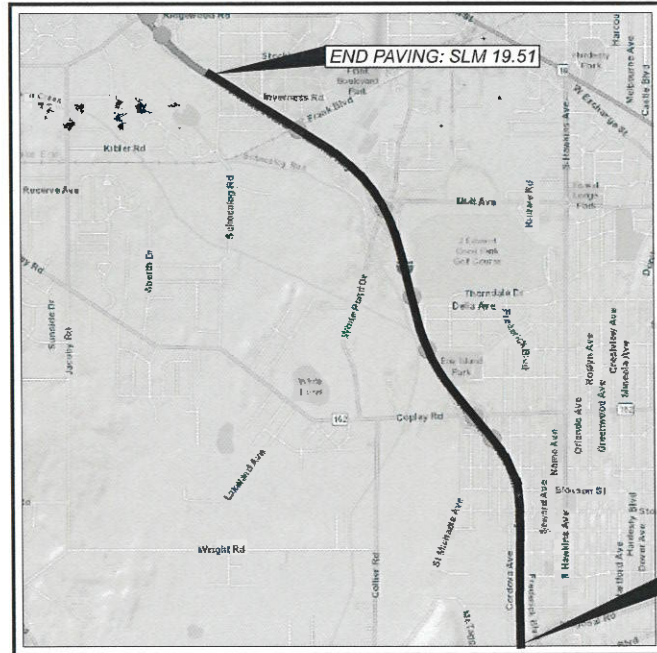


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

SUM-77-15.87

CITY OF AKRON
SUMMIT COUNTY



LOCATION MAP

LATITUDE: 41°05'18.34" LONGITUDE: 81°34'59.67"



PORTION TO BE IMPROVED	-----	=====
INTERSTATE HIGHWAY	-----	=====
FEDERAL ROUTES	-----	=====
STATE ROUTES	-----	=====
COUNTY & TOWNSHIP ROADS	-----	=====
OTHER ROADS	-----	=====

DESIGN DESIGNATION

TOTAL ADT (2019) IR 77 86914
 DESIGN FUNCTIONAL CLASSIFICATION:
 URBAN FREEWAYS AND EXPRESSWAYS
 NHS PROJECT N/A

DESIGN EXCEPTIONS

N/A

ADA DESIGN WAIVERS

N/A

UNDERGROUND UTILITIES
 Contact Two Working Days
 Before You Dig

OHIO811.org
 Before You Dig

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

PLAN PREPARED BY:
 ODOT DISTRICT 4 PLANNING AND ENGINEERING
 2088 S. ARLINGTON RD.
 44306 AKRON, OH

ENGINEER'S SEAL:

SIGNED: Mark J. Andrasik
 DATE: 11/24/21

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STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-2.3	7/18/14	MT-98.20	4/19/19	TC-71.10	7/16/21	800-2020	1/21/22		
BP-2.5	7/19/13	MT-98.22	1/17/20	TC-72.20	7/20/18	808	1/18/19		
BP-3.1	1/17/20	MT-98.28	1/17/20	TC-73.20	1/17/20	821	4/20/12		
BP-5.1	1/18/19	MT-99.20	4/19/19			832	10/19/18		
BP-7.1	7/17/20	MT-104.10	10/16/15			844	4/20/18		
BP-9.1	1/18/19					908	10/20/17		
		DM-1.1	7/17/20			921	4/20/12		
MT-95.30	7/19/19	DM-4.1	7/17/20			897	1/16/15		
MT-95.45	1/17/20	DM-4.3	1/15/16						
MT-95.50	7/21/17								
MT-95.31	7/19/19	TC-42.20	10/18/13						
MT-96.11	4/17/20	TC-52.10	10/18/13						
MT-97.10	4/19/19	TC-52.20	1/15/21						
MT-98.10	1/17/20	TC-65.10	1/17/14						
MT-98.11	1/17/20	TC-65.11	7/21/17						

FEDERAL PROJECT NUMBER

E161(211)

RAILROAD INVOLVEMENT

WHEELING & LAKE ERIE RAILWAY

PROJECT DESCRIPTION

RESURFACING OF IR 77 FROM SLM 15.87 TO SLM 19.51, WITH MISCELLANEOUS BRIDGE WORK TO 10 STRUCTURES.

