

**UTILITIES**

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

- AEP-AMERICAN ELECTRIC POWER  
2622 SR 100  
TIFFIN, OH 44883  
419.209.5583
- SANDUSKY CO. ENGINEER  
2500 W. STATE ST.  
FREMONT, OHIO 43420  
419.334.9731
- A T & T  
130 N. ERIE ST.  
TOLEDO, OHIO 43624  
419.245.7304
- SANDUSKY CO. SANITARY ENGINEER  
2100 COUNTRYSIDE PLACE  
FREMONT, OHIO 43420  
419.332.9967
- COLUMBIA GAS OF OHIO, INC.  
2901 E. MANHATTAN BLVD.  
TOLEDO, OHIO 43611  
419.539.6066
- CITY OF FREMONT  
ATTN: TUCKER FREDRICKSEN  
323 S. FRONT ST.  
FREMONT, OHIO 43420  
419.334.8963
- TOLEDO EDISON  
6099 ANGOLA RD.  
HOLLAND, OHIO 43528  
419.249.5218

**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.

**PROFILE AND ALIGNMENT**

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT.

**PLANED SURFACES**

NO PLANED SURFACES SHALL BE OPEN TO THE PUBLIC FOR MORE THAN 7 DAYS. IF THE PLANED SURFACE IS OPEN FOR MORE THAN 7 DAYS, THEN IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR THE PAVEMENT FAILURES THAT OCCURRED AFTER THE 7 DAYS.

**RETENTION OF ASPHALT MILLINGS**

ALL GRINDINGS INSIDE THE CORPORATION LIMITS OF THE CITY OF FREMONT WHICH HAVE BEEN OBTAINED FROM PAVEMENT PLANING MILLINGS, SHALL BE TAKEN TO ONE OF THE FOLLOWING LOCATIONS:

UNIVERSAL FARMS  
219 STAHL ROAD  
FREMONT, OHIO 43420

MHC RECYCLING, LLC  
125 PAULA DRIVE  
FREMONT, OHIO 43420

IF THE ABOVE LOCATIONS ARE UNAVAILABLE TO ACCEPT GRINDINGS, PLEASE CONTACT THE CITY OF FREMONT ENGINEER, TUCKER FREDRICKSEN AT 419-334-8963.

**ITEMS ADJUSTED TO GRADE**

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED FOR ADJUSTMENTS REQUIRED FOR THE FOLLOWING ITEMS, AS DIRECTED BY THE ENGINEER.

ITEM 638 - VALVE BOX ADJUSTED TO GRADE			
LOCATION	ROUTE	PLAN SPLIT CODE	EACH
SAN	53	02/NHS/05	2
TOTAL CARRIED TO GENERAL SUMMARY			2

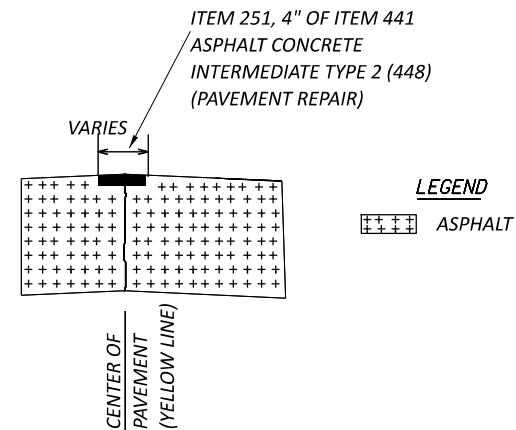
ITEM 611-MANHOLE ADJUSTED TO GRADE			
LOCATION	ROUTE	PLAN SPLIT CODE	EACH
SAN	SR 53	02/NHS/05	1
TOTAL CARRIED TO GENERAL SUMMARY			1

ITEM 611 - CATCH BASIN ADJUSTED TO GRADE			
LOCATION	ROUTE	PLAN SPLIT CODE	EACH
SAN	SR 53	02/NHS/05	1
TOTAL CARRIED TO GENERAL SUMMARY			1

**ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441):**

ALL EXISTING PAVEMENT AREAS WHICH WILL BE IN CONTACT WITH THE PAVEMENT REPAIR SHALL BE COATED WITH PG GRADE LIQUID ASPHALT (SIDES AND BOTTOM) AT AN APPLICATION RATE OF 0.25 GAL. PER SY. PAYMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR.

