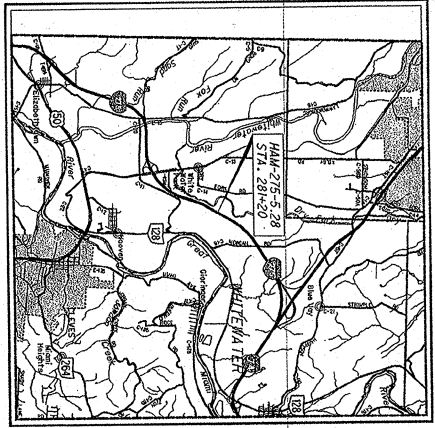


STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

HAM - 275 - 5.28
WHITEWATER TOWNSHIP
HAMILTON COUNTY



LOCATION MAP
LATTITUDE: 39°12'08" LONGITUDE: 84°45'57"
SCALE IN MILES
0 1 2 3 4



INDEX OF SHEETS:

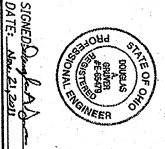
TITLE SHEET	1
GENERAL NOTES	2
MAINTENANCE OF TRAFFIC	3-5
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PLAN AND DETAILS	7
SOIL PROFILES	

PORTION TO BE IMPROVED:
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY AND TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION
CURRENT ADT (20) N/A
DESIGN YEAR ADT (20) N/A
DESIGN HOUR Y VOLUME (20) N/A
DIRECTIONAL DISTRIBUTION N/A
TRUCKS (24 HOUR 88.C) N/A
DESIGN SPEED N/A
LEGAL FUNCTIONAL CLASSIFICATION N/A
N/A
N/A PROJECT YES
DESIGN EXCEPTIONS NONE REQUIRED

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE ALL DIG
1-800-362-2764
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS UNDERGROUND
PROTECTION SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:
DISTRICT 8
ENGINEERING



ENGINEERS SEAL	STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
CH-3.2	7-18-05 MT-35.10 4-20-01	800	10-21-11
CH-3.4	7-18-05 MT-35.30 7-17-09	802	4-18-11
HM-2.1	7-30-07 MT-105.10 1-18-09	802	5-9-09
HM-2.2	7-30-07		
HM-1.2	1-20-08		
DM-1.1	1-21-11		
DM-1.4	7-15-11		
DM-4.3	4-17-09		
DM-4.4	4-17-09		

PROJECT DESCRIPTION
EMERGENCY WORK TO REPLACE FAILED PORTION OF
CULVERT HAM-275-0528 OVER TRIBUTARY TO DRY FORK
IN HAMILTON COUNTY.

EARTH DISTURBED AREAS
PROJECT EARTH DISTURBED AREA: 0.5 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0 ACRES
NOTE OF INTENT EARTH DISTURBED AREA: N/A*
* (NOT NOT REQUIRED)

2010 SPECIFICATIONS
THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO,
DEPARTMENT OF TRANSPORTATION INCLUDING CHANGES AND
SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL
SMALL GOVERN THIS PROPOSED IMPROVEMENT.

LIMITED ACCESS
THIS PROPOSED 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 5911.02
OF THE OHIO REVISED CODE.

I HEREBY APPROVE THESE CONTRACT PLANS AND DECLARE
THAT THE MAKING OF THIS PROPOSED IMPROVEMENT WILL
NOT REQUIRE THE CLOSING TO TRAFFIC ON THE HIGHWAY
AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY
OF TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND
ESTIMATES.

APPROVED: *[Signature]* DISTRICT DEPUTY DIRECTOR
DATE: *[Date]*
APPROVED: *[Signature]* DIRECTOR, DEPARTMENT OF
TRANSPORTATION
DATE: *[Date]*

FEDERAL PROJECT NO. NON-FEDERAL	PID NO. 92075	CONSTRUCTION PROJECT NO. NONE	RAILROAD INVOLVEMENT NONE	HAM-275-5.28
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WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PROPOSED PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

UTILITIES

THERE ARE NO KNOWN UNDERGROUND OR OVERHEAD UTILITIES WITHIN THE CONSTRUCTION PROJECT LIMITS.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM THE WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED AS DIRECTED BY THE ENGINEER UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROPOSED PROJECT.

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSSSECTIONS EVEN THOUGH OTHERWISE SHOWN.

