SEE SCHEMATIC PLAN ON SHEET 2

LOCATION MAP

ROUTE	LOCATION	ADT	TRUCKS
LOG-33	SLM 0.00 TO 1.97	6830	1580
LOG-47	SLM 5.31 TO 11.71	4450	560
LOG-235	SLM 6.17 TO 8.10	2890	440
LOG-235	SLM 13.90 TO 17.48	4580	295
LOG-540	SLM 1.67 TO 2.41	3025	350

#### **DESIGN EXCEPTIONS**

NONE

#### ADA DESIGN WAIVERS

NONE

UNDERGROUND UTILITIE	S
Contact Two Working Days	
Before You Dig	
CHIO 811.org	
OHIO811, 8-1-1, or 1-800-362-27 (Non members must be called directly	64 )
PLAN PREPARED BY:	
ODOT DISTRICT 7 - ENGINEERING	
1001 ST. MARYS AVE.	

STATE OF OHIO
<b>DEPARTMENT OF TRANSPORTATION</b>

# LOG-33/47/235/540-VAR

STOKES, PLEASANT, WASHINGTON & HARRISON TOWNSHIPS

# CITY OF BELLEFONTAINE

LOGAN COUNTY

#### **INDEX OF SHEETS:**

TITLE SHEET	1
SCHEMATIC PLAN	2
TYPICAL SECTIONS	3-5
GENERAL NOTES	6-10
GENERAL SUMMARY	11-12
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STRUCTURES	18-19

	STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS	
	BP-3.1	1/21/22			- WARDON HIT	800-2019 SEE PROPOSAL	
	BP-3.2	1/18/19					
			TC-41.20 10/18/13			832 7/15/22	
ENGINEED'S SEAL	DM-4.3	1/15/16	TC-42.20 10/18/13			872 1/21/22	
ENGINEER 5 SEAL.	DM-4.4	1/15/16	TC-52.10 10/18/13			874 4/17/20	
			TC-52.20 1/15/21			875 1/18/19	
TE OF O	MT-96.11	4/16/21	TC-64.10 7/16/21				
115 The	MT-96.20	7/15/16	TC-65.10 1/17/14				
* CHRISTOPHER *	MT-96.26	7/15/16	TC-65.11 7/21/17				
WEISS DE	MT-97.10	4/19/19	TC-71.10 7/16/21				
CA CISTER W	MT-97.12	1/20/17	TX-82.10 1/19/19				and the second second
THOUNAL ENGINE	MT-99.20	4/19/19	TC-85.21 7/16/21			2011	
and an and a state of the state	MT-101.90	7/17/20	JJJJ				
CA: 150ins	MT-105.10	1/17/20					
GNED:	- MT-107.10	1/17/20					
ATE:1/5/2023	- MT-107.75	1/17/20					

Contract Proposal available @ www.contracts.dot.state.oh.us

LOG-33/47/235/540-VAR

FEDERAL PROJECT NUMBER E170 (493)	
NONE	
PROJECT DESCRIPTION	
THIS PROJECT CONSISTS OF RESURFACING WITH ASPHALT CONCRETE OF USR 33, SR 47, SR 235 & SR 540 IN LOGAN COUNTY.	
PROJECT LOCATIONS	
PARTICIPATION 1 = 01/STR/05 LOG-47-SLM 5.31 TO 9.37 LOG-235-SLM 6.17 TO 8.10 LOG-235-SLM 13.90 TO 17.46	
PARTICIPATION 2 = 02/55K/05	
LOG-235-SLM 17.46 TO 17.48	/AR
PARTICIPATION 3 = 03/NHS/05 LOG-33-SLM 0.00 TO 1.97	540-1
PARTICIPATION 4 = 04/S5K/05 LOG-540-SLM 1.67 TO 2.41	/235/5
EARTH DISTURBED AREAS	/47/
PROJECT EARTH DISTURBED AREA: NA*	33,
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: NA*	ப்
NOTICE OF INTENT EARTH DISTURBED AREA: NA*	9
* MAINTENANCE PROJECT	
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 Kondin L. Charley Po, PS.	
DATE 1/5/2023 DISTRICT DEPUTY DIRECTOR	DESIGNER TMK
APPROVED Jack Matchbarles 199	REVIEWER CWW 8-2-22 PROJECT ID
DATE <u>2-22-2023</u> DIRECTOR, DEPARTMENT OF TRANSPORTATION	102999 SHEET TOTAL P.1 19

