**HUR-CULVERT-FY2021** 

FITCHVILLE TOWNSHIP **GREENFIELD TOWNSHIP NEW LONDON TOWNSHIP** 

**HURON COUNTY** 

INDEX OF SHEETS:

TITLE SHEET LOCATION MAPS & DESIGN DESIGNATION TYPICAL SECTIONS 3-7 GENERAL NOTES 8-9 MAINTENANCE OF TRAFFIC NOTES 10 DETOUR PLANS 11-12 GENERAL SUMMARY 13-14 15 ROADWAY SUB-SUMMARY PLAN AND PROFILE - HUR-13 16 CROSS SECTIONS - HUR-13 17-20 CULVERT DETAILS - HUR-13 21 CHANNEL SECTIONS - HUR-13 22-24 PLAN AND PROFILE - HUR-99 25 CROSS SECTIONS - HUR-99 26-31 32 CULVERT DETAILS - HUR-99 CHANNEL SECTIONS - HUR-99 33-35 PLAN AND PROFILE - HUR-162 36 37-40 CROSS SECTIONS - HUR-162 CULVERT DETAILS - HUR-162 41 CHANNEL SECTIONS - HUR-162 42-43

RIGHT OF WAY

PROJECT DESCRIPTION

THIS PROJECT WILL INCLUDE THE REPLACEMENT OF AN EXISTING CONCRETE BOX CULVERT UNDER STATE ROUTE 99 AND AN EXISTING CORRUGATED METAL PIPE ARCH CULVERT UNDER STATE ROUTE 162 USING OPEN CUT METHODS, AND THE FIELD PAVING OF AN EXISTING CORRUGATED METAL PIPE ARCH CULVERT UNDER STATE ROUTE 13.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: N/A ACRES (MAINTENANCE PROJECT)

ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A ACRES (MAINTENANCE PROJECT)

NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES (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.

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202 -FY -CULVERT

**UNDERGROUND UTILITIES** Contact Two Working Days

SEE SHEET 2 FOR LOCATION MAPS

LOCATION MAP

**LOCATION** 

HUR-99-2.60

HUR-99-2.60

DESIGN DESIGNATION: SEE SHEET 2

**DESIGN EXCEPTIONS** 

GRADED SHOULDER WIDTH

LANE WIDTH

DESIGN CONTROLLING CRITERIA

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

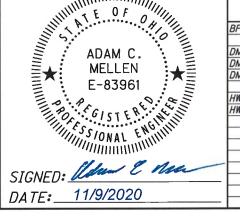
PLANS PREPARED BY:

OHIO DEPARTMENT OF **TRANSPORTATION** DISTRICT THREE ENGINEERING ENGINEERS SEAL:

APPROVAL DATE

9/29/2020

9/29/2020



		_	_					SPECIF	ICA I I UNS
BP-3.1	1/17/20	RM-1.1	7/18/14	MT-97.10	4/19/19	TC-41.20	10/18/13	800	10/16/20
				MT-97.12	1/20/17	TC-42.10	10/18/13	832	10/19/18
DM-1.1	7/17/20	MGS-1.1	1/19/18	MT-99.20	4/19/19	TC-42.20	10/18/13		
DM-4.3	1/15/16	MGS-2.1	1/19/18	MT-101.60	1/17/20	TC-52.10	10/18/13		
DM-4.4	1/15/16	MGS-4.2	7/19/13	MT-101.90	7/17/20	TC-52.20	7/20/18		
		MGS-5.2	7/15/16	MT-105.10	1/17/20	TC-61.30	7/19/19		
HW-2.1	7/20/18	MGS-5.3	7/15/16	0-170-5-500-5					
HW-2.2	7/20/18							 -	
								SP	ECIAL.
		A 1-11-11							ISIONS
									ERWAY
									RMIT DITIONS
								DATED	7/20/20

STANDARD CONSTRUCTION DRAWINGS

44-66

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS 11-12.

DECENTAGE DEPUTY DIRECTOR

SUPPLEMENTAL

DIRECTOR, DEPARTMENT OF TRANSPORTATION

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IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM

## ITEM 611 - FARM DRAINS (D107)

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE (RIGHT OF WAY) (CONSTRUCTION) LIMITS BY ITEM 611 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLET INTO THE ROADWAY DITCH BY 611 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 611, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANIMAL GUARDS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

PAYMENT FOR ALL LABOR AND MATERIALS WILL BE PERFORMED BY CHANGE ORDER.

