FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-1103 (18)	

25
458

CUYAHOGA & LAKE COUNTIES
CUY-1-15.91
LAK-1-0.00

PAVEMENT, BASE & SUBBASE CALCULATIONS

See Sheet No.	Station Locations, Calculations, Etc.	E-1 Compacted Subgrade Sq. Yds.	B-219 Waterproofed Aggregate Base Course Sq. Yds.	B-35 Asph. Conc. Leveling Course(70-85) 1½"	B-35 Asphaltic Conc. Base Course(70-85) Sq. Yds. 2¾"	B-35 3"	B-19 Aggregate Base Course Sq. Yds. 5"	B-19 6"	B-19 8"	T-30 Bituminous Prime Coat Sq. Yds.	T-31 Bituminous Surf. Treat. Bit. Mat'l. Sq. Yds.	T-31 Bituminous Surf. Treat. No. 6 Aggr. Sq. Yds.	T-32 Road Mix Bituminous Material Sq. Yds.	T-32 Seal Coat Bituminous Material Sq. Yds.	T-32 No. 4A Aggr. for Road Mix Sq. Yds.	T-32 No. 6 or 9 Aggregate for Choke Sq. Yds.	T-32 No. 6 Aggr. for Seal Coat Sq. Yds.	T-35 Asph. Conc. Surface Course(70-85) Sq. Yds. 1¼"	T-71 10" Reinf. Portland Cem. Conc. Pav't. Sq. Yds.	I-7 Reinf. Conc. Approach Slabs(T-13") Sq. Yds.	I-7 Reinf. Conc. Appr. Slabs as per Plan Sq. Yds.	I-18 5" Slab. Cr. Aggr. Sh'l'drs. & Approaches Sq. Yds.	I-22 Subbase Grading for B & B as per Plan Cu. Yds.
45,324	Ramp "A" Taper, Extra Lt. @ Sta. 52100 To Sta. 46198 = 502.0' L. X 2.51' Avg. W. X 1/9	140.00																	140.00				
	502.0' L. X 2.61' Avg. W. X 0.5' D. X 1/27																						23.33
267,281,282	Rt. Ramp "A" Sta. 0184.86 To Sta. 25146.12 = 2453.35' Avg. L. X 10' W. X 1/9		2,725.94								2,725.94		2,725.94										
	2453.35' Avg. L. X 10.5' W. X 1/9																					2,862.24	
	NOTE: Subgrade in Shale from Sta. 0184.86 To Sta. 3100 - 2453.35' Less 214.84' Avg. L. = 2238.51' Avg. L. X 10' W. X 1/9	2,487.23																					
	" " " " " " " " " " " " " - 214.84' Avg. L. X 10.5' W. X 0.71' Avg. D. X 1/27																						59.32
	1594.52' Avg. L. X 10.5' W. X 0.66' Avg. D. X 1/27																						409.26
	644.00' Avg. L. X 10.5' W. X 0.54' Avg. D. X 1/27																						135.24
281	Lt. Ramp "A" Sta. 7147 To Sta. 8122 = 76.11' Avg. L. X 3.73' Avg. W. X 1/9	31.54	31.54								31.54		31.54										
	76.11' Avg. L. X 4.24' Avg. W. X 1/9																					35.86	
	76.11' Avg. L. X 4.24' Avg. W. X 0.54' Avg. D. X 1/27																						6.45
281,282	Sta. 8122 To Sta. 21177 = 1385.53' Avg. L. X 5' W. X 1/9	769.74	769.74								769.74		769.74										
	1385.53' Avg. L. X 5.5' W. X 1/9																					846.71	
	1385.53' Avg. L. X 5.5' W. X 0.54' Avg. D. X 1/27																						152.41
282	Sta. 21177 To Sta. 22177 = 102.31' Avg. L. X 5' W. X 1/9	56.84	56.84								56.84		56.84									56.84	
	102.31' Avg. L. X 6' W. X 0.54' Avg. D. X 1/27																						12.28
282, 324	Sta. 22177 To Sta. 24127 = 152.27' Avg. L. X 3.5' Avg. W. X 1/9	59.22	59.22								59.22		59.22									59.22	
	152.27' Avg. L. X 4.5' Avg. W. X 0.5' Avg. D. X 1/27																						12.69
282, 324	Sta. 24127 To Sta. 25146.12 = 120.01' Avg. L. X 2' W. X 1/9	26.67	26.67								26.67		26.67									26.67	
	120.01' Avg. L. X 3' W. X 0.5' D. X 1/27																						6.67
	Extra for Paved Berm Lt. Special Curb = 120.22' Avg. L. X 4.605' Avg. W. X 1/9	61.51	61.51								61.51		61.51									61.51	
	120.22' Avg. L. X 4.605' Avg. W. X 0.5' Avg. D. X 1/27																						10.25
10,291	Ramp "B" Sta. 5170.29 To Sta. 9116.75 = 334.79' Avg. L. X 24' W. X 1/9	892.77																	892.77				
	334.79' Avg. L. X 24' W. X 0.5' D. X 1/27																						148.80
291	Sta. 9116.75 To Sta. 9141.75 (P) = 90.3 S.Y.	90.30																			90.30		
	90.3 S.Y. @ 0.5' D. = 90.3' X 1/9																						15.05
