

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

VILLAGE OF JEFFERSONVILLE, VILLAGE OF OCTA JASPER TOWNSHIP, JEFFERSON TOWNSHIP, PAINT TOWNSHIP PROJECT INCLUDES BRIDGE REPAIRS ON VARIOUS STRUCTURES WITHIN THE PROJECT LIMITS. FAYETTE COUNTY (MADISON COUNTY)

PORTION TO BE IMPROVED INTERSTATE HIGHWAY_ _____ FEDERAL ROUTES STATE ROUTES _____

DESIGN DESIGNATION

COUNTY & TOWNSHIP ROADS _____

OTHER ROADS _____

CURRENT ADT (2024)	40250
DESIGN YEAR ADT (2036)	45083
DESIGN HOURLY VOLUME (2024)	4267
DIRECTIONAL DISTRIBUTION	54%
TRUCKS (24 HOUR B&C)	29%
DESIGN SPEED	70 MPF
LEGAL SPEED	70 MPF
DESIGN FUNCTIONAL CLASSIFICATION:	
01 INTERSTATE (RURAL)	
NHS PROJECT	YES

DESIGN EXCEPTIONS

NONE REQUIRED

ADA DESIGN WAIVERS

NONE REQUIRED



PLAN PREPARED BY:

N HOUSE DESIG



-0.00(MAD)

FAY

FAY-71-0.00(MAD)

INDEX OF SHEETS:

TITLE SHEET		
LOCATION MAP		
SCHEMATIC PLAN	3	-
TYPICAL SECTIONS	5	-
TYPICAL DETAILS	7	-
GENERAL NOTES	16	-
MAINTENANCE OF TRAFFIC NOTES	20	-
GENERAL SUMMARY	24	-
PAVEMENT SUBSUMMARY	26	-
ROADWAY SUBSUMMARY		
EROSION CONTROL SUBSUMMARY		
PROJECT SITE PLAN	30	-
PLAN VIEWS	36	-
TRAFFIC CONTROL SUBSUMMARY	57	-
BRIDGE PLAN	61	-

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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.

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 SHALL GOVERN THIS IMPROVEMENT.

STANDARD CONSTRUCTION DRAWINGS					SUF SPE	PPLEMENTAL CIFICATIONS	SPECIAL PROVISIONS			
S-1.1	7/16/21	MT-95.30	7/19/19	MT-101.60	4/21/23	TC-12.31	4/15/22	800	5 10/20/23	7
S-2.1	1/19/18	MT-95.31	7/19/19	MT-101.70	4/21/23	TC-21.21	1/20/23	807	1/21/22	\mathcal{A}
S-3.2	1/18/13	MT-95.32	4/19/19	MT-101.90	7/17/20	TC-41.20	10/18/13	808	1/18/19	
S-4.2	7/19/13	MT-95.40	7/21/23	MT-102.20	4/19/19	TC-42.10	10/18/13	809	7/21/23	
S-4.3	1/18/13	MT-95.45	7/21/23	MT-103.10	1/21/22	TC-42.20	10/18/13	821	4/20/12	
S-5.2	7/15/16	MT-95.50	7/21/17	MT-104.10	4/21/23	TC-52.10	10/18/13	832	7/21/23	
S-5.3	7/15/16	MT-98.10	1/17/20	MT-105.10	1/17/20	TC-52.20	1/15/21	850	7/21/23	
S-6.1	1/19/18	MT-98.11	1/17/20			TC-61.10	4/21/23	875	1/18/19	
		MT-98.20	4/19/19			TC-65.10	1/17/14	908	10/20/17	
		MT-98.22	1/17/20			TC-65.11	7/15/22	909	7/21/23	
		MT-98.28	1/17/20			TC-71.10	4/21/23	921	4/20/12	
		MT-98.29	1/17/20			TC-72.20	7/21/23			
		MT-98.30	7/16/21			TC-73.20	7/23/23			
		MT-99.20	4/19/19							

35

56

60

79

FEDERAL PROJECT NUMBER

E200769

RAILROAD INVOLVEMENT

PROJECT DESCRIPTION

INTERSTATE RESURFACING AND INSTALLATION OF CABLE BARRIER ALONG 9.49 MILES OF IR 71 IN FAYETTE COUNTY, BEGINNING AT SLM 0.00 (GREENE COUNTY LINE) AND ENDING AT SLM 9.49.

THIS PROJECT ALSO INCLUDES THE APPLICATION OF RECESSED WET REFLECTIVE (RWR) PAVEMENT MARKINGS WITHIN THE PAVING LIMITS (FAY-71-0.00 TO 9.49) AND IN SECTIONS OUTSIDE OF THE PAVING LIMITS AS IDENTIFIED IN THE PLANS.