EARTH DISTURBED AREAS

PROJECT EDA:	2.2 ACRES
ESTIMATED CONTRACTOR EDA:	0.25 ACRES
NOTICE OF INTENT EDA:	N/A(NOI NOT REQUIRED)

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2019 SPECIFICATIONS

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED: [Signature]
 DATE 11/24/21 DISTRICT DEPUTY DIRECTOR

APPROVED _____
 DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

DESIGN AGENCY



DESIGNER	RMK
REVIEWER	MJA 11-18-21
PROJECT ID	88937
SHEET TOTAL	P.1 22

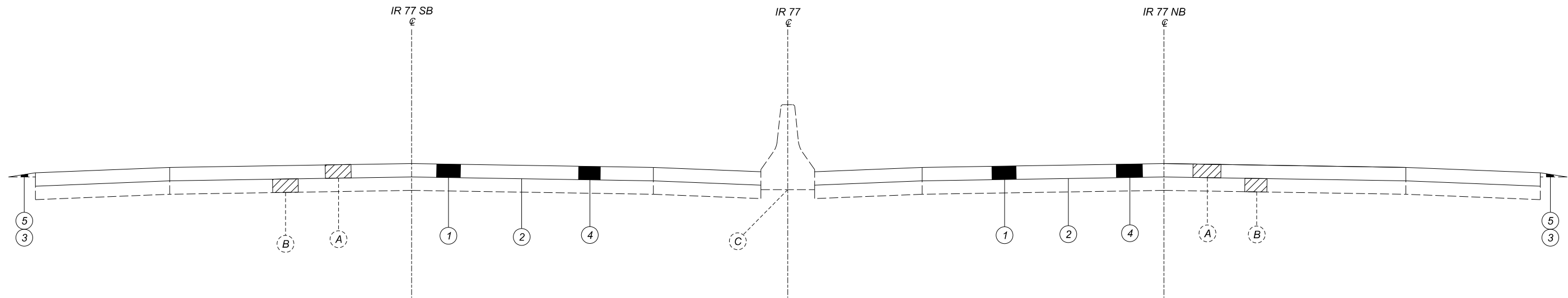
SUM-77-15.87

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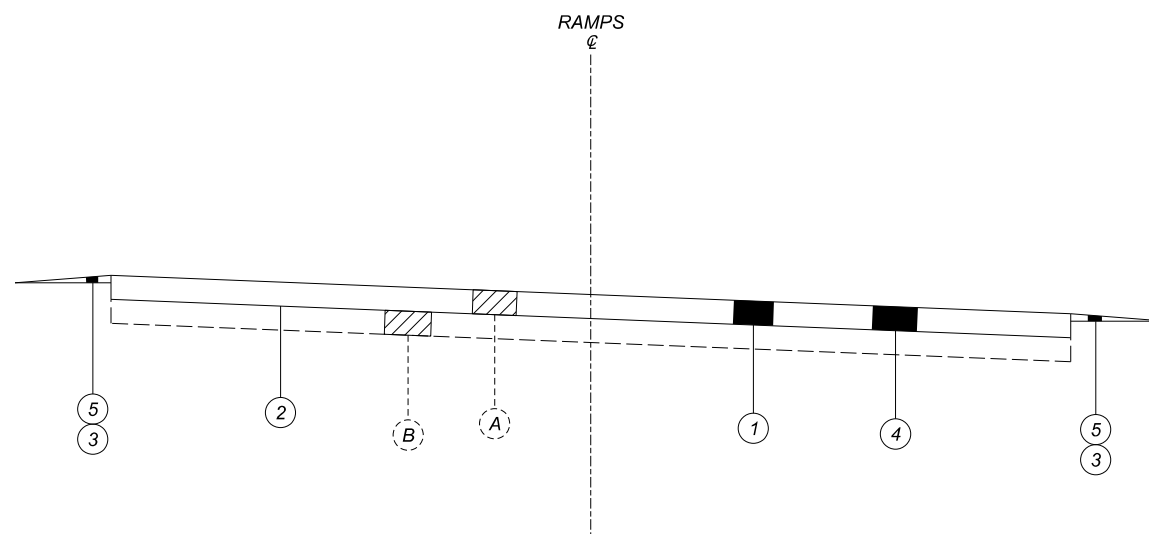
LEGEND

- ① ITEM 897, PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T = 1 1/2")
- ② ITEM 407, NON-TRACKING TACK COAT @ 0.09 GAL/SY
- ③ ITEM 408, PRIME COAT, AS PER PLAN @ 0.4 GAL/SY
- ④ ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) (T = 1 1/2")
- ⑤ ITEM 617, COMPACTED AGGREGATE, AS PER PLAN (T = 2")

- A EXISTING ASPHALT SURFACE (T = 9")
- B EXISTING REINFORCED CONCRETE BASE (T = 6")
- C EXISTING CONCRETE BARRIER



TYPICAL SECTION 1					
ROUTE	SLM		NB (FEET)	SB (FEET)	LENGTH (MILES)
	FROM	TO			
SUM IR 77	15.87	17.20	56	56	1.33
SUM IR 77	17.20	19.51	56	56	2.31



