

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MAH-14/165-0.00/1.67

VILLAGE OF BELOIT

CITY OF SALEM

SMITH, GOSHEN, AND GREEN TOWNSHIPS

MAHONING COUNTY

FEDERAL PROJECT NUMBER

E231(001)

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

RESURFACING SR 14 AND SR 165 IN MAHONING COUNTY, INCLUDING REPLACEMENT OF ONE STRUCTURE AND MINOR BRIDGE WORK TO SIX STRUCTURES.

EARTH DISTURBED AREAS (RESURFACING)

PROJECT EARTH DISTURBED AREA (RESURFACING): 4.12 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)

EARTH DISTURBED AREAS (STRUCTURE REPLACEMENT)

PROJECT EARTH DISTURBED AREA (CULVERT REPLACEMENT): 0.81 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)

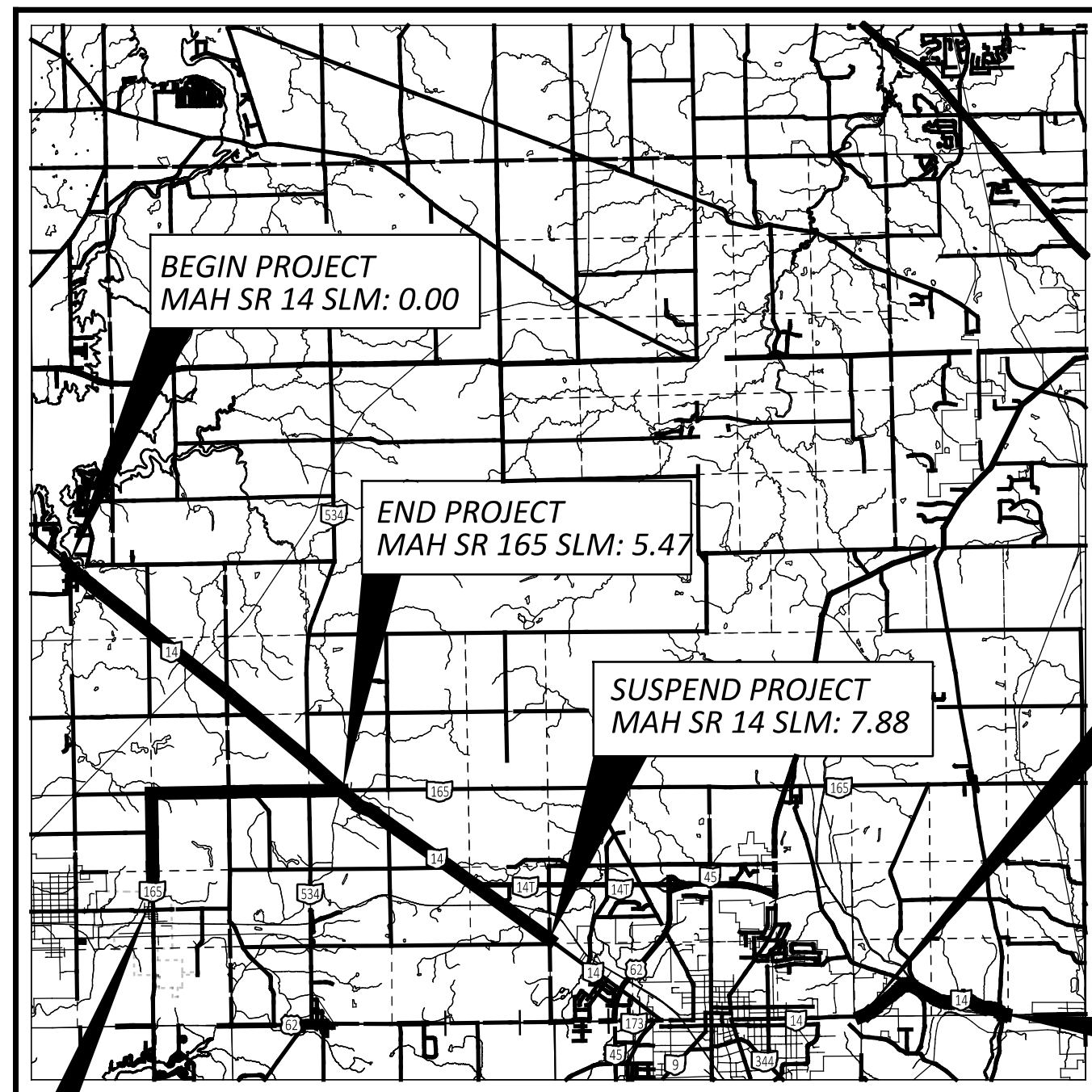
2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET P.12.

