## **GENERAL NOTES**

See cross sections for special ditches and backslopes.

The removal of Bituminous Surfacing less than 6 inch thickness not on a rigid type base removed in conjunction with the base shall be removed as EARTH EXCAVATION. The removal of Bituminous Surfacing on a rigid type base or a thickness of 6 inches or more on a flexible base removed in conjunction with the base shall be included in the contract unit price for PAVEMENT REMOVAL of the type specified.

The final top 4 inches of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2' deep) of soil profiles of local soils.

All Borrow/Waste/Use sites must be approved by the Department prior to removing any material from the project or initiating any earthmoving activities, including temporary stockpiling outside the limits of construction.

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 4 or 2A shall be used, except in front of properties where the grass will be mowed, then use Seeding, Class 1. Class 2A shall be used on front slopes and ditch bottoms. Class 4 shall be used behind Type A gutter, on all backslopes and areas behind the backslope, and beyond the toe of front slope on fill sections without ditches.

Previously pugmilled stockpiles of "Type A" older than 1 month will not be approved for use until a moisture check is run to verify moisture content. Material shipped to projects without being tested will not be accepted.

Placement and compaction of the backfill for proposed across road culverts and existing across road culverts that are removed shall conform to Section 502.10 of the Standard Specifications, except that the material shall conform to Article 208.02 of the Standard Specifications, and shall be compacted to a minimum of 95% of the standard laboratory density. Any material conforming to the requirements of Article 1003.04 or 1004.05 which has been excavated from the trenches shall be used for backfilling the trenches. The entire excavation, within 2 feet outside of each shoulder, shall be backfilled with trench backfill material to the bottom of the proposed subgrade. Impervious material shall be used on the outer 3 feet of each end of the culvert. This trench backfill material will not be measured for payment, but shall be included in the contract unit price for the class of concrete involved or other unit price item of the work for which it is required.

The subgrade on this project, exclusive of rock cut areas is scheduled to be improved to a 12" depth according to Mechanistic Pavement Design. The areas scheduled to be improved to a depth greater than 12" are estimated based on the original geotechnical investigation. The subgrade shall be processed in accordance with Article 301.04 of the Standard Specifications before the engineer shall determine the limits and the additional thickness of improvement required, if any. Any additional undercutting required after this evaluation shall be paid for as EARTH EXCAVATION.

All "Aggregate Subgrade Improvement" (Section 303), shall be completed in accordance with Articles 311.04, 311.05, 311.05(a), 311.06 and 311.07. All aggregate subgrade thicknesses less than 12 inches shall be constructed of aggregate of CA02 gradation.

All embankment constructed of cohesive soil shall be constructed with not more than 110% of optimum moisture content, determined by the standard proctor test. Cohesive soil shall be defined as any soil which contains greater than 10% particles by weight passing the 75 µm (#200 sieve). The 110% of optimum moisture limit may be waived in free-draining granular material when approved by the Engineer.

Closed expansion joints on jointed pavements shall be re-established during the patching operations. Class B Patches - when the pavement requires patching at the location of the expansion joint, a new joint should be established using a dowelled expansion patch as shown on Highway Standard 442101. When the joint is closed, but does not require patching, an expansion joint may be formed by sawing the pavement and filling the saw cut with a preformed expansion joint filler meeting the requirements of Section 1051 of the Standard Specifications as shown on Standard 420001.

When laying out for patching, the minimum distance between new patches (saw cut to saw cut) shall be 15 feet. When patch spacing is less than 15 feet, the pavement between patches shall also be removed and replaced.

All mandatory joint sealing for Class A, Class B, and Class B (Hinge Jointed) patches as shown on the plans will not be measured for payment. Optional sawing of the joint for the sealant reservoir will not be measured for payment.

For all concrete patching that will not be resurfaced, the concrete shall be struck off flush with the existing pavement surface at each end of the patch.

The Engineer reserves the right to check all patches for smoothness by the use of a 10' rolling straight edge set to a 3/16" tolerance in the wheel paths. Any patch areas higher than 3/16" must be ground smooth with an approved grinding device consisting of multiple saws. The use of bushhammer or other impact devices will not be permitted. Any patch with depressions greater than 3/16" shall be repaired in a manner approved by the Engineer.

The mandatory saw cuts for pavement patching are:

<u>Class A Patch</u>: Cut two transverse saw cuts at each end of the patch; one full depth and one partial depth. The longitudinal edges of the patch shall be cut full depth. When the patch is adjacent to a pcc shoulder, two saw cuts along the shoulder will be required.

<u>Class B Patch</u>: Cut two transverse saw cuts outlining the patch and one transverse pressure relief saw cut. The longitudinal edges of the patch shall be cut full depth. When the patch is adjacent to a pcc shoulder, two saw cuts along the shoulder will be required.

The mandatory saw cuts will be paid for at the contract unit price per Foot for SAW CUTS.

Place LEVELING BINDER (MACHINE METHOD) on curves to attain additional superelevation as indicated on the typical section. The curves requiring such treatment are included in the schedules. Estimated Total: 1621 tons.

The following Mixture Requirements are applicable for this project:

Mixture Uses(s):	Surface	Level Binder	Binder Course	Variable Depth Level Binder		
PG:	SBS PG 64-28	SBS PG 64-28	PG 64-22	PG 64-22		
Design Air Voids	4.0 @ N70	4.0 @ N70	4.0 @ N70	4.0 @ N70		
Mixture Composition (Gradation Mixture)	IL 9.5	IL 9.5 or IL 9.5 FG	IL 19.0	IL 9.5 or IL 9.5 FG		
Friction Aggregate	F	N/A	N/A	N/A		
20 Year ESAL	3.4	3.4	3.4	3.4		

Mixture Uses(s):	Top Shoulder	Bottom Shoulder	Variable Depth
			Level Binder
PG:	PG 64-22	PG 64-22	PG 64-22
Design Air Voids	3 @ N50	2 @ N50	3.0 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5 or IL 9.5 FG	IL 19.0	IL 9.5 or IL 9.5 FG
Friction Aggregate	С	N/A	N/A
20 Year ESAL	N/A	N/A	3.4

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FILE NAME = 04G97.GN.DOCX	PLOT SCALE =	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	021121412110120				
	PLOT DATE = 3/15/2013 9:41 AM	DATE - 3/1/2013 9:54 AM	REVISED -		SCALE:	SHEET NO.	OF SHEETS STA.	STA.	

	ROUTE	SECTION		COUNTY TOTAL SHEETS		SHEET NO.	
S	FAP 517	1R		Boone	126	16	
•	(US BR 20)			CONTRACT NO. 64G97			
TO STA.			ILLINOIS	FED. AID PROJECT			