

PAVEMENT CALCULATIONS

SUMMARY OF QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

3
13

LAKE COUNTY
LAK-20-(0.00-4.51)

ASPHALTIC CONCRETE SURFACE COURSE ITEM T-35

Wickliffe

Sta. 0+00 to Sta. 114+47.26 = 11,447.26 x 40 = 457,890.40 ÷ 9 =	50,876.71 Sq. Yds.
Sta. 114+47.26 to Sta. 116+25 = 177.74 x 20 = 3,554.80 ÷ 9 =	394.97 Sq. Yds.
Sta. 116+25 to Sta. 118+54 = 229 x 19.5 = 4,465.50 ÷ 9 =	496.16 Sq. Yds.
Sta. 118+54 to Sta. 137+19.80 = 1865.80 x 19 = 35,450.20 ÷ 9 =	3,938.91 Sq. Yds.
Extra Area (Begin Project)	146.00 Sq. Yds.
Total	55,852.75 Sq. Yds.
55,852.75 Sq. Yds. x 1/36 =	2,327.20 Cu. Yds.
Extra Area 771 x 3/4 ÷ 36 =	16.06 Cu. Yds.
Total	2,343.26 Cu. Yds. Use 2,343 Cu. Yds.

Willowick

Sta. 114+47.26 to Sta. 116+25 = 177.74 x 20 = 3,554.80 ÷ 9 =	394.97 Sq. Yds.
Sta. 116+25 to Sta. 118+54 = 229 x 19.5 = 4,465.50 ÷ 9 =	496.16 Sq. Yds.
Sta. 118+54 to Sta. 136+67 = 1813 x 19 = 34,447.00 ÷ 9 =	3,827.44 Sq. Yds.
Total	4,718.57 Sq. Yds.
4,718.57 Sq. Yds. x 1/36 =	196.61 Cu. Yds.
Extra Area 35 x 3/4 ÷ 36 =	.73 Cu. Yds.
Total	197.34 Cu. Yds. Use 197 Cu. Yds.

Willoughby

Sta. 136+67 to Sta. 137+19.80 = 52.80 x 19 = 1,003.20 ÷ 9 =	111.47 Sq. Yds.
Sta. 137+19.80 to Sta. 180+50 = 4330.20 x 38 = 164,547 ÷ 9 =	18,283.07 Sq. Yds.
Sta. 180+50 to Sta. 181+50 = 100 x 39 = 3,900 ÷ 9 =	433.33 Sq. Yds.
Sta. 181+50 to Sta. 237+60 = 5610 x 40 = 224,400 ÷ 9 =	24,933.33 Sq. Yds.
Total	43,761.20 Sq. Yds.
43,761.20 Sq. Yds. x 1/36 =	1,823.88 Cu. Yds.
Extra Area 454 x 3/4 ÷ 36 =	9.46 Cu. Yds.
Total	1,832.84 Cu. Yds.
Sta. 237+60 to Sta. 283+00 = 4540 x 34 = 154,360 ÷ 9 =	17,151.11 Sq. Yds.
17,151.11 Sq. Yds. x 1/36 =	714.63 Cu. Yds.
Minus 4540 x 2.5 ÷ 9 = 1,261.11 Sq. Yds. x 1/36 =	17.52 Cu. Yds.
Extra Area 1620 Sq. Yds. x 1/36 =	33.75 Cu. Yds.
Total	730.86 Cu. Yds.
Total	1,832.84 Cu. Yds.
Grand Total	2,563.70 Cu. Yds. Use 2,564 Cu. Yds.

ASPHALTIC CONCRETE LEVELING COURSE ITEM B-35

Wickliffe

Surface - Removal & Disposal 11,185.33 Sq. Yds. x 1/36 =	271.87 Cu. Yds.
Surface - Removal & Disposal 894.15 Sq. Yds. x 1/36 =	43.47 Cu. Yds.
2.168 Miles x 400 Cu. Yds. per mile	867.20 Cu. Yds.
4.3 Miles x 200 Cu. Yds. per mile	86.00 Cu. Yds.
Total	1,268.54 Cu. Yds. Use 1,269 Cu. Yds.

Willowick

Surface - Removal & Disposal 986.55 Sq. Yds. x 1/36 =	23.98 Cu. Yds.
Surface - Removal & Disposal 74.64 Sq. Yds. x 1/36 =	3.63 Cu. Yds.
.92 Miles x 200 Cu. Yds. per mile	84.00 Cu. Yds.
Total	111.61 Cu. Yds. Use 112 Cu. Yds.

