GENERAL NOTE:

~~On surfacing projects the 150 mm of Compaction Type AA, shown for the center portion on the roadbed, is for the purpose of restoring the original Compaction Type AA which may have been lost since grading operations. The exact locations of this Compaction Type AA which will be required, is to be determined by the Engineer at the time of construction. This work shall be paid under the bid item 'Compaction of Earthwork (Type AA)(MR-)'.~~

~~Over all structures, unless otherwise directed by the Engineer, where the top of the hubguard is level with or above the finished shoulder grade, the earth cover over the structure slab shall be removed and backfilled with _____ material as directed by the Engineer. The removal of this material will be subsidiary.~~

~~The _____ material used to backfill over the structure shall be paid for at the prices shown in the contract.~~

The earth shoulders shall be compacted full depth (Type B)(MR 90) except, when ordered by the Engineer, the top 75 mm shall be left uncompacted for seeding.

All house entrances shall be surfaced with BM-2 to the line as indicated on the detail. All house entrances with existing asphalt surface shall be surfaced with BM-2 at least to the R/W line or to the end of construction, as directed by the Engineer. Each mailbox turnout (ON PROJECTS WHERE STABILIZED SHOULDERS ARE NOT SPECIFIED) shall be surfaced with BM-2 to the limits shown on the detail.

~~Surfacing material (SA-_____) shall be used for surfacing house entrances and side roads (_____ m^3/m^2) beyond the limits of the asphalt surface to the limits of construction as determined by the Engineer.~~

The thickness of ~~side road and~~ entrance surfacing may be increased to the same thickness as the stabilized shoulder within the approximate limits of the shoulder.

On projects which specify both bituminous base and surface course materials, side roads, house entrances and mailbox turnouts may be surfaced with both materials at the contractors option, with the approval of the Engineer.

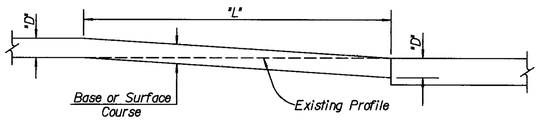
~~Quantities for aggregate for shoulders, AS-1, are calculated on the basis of 2 400 kg/m^3.~~ Quantities for stabilized base course, AB-3, are calculated on the basis of 2 500 kg/m^3. Mass per m^3 includes moisture allowed by specification.

The base course shall be constructed to the plan thickness as shown.

Thicknesses indicated for all construction which is paid for on a mass or volume basis are approximate and may vary to correct for unevenness in the foundations or for other normal unevenness encountered in placement operations.

A tack coat of SS-1H or CSS-1H shall be provided between each lift of all base courses and surface courses and under the first lift of base or surface courses when they are placed on an existing bituminous, brick, or concrete surface, when so ordered by the Engineer and at the rate designated by him/her. Quantities are included for these tacks calculated at the rate of 0.14 L/m^2.

Bituminous Material quantities are calculated on the basis of 1000 kg/m^3.



TYPICAL PROFILE AT GRADE CONTROL POINTS

The Contractor shall cut the subgrade in accordance with this profile at all grade control points, i.e.; existing pavements, grade bridges, R.R. crossings, and at changes in thickness of base or surface courses. The ratio of $\frac{L}{D}$ shall be not less than 300 mm per mm thickness.

The work of cutting the subgrade and disposing of excess excavated material shall be subsidiary to other items in the contract.

SUMMARY OF QUANTITIES

ITEM	Eisenhower Drive	Tonganoxie Drive	Entrance			Total	Units
BITUMINOUS SURFACE COURSE							
✚ Aggregate for Bituminous Base Course (BM-2)	1099	853	64			2016	Mg
* Asphalt Cement (PG 70-28)	57	44	3			104	Mg
Emulsified Asphalt (SS-1H) or (CSS-1H)	1.1	0.9	0.1			2.1	Mg
BITUMINOUS BASE COURSE							
✚ Aggregate for Bituminous Base Course (BM-2)	3136	2192	128			5455	Mg
* Asphalt Cement (PG-64-28)	163	114	7			284	Mg
Emulsified Asphalt (SS-1H) or (CSS-1H)	1.1	0.9	--			2.0	Mg
STABILIZED BASE COURSE							
Combined Material (AB-3)	2536	1632	--			4168	Mg
Surfacing Material (AB-3)	--	--	97			97.0	Mg
Asphaltic Pavement Sampling	1	--	--			1	Each

✚ Computed @ the rate of 2322 Kg/m^3 (Total Mix-Agg. & Asphalt)
* Computed @ the rate of 5.5% by weight Aggregate (Dry Aggregate)
Quantities have been increased for contingencies:
50mm Surface Course - 15%
160mm Base Course - 8%
100mm Aggregate Base Course - 15%