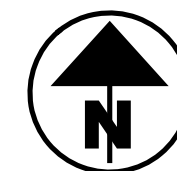
Arthur G. Noirot Jr.
Arthur G. Noirot Jr., P.E.
District 04 Deputy Director

Pamela Boratyn
Pamela Boratyn
Director, Department of Transportation



LOCATION MAP

LATITUDE: 40°56'55" LONGITUDE: 80°57'10"



BEGIN PROJECT MAH SR 165 SLM: 1.65

DESIGN DESIGNATION

	<u>SR 14</u>	<u>SR 14</u>	<u>SR 165</u>	<u>SR 165</u>
	<u>ARTERIAL</u>	<u>COLLECTOR</u>	<u>SLM 1.65-1.79</u>	<u>SLM 1.79-5.47</u>
CURRENT ADT (2025)	3,800	8,600	2,200	2,200
DESIGN YEAR ADT (2045)	3,800	8,600	2,500	2,500
DESIGN HOURLY VOLUME (2045)	450	1,100	300	300
DIRECTIONAL DISTRIBUTION	63.5%	54.1%	51.0%	51.0%
TRUCKS (24 HOUR B&C)	12.1%	12.5%	13.0%	13.0%
DESIGN SPEED	55	45	35	55
LEGAL SPEED	55	45	35	55

DESIGN FUNCTIONAL CLASSIFICATION:

- SR 14 (0.00 TO 7.86) RURAL MINOR ARTERIAL
- SR 14 (7.86 TO 7.88) URBAN MINOR ARTERIAL
- SR 14 (7.88 TO 8.12) URBAN MAJOR COLLECTOR
- SR 14 (8.12 TO 9.99) RURAL MAJOR COLLECTOR
- SR 165 (SLM 1.67 TO 1.79) URBAN MAJOR COLLECTOR
- SR 165 (SLM 1.79 TO 5.47) RURAL MAJOR COLLECTOR

NHS PROJECT ----- YES

DESIGN EXCEPTIONS

SHOULDER WIDTH, LANE WIDTH

ADA DESIGN WAIVERS

REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig

OHIO811. 8-1-1. or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:

ODOT DISTRICT 4 CAPITAL PLANNING 2LMN
2088 S. ARLINGTON ROAD 1422 EUCLID AVE., STE 1044
AKRON, OH 44306 CLEVELAND, OH 44115

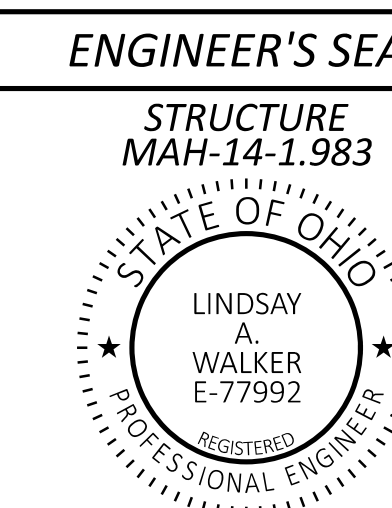
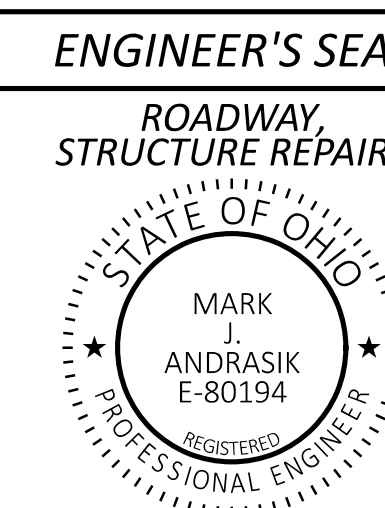
CURRENT TDMS DATA (SR 14 COLLECTOR AND SR 165)
FOR INFORMATION ONLY

INDEX OF SHEETS:

