

CALCULATIONS

FAY ROAD

Pavement Area (Fay Rd.)
 Areas computed by Planimeter for F. & O.C. from 20 Scale Dwg.
 Shoulder lengths scaled.
 Area = 7.41 Sq. in. x 20² = 2964 Sq. Ft.
 Shoulder length = 148 Lin. Ft.

301 Bituminous Aggregate Base
 2964 Sq. Ft. + 250' (6") (Additional 6" lip material) = 3089 Sq. Ft.
 3089 Sq. Ft. x .3333' / 27 c.f./c.y. = 38 Cu. Yds.

304 Aggregate Base
 2964 Sq. Ft. + 250' (12") (Additional 12" lip material) = 3214 Sq. Ft.
 3214 Sq. Ft. x .3333' / 27 c.f./c.y. = 40 Cu. Yds.

304 Aggregate Base
 148 Lin. Ft. x 4' (shld. width) x .50' / 27 c.f./c.y. = 10.96 Cu. Yds.
 deduct encroaching lip item 301 (.50' x .3333' x 148) / 27 c.f./c.y. = - 0.91 Cu. Yds.
 10 Cu. Yds.

402 Asphalt Concrete
 2964 Sq. Ft. x .125' / 27 c.f./c.y. = 14 Cu. Yds.

404 Asphalt Concrete
 2964 Sq. Ft. x .10417' / 27 c.f./c.y. = 11 Cu. Yds.

408 Bituminous Prime Coat & COVER AGGREGATE
 148 Lin. Ft. x 4' ÷ 9 s.f./s.y. = 65.78 Sq. Yds.
 Say .40 Gal./Sq. Yds. = 26 Gal. .008 cu.yd./sq.yd. = 0.53 Cu. Yds.

409 Seal Coat Bituminous Material
 148 Lin. Ft. x 4' ÷ 9 s.f./s.y. = 65.78 Sq. Yds.
 Say .30 Gal./Sq. Yd. = 20 Gal.

409 Seal Coat Cover Aggregate No. 8
 148 Lin. Ft. x 4' ÷ 9 s.f./s.y. = 65.78 Sq. Yds.
 Say .008 Cu. Yds./Sq. Yd. = 1 Cu. Yd.

621 Edge Lines (White)
 146.51 Lin. Ft. x 2 = 293.02' / 5280 = .055 mi.

621 Center Lines (Double, Solid)
 146.51 Lin. Ft. / 5280 = .028 mi.

203 Subgrade Compaction
 2964 Sq. Ft. / 9 s.f./s.y. = 329 Sq. Yds.

S. R. 86

Pavement Area (S.R. 86)
 Sta. 6+00 to Sta. 6+50 = 50 Lin. Ft. x (23+24/2) = 1175 Sq. Ft.
 Sta. 6+50 to Sta. 9+47.88 = 297.88 Lin. Ft. x 24' = 7149.12 Sq. Ft.
 Sta. 10+65.12 to Sta. 15+00 = 434.88 Lin. Ft. x 24' = 10,437.12 Sq. Ft.
 Sta. 15+00 to Sta. 15+50 = 50 Lin. Ft. x (23+24/2) = 1,175 Sq. Ft.
 832.76 Lin. Ft. 19,936.24 Sq. Ft. ÷ 9 s.f. = 2215 Sq. Yds.

301 Bituminous Aggregate Base
 19,936.24 Sq. Ft. + 832.76 Sq. Ft. (Additional 6" Lip Lt. & Rt.) x .3333' / 27 c.f./c.y. = 256 Cu. Yds.

304 Aggregate Base
 19,936.24 Sq. Ft. + 1665.52 Sq. Ft. (Additional 12" Lip Lt. & Rt.) x .3333' / 27 c.f./c.y. = 267 Cu. Yds.

402 Asphalt Concrete
 19,936.24 Sq. Ft. x .125' / 27 c.f./c.y. = 92 Cu. Yds.

404 Asphalt Concrete
 19,936.24 Sq. Ft. x .10417' / 27 c.f./c.y. = 77 Cu. Yds.

Shoulder Lengths
 Length = 2 x 832.76' = 1665.52 Lin. Ft.
 deduction for Fay Rd. intersection = -120 Lin. Ft.
 add return to Fay Rd. = +15 Lin. Ft.
 deduction for driveways & mailbox turnouts = -103 Lin. Ft.

deduction for temporary pavement Sub-Total 1457.52 Lin. Ft.
 -205.76 Lin. Ft.
 304 AGGREGATE BASE 1251.76 Lin. Ft. x 4' (shld. width) x .50' / 27 c.f./c.y. = 92.72 Cu. Yds.
 deduct encroaching Lip of item 301 (.50' x .3333' x 1251.76') / 27 c.f./c.y. = - 7.73 Cu. Yds.
 85 Cu. Yds.

408 Bituminous Prime Coat & COVER AGGREGATE
 1251.76 Lin. Ft. x 4' ÷ 9 s.f./s.y. = 556.34 Sq. Yds.
 Say .40 Gal./Sq. Yd. = 223 Gal. .008 cu.yd./sq.yd. = 4.45 c.y.

409 Seal Coat Bituminous Material
 1251.76 Lin. Ft. x 4' ÷ 9 s.f./s.y. + 148.62 s.y. (Temp. Pav't.) = 704.96 Sq. Yds.
 Say .30 Gal./Sq. Yd. = 212 Gal.

409 Seal Coat Cover Aggregate No. 8
 704.96 Sq. Yds.
 Say .008 Cu. Yds./Sq. Yd. = 5 Cu. Yds.

621 Edge Lines (White - includes lines over structure)
 Sta. 6+00 to Sta. 15+50 = 950 Lin. Ft. x 2 = 1900 Lin. Ft.
 1900 Lin. Ft. / 5280 = .360 mi.

621 Center Lines (Double, Solid - includes lines over structure)
 Sta. 6+00 to Sta. 15+50 = 950 Lin. Ft.
 950 Lin. Ft. / 5280 = .180 mi.

203 Subgrade Compaction
 19,936.24 Sq. Ft. / 9 s.f./s.y. = 2215 Sq. Yds.
 Include Area for item 611 + 272 Sq. Yds.
 2,487 Sq. Yds.

611 APPROACH SLABS	
STA. 9+47.88 to STA. 9+72.88	
(48.87+46.82)/2 x 25 ÷ 9 s.f./s.y. = 132.90 S.Y.	
+ 25' x .50' x 2 (AREA OF CURBS) = 2.78 S.Y.	
STA. 10+40.12 to STA. 10+65.12	
(48.87+46.82)/2 x 25 ÷ 9 s.f./s.y. = 132.90 S.Y.	
+ 25' x .50' x 2 (AREA OF CURBS) = 2.78 S.Y.	
TOTAL: 271.4 S.Y.	

659 SEEDING & MULCHING			
SEEDING AND MULCHING	SEEDING AND MULCHING	AGRICULTURAL LIMING	COMMERCIAL FERTILIZER
SQ. YD.	SQ. FT.	TONS	TONS
3657	32,913	1.65	0.33
TOTAL		1.65	0.33

605 AGGREGATE DRAINS			
STATION TO STATION	SIDE	NUMBER OF DRAINS	LINEAR FEET
7+00 - 8+50	LT.	6	78
8+50 - 9+25	LT. & RT.	2	26
11+00	LT. & RT.	2	31
11+50 - 11+75	RT.	2	30
13+50 - 15+50	RT.	8	68
TOTALS		20	233