EXISTING PLANS

EXISTING PLANS ENTITLED HAM-275-3.06 MAY BE INSPECTED IN THE ODOT DISTRICT 8 OFFICE IN LEBANON.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP-SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201 CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS SPECIFIC ITEM ARE INCLUDED IN THE LUMP-SUM PRICE BID FOR ITEM 201 CLEARING AND GRUBBING.

ITEM 659, SEEDING AND MULCHING

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

ITEM 659, SEEDING AND MULCHING	2420	SO YD
ITEM 659, COMMERCIAL FERTILIZER	0.33	TON
ITEM 659, LIME	0.50	ACRE
ITEM 659, WATER	13	M GAL
ITEM 670, DITCH EROSION PROTECTION	125	SO YD

APPLY SEEDING AND MULCHING TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES AND ALSO WITHIN THE CONSTRUCTION LIMITS. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE RESPECTIVE LIMITS.

ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT

THIS SPECIFIC ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT 36" IN DIAMETER AND OF THE FILLING OF THE AREA THUS SEALED OFF WITH ITEM 619 SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED IN THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER SO THAT AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE ENTIRE LENGTH THE CROSS-SECTIONAL AREA OF THE CONDUIT SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS FILLED AND PLUGGED AS DESCRIBED ABOVE.

THE LENGTH MEASURED AS PROVIDED ABOVE SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM SPECIAL FILL AND PLUG EXISTING CONDUIT.

ITEM 603, CONDUIT BORED OR JACKED

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN FIVE FEET TO THE EDGE OF PAVEMENT. PROVIDE A 0.50-INCH UNEQUAL VAMIZED CASING PIPE COMFORMING TO 748.06 THAT HAS JOINTS WITH A CIRCUMFERENTIAL FULLY-FEATHERING B-U-JOB WELD THAT IS PERFORMED BY AN ODOT-APPROVED FIELD WELDER. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE. THE INSTALLED CASING PIPE IS THE STORM-WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS.

ITEM 604, CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN

THIS SPECIFIC WORK SHALL CONSIST OF RECONSTRUCTING THE EXISTING CATCH BASIN C8-54 INCLUDING THE CONCRETE APRON AND CUTOFF WALL PER STANDARD CONSTRUCTION DRAWING C8-3.4.

ITEM 251, PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN

REMOVE EXISTING PAVEMENT SURFACE ONLY AS NECESSARY TO PROVIDE A MINIMUM DEPTH OF 1 INCH OF 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22. THE THICKNESS OF THE 448 MATERIAL MAY VARY FROM 1" TO 4" OVER THE AREA TO BE REPAIRED. NO SINGLE LIFT SHALL EXCEED 2 INCHES IN THICKNESS.

IN ADDITION TO THE QUANTITY ON SHEET 7, AN ADDITIONAL 26 SO YD OF PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN IS PROVIDED FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 606, GUARDRAIL REBUILD, TYPE S

A LENGTH OF 100 FEET OF GUARDRAIL REBUILD, TYPE S IS PROVIDED FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 603, 6" CONDUIT, TYPE F

A LENGTH OF 20 FEET OF 6" CONDUIT TYPE F IS PROVIDED FOR USE AS NEEDED TO RECONNECT OUTLETS TO THE RECONSTRUCTED CATCH BASIN.

SURVEYING PARAMETERS

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

- VERTICAL POSITIONING
- ORTHOMETRIC HEIGHT DATUM: NAVD88
- GEOID: GEOID09
- HORIZONTAL POSITIONING
- REFERENCE FRAME: NAD 83(CORS98)EPSCH2002.00001
- ELLIPSOID: GRS80
- MAP PROJECTION: LAMBERT CONFORMAL CONIC PROJECTION
- COORDINATE SYSTEM: SPC (3402 OH S)
- COMBINED SCALE FACTOR: 1.0000776301
- ORIGIN OF SCALE (X,Y) - EASTING (X): 0.0 NORTHING (Y): 0.0
- ELEVATION (Z): 0.0
- UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.280833333 U.S. SURVEY FEET.

INTERIM COMPLETION DATE FOR DRAINAGE WORK

MARCH 31, 2012 IS SET AS AN INTERIM DATE OF COMPLETION FOR ALL DRAINAGE WORK IN THE MEDIAN, UNDER THE SOUTHBOUND LANES AND TO THE NEW OUTLET LOCATION, AS SHOWN ON SHEET 7. THE INTERIM DATE WILL BE SUBJECT TO UNANTICIPATED DAMAGES AS INDICATED BY SECTION 108.07 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS BOOK. REQUEST FOR THE EXTENSIONS TO THE INTERIM COMPLETION DATE WILL BE PROCESSED AS PER SECTION 108.08 OF THE SPECIFICATIONS BOOK.