TYPICAL SECTION 2 – RAMPS					
FROM	TO	RAMP	PW (FEET)	LENGTH (MILES)	
SUM IR 77	SUM SR 162	E	VARIABLE	0.26	
SUM IR 77	SUM SR 162	F	VARIABLE	0.37	
SUM IR 77	SUM SR 162	G	VARIABLE	0.23	
SUM IR 77	SUM SR 162	H	VARIABLE	0.3	
SUM IR 77	WHITE POND RD.	A	VARIABLE	0.48	
SUM IR 77	WHITE POND RD.	B	VARIABLE	0.32	
SUM IR 77	WHITE POND RD.	C	VARIABLE	0.32	
SUM IR 77	WHITE POND RD.	D	VARIABLE	0.36	



UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OHIO811, THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS (MICHELLE CHANEY AT 330-786-2267) AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

-AT&T
 ATTN: CHRIS EMRICH
 50 W. BOWERY ST., 6TH FLOOR
 AKRON, OH 44308
 330-319-5239 (C)
 ce3141@att.com

-CHARTER
 ATTN: JIM LONG
 1200 BROWNSTONE AVE.
 AKRON, OH 44310
 330-622-4106 (O)
 James.Long@charter.com

-G & O RESOURCES
 ATTN: LEE CARTER
 96 E. CROSIER ST.
 AKRON, OH 44311
 330-253-2525 EXT: 307 (O)
 gandoresources@aol.com

-CITY OF AKRON, UTILITY COORDINATOR
 ATTN: JOSEPH KUNZLER, PE
 AWR PROGRAM/AEB UTILITIES
 166 S. HIGH ST.
 AKRON, OH 44308
 330-375-2217 (O) 330-690-0133 (C)
 joseph.kunzler@akronohio.gov

-DOMINION EAST OHIO
 ATTN: MICAH RISACHER
 320 SPRINGSIDE DRIVE, SUITE 320
 AKRON, OH 44333
 330-664-2638
 Micah.J.Risacher@dominionenergy.com
 relocation@dominionenergy.com

-OHIO EDISON
 ATTN: AMANDA TURNER
 1910 W. MARKET STREET, BUILDING #1
 AKRON, OH 44313
 330-436-4093 (O), 330-388-5291 (C)
 turnera@firstenergycorp.com

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

PAVEMENT MARKING DETAILS

THE PAVEMENT MARKING DETAIL SHEETS WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING. FOR ANY LOCATIONS THAT PAVEMENT MARKING DETAILS HAVE NOT BEEN MADE AVAILABLE TO THE CONTRACTOR, IT WILL BE THE CONTRACTORS RESPONSIBILITY TO PUT BACK NEW PAVEMENT MARKINGS IN THE ORIGINAL LOCATIONS.

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS [AT LEAST 3 DAYS PRIOR TO PERFORMING THE WORK CONTACT THE TRAFFIC OFFICE AT 330-786-3147 TO CONFIRM THE WIDTHS]:

ROUTE	S.L.M. TO	S.L.M.	LANE WIDTH
IR 77	15.87	19.51	12'
RAMPS	IR 77		16'

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ITEM 203 - EXCAVATION (FOR PAVEMENT REPAIR)

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF ALL UNSUITABLE MATERIAL BY EXCAVATING THE EXISTING SUBGRADE AND SUBBASE TO AN AVERAGE DEPTH OF 6 INCHES OR AS DIRECTED BY THE ENGINEER. EXACT LIMITS OF REMOVAL SHALL BE DETERMINED BY THE ENGINEER. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

- 203, EXCAVATION (FOR PAVEMENT REPAIR) 135 CU YD
- 203, EXCAVATION (FOR PAVEMENT REPAIR) 25 CU YD (CONCRETE SECTIONS)

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441)

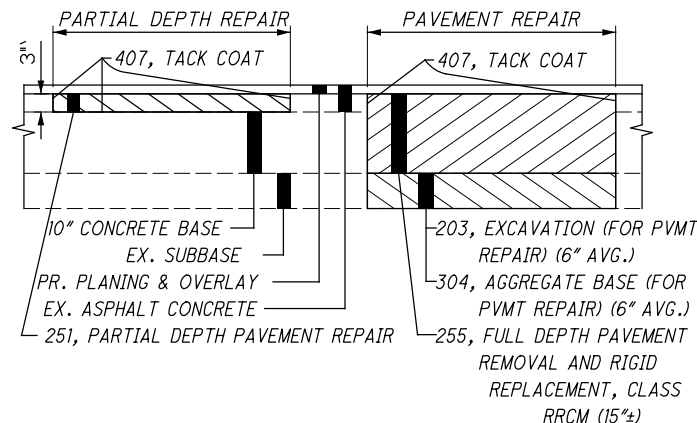
A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. PAVEMENT REPAIRS WILL BE MARKED IN THE FIELD BY THE PROJECT ENGINEER ACCORDING TO CMS 251.02. MINIMUM WIDTH IS 2'. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

- 251, PARTIAL DEPTH PAVEMENT REPAIR (441), 3500 SQ. YD.