#### ITEM 605 - AGGREGATE DRAINS (D108)

AGGREGATE DRAINS ARE TO BE PLACED AT THE FOLLOWING LOCATIONS:

HUR-99-2.60:

STA. 137+00 LEFT AND RIGHT STA. 137+75 LEFT AND RIGHT

HUR-162-22.85

STA. 1206+25 LEFT AND RIGHT STA. 1206+75 LEFT AND RIGHT

## ITEM 202 - STRUCTURE REMOVED, AS PER PLAN (HUR-99-2.60)

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURE SHALL BE REMOVED UPON RECEIVING PERMISSION FROM THE ENGINEER, INCLUDING BUT NOT LIMITED TO, EXISTING HEADWALLS AND CONDUIT.

## ITEM 611 - FIELD PAVING OF EXISTING PIPE, AS PER PLAN (103" X 71" CMP ARCH) (HUR-13-6.01)

THIS ITEM SHALL BE USED TO REMOVE ALL DEBRIS, SEDIMENT, AND MAINTENANCE TREATMENTS LOCATED WITHIN THE PIPE. FILL ANY VOIDS WITH CONCRETE PRIOR TO FIELD PAVING. PERFORM SUBSEQUENT FIELD PAVING AS PER CMS 611 EXCEPT AS SHOWN ON CULVERT DETAIL SHEET. SEE CULVERT DETAIL SHEET FOR DETAILS REGARDING THE HEIGHT OF THE FIELD PAVING.

PAYMENT FOR ALL OF THE ABOVE SHALL BE MADE AT THE UNIT PRICE PER FOOT FOR THE ABOVE ITEM WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK

### ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (3.0" DEEP)

THE INTENT OF THE PLANING IS TO MILL 3 INCHES AT THE CENTER OF PAVEMENT IN THE LOCATIONS INDICATED ON THE PLANS. CONTROL PAVEMENT SLOPE AS INDICATED ON THE PLANS. CONTROL THE MILLING DEPTH FROM THE CENTER OF THE PAVEMENT.

MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT PLANING, ASPHALT CONCRETE. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER SQUARE YARD OF ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE

# ITEM 611 - 72" CONDUIT, TYPE A, AS PER PLAN (HUR-99-2.60)

CONDUIT MATERIALS SHALL BE LIMITED TO THE FOLLOWING: 706.02, 748.06 (0.500), 707.02 (0.138) ALUMINIZED WITH CONCRETE INVERT PAVING, 707.04 (0.138) WITH CONCRETE INVERT PAVING, 707.35, 707.75, SS 938.

#### ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A (448), AS PER PLAN (PG64-22)

REQUIREMENTS OF 442 APPLY EXCEPT AS FOLLOWS:

MIX DESIGN: FOR Ndes USE 50 GYRATIONS, FOR Nmax USE 75 GYRATIONS.

MINIMUM TOTAL PG BINDER CONTENT IS 6.0 PERCENT.

USE A PG 64-22 BINDER.

MAXIMUM RECLAIMED ASPHALT CONCRETE PAVEMENT IS 20 PERCENT.

WHEN AN AGGREGATE SOURCE IS SPECIALLY DESIGNATED WITH AN SR ON THE AGGREGATE GRAVITY LIST DO NOT USE THE AGGREGATE EXCEPT AS ALLOWED FOR MEDIUM TRAFFIC IN THE GUIDELINES FOR MAINTAINING ADEQUATE PAVEMENT FRICTION IN SURFACE PAVEMENT.

QUALITY CONTROL: DO NOT PERFORM Nmax IN QUALITY CONTROL TESTING. DO NOT TAKE EXTRA ASPHALT BINDER SAMPLES AS OUTLINED IN CMS 442.05.

#### LOCATIONS OF GUARDRAIL

THE GUARDRAIL PROTECTION PROVIDED IN THIS PLAN SHALL BE LOCATED IN THE FIELD TO ASSURE THAT THE INSTALLATION WILL AFFORD THE MAXIMUM PROTECTION FOR TRAFFIC. THIS LOCATION SHALL BE POSITIONED AS FAR AS POSSIBLE FROM THE EDGE OF PAVEMENT WHILE MAINTAINING PROPER GRADE IN FRONT OF GUARDRAIL AS PER STANDARD DRAWINGS AND PLAN DETAILS.

#### SUGGESTED SEQUENCE OF GUARDRAIL WORK

- 1. GUARDRAIL WORK IS TO BEGIN AFTER THE CULVERT WORK IS COMPLETED AND THE 304 MATERIAL IS PLACED ON THE SHOULDER.
- 2. CONSTRUCT THE GUARDRAIL RUN.
- 3. INSTALL BARRIER REFLECTORS.

#### ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS 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 MGS TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

THE CONTRACTOR MAY USE A SALVAGED EXTRUDER WHEN ASSEMBLING THE ITEM 606 ANCHOR ASSEMBLY, MGS TYPE E. ALL WELDS ON THE EXTERIOR OF THE SALVAGED EXTRUDER SHALL NOT BE DAMAGED AND THE FEFDER SHALL NOT BE BENT

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 PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

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 MANUFACTURER.