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RIGHT OF WAY	RW.1-RW.6

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	1/19/24	MT-95.32	4/19/19	TC-71.10	4/21/23	800-2023	1/17/25 ASBESTOS
BP-3.2	1/18/19	MT-97.10	4/19/19	TC-74.10	7/21/23	821	4/20/12 REPORT 6/30/23
BP-4.1	7/19/13	MT-97.12	1/20/17			832	7/19/24 WATERWAY
DM-1.1	7/17/20	MT-99.20	4/19/19			844	4/20/18 PERMIT 2/3/25
DM-4.3	1/15/16	MT-101.90	7/17/20			921	7/19/24
DM-4.4	1/15/16	MT-105.10	1/17/20				
		MT-110.10	7/19/13				
MGS-1.1	7/16/21						
MGS-2.1	1/19/18	TC-41.20	10/18/13				
		TC-42.10	10/18/13				
AS-2-15	7/21/23	TC-42.20	10/18/13				
DS-1-92	7/15/22	TC-52.10	10/18/13				
EXI-3-82	1/18/13	TC-52.20	1/15/21				
		TC-65.10	1/17/14				
MT-95.31	7/19/19	TC-65.11	1/19/24				

Added Waterway Permit



TITLE SHEET

MAH-14/165-0.00/1.67

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DESIGN AGENCY



DESIGNER KMB

REVIEWER MJA 12-19-23

PROJECT ID 105210

SHEET TOTAL P.1 49


MAH-14/165-0.00/1.67

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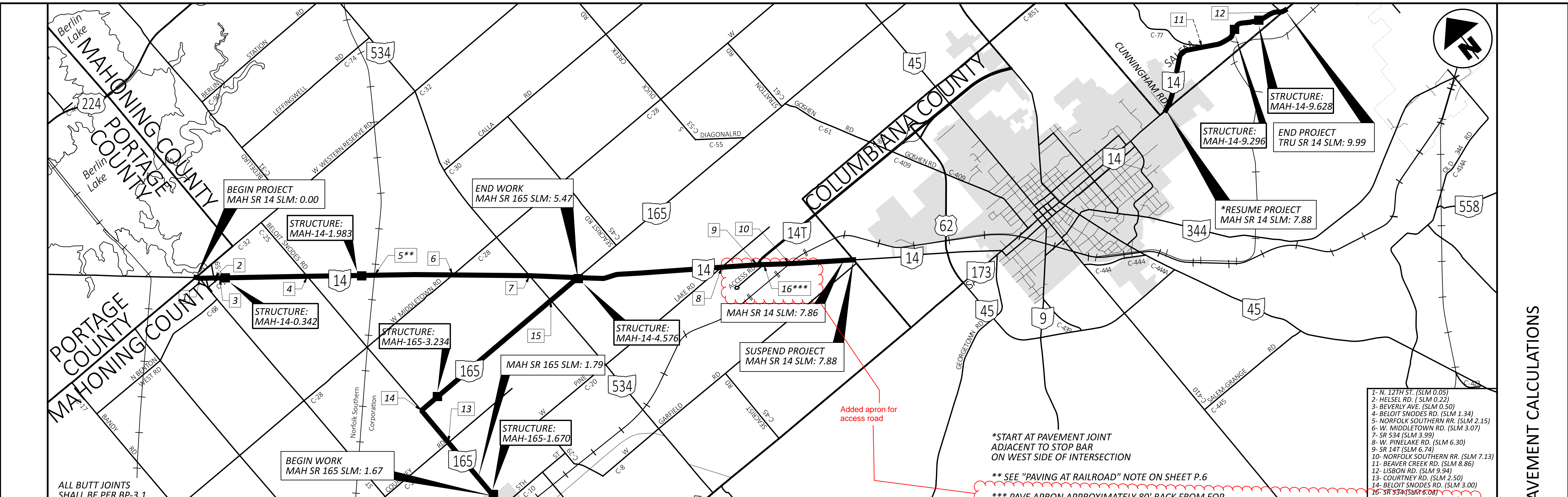
SHEET NUM.									PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.		
6	7	8	9	15	16	17	18	29	01/S5K/05	02/STR/05	03/S5K/04	04/STR/47	05/STR/04								
		LS												LS	201	11000	LS		ROADWAY		
						171								171	202	23000	171	SY	CLEARING AND GRUBBING		
					519				105	414					202	23500	519	SY	PAVEMENT REMOVED		
							100		100						202	30000	100	SF	WEARING COURSE REMOVED		
							15		15						202	32000	15	FT	WALK REMOVED		
														491	202	38000	491	FT	CURB REMOVED		
														4	202	42010	4	EACH	GUARDRAIL REMOVED		
														450	202	75000	450	FT	ANCHOR ASSEMBLY REMOVED, TYPE E		
														1	202	98100	1	EACH	FENCE REMOVED	P.9	
														20	202	98200	20	FT	REMOVAL MISC.: INSPECTION WELL	P.9	
								177						177	203	10000	177	CY	REMOVAL MISC.: CONDUIT		
21									7	14					203	10000	21	CY	EXCAVATION		
														170	203	20000	170	CY	EXCAVATION (FOR PAVEMENT REPAIR)		
														20	203	20001	20	CY	EMBANKMENT	P.9	
														180	204	10000	180	SY	EMBANKMENT, AS PER PLAN		
														4	209	15000	4	STA	SUBGRADE COMPACTION		
	717								108	609					209	60200	717	STA	RESHAPING UNDER GUARDRAIL		
					402				13	389					209	72000	402	STA	LINEAR GRADING		
														250	606	15050	250	FT	PREPARING SUBGRADE FOR SHOULDER PAVING		
														187.5	606	15100	187.5	FT	GUARDRAIL, TYPE MGS		
														4	606	26150	4	EACH	GUARDRAIL, TYPE MGS WITH LONG POSTS		
							120		120						608	52000	120	SF	ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016		
							8		8						609	26000	8	FT	CURB RAMP		