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 15" 255 CLASS RRCM CONCRETE BASE. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6 INCHES. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

- 255, FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM, 800 SQ YD
- 255, FULL DEPTH PAVEMENT SAWING, 3600 FT
- 255, FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM, 150 SQ YD (FOR CONCRETE AREAS AT SLM 16.56 & 16.99)
- 255, FULL DEPTH PAVEMENT SAWING, 650 FT (FOR CONCRETE AREAS AT SLM 16.56 & 16.99)



ITEM 304 - AGGREGATE BASE (FOR PAVEMENT REPAIR)

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

- 304, AGGREGATE BASE (FOR PAVEMENT REPAIR) 135 CU YD
- 304, AGGREGATE BASE (FOR PAVEMENT REPAIR) 25 CU YD (CONCRETE SECTIONS)

ITEM 408 - PRIME COAT, AS PER PLAN

APPLY "MC-70" AT A RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER.

ITEM 442- ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (447) AS PER PLAN

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1- 1/2"	100
3/4"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

LINEAR GRADING

AREAS WHERE THE SHOULDER IS HIGHER THAN THE EDGE OF PAVEMENT WILL BE GRADED TO PROVIDE POSITIVE DRAINAGE. THIS WORK WILL ONLY BE PERFORMED IN AREAS NECESSARY AND WILL NOT BE PERFORMED ON THE ENTIRE PROJECT. AREAS FOR THE WORK WILL BE MARKED BY THE PROJECT ENGINEER. UNDER NO CIRCUMSTANCES WILL THIS WORK BE PERFORMED CONCURRENTLY WITH ANY OTHER OPERATION.

GRADING WILL BE ACCOMPLISHED BY THE REMOVAL OF MATERIAL TO PROVIDE A 0.08 POSITIVE SLOPE. THE GRADED AREAS WILL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING IS PERFORMED. ALL EXCESS MATERIAL WILL BE REMOVED FROM THE BERMS AND WILL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

SEEDING AND MUCHING, FERTILIZER AND LIME WILL BE PERFORMED WITHIN A PERIOD NOT TO EXCEED 10 DAYS AFTER THE LINEAR GRADING.

THE QUANTITY OF ITEM 209 IS NOT PERMITTED TO BE INCREASED. REDUCTIONS IN QUANTITIES ARE PERMITTED AS DETERMINED BY THE PROJECT ENGINEER.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK WILL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- 209, LINEAR GRADING, 384 STA.
- 659, SEEDING AND MULCHING, 10668 SQ YD
- 659, COMMERCIAL FERTILIZER, 1.44 TON
- 659, LIME, 2.2 ACRES
- 659, WATER, 57.6 M. GAL.

DESIGN AGENCY



DESIGNER

RMK

REVIEWER

MJA 11-18-21

PROJECT ID

88937

SHEET TOTAL

P.3 22

SEQUENCE OF PAVEMENT OPERATIONS

THE CONTRACTOR SHALL PERFORM ALL PAVING AND PAVEMENT REPAIR OPERATIONS ONE LANE AT A TIME (CONTRACTOR IS PERMITTED TO WORK ON BOTH SIDES OF FREEWAY AT THE SAME TIME). THIS WORK INCLUDES MILLING, PAVEMENT REPAIRS, AND PLACEMENT OF NEW ASPHALT.

ALL PAVING AND PAVEMENT REPAIR OPERATION WORK ON SHOULDERS SHALL BE DONE CONCURRENTLY WITH THE CLOSEST LANE.

RAMP PAVING AND PAVEMENT REPAIR OPERATIONS SHALL BE COMPLETED AFTER ALL MAINLINE PAVING IS COMPLETE.