PROJECT INCLUDES VEGETATION REMOVAL/CONTROL, GUARDRAIL UPGRADES, AND MINOR DRAINAGE IMPROVEMENTS AT LOCATIONS IDENTIFIED IN THE PLANS.

INDIANA & OHIO RAILROAD

EARTH DISTURBED AREAS

ECT EARTH DISTURBED AREA:	4.27 ACRES
ATED CONTRACTOR EARTH DISTURBED AREA:	0.00 ACRES
CE OF INTENT EARTH DISTURBED AREA:	4.27 ACRES

LIMITED ACCESS

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.

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Anthony C. Turowski, P.E. District 06 Deputy Director

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Director, Department of Transportation

ESIGN AGENCY



HEET P.01 79



ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016); THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS. IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH REBOUNDABLE RETROREFLECTIVE SHEETING. PER C&MS 730.191. REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF. AND THE GRADING AROUND. THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER. ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE. THE PAYMENT LIMIT (LENGTH) FOR THE PROPOSED ANCHOR ASSEMBLY, (MGS) TYPE E, AS PER PLAN SHALL BE 53'- 1 1/2" (TO THE STANDARD MGS CONNECTION) AS DETAILED BELOW. 53'-1 ¹/₂" PAYMENT LENGTH MGS PAYMENT 5 4 3 2 1 Π ПП ПП PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM. INCLUDING ALL RELATED TRANSITIONS. REFLECTIVE SHEETING. HARDWARE. GRADING. EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURE. ITEM 606 - GUARDRAIL, MISC.: ALTERNATIVE GUARDRAIL PLACEMENT: THIS ITEM SHALL BE USED WHEN THE CONTRACTOR IS REQUIRED TO USE AN ALTERNATE METHOD TO SET POSTS TO PREVENT DAMAGE TO AN UNDERGROUND OBSTACLE. SUCH AS A UTILITY. THE USE OF THIS ITEM WILL BE AS DEEMED NECESSARY BY THE ENGINEER. THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED TO SET AND BACKFILL POSTS WHILE MEETING THE REQUIREMENTS OF THE APPLICABLE GUARDRAIL ITEM BEING PERFORMED. APPLICABLE GUARDRAIL ITEMS INCLUDE BUT ARE NOT LIMITED TO SETTING POSTS (AND SLEEVES) FOR TYPE 5, TYPE MGS, BARRIER DESIGN, ANCHOR ASSEMBLIES, AND BRIDGE TERMINAL ASSEMBLIES. PAYMENT SHALL BE AT THE UNIT BID PRICE OF EACH AND SHALL BE PAID

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY:

FOR IN ADDITION TO THE APPLICABLE GUARDRAIL PLACEMENT

ITEM LISTED ABOVE.

ITEM 606 - GUARDRAIL, MISC.: ALTERNATIVE GUARDRAIL PLACEMENT

= 100 FT

FOUNDATION:

ITEM 606 SPECIAL - CABLE BARRIER, ANCHOR ASSEMBLY: **ITEM 606 SPECIAL - CABLE BARRIER, POST REFLECTOR;** THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY ONE OF THE HIGH TENSION FOUR CABLE GUARDRAIL SYSTEMS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606. CABLE BARRIER. CONCRETE SOCKETED FOUNDATION. ITEM 606 CABLE BARRIER, ANCHOR ASSEMBLY, AND ITEM 606 CABLE BARRIER, POST REFLECTOR AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL HIGH TENSION CABLE GUARDRAIL SYSTEM NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. THE LENGTH OF THE TENSIONED CABLE NECESSARY TO INSTALL A FUNCTIONAL ANCHOR SYSTEM SHALL BE INCLUDED IN ITEM 606. CABLE BARRIER. CONCRETE SOCKETED FOUNDATION.

THE MANUFACTURER SHALL PROVIDE AN ADEQUATELY DESIGNED HIGH TENSION FOUR CABLE ANCHOR TERMINAL ASSEMBLY WITH THE APPROPRIATE SAFETY FACTORS TO HANDLE THE STATIC LOAD AND ANY IMPACT LOADS NEAR THE ANCHOR TERMINAL ASSEMBLY. THE HIGH TENSIONED FOUR CABLE ANCHOR TERMINAL ASSEMBLY SHALL FOLLOW THE MANUFACTURERS SPECIFICATIONS FOR "SOFT" SOIL CONDITIONS.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

SYSTEMS SHALL HAVE A MAXIMUM DEFLECTION OF 8 FEET AND THE MAXIMUM LONGITUDINAL DISTANCE BETWEEN POSTS SHALL BE 15 FEET.