## ITEM 659 - SEEDING AND MULCHING (E101)

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

#### HUR-13-6.01 (02/STR/CV).

659 659 659 659 659 659	COMMERCIAL FERTILIZER LIME WATER REPAIR SEEDING AND MULCHING INTERSEEDING TOPSOIL SOIL ANALYSIS TEST	0.19 0.28 7.46 67 67 150	TON ACRE M GAL SQ YD SQ YD CU YD EACH
	00,27,11,11,27,070	2	_,,
659	SEEDING AND MULCHING	1348	SQ YD

#### HUR-99-2.60 (01/S<2/CV):

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QYD
QYD
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<i>ICH</i>
Q YD

## HUR-162-22.85 (02/STR/CV):

659	COMMERCIAL FERTILIZER	0.21	TON
659	LIME	0.30	ACRE
659	WATER	8.07	M $GAL$
659	REPAIR SEEDING AND MULCHING	73	SQ YD
659	INTERSEEDING	73	SQ YD
659	TOPSOIL	162	CU YD
659	SOIL ANALYSIS TEST	2	EACH
659	SEEDING AND MULCHING	1458	SQ YD

## ITEM 659 - SEEDING AND MULCHING (E101) (CONTINUED)

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS. QUANTITIES ARE CARRIED TO THE GENERAL SLIMMARY

ACM CHECKED

GENERAL NO

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R-CULVERT-FY202



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		1													ROADWAY		-
		LS	LS	LS					LS	LS	201	11000	LS		CLEARING AND GRUBBING		
	550	2		2					207	4	202	20010	4	EACH	HEADWALL REMOVED		_
	552			38					283	269 38	202 202	23000 35100	552 38	SY FT	PAVEMENT REMOVED PIPE REMOVED, 24" AND UNDER		-
		34		49						83	202	35200	83	FT	PIPE REMOVED, OVER 24"		$\dashv$
																	_
	537.5								537.5		202	38000	537.5	FT	GUARDRAIL REMOVED		_
	3					1			3		202	42010	3	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E		_
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	1,668	433							1,131	970	203	20000	2,101	CY	EMBANKMENT		
	635								323	312	204	10000	635	SY	SUBGRADE COMPACTION		_
	562.5								562.5	-	606	15050	562.5	FT	GUARDRAIL, TYPE MGS ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)		4
+	3					1			3	1	606 606	26150 26550	3	EACH EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2010)  ANCHOR ASSEMBLY, MGS TYPE T		
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			1		2	1	2		1	4	623	38500	5	EACH	MONUMENT ASSEMBLY		
					1	2			2	1	623	40520	3	EACH	RIGHT-OF-WAY MONUMENT		
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_			707						707		601	21050	707	CV	EROSION CONTROL		4
+		102	303 53	35			+ +		303 53	137	601	32100	303 190	SY CY	TIED CONCRETE BLOCK MAT WITH TYPE I UNDERLAYMENT ROCK CHANNEL PROTECTION, TYPE B WITH FILTER		$\dashv$
		102	1 33	1 33					2	4	659	00100	6	EACH	SOIL ANALYSIS TEST		1
									237	312	659	00300	549	CY	TOPSOIL		1
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									107 107	140 140	659 659	14000 15000	247 247	SY SY	REPAIR SEEDING AND MULCHING INTER-SEEDING		-
									0.3	0.4	659	20000	0.7	TON	COMMERCIAL FERTILIZER		$\dashv$
							1		0.44	0.58	659	31000	1.02	ACRE	LIME		1
7									11.84	15.53	659	35000	27.37	MGAL	WATER		1
									2,000	4,000	832	30000	6,000	EACH	EROSION CONTROL		7
									2,000	7,000	032	30000	0,000	LACIT			_
	160								82	78	605	31100	160	ЕТ	DRAINAGE AGGREGATE DRAINS		$\dashv$
_	100			16					02	16	611	04600	160	FT	12" CONDUIT, TYPE C		$\dashv$
			75	10					75	10	611	07600	75	FT	18" CONDUIT, TYPE C		1
			88						88		611	26001	88	FT	72" CONDUIT, TYPE A, AS PER PLAN	9	
				90						90	611	53300	90	FT	53" X 83" CONDUIT, TYPE A, 706.04		
		10								10	011	50100	10	<i></i>	107# V 7# 00NDUIT TVD5 4 707 07 (0.100)		4
		93	1			1	+			93	611 611	59100 96551	40 93	FT FT	103" X 71" CONDUIT, TYPE A, 707.03 (0.168) FIELD PAVING OF EXISTING PIPE, AS PER PLAN (103" X 71" ARCH)	9	-
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	276								142	134	254	01000	276	SY	PAVEMENT PLANING, ASPHALT CONCRETE (3.0")		_
	133	00							76	57	301	46000	133	CY	ASPHALT CONCRETE BASE, PG64-22		╌
-	206 125	22					+ +		121 64	107 61	304 407	20000 10000	228 125	CY GAL	AGGREGATE BASE TACK COAT		+
+	73	+	+				+ +		37	36	442	10501	73	CY	ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (448), AS PER PLAN (3.0") (PG64-22)	9	$\dashv$
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															TRAFFIC CONTROL		
	4								2	2	621	54000	4	EACH	RAISED PAVEMENT MARKER REMOVED		
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	0.12								0.06	0.06	642 642	00104 00300	0.12 0.06	MILE MILE	EDGE LINE, 6", TYPE 1 CENTER LINE, TYPE 1		-
	0.00								0.03	0.03	042	00300	0.00	MILE	CENTER LINE, TIFE T		$\dashv$
															STRUCTURE 20 FOOT SPAN AND UNDER (HUR-13-6.01)		1
		LS								LS	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING		1
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2021