Willoughby

Surface - Removal & Disposal 8,948.07 Sq. Yds. x 1/36 =	217.49 Cu. Yds.
Surface - Removal & Disposal 635.99 Sq. Yds. x 1/36 =	30.92 Cu. Yds.
.01 Mile x 200 Cu. Yds. per mile	2.00 Cu. Yds.
1.902 Miles x 400 Cu. Yds. per mile	760.80 Cu. Yds.
Total	1,011.21 Cu. Yds. Use 1,011 Cu. Yds.

BITUMINOUS TACK COAT ITEM T-30

(0.10 gallons per sq. yd.) Sec. M-55, MS-2 or SS-1, or Sec. M-5.2, RC-1 or 2

Wickliffe

Surface - Removal & Disposal =	12,996.48 Sq. Yds.
Sta. 20+48 to Sta. 30+65 = 1017 x 8 = 8136 ÷ 9 = 904 Sq. Yds.	
Sta. 38+60 to Sta. 61+58 = 2298 x 8 = 18,384 ÷ 9 = 2042.67 Sq. Yds.	
Deduct 2,946.67 Sq. Yds.	2,946.67 Sq. Yds.
	10,049.81 Sq. Yds.
10,049.81 x (0.10 gallons per sq. yd.)	1,004.98 Gallons
Use	1,005 Gallons

Willowick

Surface - Removal & Disposal	1096.19 Sq. Yds. x (0.10 gallons per Sq. Yd.) = 109.62 Gallons - Use 110 Gallons
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Willoughby

Surface - Removal & Disposal	10,038.06 x (0.10 gallons per sq. yds.) = 1,003.81 Gallons - Use 1,004 Gallons
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Sheet No	SEWERS					WATER		
	Catchbasin Casting Adjust to grade	Storm M.H. Casting Adjust to grade	Sanitary M.H. Casting Adjust to grade	Catchbasin Casting Adjust to grade	Catch Basin Casting Adjust to grade	Water M.H. Casting Adjust to grade	Valve Box adjusted to grade	Valve Box adjusted to grade
	Wickliffe	Willowick	Willoughby	Willoughby	Wickliffe	Willowick	Willoughby	
	Each	Each	Each	Each	Each	Each	Each	
4	8	3			4	4	6	
5	12	8	4		5	3	4	
6	11	3	5		6	2	2	
7	2		1		7			2
8				1	8			2
9					9			
10					10			
12&13					12&13			
Total	33	14	10	1	26	47	17	

Sheet No	WEARING-REMOVE & DISPOSE			
	Wickliffe	Willowick	Willoughby	Total
	Sq. Yds.	Sq. Yds.	Sq. Yds.	Sq. Yds.
4	3261.37			3261.37
5	3313.37			3313.37
6	3186.99			3186.99
7	2561.21	490.85		3052.06
8	673.94	605.34	1841.03	3119.91
9			3013.44	3013.44
10			3072.99	3072.99
11			2110.60	2110.60
Total	12,996.48	1096.19	10,038.06	24,130.73

Sheet No	MONUMENT BOXES		
	Adjust. To grade	Adjust. To grade	Adjust. To grade
	Wickliffe	Willowick	Willoughby
4	2		
5	3		
7		1	
9			1
Total	5	1	1

GENERAL SUMMARY						
Item No	Wickliffe	Willowick	Willoughby	Grand Total	Unit	Description
1-8	33	1	29	63	Each	Catch basin adjusted to grade.
1-8	33		64	97	Each	Manholes adjusted to grade.
1-8	5	1	1	7	Each	Monument Boxes adjusted to grade.
1-8	12		28	40	Each	Valve Boxes adjusted to grade.
E-8	12,996	1096	10,038	24,130	Sq. Yds.	Removal & Disposal of Existing Wearing Course.
T-35	2,343	197	2,564	5,104	Cu. Yds.	Asphaltic Concrete Surface Course (Type C) (70-80)
B-35	1,269	112	1,011	2,392	Cu. Yds.	Asphaltic Concrete Leveling Course (70-80)
T-30	1,005	110	1,004	2,119	Gallons	Bituminous Tack Coat AS PER PLAN