INSTALLATION WILL BE A FOUR CABLE HIGH TENSION SYSTEM INSTALLED IN SOCKETED POSTS FOUNDATION WITH A FOUR FOOT WIDE "NO MOW STRIP".

CONTRACTOR SHALL PROVIDE BI-DIRECTIONAL DELINEATORS ON THE POSTS AT A MINIMUM INTERVAL OF 100 FEET AND ON ALL ANCHOR TERMINALS.

TRANSITIONS TO W-BEAM GUARDRAIL ARE NOT ALLOWED. REFER TO MANUFACTURER FOR MAXIMUM OFFSET FROM BREAK POINT.

TORPEDO OR BULLET SPLICES ARE NOT ALLOWED. ALL CABLE SPLICES SHALL BE A SWAGED OR OPEN BODY DESIGN THAT ALLOWS FOR ANNUAL INSPECTION BETWEEN THE WEDGE AND STRANDS OF CABLE.

POSTS ARE SET IN SOCKETED CONCRETE FOUNDATIONS AND SHALL NOT BE PERMANENTLY INSTALLED UNTIL THEIR RESPECTIVE RUNS OF TENSIONED CABLE GUARDRAIL ARE READY FOR FINAL CONNECTION TO THE END TERMINAL ASSEMBLY. THE CONTRACTOR SHALL REPLACE ANY POSTS DAMAGED DURING INSTALLATION AS DETERMINED BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.

ITEM 606 SPECIAL - CABLE BARRIER. CONCRETE SOCKETED

ITEM 690 SPECIAL: NO MOW STRIP:

A 4 INCH THICK NO MOW STRIP SHALL BE CONSTRUCTED WITH MATERIALS CONFORMING TO ITEM 608 CONCRETE WALK. THE NO MOW STRIP SHALL BE PLACED ON COMPACTED EARTH AND CONSTRUCTED USING QC1 CONCRETE WITH A CURING COMPOUND MEETING THE SPECIFICATIONS OF 705.07 OF THE CMS.

THE NO MOW STRIP SHALL EITHER BE INTEGRAL TO THE SOCKETED CONCRETE FOUNDATION OR HAVE AN EXPANSION JOINT WITH MATERIALS MEETING THE REQUIREMENTS OF 705.03 OF THE CMS BETWEEN THE SOCKETED CONCRETE FOUNDATION AND THE CONCRETE NO MOW STRIP.

THE NO MOW STRIP SHALL HAVE A TRANSVERSE JOINT EVERY 8 FEET AND AN EXPANSION JOINT EVERY 100 FEET. THE JOINTS AND MATERIALS TO CONSTRUCT THE JOINTS SHALL CONFORM TO 608.06(C) OF THE CMS.

IF MATERIAL FROM THE EXCAVATION OF THE NO NOW STRIP AND THE SOCKETED CONCRETE FOUNDATION IS WASTED ADJACENT TO THE NO MOW STRIP THE AREA SHALL BE SEEDED AND MULCHED TO SPECIFICATION OF ITEM 659 IN THE CMS. PAYMENT FOR THIS WORK IS INCLUDED IN THE UNIT BID PRICE FOR ITEM SPECIAL: NO MOW STRIP.

ALL MATERIAL, LABOR, AND EQUIPMENT TO CONSTRUCT THE CONCRETE NO MOW STRIP SHALL BE PAID FOR UNDER ITEM SPECIAL: NO MOW STRIP.

ITEM 659 - GRADING AND EROSION CONTROL:

AREAS DISTURBED BY GUARDRAIL AND CABLE RAIL ACTIVITIES SHALL BE REPAIRED WITH THE FOLLOWING QUANTITIES, AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY:

TEM 659 - TOPSOIL	= 122 CU	= 122 CU YD		
TEM 659 - SEEDING AND MULCHING	= 1050	SQ YD		
TEM 659 - COMMERCIAL FERTILIZER	= 0.14	TON		
TEM 659 - LIME	= 0.22	ACRE		
TEM 659 - WATER	= 6	MGAL		

VEGETATED BIOFILTER:

THIS PROJECT UTILIZES VEGETATED BIO FILTERS FOR POST CONSTRUCTION STORM WATER TREATMENT. THE AREAS BEING USED ARE EXISTING SEEDED DITCH BOTTOMS. THE FOLLOWING QUANTITIES ARE BEING PROVIDED TO BE USED AS DIRECTED BY ENGINEER. TO PLACE ITEM 659 SEEDING AND MULCHING WITH A 4" LIFT OF TOPSOIL IN AREAS CALLED OUT AS VEGETATED BIOFILTERS ON THE PROJECT SITE PLAN, SHEETS P.30-P.35 IF THE EXISTING GRASS IN THOSE AREAS NEEDS ADDITIONAL SEEDING TO INSURE THAT THERE IS A MINIMUM OF 70% GRASS COVERAGE WITHIN THE DESIGNATED BIOFILTER AREA.

