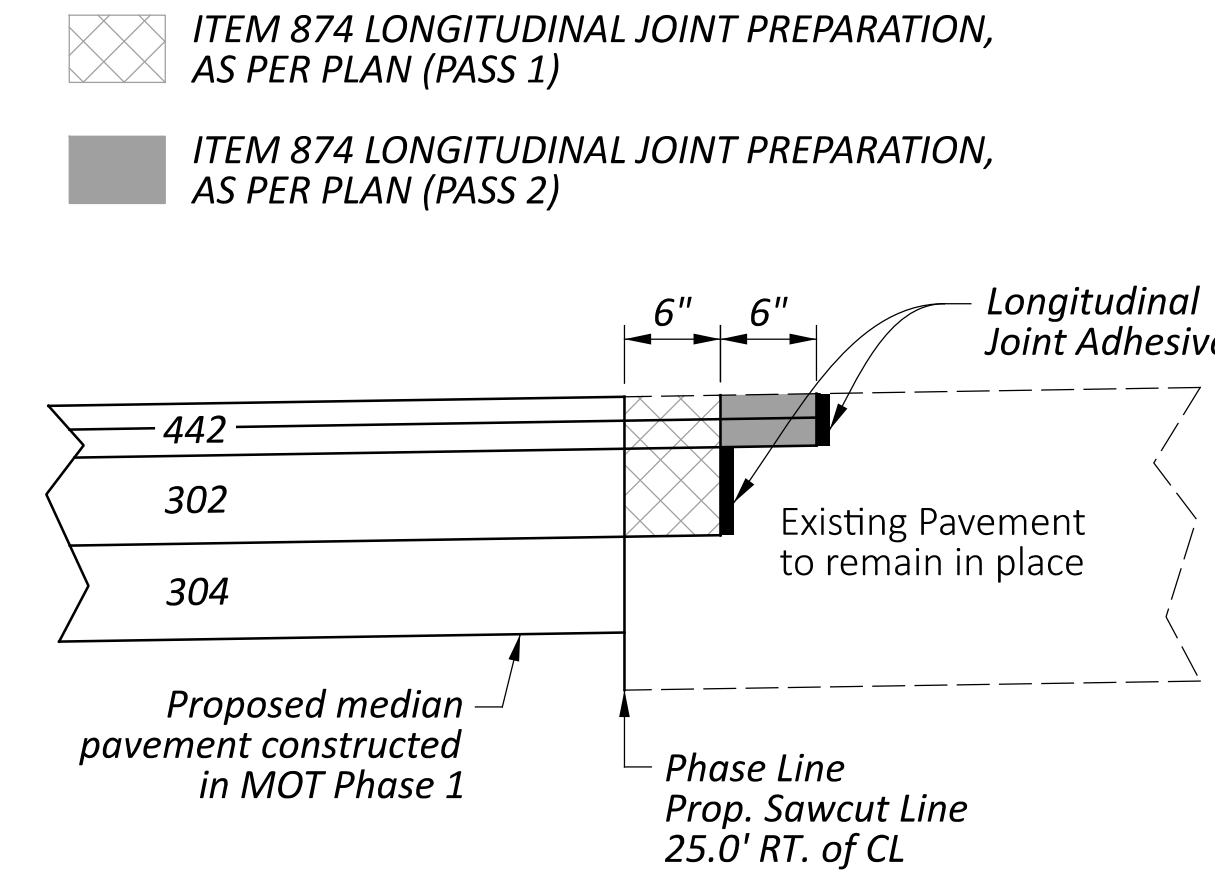


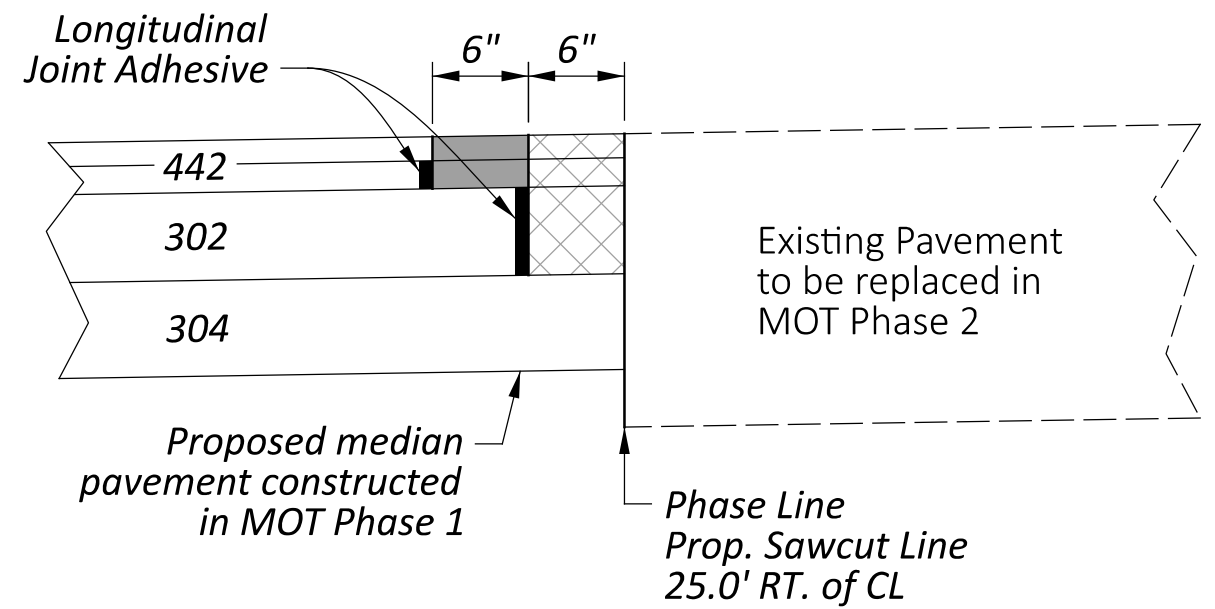
ITEM 874 LONGITUDINAL JOINT PREPARATION, AS PER PLAN (PASS 1)
ITEM 874 LONGITUDINAL JOINT PREPARATION, AS PER PLAN (PASS 2)

This work shall consist of creating lapped pavement layers at the phase construction joint as per the "LONGITUDINAL JOINT PREPARATION Method 1" detail on SCD BP-3.1, except as modified below:



PHASE 1 LAPPING DETAILS (E.B. / W.B. RESURFACING SECTIONS)
DETAIL APPLIES:
STA. 639+65.00 - 653+75.00 = 1410.00 FT.
STA. 803+36.00 - 831+70.00 = 2834.00 FT.

- Phase 1 Sequence:
1. Sawcut and remove existing inside shoulder pavement.
 2. Construct median subgrade to 304 layer.
 3. Trim 6" into existing pavement (874 Pass 1 - max. depth of 8.75").
 4. Construct 302 layer.
 5. Trim 6" into existing pavement. (874 Pass 2 - max depth of 3.25").
 6. Place 442 layers.
- (Note: Detail shown at E.B. sawcut line, but also applies to W.B. sawcut.)



PHASE 2/3 LAPPING DETAILS (E.B. / W.B. REPLACEMENT SECTION)
DETAIL APPLIES:
E.B.: STA. 653+75.00 - 747+61.78 = 9386.78 FT.
STA. 750+51.79 - 803+36.00 = 5284.21 FT.
TOTAL = 14,670.99
W.B.: STA. 653+75.00 - 747+96.78 = 9421.78 FT.
STA. 750+81.79 - 803+36.00 = 5254.21 FT.
TOTAL = 14,675.99 FT.

- Phase 2 Sequence:
1. Remove existing E.B. pavement.
 2. Construct E.B. subgrade to 304 layer.
 3. Trim 6" into Phase 1 pavement (874 Pass 1 - 8.75" depth).
 4. Construct E.B. 302 layer.
 5. Trim 6" into Phase 1 pavement. (874 Pass 2 - 3.25" depth).
 6. Place 442 layers.
- (Note: Detail shown at E.B. sawcut line in MOT Phase 2, but also applies to W.B. sawcut in MOT Phase 3.)

ITEM 206 CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP

The following quantities have been provided to be used as per Item 206 at the direction of the Project Engineer. The entire project shall utilize cement stabilization unless detailed otherwise.

