPE 6		
-		3.78												<i>8 3.78</i>	617 618	10101 40601	8 3.78	CY MILE	COMPACTED AGGREGATE, AS PER PLAN RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN	14	
		3170								2,372	1,384			3,756	872	10000	3,756	FT	VOID REDUCING ASPHALT MEMBRANE (VRAM)		╛
e_																			WATER WARK		4
	2													2	638	10801	2	EACH	WATER WORK VALVE BOX ADJUSTED TO GRADE, AS PER PLAN	13	\dashv
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∑												704	174	878	621	00100	878	EACH	TRAFFIC CONTROL RPM		4
ò.			659									704	1/4	659	621	54000	659	EACH	RAISED PAVEMENT MARKER REMOVED		-
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050												7.04 5.77	1.65 0.4	8.69 6.17	646 646	10010 10110	8.69 6.17	MILE MILE	EDGE LINE, 6" LANE LINE, 6"		-
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2/2												10, 600	0.17	0.17	646	10200	0.17	MILE	CENTER LINE		4
+ 0												10,620	1,635 149	12,255 149	646 646	10310 10400	12 , 255 149	FT FT	CHANNELIZING LINE, 12" STOP LINE		-
She													1,002	1,002	646	10500	1,002	FT	CROSSWALK LINE		コ
6			-										36	36	646	10600	36	FT	TRANSVERSE/DIAGONAL LINE		\dashv
000												676		676	646	10620	676	FT	CHEVRON MARKING		\dashv
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