THE FOLLOWING ESTIMATED QUANTITY FOR 4" PAVEMENT REPAIR AS DIRECTED BY THE ENGINEER.



NOTE: THE ENGINEER SHALL FIELD VERIFY ALL LOCATIONS PRIOR TO THE BEGINNING OF WORK. ANY ADJUSTMENTS NECESSARY SHALL BE AS DIRECTED BY THE ENGINEER.

- SR 53 (PLAN SPLIT 03/NHS/05) 130 CY
- SR 53 (PLAN SPLIT 01/NHS/05) 100 CY
- TOTAL = 230 CY

Note Revised

**SURVEYING PARAMETERS**

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

**PROJECT CONTROL**

POSITIONING METHOD: ODOT VRS  
MONUMENT TYPE: TYPE B

**VERTICAL POSITIONING**

ORTHOMETRIC HEIGHT DATUM: NAVD88  
GEOID: GEOID12B

**HORIZONTAL POSITIONING**

REFERENCE FRAME: NAD83 (2011)  
ELLIPSOID: GRS80  
MAP PROJECTION: LAMBERT CONFORMAL CONIC  
COORDINATE SYSTEM: OHIO STATE PLANE NORTH  
COMBINED SCALE FACTOR: 1.000000 (GRID)  
ORIGIN OF COORDINATE SYSTEM: 0,0,0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

**ITEM 632, DETECTOR LOOP, AS PER PLAN (ALTERNATE 1)**

ALL NEW LOOP INSTALLATIONS SHALL BE INSTALLED IN THE INTERMEDIATE COURSE BELOW THE SURFACE COURSE. THE LISTED ITEM SHALL BE USED AS DIRECTED BY THE ENGINEER, MAY VARY IN LENGTH AND DETAIL. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER, AS WELL AS THE DISTRICT 2 TRAFFIC MAINTENANCE ENGINEER, DYLAN FOUKES, AT 419-373-4303, 10 DAYS PRIOR TO INSTALLATION. ODOT SHALL DETERMINE, BY WAY OF FIELD INSPECTION, THE LOCATION AND FINAL QUANTITY OF DETECTOR LOOPS THAT HAVE BEEN DAMAGED AND NEED REPLACEMENT. ODOT SHALL FIELD LOCATE WITH THE CONTRACTOR THE PROPOSED DETECTOR LOOP PLACEMENTS, THE NECESSARY PULL BOXES AND LOOP LEAD-IN CABLES (ODOT SIGNAL).

ALL LOOPS SHALL CONFORM TO SCD TC-82.10 AND THE FOLLOWING:

FOR STOP BAR DETECTION: TWO DETECTOR LOOPS ARE REQUIRED FOR EACH LANE. THE FRONT LOOP SHALL BE A POWERHEAD LOOP 30' IN LENGTH THAT BEGINS 5' IN FRONT OF THE STOP LINE, AND THE SECOND BACK LOOP, LOCATED 5' BEHIND THE FRONT LOOP, SHALL BE A RECTANGULAR LOOP 30' IN LENGTH TO ENSURE AN ADEQUATE DETECTION ZONE.

FOR DILEMMA ZONE DETECTION: LOOPS SHALL BE THE ANGULAR DESIGN DETECTION (A.D.D.) STYLE.

PAYMENT FOR THIS ITEM INCLUDES THE SPLICE CONNECTION IN THE PULL BOX

DETECTOR LOOP 4 EA

QUANTITY CARRIED TO THE GENERAL SUMMARY.

**809 STOP-LINE RADAR DETECTION, AS PER PLAN (ALTERNATE 2)**

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

- POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.
- ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.
- 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 RECOMMENDED BY THE MANUFACTURER.
- 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 ELECTRONICS.
- THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.
- A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MIN. 7 FEET)
- 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 NECESSARY.
- THE CONTRACTOR SHALL INSTALL THE RADAR DETECTION PRIOR TO MILLING/DISABLING THE EXISTING LOOPS.
- THE INSTALLATION SHALL INCLUDE ALL CONTROLLER PROGRAMMING FOR COMPLETE INSTALLATION, WHICH INCLUDES MODIFICATIONS FOR REMOVAL OF EXISTING DETECTION.