ITEM SPECIAL - VERTICAL CLEARANCE

AFTER ALL CONSTRUCTION HAS BEEN COMPLETED, A REGISTERED SURVEYOR WILL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM (AVAILABLE IN THE DISTRICT 4 STRUCTURES AND PAVEMENT OFFICE). THE FINAL MEASUREMENTS SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT 4 STRUCTURES AND PAVEMENT ENGINEER. THE RECORD SHALL BEAR THE SEAL OF THE LICENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS. THIS WORK SHALL BE PERFORMED AT THE FOLLOWING STRUCTURES:

- SUM-77-1657 (PID: 7703694)
- SUM-77-1699 (PID: 7703724)
- SUM-77-1833 (PID: 7703880)
- SUM-77-1944 (PID: 7703961)
- SUM-77-1984NE (PID: 7703945)
- SUM-77-1996 (PID: 7703953)

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

SPECIAL - VERTICAL CLEARANCE, 6 EACH

GENERAL NOTES

DESIGN AGENCY



DESIGNER
RMK

REVIEWER
MJA 03/03/2022

PROJECT ID
88937

SHEET	TOTAL
P.4	22

MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE ELEVEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.
2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.
4. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS PER STANDARD CONSTRUCTION DRAWING MT-101.90.
6. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.
7. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS ONE (1) MILE.
8. FOR ROUTES NOT ON THE PERMITTED LANE CLOSURE CHART, ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.
9. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, CENTER, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.
10. A QUANTITY OF 20 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.
11. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.
12. THE CONTRACTOR SHALL PLACE THE SIGNS: W8-1 [BUMP] PER OMUTCD 2C.28; W8-11 [UNEVEN LANES] PER OMUCTD 6F.45; AND W6-3 [TWO-WAY TRAFFIC] PER OMUTCD 6F.32. PAYMENT FOR THESE SIGNS SHALL BE INCIDENTAL TO THE LUMP SUM ITEM 614- MAINTAINING TRAFFIC. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS PER CMS 614.04.

13. THE CONTRACTOR SHALL SET A WORK ZONE AT THE REQUEST OF THE ENGINEER TO ALLOW THE LAYOUT OF THE PARTIAL/FULL DEPTH PAVEMENT REPAIR AREAS. THIS WORK IS INCIDENTAL TO ITEM 614 MAINTAINING TRAFFIC.

PHASE I: MILLED SURFACE

- 614, WORK ZONE LANE LINE, CLASS I, 15.41 MILE
- 614, WORK ZONE STOP LINE, CLASS 1, 180 FT
- 614, WORK ZONE CHANNELIZING LINE, CLASS 1, 7070 FT
- 614, WORK ZONE MARKING SIGN,(ALL PHASES) 30 EACH

PHASE II: SURFACE COURSE

- 614, WORK ZONE LANE LINE, CLASS III, 642 PAINT 15.41 MILE
- 614, WORK ZONE STOP LINE, CLASS III, 642 PAINT 180 FT
- 614, WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT 7070 FT

TO BE USED AS DIRECTED BY THE ENGINEER

- 614, WORK ZONE EDGE LINE, CLASS III, 642 PAINT 17.01 MILE

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

ADVANCED NOTICE TO PAVE

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE DISTRICT CONSTRUCTION ENGINEER A DETAILED SCHEDULE 15 DAYS PRIOR TO THE PLACEMENT OF THE OVERLAY COURSES, ON HOW THEY PROPOSE TO PROSECUTE THE PAVING OPERATIONS. THE DETAILS SHALL SHOW THE ORDER OF PERFORMANCE OF EACH STAGE (START TO FINISH) OF THE WORK INCLUDING THE MAINTENANCE OF TRAFFIC THAT WILL BE USED.

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE

THE MAXIMUM ALLOWABLE TIME FOR TRAFFIC TO BE PLACED ON A MILLED SURFACE SHALL BE 7 CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$7500 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMIT.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PID
ROAD & RAMP CLOSURES	>=2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERNS CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT PROJECT SUM-76/77/8-8.24/09.74/00.00 (PID: 102329) MAY BE GOING IN AN AREA IMMEDIATELY ADJACENT TO AND WITHIN THE PROJECT LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECTS. IN ACCORDANCE WITH 105.08, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS APPROVALS FROM THE ENGINEER PRIOR TO COMMERCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREA, OR COOPERATION SHALL BE RESOLVED BY THE ENGINEER. COMPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

LANE CLOSURES

DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AS PER THE PERMITTED LANE CLOSURE CHART. THE PERMITTED LANE CLOSURE CHART USED FOR THIS PROJECT SHALL BE THE MOST CURRENT CHART AVAILABLE ON THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT:
<http://plcm.dot.state.oh.us>

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIREMENTS IN THE CHART, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF \$3000 PER HOUR OR PORTION THEREOF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

WORK ZONE SPEED ZONES (WZSZS)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

- WZS REVISION NUMBER(S) COUNTY-ROUTE-SECTION(S) DIRECTION(S)
- WZ- 26155 - SUM - 77NB - SLM 16.56 TO SLM 19.61
- WZ- 26155 - SUM - 77SB - SLM 16.56 TO SLM 20.55

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSEVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A

WZSZ.
[WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST, SUPPLEMENTAL SPECIFICATIONS (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.]