## ITEM 632 - DETECTOR LOOP, AS PER PLAN

DURING THE COURSE OF THIS CONTRACT. IT MAY BE NECESSARY FOR THE CONTRACTOR TO COORDINATE LOOP DETECTOR WORK WITH THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) AND OTHER CONTRACTORS INVOLVED WITH ASPHALT PLANING AND RESURFACING PROJECTS. THE CONTRACTOR SHALL REPLACE LOOP DETECTORS REMOVED BY ASPHALT PLANING OPERATIONS BEFORE PLACEMENT OF THE SURFACE COURSE.

THE CITY OF BELLEFONTAINE WILL PROVIDE TO THE CONTRACTOR A SET OF PLANS SHOWING THE LOCATION OF THE LOOPS TO BE REPLACED. THE CONTRACTOR SHALL COORDINATE ALL NECESSARY WORK.

THE FRONT EDGE OF THE POWERHEAD LOOP DETECTORS SHALL BE LOCATED ONE TO THREE FEET BEHIND THE REAR EDGE OF THE STOP LINE.

THE CONTRACTOR SHALL COORDINATE AND CORROBORATE THE LAYOUT OF ALL LOOP DETECTORS AND PAVEMENT MARKINGS WITH THE CITY OF BELLEFONTAINE.

THE CITY OF BELLEFONTAINE SHALL BE PRESENT WHEN THE CONTRACTOR MARKS THE LOCATION WHERE THE PAVEMENT IS TO BE SAWED TO BE ASSURED THAT THE PROPOSED LOOP DETECTORS ARE IN THE SAME PLACE AS THE EXISTING LOOP DETECTORS. ALL LOOP DETECTOR INSTALLATIONS SHALL BE MADE BEFORE THE ASPHALT CONCRETE SURFACE COURSE IS PLACED.

THE CITY OF BELLEFONTAINE SHALL BE RESPONSIBLE FOR DISCONNECTION AND RECONNECTION OF THE LOOP DETECTORS IN THE SYSTEM. THE CONTRACTOR SHALL GIVE THE CITY OF BELLEFONTAINE, FORTY-EIGHT (48) HOURS NOTICE BEFORE BEGINNING PAVEMENT PLANING IN AREAS WITH LOOP DETECTORS. STANDARD CONSTRUCTION DRAWING TC-82.10

LOCATIONS AND NUMBER OF LOOPS ARE AS FOLLOWS:

#### SR 47 X CR 32 INTERSECTION LOOP DETECTORS

LOCATION	QUANTITY	DIMENSION/TYPE
EASTBOUND THRU LANE	2	6' X 6' ADVANCE
EASTBOUND THRU LANE	1	6' X 30' POWERHEAD
NORTHBOUND THRU LANE	1	6' X 30' POWERHEAD
SOUTHBOUND THRU LANE	1	6' X 30' POWERHEAD
WESTBOUND THRU LANE	1	6' X 30' POWERHEAD
WESTBOUND THRU LANE	2	6' X 6' ADVANCE
TOTAL	8	(PART. 2)

### ITEM 632 - LOOP DETECTOR TIE-IN, AS PER PLAN

THIS WORK SHALL CONSIST OF MAKING CONNECTIONS TO EXISTING LOOP DETECTOR LEAD-IN WIRE, WHETHER THAT WIRE IS UNDERGROUND OR AERIAL. INCLUDED IN THIS ITEM IS THE POURED WATERPROOF EPOXY INSULATED SPLICE KIT (CONFORMING TO 725.15) THAT MUST BE USED IN MAKING THESE CONNECTIONS.

ALL CONNECTIONS OF THE LOOP WIRE TO THE LOOP LEADS SHALL BE SOLDERED PRIOR TO BEING PLACED IN THE SPLICE KITS.