SURFACING MATERIAL (AB-3)

LOCATION	SIDE	TYPE	THICKNESS	METRIC TONS
10+434.0 Eisenhower Drive	Rt	Entrance	150mm	62.2
23+618.0 Tonganoxie Drive	Rt	Entrance	150mm	34.6
TOTAL				96.8

BITUMINOUS ENTRANCES (BM-2)

LOCATION	SIDE	TYPE
10+410.0 Eisenhower Drive	Rt	Entrance
23+589.0 Tonganoxie Drive	Lt	Entrance
23+642.3 Tonganoxie Drive	Lt	Entrance
23+618.0 Tonganoxie Drive	Lt	Entrance

MAIL BOX TURNOUTS

LOCATION	SIDE
10+410.0 Eisenhower Drive	Lt
23+589.6 Tonganoxie Drive	Rt
23+632.0 Tonganoxie Drive	Rt
23+675.0 Tonganoxie Drive	Rt

RATES OF APPLICATION

RATE	UNIT	ITEM		

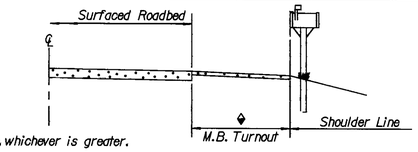
† Computed at the rate of
†† Computed at the rate of

RECAPITULATION OF QUANTITIES

ITEM				TOTAL	UNIT
Aggregate for Bituminous Surface Course (BM-2)				2016	Mg
Aggregate for Bituminous Base Course (BM-2)				5455	Mg
Asphalt Cement (PG 64-28)				388	Mg
Emulsified Asphalt (SS-1H or CSS-1H) (Tack)				4	Mg
Surfacing Material (AB-3)				97	Mg
Combined Material (AB-3)				4168	Mg
Water (Aggregate Base) (Set)				1	Mg
Asphaltic Pavement Sampling (Set)				1	Each
Material for Bituminous Patching (Set)				1	Mg
Field Office and Laboratory (Type A)				1	Each

Note: For projects with stabilized shoulders, the face of the Mail Box to be in a vertical line with the top edge of the shoulder surfacing.

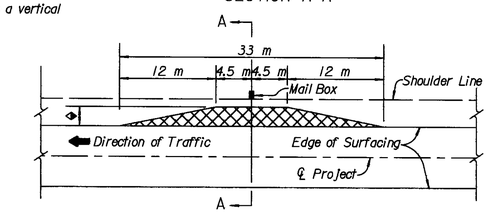
FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	52 C 3604-01	1999	32	70



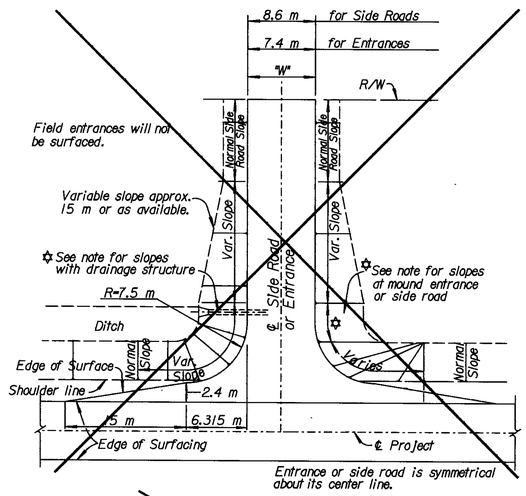
✚ Width shall be 2.4 m or shoulder width, whichever is greater.

SECTION A-A

Note: The face of Mail Box should be in a vertical line with the edge of the shoulder.



DETAIL FOR SURFACING OF MAIL BOX TURNOUTS



Entrance or side road is symmetrical about its center line.

FLARE OF SHOULDERS AT ENTRANCES AND SIDE ROADS

✡ Dimensions for mound entrances or sideroads and those with drainage structures shall be similar with the exception of side slopes within the project clear zone.
These slopes shall be as follows:
Normal Slope (but not steeper than 1:6 at approximate ℄ of structure or appropriate clear zone width for entrances or sideroads containing drainage structures.
1 :8 Slope at the appropriate clear zone shall apply to all mound entrances and mound side roads to 3 m fill height.
Normal Slope (but not steeper than 1:6) over 3 m fill height.

NO.	DATE	REVISIONS	BY	APP'D.
3				
2	12-26-96	Rev. units for tack rate	R.J.S.	J.O.B.
1	2-26-96	Type AA Compaction Bid Item	R.J.S.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES (Surfacing)

~~RD940 S1~~

FHWA APPROVAL	1-14-97	APP'D James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED B.N.B.
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. R.J.S.

Drawn By : $$USERNAME$$ Plotted : $$$$STTIME$$$$
File : $$$$DGNSPEC$$$$