DESIGN AGENCY



DESIGNER

RMK

REVIEWER

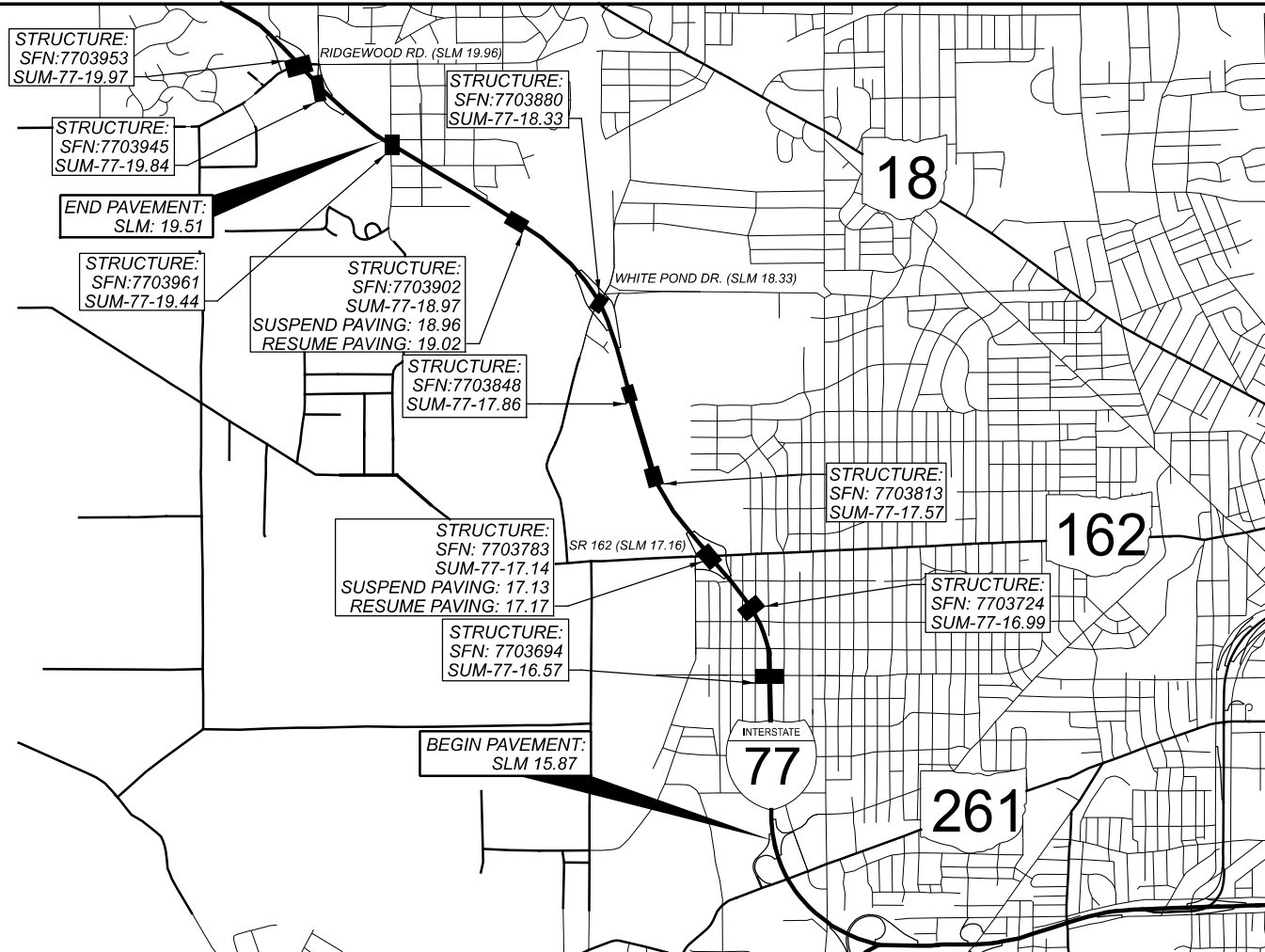
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NOTES:
 -COMPACTED AGGREGATE AND PRIME COAT WILL ONLY BE ON SECTIONS WITHOUT BARRIER WALLS
 -ALL BUTT JOINTS SHALL BE AS PER SCD BP-3.1