THIS ITEM IS NEEDED ONLY WHEN A TIE-IN SITUATION EXISTS. WHEN ALL NEW LEAD-IN WIRE IS SPECIFIED IN THE PLAN, THIS ITEM OF WORK IS NOT REQUIRED.

PAYMENT FOR THIS ITEM WILL INCLUDE ALL NECESSARY LABOR. MISCELLANEOUS HARDWARE AND EQUIPMENT REQUIRED TO PROVIDE FOR THE LOOP DETECTOR TIE-IN AND OPERATION. BASIS OF PAYMENT WILL BE AT THE CONTRACT BID PRICE PER EACH.

ITEM 632 LOOP DETECTOR TIE-IN, AS PER PLAN = 8 EACH

## ITEM 809 - STOP-LINE RADAR DETECTION

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR MATRIX DETECTION UNIT. THE DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

- CONTROLLER.
- RECOMMENDED BY THE MANUFACTURER.
- ELECTRONICS.
- AND MAINTENANCE OF THE UNIT.
- ETHERNET CABLE (MINIMUM 7 FEET).
- NECESSARY.

PAYMENT FOR ITEM 809 STOP-LINE RADAR DETECTION SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH

UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT AND CONNECTIONS TESTED AND ACCEPTED.

ITEM 809 - STOP LINE RADAR DETECT	ION
LOCATION	QUANTITY
SR 235 X SR 274 (EASTBOUND)	1
SR 235 X SR 274 (WESTBOUND)	1
SR 235 X SR 274 (NORTHBOUND)	1
SR 235 X SR 274 (SOUTHBOUND)	1
TOTAL (PART. 1)	4

1. POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.

2. ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TSI AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC

3. THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE OR MAST ARM. AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND

4. SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET

5. THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ON-SITE TRAINING ON THE SETUP, OPERATION

6. A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND

7. THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR-PLUG STYLE CONNECTIONS FOR UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES, AS

	MESSENGER WIRE	
	THE CONTRACTOR SHALL REMOVE EXISTING ME.	SSENGER WIRE
	LASHING RODS AND REINSTALL THEM AS NECESS INSTALLATION OF ANY NEW CARLES ON T	ARY FOR THE THE EXISTING
	INTERSECTION SIGNAL SPANS. THE CABLES SHAL	LL ENTER THE
	EXISTING STRAIN POLE THROUGH THE POLE CAB	LE ENTRANCE
	FITTING AND USE THE EXISTING CONDUIT SYSTE	M TO GET TO
	I HE CONTROLLER CABINET. THE NEW CABLES	SHALL BE
	OF THE STRAIN POLE.	AT THE FOR
	THE NEW SIGNAL CABLES SHALL BE BID BY SEPAR.	ATE BID ITEMS.
	PAYMENT FOR ITEM 632 "SIGNALIZATION MISC.	: UNLASH AND
	Z RELASH MESSENGER WIRE" SHALL BE MADE AT TH	HE CONTRACT
	UNIT PRICE PER PER FOOT AND SHALL INCLUDE	E ALL LABOR,
	INSTALL NEW CABLES ON EXISTING SIGNAL INSTALL ATIONS.	SPAN WIRE
	<u>}</u>	
	REMOVE AND REINSTALL LASHING ROD.	<u>s</u>
	S LOCATION	FT
× ×	3 SR 235 X SR 274	330
	ζ L	
	3	
	3	
	TITEM 632 REMOVAL OF MISCELLANEOUS TRAFFIC S	SIGNAL
$\succ$	ITEM: VEHICLE DETECTION CABLE	
$\succ$	THIS ITEM CONSISTS OF REMOVING THE VEHICLE	DETECTION CARLE
	FROM THE EXISTING VEHICLE DETECTION UNITS O	N THE SPAN
	BACK TO THE CONTROLLER CABINET.	
	2 PAYMENT FOR ITEM 632 REMOVAL OF MISCELLANE	FOUS TRAFFIC
	SIGNAL ITEM: VEHICLE DETECTION CABLE, AS PER	PLAN SHALL
	BE MADE AT THE CONTRACT UNIT PRICE PER FOO	T AND SHALL
	VEHICLE DETECTION CABLE	JF THE
	REMOVAL OF VEHICLE DETECTION CABL	<u>_E</u>
$\boldsymbol{\xi}$	2 LOCATION	FT
	SR 235 X SR 274	500
6	3	
<pre></pre>	funnennen	
Ě	FITEM 632 TETHER WIRE, WITH ACCESSORIES	100 A
E	<i>TETHER WIRE. WITH ACCESSORIES</i>	
$\left\{ \right.$	LOCATION	FT
	SR 235 X SR 274	330
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7	1	