	17								9	8					623	39500	17	EACH	CURB, TYPE 6		
	LS									LS				SPECIAL	69091000	LS		MONUMENT ASSEMBLY ADJUSTED TO GRADE	P.7		
											1				SPECIAL	69098000	1	EACH	AS-BUILT CONSTRUCTION PLANS		
	1														SPECIAL	69098400	LS	EACH	VERTICAL CLEARANCE	P.7	
															SPECIAL	69098400	LS		SURVEY CONTROL VERIFICATION	P.8	
																			EROSION CONTROL		
															2,166	659	10000	2,166	SY	SEEDING AND MULCHING	
															108	659	14000	108	SY	REPAIR SEEDING AND MULCHING	
															108	659	15000	108	SY	INTER-SEEDING	
															0.3	659	20000	0.3	TON	COMMERCIAL FERTILIZER	
															0.45	659	31000	0.45	ACRE	LIME	
															12	659	35000	12	MGAL	WATER	
															126	660	30000	126	SY	SODDING UNSTAKED	
									500	1,000	500	500			832	30000	3,000	EACH	EROSION CONTROL		
																			DRAINAGE		
															50	611	00900	50	FT	6" CONDUIT, TYPE B	
															50	611	01400	50	FT	6" CONDUIT, TYPE E	
															50	611	01500	50	FT	6" CONDUIT, TYPE F	
															20	611	97400	20	FT	CONDUIT, MISC.: TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE	P.9
															20	611	97400	20	FT	CONDUIT, MISC.: TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE	P.9
															20	611	97400	20	FT	CONDUIT, MISC.: TYPE E FOR DRAINAGE DISCHARGE CONTINUANCE	P.9
															20	611	97400	20	FT	CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE	P.9
	6								6						611	99655	6	EACH	CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE	P.9	
															1	611	99720	1	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	P.7
																			INSPECTION WELL		
																			PAVEMENT		
2,950									800	2,150					251	01000	2,950	SY	PARTIAL DEPTH PAVEMENT REPAIR (441)		
350									110	240					253	01000	350	SY	PAVEMENT REPAIR		
					41,490				41,490						254	01000	41,490	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T=1.5")		
					53,786	3,059			1,972	54,873					254	01000	56,845	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T=2")		
							60								301	56000	60	CY	ASPHALT CONCRETE BASE, PG64-22, (449)		
																			AGGREGATE BASE (FOR PAVEMENT REPAIR)		
21									7	14					304	20000	21	CY	AGGREGATE BASE		
															304	20000	30	CY	AGGREGATE BASE		
					21,952	1,423			4,257	19,118					407	20000	23,375	GAL	NON-TRACKING TACK COAT	Added Intersection Apron at access road.	
															407	20000	32	GAL	NON-TRACKING TACK COAT		
					12,837				2,005	10,832					408	10001	12,851	GAL	PRIME COAT, AS PER PLAN		

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER: SJD
 REVIEWER: MJA 12-19-23
 PROJECT ID: 105210
 SHEET: P.13 TOTAL: 49