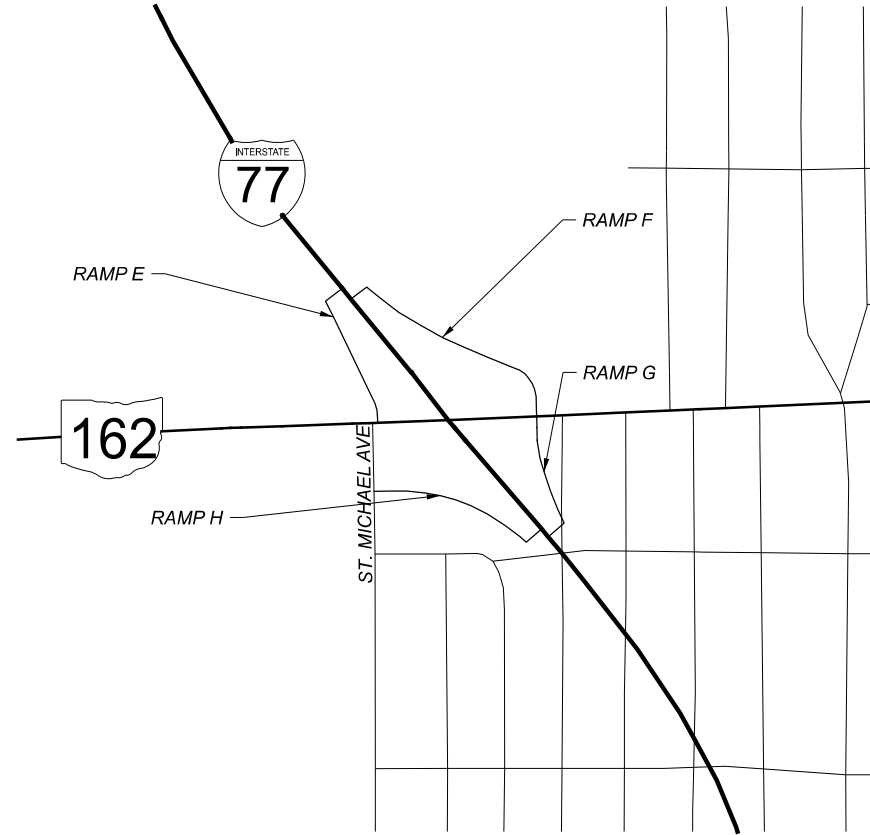


SLM RANGE	TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	897		407		408		442		442		617		618			
							PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T=1 1/2")	NON-TRACKING TACK COAT @ 0.09 GAL/SY	PRIME COAT, AS PER PLAN @ 0.4 GAL/SY	ANTI-SEGREGATION EQUIPMENT	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN (T=1 1/2")	COMPACTED AGGREGATE, AS PER PLAN (T=2")	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)									
			FT	FT	SY	SY	SY	GAL	GAL	CY	CY	CY	CY	CY	CY	CY	CY	CY	CY	MILE		
SUM IR 77																						
15.87		NB	5966.40	56.00	37124.27		37124.27	3341.18	530.35			1325.87	1546.84			73.66				2.26		
17.00		NB	686.40	56.00	4270.93		4270.93	384.38	61.01			114.40	177.96			8.47				0.26		
17.20		NB	9292.80	56.00	57821.87		57821.87	5203.97	608.25			1548.80	2409.24			84.48				3.52		
19.02		NB	2587.20	56.00	16098.13		16098.13	1448.83	229.97			431.20	670.76			31.94				0.98		
15.87		SB	5966.40	56.00	37124.27		37124.27	3341.18	530.35			994.40	1546.84			73.66				2.26		
17.00		SB	686.40	56.00	4270.93		4270.93	384.38	61.01			114.40	177.96			8.47				0.26		
17.20		SB	9292.80	56.00	57821.87		57821.87	5203.97	744.25			1548.80	2409.24			103.37				3.52		
19.02		SB	2587.20	56.00	16098.13		16098.13	1448.83	229.97			431.20	670.76			31.94				0.98		
GORES																						
IR 77 @ SR 162	RAMP E GORE					220.00	220.00		19.80				9.17									
	RAMP F GORE					462.00	462.00		41.58				19.25									
	RAMP G GORE					297.00	297.00		26.73				12.38									
	RAMP H GORE					410.00	410.00		36.90				17.08									
IR 77 @ WHITE POND	RAMP A GORE					330.00	330.00		29.70				13.75									
	RAMP B GORE					343.00	343.00		30.87				14.29									
	RAMP C GORE					207.00	207.00		18.63				8.63									
	RAMP D GORE					530.00	530.00		47.70				22.08									
SUBTOTALS							0.00	0.00	233429.40	0.00	21008.65	2995.16	0.00	6509.07	9726.23	0.00	416.00	0.00	14.04	0.00	0.00	
TOTALS CARRIED TO GENERAL SUMMARY							0	0	233430	0	21009	2996	0	6510	9727	0	416	0	15	0	0	0