## GIGNALIZATION, MISC.: UNLASH AND RELASH NGER WIRE

REMOVE AND REINSTALL LASHING RODS	
LOCATION	FT
SR 235 X SR 274	330

# 632 REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: VEHICLE DETECTION CABLE

REMOVAL OF VEHICLE DETECTION CABLE	-
LOCATION	FT
SR 235 X SR 274	500

# 632 TETHER WIRE, WITH ACCESSORIES

TETHER WIRE, WITH ACCESSORIES	
LOCATION	FT
SR 235 X SR 274	330

ESIGN AGENCY



					CULET								DT				CRAND		
					SHEET							PA	KI.			IIEIVI	GRAND		
6	7		8	9	10	13	14	16	17	19	01/STR/05	02/S5K/05	03/NHS/05	04/S5K/05		EXT	TOTAL		
							95				95				202	23001	95	SY	PAVEMENT REMOVED, AS PER PLAN
							222				222				202	23001	222	SY	PAVEMENT REMOVED, AS PER PLAN, ASPHALT
							76				76				203	10000	76	СҮ	EXCAVATION
							364				364				204	10000	364	SY	SUBGRADE COMPACTION
	21.7	5									16.58	4.48		0.7	209	72050	21.76	MILE	PREPARING SUBGRADE FOR SHOULDER PAVING
1					500						500				622	41100	500	FT	PORTABLE BARRIER, UNANCHORED
	LS										LS				623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLA
8											5	1	2		SPECIAL	69050350	8	EACH	MAILBOX REMOVED AND RESET
	8										8				SPECIAL	69098000	8	EACH	BOLLARDS REMOVED AND REINSTALLED
	45										45	1			605	31100	45	FT	AGGREGATE DRAINS
1												1			611	99654	1	EACH	MANHOLE ADJUSTED TO GRADE
1 5 5	n										050	200	250	50	251	01041	1 550	cv	DADTIAL DEDTU DAVENAENIT DEDAID (ACDUALT CONCRETE RACE)
, , ,	J									563	520	200	330	JU	251	01041	۲,220 T'220	01 CV	DAVEMENT DI ANINIC ACOLIAIT CONCOLTE 4 1/11 Denth
						175 521				כטכ	50C 122 017	/1 71/			204 254	01000	כטכ 175 בטו	01 CV	PAVEIVIEINT PLAINING, ASPMALI CUINCKETE, 1 72" DEPTH DAVEMENT DI ANING ACCUAIT CONCRETE 1" Dooth
						1/3,331 20 211					122,01/	41,/14	20 211		204 254	01000	20 211	۲۲ ۲۷	DAVEMENT DI ANING ACCUALT CONCRETE 2 1/11 Denth
						18 686							דדכ, ככ	18 686	204 254	01000	18 686	۲۲ ۷۷	PAVENTENT PLANING, ASPHALT CONCRETE, 2 74" Depth PAVEMENT PLANING ASPHALT CONCRETE 2" Depth
		<b> </b>				10,000								10,000	<u>ک</u> لال	01000	10,000		TAVENENT LANNO, AJENALI CONCILIL, Z. DEPUI
						35 634					35 634				254	01000	35 634	SY	PAVEMENT PLANING, ASPHAIT CONCRETE 3" Denth
						7,068				250	5.440	1.878			254	01000	7.318	SY	PAVEMENT PLANING. ASPHAIT CONCRETE, Variable Denth
350						.,000					200	50	50	50	254	01601	350	SY	PATCHING PLANED SURFACE. AS PER PLAN
							109				109				301	56000	109	СҮ	ASPHALT CONCRETE BASE, PG64-22. (449)
30											15	5	10		301	56001	30	СҮ	ASPHALT CONCRETE BASE, (449), AS PER PLAN, PG64-22
							92				92				304	20000	92	СҮ	AGGREGATE BASE