ITEM 204 PROOF ROLLING	77 HR	
ITEM 206 CEMENT	5915 TON	
ITEM 206 CURING COAT	228,550 SY	
ITEM 206 MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	LS	

Calculation:
Proof Rolling@ 1 HR per 3000 SY of stabilized subgrade
Plan Split 01/NHS: 104,914 SY ÷ 3000 = 35 HR
Plan Split 02/NHS: 123,636 SY ÷ 3000 = 42 HR
Total = 35 + 42 = 77 HR

Cement (from Table 600-3, Geotechnical Design Manual)
0.75 X 12 inches X 115 X 0.05 = 51.75 lbs per SY
Plan Split 01/NHS: (51.75 lb/SY X 104,914 SY) ÷ 2000 lb/ton = 2715 ton
Plan Split 02/NHS: (51.75 lb/SY X 123,636 SY) ÷ 2000 lb/ton = 3200 ton
Total = 2715 + 3200 = 5915 ton

Curing Coat
Plan Split 01/NHS: 104,914 SY (from sheet P.447)
Plan Split 02/NHS: 123,636 SY (from sheet P.447)
Total = 104,914 + 123,636 = 228,550 SY

Ditch Undercut Quantities

The following estimated quantities are provided to accomplish ditch undercuts in the existing median area as shown on the cross sections and as discussed in Section 501 of the Geotechnical Design Manual. This undercut is assumed as 2.0' deep and 16.0' wide for estimating purposes. Actual ditch undercut shall be as directed by the Engineer.

Calculation:
Sta. 639+65 to Sta. 647+75 = 810 ft
Sta. 648+25 to Sta. 669+40 = 2115 ft
Sta. 673+75 to Sta. 694+50 = 2075 ft
Sta. 697+65 to Sta. 705+75 = 810 ft
Sta. 706+75 to Sta. 726+25 = 1950 ft
Sta. 726+75 to Sta. 746+25 = 1950 ft
Sta. 752+15 to Sta. 763+75 = 1160 ft
Sta. 764+50 to Sta. 800+00 = 3550 ft
Sta. 800+50 to Sta. 810+00 = 950 ft
Sta. 811+00 to Sta. 812+65 = 165 ft
Sta. 813+05 to Sta. 820+60 = 755 ft
Sta. 821+10 to Sta. 831+00 = 990 ft
Total: 17,280 ft
(Deduction: 26 existing median inlets X 25' = 650 ft)
Total: 16,630 ft

(16,630 ft X 16 ft wide X 2 ft thick) ÷ 27 = 19,710 CY

The following quantities have been carried to the General Summary to accomplish the work described above:

ITEM 203 EXCAVATION	19,710 CY	(Plan Split 01/NHS)
ITEM 203 EMBANKMENT	19,710 CY	(Plan Split 01/NHS)

Post Construction Storm Water Treatment

This plan utilizes structural best management practices (BMP's) for post construction storm water treatment.

Undercut Contingency Quantities

In the event any area fails the proof rolling after chemical stabilization, the following quantities have been included in the general summary and may be used for stabilizing the failed areas as directed by the Project Engineer:

ITEM 204 EXCAVATION OF SUBGRADE	3500 CY
ITEM 204 GRANULAR MATERIAL, TYPE B	3500 CY
ITEM 204 GEOTEXTILE FABRIC	5000 SY
ITEM 204 GEOGRID	5000 SY

The above quantities may also be used for stabilizing failed areas in the temporary pavement locations required for the maintenance of traffic.

Seeding and Mulching

The following quantities are provided to promote growth and care of permanent seeded areas:

ITEM 659 SOIL ANALYSIS TEST	2 EACH
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ITEM 659 SEEDING AND MULCHING, CLASS 2 51,873 SY
50,993 SY (from P.638) + 410 (from P.64) + 240 (from P.66) + 230 (from P.70) = 51,873 SY

ITEM 659 REPAIR SEEDING AND MUCHING 2594 SY
5% X 51,873 SY = 2594 SY

ITEM 659 INTER-SEEDING 2594 SY
5% X 51,873 SY = 2594 SY

ITEM 659 COMMERCIAL FERTILIZER 7 TON
51,873 SY ÷ 7410 = 7 ton

ITEM 659 LIME 10.7 ACRE
51,873 SY ÷ 4840 = 10.7 acre

ITEM 659 WATER 295 MGAL
((51,873 + 2594) X 0.0027) X 2 applications = 295 MGAL

ITEM 659 MOWING 117 MSF
(51,873 SY X 9 SF/SY X 25%) ÷ 1000 = 117 MSF

Seeding and mulching shall be applied to all areas of exposed soil between the Right-of-Way lines, and within the construction limits for areas outside the Right-of-Way lines covered by work agreement or slope easement. Quantity calculations for seeding and mulching are based on these limits.

Vegetated Filter Strip

This plan utilizes vegetated filter strips for post construction storm water treatment. Place either ITEM 660 SODDING or ITEM 659 SEEDING AND MULCHING with a 4-inch lift of topsoil and ITEM 670 SLOPE EROSION PROTECTION to all disturbed areas designated as vegetated filter strips, the edge of shoulder, and the foreslope as specified in the plans. See sheet P.448 for more details.

