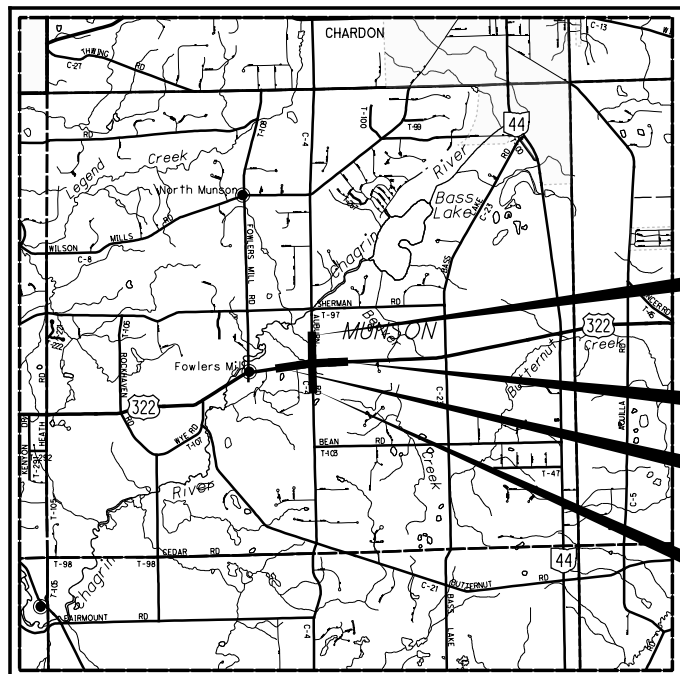


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

GEA-322-7.78

MUNSON TOWNSHIP GEAUGA COUNTY

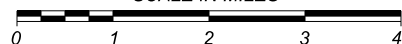


LOCATION MAP

LATITUDE: 41°31'43" LONGITUDE: 81°14'36"



SCALE IN MILES



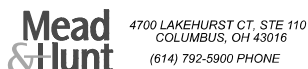
PORTION TO BE IMPROVED	—————
INTERSTATE HIGHWAY	—————
FEDERAL ROUTES	—————
STATE ROUTES	—————
COUNTY & TOWNSHIP ROADS	—————
OTHER ROADS	—————

DESIGN DESIGNATION	US 322		CH 4	
	WEST LEG	EAST LEG	NORTH LEG	SOUTH LEG
CURRENT ADT (2020)	7,400	7,250	10,100	8,750
DESIGN YEAR ADT (2040)	8,250	8,000	10,900	9,400
DESIGN HOURLY VOLUME (2040)	830	800	1,090	940
DIRECTIONAL DISTRIBUTION	0.58	0.59	0.53	0.54
TRUCKS (24 HOUR B&C)	0.06	0.06	0.05	0.05
TD	0.03	0.03	0.03	0.03
DESIGN SPEED	45 MPH	45 MPH	45 MPH	55 MPH
LEGAL SPEED	45 MPH	45 MPH	45 MPH	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	RURAL ARTERIAL		RURAL COLLECTOR	
NHS PROJECT	NO			

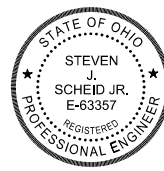
DESIGN EXCEPTIONS
SHOULDER WIDTH SEE SHEET 3



PLAN PREPARED BY:



ENGINEERS SEAL:



SIGNED: *Steven J. Scheid Jr.* P.E., R.S.
DATE: 6/12/2020

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STANDARD CONSTRUCTION DRAWINGS							SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-3.1	01/17/20	BP-4.1	7/19/13	HL-30.22	4/17/20	TC-41.41	7/19/19	800-2020	10/16/20	WATERWAY PERMITS CONDITIONS 01/07/2021
		BP-5.1	1/18/19			TC-42.20	10/18/13	809	1/17/20	
CB-1.1	7/19/19			MT-97.10	4/19/19	TC-52.10	10/18/13	821	4/20/12	
CB-2.1	7/20/18	MGS-1.1	1/19/18	MT-97.12	1/20/17	TC-52.20	7/20/18	825	1/17/20	
CB-2.2	7/20/18	MGS-2.1	1/19/18	MT-99.20	4/19/19	TC-61.10	1/17/20	832	10/19/18	
CB-4.1	1/18/13	MGS-4.2	7/19/13	MT-99.30	1/17/20	TC-61.30	7/19/19	836	1/19/18	
		MGS-5.3	7/15/16	MT-101.60	1/17/20	TC-65.10	1/17/14	875	1/18/19	
MH-1.2	1/15/16			MT-101.70	1/17/20	TC-65.11	7/21/17	895	4/18/14	
		RM-1.1	7/18/14	MT-101.75	1/17/20	TC-71.10	1/19/18	921	4/20/12	
DM-1.1	7/21/17	RM-4.2	4/17/20	MT-101.90	7/21/17	TC-81.21	1/18/19	995	7/17/15	
DM-1.2	1/18/13			MT-105.10	1/17/20	TC-83.10	1/17/20			
DM-3.1	1/18/13	HW-2.1	7/20/18			TC-83.20	7/21/17			
DM-4.1	7/20/18	HW-2.2	7/20/18	TC-16.21	7/20/18	TC-85.10	4/17/20			
DM-4.2	7/20/12			TC-21.20	7/20/18	TC-85.20	7/20/18			
DM-4.3	1/15/16	HL-30.11	4/17/20	TC-22.10	4/17/20					
DM-4.4	1/15/16	HL-30.21	4/17/20	TC-41.20	10/18/13					