THE FOLLOWING TOTALS HAVE BEEN PROVIDED FOR CONTINGENCY AND CARRIED TO THE GENERAL SUMMARY:

ITEM 659 - TOP SOIL	= 45 CY

ITEM 659 - SEEDING AND MULCHING = 415 SY

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (SHOULDER), AS PER PLAN, 4.5" : ALL REPAIR AREAS DETAILED IN THE PLAN SHALL BE VERIFIED BY THE PROJECT ENGINEER BEFORE THE BEGINNING OF WORK. THE THE REPAIR AREAS SHALL CONSIST OF REMOVING 4.5 INCHES OF PAVEMENT AND PLACING 3.0 INCHES OF ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 (449) AND 1.5 INCHES OF ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, PG70-22M, (449). FOR MORE INFORMATION SEE DETAIL ON SHEET P.08. THE CONTACTOR MAY PLACE 3.0 INCHES OF ITEM 301 - ASPHALT CONCRETE BASE TO 1.5 INCHES BELOW EXISTING GRADE AND PERFORM 1.5 INCHES OF ITEM 442 - SURFACE COURSE AT A LATER DATE. NO MORE PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) SHALL BE STARTED THAN CAN BE COMPLETED TO TOP OF 301 ASPHALT CONCRETE BASE IN THE SAME WORKING SHIFT.

SHOULDER REPAIR LOCATIONS CAN BE FOUND ON THE PLAN VIEWS SHEETS 49-50. THE FOLLOWING TOTAL HAS BE PROVIDED FOR REPAIRS AND HAS CARRIED TO THE GENERAL SUMMARY:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN, 4.5", FOR SHOULDER = 250 SY

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (SHOULDER), AS PER PLAN, 3.0", FOR DRAINAGE : THE INTENT OF THIS REPAIR IS TO PROVIDE POSITIVE DRAINAGE AROUND THE NEW EROSION CONTROL FLUMES BEING INSTALLED. THE REPAIR AREA SHALL CONSIST OF REMOVING 3.0 TO 5.0 INCHES OF PAVEMENT AND PLACING 3.0 INCHES OF ITEM 301 -ASPHALT CONCRETE BASE, PG64-22. FOR MORE INFORMATION SEE DETAIL ON SHEET 29.

ITEM 254 - PAVEMENT PLANING. ASPHALT CONCRETE: THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO THE CONTRACTORS EQUIPMENT THAT MAY **RESULT FROM THE PLANING OPERATION. INCLUDING DAMAGE** CAUSED BY CASTINGS AND LOOP DETECTORS. THE DEPTH OF PLANING CLOSE TO THE CASTINGS SHALL BE AS DIRECTED; TO ACHIEVE A SMOOTH RIDING FINISHED PAVEMENT.

BUTT JOINTS SHALL BE PROVIDED AT THE BEGINNING AND END OF PAVING LIMITS AND AT THE APPROACH SLABS OF ALL STRUCTURES NOT BEING PAVED.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN, 4.5", FOR MAINLINE:

ALL REPAIR AREAS DETAILED IN THE PLAN SHALL BE VERIFIED BY THE PROJECT ENGINEER BEFORE THE BEGINNING OF WORK. THE THE REPAIR AREAS SHALL CONSIST OF REMOVING 4.5 INCHES OF PAVEMENT AND PLACING 4.5 INCHES OF ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 (449). FOR MORE INFORMATION SEE DETAIL ON SHEET P.08. WORK SHALL BE PERFORMED PRIOR TO PLANING. NO MORE PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE) SHALL BE STARTED AND PERFORMED THAN CAN BE COMPLETED IN THE SAME WORKING DAY.

THE FOLLOWING TOTAL HAS BE PROVIDED FOR REPAIRS AND HAS CARRIED TO THE GENERAL SUMMARY:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN, 4.5". FOR MAINLINE = 4820 SY

AT NO TIME SHALL TRAFFIC BE EXPOSED TO PLANED PAVEMENT WITHIN THE TRAVELED WAY/LANE(S). AT NO TIME OUTSIDE OF THE WORK SHIFT SHALL THE SHOULDERS BE LEFT AT A HIGHER ELEVATION THAN THE DRIVING LANES.

FAILURE TO COMPLY SHALL SUBJECT THE CONTRACTOR TO LIQUIDATED DAMAGES AS PER SECTION 108.07 OF C&MS.

NOTES ENERAL (7

ESIGN AGENCY

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