The following estimated quantities are provided in the general summary for use as directed by the Engineer to improve the proposed BMP locations in the plans:

ITEM 659 TOPSOIL	(600 CY)
ITEM 670 SLOPE EROSION PROTECTION	(5400 SY)

(Quantities based on 20% of plan vegetated filter strip areas.)

Endangered Bat Habitat Removal

This project is located within the known habitat ranges of the federally listed and protected Indiana bat, and Northern Long-Eared Bar. No trees shall be removed under this project from April 1 through September 30. All necessary tree removal shall occur from October 1 through March 31. This requirement is necessary to avoid and minimize impacts to these species as required by the Endangered Species Act (ESA). For the purposes of this note, a tree is defined as: alive, dying, or dead woody plant, with a trunk 3 inches or greater in diameter at a height of 4.5 feet above the ground surface, and with a minimum height of 13 feet.

Permits - Waterway Permits

Do not place any temporary or permanent fill within the jurisdictional boundaries of all streams, wetlands, and jurisdictional ditches during construction of this project, including scaffolding or bacing. Do not place any equipment within the jurisdictional boundary of any waterway. If debris enters the waterway during construction, remove the debris immediately using equipment staged outside the jurisdictional boundary.

ITEM 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C1, AS PER PLAN
ITEM 622 CONCRETE BARRIER END SECTION, TYPE C1, AS PER PLAN
ITEM 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1, AS PER PLAN
ITEM 611 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1, AS PER PLAN

In addition to the requirements of C&MS 622:

1. When placing barrier wall concrete assure the ambient air temperature is 85 °F (30 °C) or less and not predicted to go above 85 °F (30 °C) during the concrete placement; and evaporation rates, determined according to Figure 1 in ACI 308-81 (see CMS 511.07), do not exceed 0.1 lbs/ft^2 /hour (0.5 kg/m^2 /hour).

2. Apply two layers of Method B Membrane Cure according to 511.13.B. The resulting application should look like a sheet of white paper.

3. Remove and replace any unreinforced barrier section where more than two cracks that are greater in length than half the height of the barrier wall are present within one twenty-foot section. Remove and replace any reinforced end anchorage or end section with more than one crack present within the end anchorage or end section. Removal shall consist of saw cutting the existing barrier at the contraction joints, removal of of the concrete, and dowel the replacement section into the abutting sections per the construction joint detail from the corresponding standard construction drawing. For any section with a singular through crack with displacement or a horizontal protrusion/ reveal greater than 1 inch of displacement, saw cut the crack to a depth of 1 inch and clean it out before sealing with a polyurethane or polymeric material conforming to ASTM C920, Type S. Do not repair cracks via epoxy injection in unreinforced barrier sections. Reinforced sections with one crack that does not have greater than 1 inch of displacement shall be repaired and sealed by epoxy injection per 512.07.

4. Sections of barrier wall that contain an ITS junction box (see P.764) shall be hand-poured per ODOT SS 809.15.B. The length of the hand-poured section shall be a minimum of 6 feet with the junction box centered in the section. Construction joints will be required on each end of the hand-poured section per SCD RM-4.3.



BRIDGE PAVEMENT MARKINGS																					
LOCATION	SFN	BRIDGE NUMBER	646			646			646			646			646			646			COMMENTS
			EDGE LINE, 6"			LANE LINE, 6"			CENTERLINE, 6"			CHANNELIZING LINE, 8"			LANE ARROW			WORD ON PAVEMENT, 72"			
			MILE			MILE			MILE			FT			EACH			EACH			
			#	F	T	#	F	T	#	F	T	#	F	T	#	F	T	#	F	T	
1	4501772	LIC-16-14.151	0		0	0		0	0		0	0		0	0		0		0	SR-16 OVER SR-37	
2	4506333	LIC-661-0.030	2	356	0.13	0		0	1	356	0.07	2	356	712	6		0	2		0	SR-661 OVER SR-16
3	4500725	LIC-16-15.590	4	225	0.17	2	225	0.09			0	0		0	0		0	0		0	SR-16 OVER RACCOON CREEK
4	4500830	LIC-16-17.190	2	240	0.09	2	240	0.09	1	240	0.05	2	240	480	4		0	4		0	THORNWOOD DRIVE OVER SR-16
TOTALS			0.39			0.18			0.12			1192			10			6			

QUANTITIES CARRIED TO BRIDGE SUB-SUMMARY.