						25,375	19			69	16,837	3,694	3,342	1,590	407	20000	25,463	GAL	NON-TRACKING TACK COAT
	90					8,844				34	7,141	1,824		3	441	50100	8,968	СҮ	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22
						1,679					1,679				441	50300	1,679	СҮ	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
						3,494							2,457	1,037	442	10001	3,494	СҮ	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
						1,898					1,238	306	257	97	617	10100	1,898	CY	COMPACTED AGGREGATE
	19.9	5									12.4	3.62	3.94		618	41000	19.96	MILE	RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)
	12.0	2									8.24	1.81	1.97		618	43000	12.02	MILE	RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)
	13.2	1									8.9	2.34	1.97		874	21000	13.21	MILE	LONGITUDINAL JOINT PREPARATION
									1,199		938	131	130		621	00100	1,199	EACH	RPM
									1,199		938	131	130		621	54000	1,199	EACH	RAISED PAVEMENT MARKER REMOVED
								27.76			19.1	4.72	3.94		642	00104	27.76	MILE	EDGE LINE, 6", TYPE 1
								14.15			9.82	2.36	1.97		642	00300	14.15	MILE	CENTER LINE, TYPE 1
					0.25						0.25				642	30030	0.25	MILE	REMOVAL OF PAVEMENT MARKING
								1.48						1.48	644	00104	1.48		EDGE LINE, 6"
								0.17						0.17	644	00204	0.17		LANE LINE, 6"
								0.88						0.88	644	00300	0.88	MILE	
								2,832			1,572	-,		1,260	644	00400	2,832	FT 	CHANNELIZING LINE, 8"
								261			104	74	24	59	644	00500	261	FT FT	STOP LINE
														272	C A A	00700	- ^ -		
								/4/			3/5			3/2	644	00/00	/4/		
								4				2			644	01200	4		SUTUUL STIVIBUL IVIAKKIING, 90
								30 205						18 205	044 CAA	01510	50 205		
								200						200	044	01210	200		
		<b> </b>	8									<u>8</u>			637	26501	8	FΔſΗ	DETECTOR LOOP AS PER PLAN
			$\frac{3}{8}$									8 8			632	20301	8	FACH	LOOP DETECTOR TIE IN AS PER PLAN
			30								330	0		(	632	<u>ትን የ</u>	230	FT	
		2	880								2 880			(	637	90020	2 880		REMOVAL OF MISCELLANFOLIS TRAFFIC SIGNAL ITEM VEHICLE
		, 	30				l				330				632	90500	2,000	FT	SIGNALIZATION, MISC ·UNI ASH AND RELASH MESSENGER WIR
											550							<u>+</u>	
			4								4				809	69100	4	EACH	STOP LINE RADAR DETECTION
			·											(	huilin	h	·····		
																			STRUCT
										112	112				516	31001	112	FT	JOINT SEALER, AS PER PLAN
																			,
1								1			1				1	1			

DESCRIPTION	SEE SHEET NO.	
ROADWAY	7 7	
N	7 5 6	
DRAINAGE		
PAVEMENT ), AS PER PLAN	5	
		$\succ$
		SUMMAR
	5	
	5	(A)
2M		GENER
), AS PER PLAN, PG76-22M	5	
TRAFFIC CONTROL		
		DESIGN AGENCY
TRAFFIC SIGNALS		
	/	
	/	
E DETECTION CABLE RE	7	DESIGNER TMK REVIEWER CWW 8-2-22
		PROJECT ID
UNE NEPAIN (LUU-255-1550)	18	102999 Sheft total
	10	P.11 19