SLM RANGE	TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	202	254	254	897	441	441	441	441	407	407	408	617	209	
							WEARING COURSE REMOVED	PAVEMENT PLANING, ASPHALT CONCRETE (T=2")	PAVEMENT PLANING, ASPHALT CONCRETE (T=1.5")	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T=1.5")	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (T=1.75")	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M (T=1.25")	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M (T=1.5")	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M (SAFETY EDGE)	NON-TRACKING TACK COAT @ 0.06 GAL/SY	NON-TRACKING TACK COAT @ 0.09 GAL/SY	PRIME COAT, AS PER PLAN @ 0.40 GAL/SY	COMPACTED AGGREGATE, AS PER PLAN (T=1" AVG.)	PREPARING SUBGRADE FOR SHOULDER PAVING	
							SY	SY	SY	SY	CY	CY	CY	CY	GAL	GAL	GAL	CY	STA	
SR 14																				
0.00 TO 6.64	1	LT/RT	35059.20	24.00	93491.20					93491.20										
6.64 TO 6.72	1	LT/RT	422.40	39.00	1830.40					1830.40										
6.72 TO 6.75	1	LT/RT	158.40	52.00	915.20					915.20										
6.75 TO 6.82	1	LT/RT	369.60	39.00	1601.60					1601.60										
6.82 TO 7.86	1	LT/RT	5491.20	24.00	14643.20					14643.20										
7.86 TO 7.88	1	LT/RT	105.60	24.00	281.60					281.60										
7.88 TO 7.93	2	LT/RT	528.00	52.00	3050.67															
7.93 TO 7.98	2	LT/RT	264.00	66.00	1936.00								127.11							
7.98 TO 8.01	3	LT/RT	158.40	60.00	1056.00															
8.01 TO 8.07	4	LT/RT	316.80	47.00	1654.40															
8.07 TO 9.99	4	LT/RT	10137.60	30.00	33792.00															
SR 165																				
1.67 TO 1.79	5	LT/RT	633.60	28.00	1971.20															
1.79 TO 5.47	5	LT/RT	19430.40	24.00	51814.40															
SUBTOTALS																				
TOTALS CARRIED TO GENERAL SUMMARY							53786	41490	112764	2615	5783	1729	81	3228	18724	12837	892	402		

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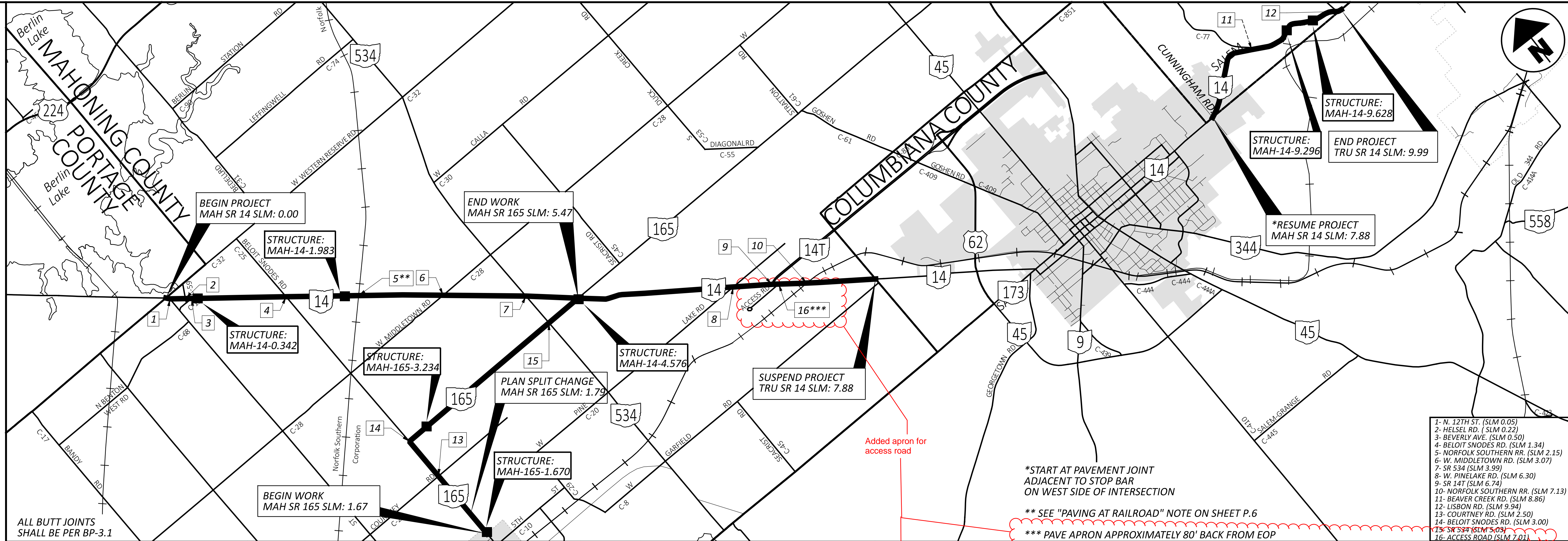
PAVEMENT CALCULATIONS