FEDERAL PROJECT NUMBER

E180072

PROJECT DESCRIPTION

IMPROVE INTERSECTION OF US-322 AND AUBURN ROAD CH-4 BY ADDING A LEFT TURN LANE IN EACH OF THE FOUR APPROACH DIRECTIONS. THIS PROJECT ALSO INCLUDES WIDENING AND RESURFACING, REPLACEMENT AND RELOCATION OF EXISTING GUARDRAIL, INSTALLING DRAINAGE AND REPLACEMENT OF THE TRAFFIC SIGNAL.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 3.48 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.75 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 4.90 ACRES

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.

TRAFFIC REROUTED FOR SIDE ROAD CLOSURE

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT FOR NORTHBOUND AUBURN RD AS DESCRIBED ON SHEETS 9 & 14 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED
DATE 10/13/20 DISTRICT DEPUTY DIRECTOR

APPROVED
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

DESIGN AGENCY
Mead & Hunt



CLIENT

DESIGNER

MAH

REVIEWER

SJS 11/12/19

PROJECT ID

106261


SHEET TOTAL

P.01 | 134

GEA-322-7.78

MODEL: Sheet PAPER SIZE: 11x17 (in.) DATE: 9/15/2020 TIME: 9:12:40 AM USER: k26eged X:\4020800\180117_01\06261\400-Engineer\Ing\Roadway\Sheet\106261.ctb.dgn



SHEET NUM.							PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
6A	53	86	97	98	106	OFFICE CALCS	01/SAF/PV	EXT	TOTAL				
PAVEMENT													
100						5,709	100	251	01000	100	SY	PARTIAL DEPTH PAVEMENT REPAIR (441)	6A
						1,292	5,709	254	01001	5,709	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN	5
						958	1,292	301	46000	1,292	CY	ASPHALT CONCRETE BASE, PG64-22	
		128				1,443	1,086	304	20000	1,086	CY	AGGREGATE BASE	
		25					1,468	407	10000	1,468	GAL	TACK COAT	
						373	373	441	50000	373	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
						13	13	441	50201	13	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), AS PER PLAN	5
						522	522	441	50300	522	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
		28					28	441	50400	28	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), (DRIVEWAYS)	
		4					4	452	10010	4	SY	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
2,425							2,425	609	26000	2,425	FT	CURB, TYPE 6	
TRAFFIC CONTROL													
2							2	620	00500	2	EACH	DELINEATOR, POST GROUND MOUNTED	
			153				153	621	00100	153	EACH	RPM	
20							20	626	00110	20	EACH	BARRIER REFLECTOR, TYPE 2, BI-DIRECTIONAL	
				8			8	630	79100	8	EACH	SIGN HANGER ASSEMBLY, MAST ARM	
				140.5			140.5	630	03100	140.5	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
				98.9			98.6	630	80100	98.9	SF	SIGN, FLAT SHEET	
				15			15	630	84900	15	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
				11			11	630	86002	11	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					1.25		1.25	646	10010	1.25	MILE	EDGE LINE, 6"	
					0.8		0.79	646	10200	0.8	MILE	CENTER LINE	
					810		810	646	10300	810	FT	CHANNELIZING LINE, 8"	
					93		93	646	10400	93	FT	STOP LINE	
					319		319	646	10600	319	FT	TRANSVERSE/DIAGONAL LINE	
					11		11	646	20300	11	EACH	LANE ARROW	
TRAFFIC SIGNALS													
					61		61	625	25504	61	FT	CONDUIT, 3", 725.051	
					16		16	625	25604	16	FT	CONDUIT, 4", 725.051	
					261		261	625	25906	261	FT	CONDUIT, JACKED OR DRILLED, 725.051, 4"	
					48		48	625	29000	48	FT	TRENCH	
					5		5	625	30706	5	EACH	PULL BOX, 725.08, 24"	
					5		5	625	32000	5	EACH	GROUND ROD	
					48		48	625	36010	48	FT	UNDERGROUND WARNING/MARKING TAPE	
					1		1	625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL - SIGNAL CONTROLLER	
					4		4	632	05007	4	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	107
					4		4	632	05087	4	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	107
					16		16	632	25000	16	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
					874		874	632	40400	874	FT	SIGNAL CABLE, 4 CONDUCTOR, NO. 14 AWG	
					904		904	632	40900	904	FT	SIGNAL CABLE, 9 CONDUCTOR, NO. 14 AWG	
					4		4	632	64010	4	EACH	SIGNAL SUPPORT FOUNDATION	
					60		60	632	68200	60	FT	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG	
					340		340	632	69500	340	FT	SERVICE CABLE, 2 CONDUCTOR, NO. 6 AWG	
					1		1	632	70000	1	EACH	POWER SERVICE	
					3		3	632	80502	3	EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 11	
					1		1	632	80620	1	EACH	SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 13	
					1		1	632	90100	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	107
					1		1	633	65520	1	EACH	CABINET, TYPE 332	
					1		1	633	67101	1	EACH	CABINET FOUNDATION, AS PER PLAN	109
					1		1	633	67201	1	EACH	CONTROLLER WORK PAD, AS PER PLAN	109
					1		1	633	74001	1	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), AS PER PLAN	109
					4		4	809	69000	4	EACH	ADVANCE RADAR DETECTION	108
					4		4	809	69100	4	EACH	STOP LINE RADAR DETECTION	108
					1		1	809	69123	1	EACH	ATC V6.24 CONTROLLER, AS PER PLAN	109
					1		1	809	69200	1	EACH	EMERGENCY VEHICLE PREEMPTION	107
					4		4	809	69210	4	EACH	PREEMPT RECEIVING UNIT	107
					874		874	809	69220	874	FT	PREEMPT DETECTOR CABLE	107
					1		1	809	69230	1	EACH	PREEMPT PHASE SELECTOR	107
					4		4	809	69240	4	EACH	PREEMPT CONFIRMATION LIGHT	109