A GRANTED TIME EXTENSION TO THE INTERIM COMPLETION DATE WILL NOT INCLUDE A CORRESPONDING EXTENSION TO THE FINAL COMPLETION DATE.

GRID COORDINATES

Point	North	East	Elevation	Stationing	Offset	Feature
VPS100	445820.4190	1326383.1820	559.7270	280+00.00	0.0000	CMON
VPS101	446252.7550	1326634.1570	565.4180	284+99.48	0.0000	CMON
VPS103	446293.2480	1326565.1590	550.9630	285+00.25	-90.0017	MAOS
VPS104	445861.4430	1326312.5930	552.1260	0+00.00	-81.6291	MAOS

GENERAL NOTES

ITEM 614, MAINTAINING TRAFFIC

PRIOR TO THE BEGINNING OF WORK, SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS PER DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. SUCH PERSON OR PERSONS SHALL BE RESPONSIBLE FOR PLACING AND REPLACING NECESSARY TRAFFIC-CONTROL DEVICES.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

- NEW YEAR'S DAY
- MEMORIAL DAY
- LABOR DAY
- THANKSGIVING DAY
- CHRISTMAS DAY

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE SUCH PERIODS:

Day of holiday or event	Time all lanes must be open to traffic
Sunday	12:00N Friday Thru 6:00 AM Monday
Monday	12:00N Friday Thru 6:00 AM Monday
Tuesday	12:00N Monday Thru 6:00 AM Tuesday
Wednesday	12:00N Monday Thru 6:00 AM Tuesday
Thursday	12:00N Monday Thru 6:00 AM Tuesday
Friday (Thanksgiving Day)	12:00N Monday Thru 6:00 AM Tuesday
Saturday	12:00N Friday Thru 6:00 AM Monday

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES UNLESS SUCH DELAYS ARE INDUSTRY-WIDE OR FOR LABOR STRIKES UNLESS SUCH STRIKES ARE AREA-WIDE.

OTHER THAN TIME FOR HOLIDAYS OR EVENTS, LANE CLOSURE ON I-275 IS ALLOWED AS FOLLOWS:

- MIDNIGHT TO 7:00 AM
- 6:00 AM TO 8:00 PM
- 8:00 PM TO MIDNIGHT.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE ABOVE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISBURGEMENT IN THE AMOUNT OF \$50 FOR EACH MILE THE LANE-CLOSURE RESTRICTIONS DESCRIBED ABOVE ARE VIOLATED.

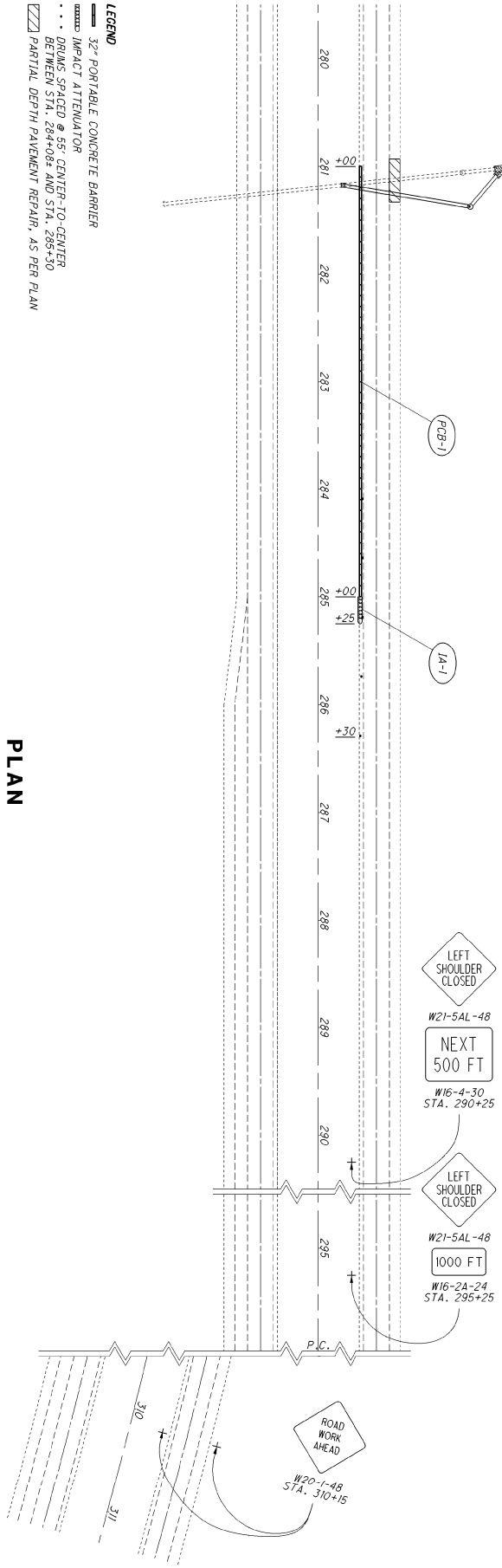
LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME AS DETERMINED BY THE ENGINEER SHALL NOT BE ALLOWED.