PROPOSED STRUCTURE

EXISTING STRUCTURE

TYPE: STONE BOX CULVERT WITH CONCRETE EXTENSIONS

TYPE: REINFORCED CONCRETE CIRCULAR PIPE, 706.02

CULVERT FILE NUMBER: 1981276 DESIGN SERVICE LIFE: 75 YEARS DIMENSIONS: 72" DIAMETER

CULVERT FILE NUMBER: 1816955 SPANS: 62" SPAN X 48" RISE

SKEW: 0°

TIED CONCRETE BLOCK MAT, TYPE 1 (100.0' L, 8.0' W)

- RCP, TYPE B W/ FILTER (AVG. 20.0' L, 18.6' W, 2.5' D)

ALIGNMENT: TANGENT DATE BUILT: 1932 DISPOSITION: CRITICAL

ROADWAY: 26'-0" TREATED SH. TO TREATED SH. (38'-0" F/F RAIL)

SKEW: 15° R.F. ALIGNMENT: TANGENT STREAM: ABRASION LEVEL = 1 pH = 8.3

COORDINATES: LATITUDE N 41° 04' 41" LONGITUDE W 82° 43′ 03"

HYDRAULIC DATA

DRAINAGE AREA = 0.54 SQ. MILES

Q (25) = 197 CFS V (25) = 10.96 FT/S Q (100) = 269 CFS V (100) = 11.94 FT/S

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

EXISTING STRUCTURE TO BE REMOVED. ROAD TO BE CLOSED DURING CONSTRUCTION AND TRAFFIC TO BE DETOURED.

PROPOSED GUARDRAIL NOT SHOWN ON CULVERT PROFILE FOR

SEE ROADWAY SUBSUMMARY SHEET FOR ROADWAY AND PAVEMENT QUANTITIES.

<u>LEGEND</u>

- ROCK CHANNEL PROTECTION, TYPE B W/FILTER

- TIED CONCRETE BLOCK MAT W/ TYPE 1 UNDERLAYMENT

- RESURFACING

- WETLAND A

- CLEARING AND GRUBBING

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
201	11000	LS		CLEARING AND GRUBBING
202	11001	LS		STRUCTURE REMOVED, AS PER PLAN
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING
601	21050	303	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT
601	32100	53	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
602	20000	5.6	CY	CONCRETE MASONRY
611	07600	75	FT	18" CONDUIT, TYPE C
611	26001	88	FT	72" CONDUIT, TYPE A, AS PER PLAN
611	98510	1	EACH	CATCH BASIN, NO. 2-3
		D. E. O.		

ALL QUANTITIES CARRIED TO GENERAL SUMMARY (01/S<2/CV)

UNNAMED TRIBUTARY TO HOLIDAY LAKE			TIED CONCRETE BLOCK MAT, TYPE
THE CO	NCRETE OLOCK MAT, TYPE		CONSTRUCTION
	88'-0" © R/W & C	ONSTRUCTION S.R. 99	
880	P.G. EL.	OWN EL.	
870	EOP EL. 808.64 CR 866.	8.68 EOP EL. 868.50	
Q (100) = 863.0	2 -57-8"	5'-9"	
860 0 (25) = 861.35 0.35%	0.45%		
850 OHWM = 858.35	<del></del>	500 100	4.72%
Æ EL. = 855.40 —	/ HW-2.2 (TYP.) — 88' - 72" CO	DNDUIT. F. EL. = 855.00	RCP, TYPE B WITH FILTER, 2.5' D
840	TYPE A, 706		

INT STA. 11+08 120

STA 139+22 73, 39.08 1 INT STA 10 199.32

TIED CONCRETE BLOCK MAT, TYPE 1
(80.0 L, 8.0 W)

CONSTRUCTION LIMITS

RCP, YPE B W/ FILT (AVG. 23.0 L, 4.2' W, 2.5'

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