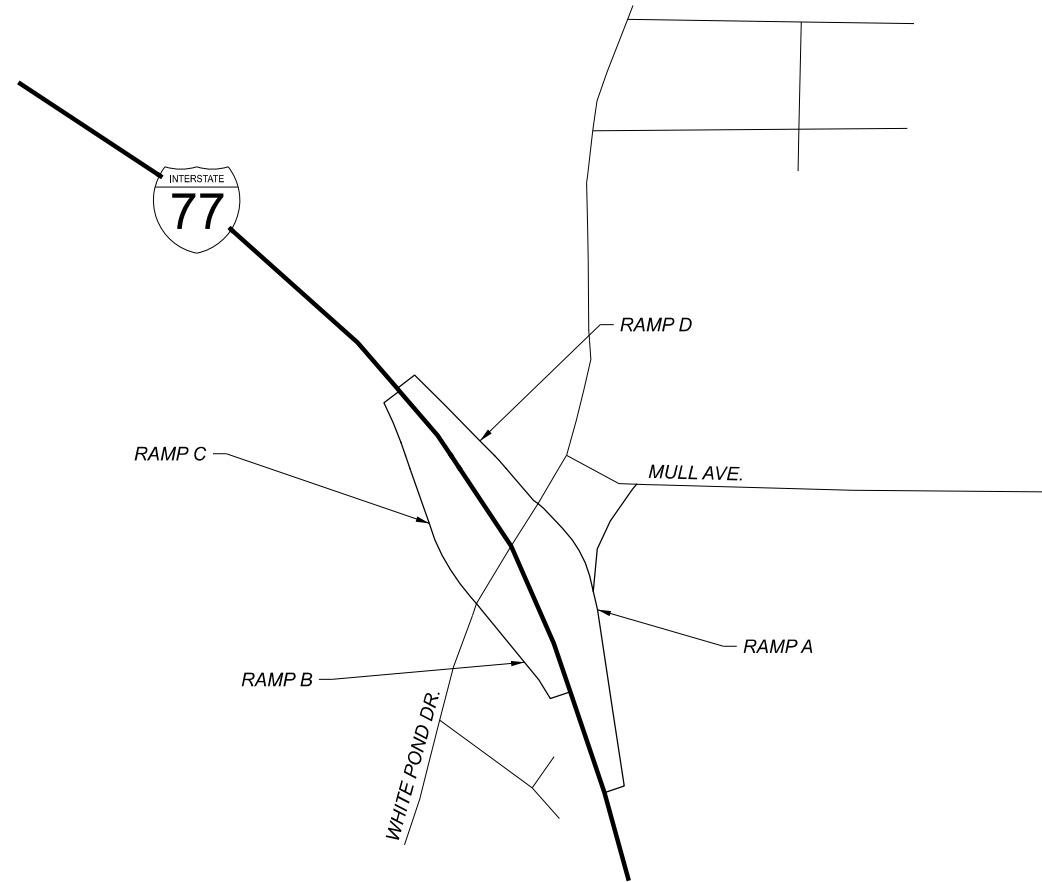
DESIGN AGENCY

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RMK
 REVIEWER
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IR 77 @ SR 162



IR 77 @ WHITE POND RD.



ALL BUTT JOINTS SHALL BE AS PER SCD BP-3.1

SLM RANGE	TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/8	CADD GENERATED AREA	897		407		408		442		442		617							
			FT	FT	SY	SY	SY	SY	SY	GAL	GAL	CY	CY	CY	CY	CY								
RAMPS																								
IR 77@SR 162	RAMP E		1386.60			4167.00	4167.00	375.03	123.25	102.71	173.63	17.12												
	F		1973.60			5602.00	5602.00	504.18	175.43	146.19	233.42	24.37												
	G		1223.50			3336.00	3336.00	300.24	108.76	90.63	139.00	15.10												
	H		1589.30			4125.00	4125.00	371.25	141.27	117.73	171.88	19.62												
IR 77@WHITE POND RD.	RAMP A		2545.00			7952.00	7952.00	715.68	226.22	188.52	331.33	31.42												
	B		1695.25			4708.00	4708.00	423.72	150.69	125.57	196.17	20.93												
	C		1697.25			4720.00	4720.00	424.80	150.87	125.72	196.67	20.95												
	D		1880.00			4835.00	4835.00	435.15	167.11	139.26	201.46	23.21												
SUBTOTALS							0.00	0.00	39445.00	0.00	3550.05	1243.60	0.00	1036.33	1643.54	0.00	172.72	0.00	0.00	0.00	0.00	0.00	0.00	
TOTALS CARRIED TO GENERAL SUMMARY							0	0	39445	0	3551	1244	0	1037	1644	0	173	0	0	0	0	0	0	0

PAVEMENT CALCULATIONS

DESIGN AGENCY



DESIGNER
 RMK
 REVIEWER
 MJA 11-18-21
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