DESIGN AGENCY

 CLIENT

 DESIGNER
 MAH
 REVIEWER
 SJS 11/12/19
 PROJECT ID
 106261
 SHEET TOTAL
 P.50 | 134

REF NO.	SHEET NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630	630	630	630	630											
							GROUND MOUNTED SUPPORT, NO. 3 POST	SIGN, FLAT SHEET	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	SIGN HANGER ASSEMBLY, MAST ARM	FT	SF	EACH	EACH	EACH						
S1	99	US 322	257+50.00	RT	W3-3-30	30x30	12.5/13.5	6.3														
R1	99	US 322	257+62.00	RT	W16-H8P-36 W3-3	36x8		2.0		1	2											
S2	100	US 322	262+50.00	LT	W16-H8P M3-4-24	24x12	12.5	2.0		1												
R2	100	US 322	263+12.00	LT	M1-4-30-3 M3-4	30x24		5.0		1	1											
S3	100	US 322	Mast Arm		M1-4-3 R3-5L-30	30x36		7.5				1										
S4	100	US 322	Mast Arm		D3-1-36	36x24		6.0					2									
S5	100	US 322	Mast Arm		D3-1-36	36x24		6.0					2									
S6	100	US 322	Mast Arm		R3-5L-30	30x36		7.5					1									
R3	100	US 322	265+72.00	RT	R2-1					1	1											
S7	100	US 322	266+50.00	RT	R2-1-24	24x30	12.5	5.0														
R4	101	US 322	267+85.00	RT	M3-2 M1-4-3					1	1											
S8	101	US 322	268+50.00	RT	M3-2-24 M1-4-30-3	24x12 30x24	12.5	2.0 5.0														
R5	101	US 322	271+49.00	LT	W3-3 W16-H8P					1	2											
S9	101	US 322	271+50.00	LT	W3-3-30 W16-H8P-36	30x30 36x8	12.5/13.5	6.3 2.0														
R6	102	Auburn Rd	87+82.00	RT	W3-3 W16-H8P					1	1											
S10	102	Auburn Rd	88+00.00	RT	W3-3-30 W16-H8P-30	30x30 30x8	12.5	6.3 1.7														
R7	100	Auburn Rd	98+34.00	RT	R10-H6bL					1	1											
S11	100	Auburn Rd	Mast Arm		R3-5L-30	30x36		7.5					1									
S12	100	Auburn Rd	Mast Arm		R3-5L-30	30x36		7.5					1									
R8	104	Auburn Rd	102+26.00	RT	R2-1					1	1											
S13	104	Auburn Rd	102+50.00	RT	R2-1-24	24x30	12.5	5.0														
S14	104	Auburn Rd	103+75.00	LT	W3-3-30 W16-H8P-30	30x30 30x8	12.5/13.5	6.3 1.7														
R9	104	Auburn Rd	104+20.00	LT	W3-3 W16-H8P					1	1											
TOTALS CARRIED TO GENERAL SUMMARY							140.5	98.9	15	11	8											

TRAFFIC CONTROL SUBSUMMARY - SIGNING

DESIGN AGENCY

 CLIENT

 DESIGNER
 EGD
 REVIEWER
 SJS 11/14/19
 PROJECT ID
 106261
 SHEET TOTAL
 P.98 | 134