DESIGN AGENCY

 DESIGNER
 SJ D
 REVIEWER
 MJA 12-19-23
 PROJECT ID
 105210
 SHEET
 P.15
 TOTAL
 49

MAH-14/165-0.00/1.67

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- 1- N. 12TH ST. (SLM 0.05)
- 2- HELSEL RD. (SLM 0.22)
- 3- BEVERLY AVE. (SLM 0.50)
- 4- BELOIT SNODES RD. (SLM 1.34)
- 5- NORFOLK SOUTHERN RR. (SLM 2.15)
- 6- W. MIDDLETOWN RD. (SLM 3.07)
- 7- SR 534 (SLM 3.99)
- 8- W. PINELAKE RD. (SLM 6.30)
- 9- SR 14T (SLM 6.74)
- 10- NORFOLK SOUTHERN RR. (SLM 7.13)
- 11- BEAVER CREEK RD. (SLM 8.86)
- 12- LISBON RD. (SLM 9.94)
- 13- COURTNEY RD. (SLM 2.50)
- 14- BELOIT SNODES RD. (SLM 3.00)
- 15- SR 534 (SLM 5.03)
- 16- ACCESS ROAD (SLM 7.01)

SLM RANGE	TYPICAL SECTION	SIDE	DISTANCE (D) FT	AVERAGE WIDTH (W) FT	SURFACE AREA (A) A=DxW/9 SY	CADD GENERATED AREA SY	WEARING COURSE REMOVED SY	PAVEMENT PLANING, ASPHALT CONCRETE (T=2") SY	PAVEMENT PLANING, ASPHALT CONCRETE (T=1.5") SY	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T=1.5") SY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (T=1.75") CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M (T=1.25") CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M (T=1.5") CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M (SAFETY EDGE) CY	NON-TRACKING TACK COAT @0.06 GAL/SY GAL	NON-TRACKING TACK COAT @ 0.09 GAL/SY GAL	PRIME COAT, AS PER PLAN @ 0.40 GAL/SY GAL	COMPACTED AGGREGATE, AS PER PLAN (T=1") CY	PREPARING SUBGRADE FOR SHOULDER PAVING STA		
INTERSECTION SR 14																					
0.00	TO	7.86	VARIABLES	10.00	2137.2					2137.20	74.21							617	209		
7.88	TO	9.99	VARIABLES	10.00	469.56					469.56	16.30							407	407		
ACCESS ROAD DRIVE APRON																					
			VARIABLES	VARIABLES	361.67					361.67	12.56										
SR 165																					
1.79	TO	5.47	VARIABLES	10.00	560.56		560.56				27.25	19.46			33.63	50.45					
DRIVEWAYS SR 14																					
0.00	TO	7.86	VARIABLES	2.00			147.00					8.90									
7.88	TO	9.99	VARIABLES	2.00			105.00					3.50									
SR 165																					
1.79	TO	5.47	VARIABLES	2.00		9.00	267.00					4.90									
MAILBOX APPROACHES SR 14																					
0.00	TO	7.86			5550.00					5550.00	192.71								499.50		
7.88	TO	9.99			1665.00					1665.00	57.81								149.85		
SR 165																					
1.79	TO	5.47			2497.50			2497.50			121.41	86.72			149.85	224.78					
SUBTOTALS							519.00	3058.06			10183.42	148.66	477.07			183.48	1238.44				
TOTALS CARRIED TO GENERAL SUMMARY							519	3059			10184	149	478			184	1239				

PAVEMENT CALCULATIONS

DESIGN AGENCY

DESIGNER: SJD
 REVIEWER: MJA 12-19-23
 PROJECT ID: 105210
 SHEET TOTAL: P.16 | 49