PAYMENT FOR ITEM 809 STOP-LINE RADAR DETECTION, AS PER PLAN SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT, CONNECTIONS TESTED AND ACCEPTED, AND UNLASH & RELASH OF SPAN WIRE LOCATIONS, AS NECESSARY.

ITEM 809, STOP-LINE RADAR DETECTION, AS PER PLAN (UNITS) 4 EA  
QUANTITY CARRIED TO THE GENERAL SUMMARY.

**MISCELLANEOUS QUANTITIES CARRIED TO GENERAL SUMMARY**

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR ADDITIONAL ITEMS TO BE REMOVED NEAR OR AT THE INTERSECTIONS OF HAGERTY DRIVE AND SEAN DRIVE:

- ITEM 202 - PAVEMENT REMOVED 6 SQ. YD.
- ITEM 202 - WALK REMOVED 48 SQ. FT.
- ITEN 659 - SEEDING AND MULCHING 6 SQ. YD.

DESIGN AGENCY



DESIGNER

ALF

REVIEWER

JMF

PROJECT ID

110039

SHEET TOTAL

5 25

SHEET NUM.										PART.			ALT (X)	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5	6	7	10	11						01/NHS/05	02/NHS/05	03/NHS/05							
<b>ROADWAY</b>																			
6												6	202	23000	6	SY	PAVEMENT REMOVED		
48												48	202	30000	48	SF	WALK REMOVED		
			4.88							2.1	2.78		209	60500	4.88	MILE	LINEAR GRADING		
<b>EROSION CONTROL</b>																			
6										1,000		6	659	10000	6	SY	SEEDING AND MULCHING		
													832	30000	1,000	EACH	EROSION CONTROL		
<b>DRAINAGE</b>																			
1												1	611	98630	1	EACH	CATCH BASIN ADJUSTED TO GRADE		
1												1	611	99654	1	EACH	MANHOLE ADJUSTED TO GRADE		
<b>PAVEMENT</b>																			
230										100		130	251	01010	230	CY	PARTIAL DEPTH PAVEMENT REPAIR (441),4"	5	
			110,903							48,730	62,173		254	01000	110,903	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1 3/4"		
			9,427							4,142	5,285		407	20000	9,427	GAL	NON-TRACKING TACK COAT		
			5,391							2,369	3,022		442	10000	5,391	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)		
			435							191	244		617	10100	435	CY	COMPACTED AGGREGATE		
			38,007							16,335	21,672		872	10000	38,007	FT	VOID REDUCING ASPHALT MEMBRANE (VRAM)		
<b>WATER WORK</b>																			
2												2	638	10800	2	EACH	VALVE BOX ADJUSTED TO GRADE		
<b>TRAFFIC CONTROL</b>																			
				309						309			621	54000	309	EACH	RAISED PAVEMENT MARKER REMOVED		
				309						309			621	00100	309	EACH	RPM		
				4.65						2.24	2.41		642	00104	4.65	MILE	EDGE LINE, 6", TYPE 1		
				4.03						2.11	1.92		642	00204	4.03	MILE	LANE LINE, 6", TYPE 1		
				4.69						2.24	2.45		642	00300	4.69	MILE	CENTER LINE, TYPE 1		
				4,497						479	4,018		644	00404	4,497	FT	CHANNELIZING LINE, 12"		
				375						21	354		644	00500	375	FT	STOP LINE		
				909						290	619		644	00700	909	FT	TRANSVERSE/DIAGONAL LINE		
				136							136		644	00720	136	FT	CHEVRON MARKING		
				54						13	41		644	01300	54	EACH	LANE ARROW		
				3,562						150	3,412		644	01510	3,562	FT	DOTTED LINE, 6"		
<b>TRAFFIC SIGNALS ALTERNATES</b>																			
4												4	X	632	26501	4	EACH	DETECTOR LOOP, AS PER PLAN (ALTERNATE 1)	5
4												4	X	809	69101	4	EACH	STOP LINE RADAR DETECTION, AS PER PLAN (ALTERNATE 2)	5

Item and Quantity revised

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER  
ALF

REVIEWER  
JMF

PROJECT ID  
110039

SHEET TOTAL  
8 | 25