291	Sta. 15135.75 To Sta. 15160.75 (P) = 85.6 S.Y.	85.60																			85.60		
	85.6 S.Y. @ 0.5' D. = 85.6' X 1/9																						14.27
291, 292	Sta. 15160.75 To Sta. 26185.07 = 1121.52' Avg. L. X 24' W. X 1/9	2,990.72																	2,990.72				
	1121.52' Avg. L. X 24' W. X 0.5' D. X 1/27																						498.45
292	Sta. 26185.07 To Sta. 27172.62 (P) = 233.95 S.Y.	233.95																	233.95				
	233.95 S.Y. @ 0.5' D. = 233.95 X 1/9																						38.99
292, 49	Sta. 27172.62 To Sta. 28158.04 (P) = 1008.49 S.Y.	1,008.49																	1,008.49				
	1008.49 S.Y. @ 0.5' D. = 1008.49 X 1/9																						168.08
49,50	& Sta. 28158.04 To Sta. 10413+04.04 (P) = 377.49 S.Y.	377.49																	377.49				
	377.49 S.Y. @ 0.5' D. = 377.49 X 1/9																						62.92
291	Rt. Ramp "B" Sta. 5170.29 To Sta. 8116.75 = 238.64' Avg. L. X 10' W. X 1/9	265.16	265.16								265.16		265.16										
	238.64' Avg. L. X 10.5' W. X 1/9																					278.41	
	1250.1' X 10.5' W. X 0.54' Avg. D. X 1/27																						26.25
	113.64' X 10.5' W. X 0.63' Avg. D. X 1/27																						27.84
291	Sta. 8116.75 To Sta. 9116.75 = 100.39' Avg. L. X 7.5' Avg. W. X 1/9	83.66	83.66								83.66		83.66										
	100.39' Avg. L. X 8' Avg. W. X 1/9																					89.24	
	100.39' Avg. L. X 8' Avg. W. X 0.60' Avg. D. X 1/27																						17.85
291, 292	Sta. 15160.75 To Sta. 16160.75 = 100.39' Avg. L. X 7.5' Avg. W. X 1/9	83.66	83.66								83.66		83.66										
	100.39' Avg. L. X 8' Avg. W. X 1/9																					89.24	
	100.39' Avg. L. X 8' Avg. W. X 0.60' Avg. D. X 1/27																						17.85
291, 292	Sta. 16160.75 To Sta. 26185.07 = 1024.95' Avg. L. X 10' W. X 1/9	1,138.83	1,138.83								1,138.83		1,138.83										
	1024.95' Avg. L. X 10.5' W. X 1/9																					1,195.77	
	1024.95' Avg. L. X 10.5' W. X 0.60' Avg. D. X 1/27																						239.15
291	Lt. Ramp "B" Sta. 5170.29 To Sta. 9116.75 = 331.56' Avg. L. X 5' W. X 1/9	184.20	184.20								184.20		184.20										
	331.56' Avg. L. X 5.5' W. X 1/9																					202.62	
	123.25' Avg. L. X 5.5' W. X 0.51' Avg. D. X 1/27																						12.80
	208.31' Avg. L. X 5.5' W. X 0.53' Avg. D. X 1/27																						22.49
291, 292	Sta. 15160.75 To Sta. 22153 = 679.98' Avg. L. X 5' W. X 1/9	377.77	377.77								377.77		377.77										
	679.98' Avg. L. X 5.5' W. X 1/9																					415.54	
	679.98' Avg. L. X 5.5' W. X 0.52' Avg. D. X 1/27																						72.03
292	Sta. 22153 To Sta. 23153 = 101.22' Avg. L. X 5' W. X 1/9	56.23	56.23								56.23		56.23									56.23	
	101.22' Avg. L. X 6' W. X 0.54' Avg. D. X 1/27																						12.15
292	Sta. 23153 To Sta. 25103 = 153.03' Avg. L. X 3.5' Avg. W. X 1/9	59.51	59.51								59.51		59.51									59.51	
	153.03' Avg. L. X 4.5' Avg. W. X 0.54' Avg. D. X 1/27																						13.77
292	Sta. 25103 To Sta. 26185.07 = 184.09' Avg. L. X 2' W. X 1/9	40.91	40.91								40.91		40.91									40.91	
	184.09' Avg. L. X 3' W. X 0.54' Avg. D. X 1/27																						11.05
	Extra for Paved Berm Lt. Special Curb (P) = 95.11 S.Y.	95.11	95.11								95.11		95.11									95.11	
	95.11 S.Y. X 0.54' Avg. D. X 1/3																						17.12
	Sub Totals:	11,697.11	6,116.50								6,116.50		6,116.50						5643.42		175.90	6,471.63	2,264.81

NOTE: (P) Denotes Area Obtained By Planimeter.

MICHAEL BAKER, JR., CONSULTING ENGINEERS
ROCHESTER, PENNSYLVANIA

STATE HIGHWAY NO. 1
C-42
PAVEMENT, BASE & SUBBASE CALCULATIONS

Designed	Drawn	Traced	Checked	Reviewed Date	Revised
B.P.	E.P.C.	K.L.G.	R.E.F.		