THE LEVEL OF UTILIZATION FOR MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC-CONTROL DEVICES SHALL BE IN ACCORDANCE WITH OHS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

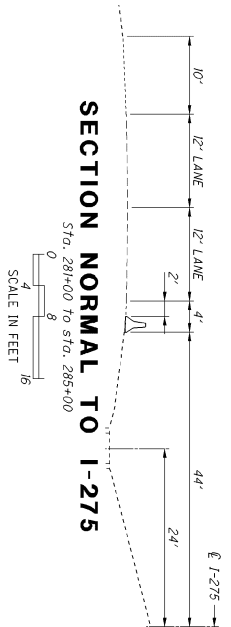
UNLESS SEPARATELY ITEMIZED IN THE PLANS, THE DEPARTMENT WILL PAY FOR ALL LABOR, EQUIPMENT AND MATERIALS INCLUDED IN THE LUMP-SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

(Continued on next sheet)



LEGEND

- 32" PORTABLE CONCRETE BARRIER
- ▬ IMPACT ATTENUATOR
- ⋯ DRAWS SPACED @ 58" CENTER-TO-CENTER BETWEEN STA. 284+08.3 AND STA. 285+30
- ▨ PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN



PLAN

REQ. NO.	STATIONING		SIDE	ESTIMATED QUANTITIES		
	FROM	TO		614	614	614
IA-1	285+00	285+25	L.T.	1		
PCB-I	281+00	295+00	L.T.		9	8
						400
TOTAL CARRIED TO GENERAL SUMMARY				1	9	8
						400

CONSTRUCTION NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE PROJECT ENGINEER A MINIMUM OF 14 DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, LANE CLOSURES, ROAD CLOSURES AND DETOURS. THE PROJECT ENGINEER WILL FORWARD THE INFORMATION TO THE DISTRICT PUBLIC INFORMATION OFFICER (PIO) EITHER BY FAX (615-932-7689) OR BY EMAIL (008.PI@tombirdot.state.tn.us). OF ANY OF THE ITEMS MENTIONED ABOVE, THE PIO WILL THEN NOTIFY VIA MEDIA SOURCES, THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES AND ANY OTHER IMPACTED PUBLIC AGENCY.

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS

THIS SPECIFIC ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROAD PROJECT ENGINEERING APPROVED LIST OF WORK-ZONE IMPACT ATTENUATORS. THE APPROVED LIST OF ATTENUATORS IS AVAILABLE AT THE FOLLOWING WEBSITE: "ROAD SIDE SAFETY DEVICES" WEB PAGE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT FOR ACCEPTANCE THE DOCUMENTATION TO THE ENGINEER. THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL BE SEPARATELY SPECIFIED IN THE CONTRACT. THE CONTRACTOR SHALL MAINTAIN AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM INCLUDING IF NOT SEPARATELY SPECIFIED ALL RELATED BACKUPS, TRANSITION, LEVELING PADS, HARDWARE AND GRADING AS REQUIRED BY THE MANUFACTURER.

ITEM 614, BARRIER REFLECTORS AND/OR OBJECT MARKERS

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL, BARRIER REFLECTORS, OBJECT MARKERS AND/OR ATTENUATION SHALL CONFORM TO OHS 880 EXCEPT THAT THE SPACING SHALL BE 50 FEET.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE HIGHWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT STATEMENT, THE CONTRACTOR AND THE ENGINEER SHALL PREPARE THROUGH THE WORK STATEMENT AND CONTRACT DOCUMENTS, A LIGHTING PLAN AND A LIGHTING AND SHIELDING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER PRIOR TO COMMENCING WORK. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP-SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEO'S) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE ALLOWED AT PROJECT COST. LEO'S SHOULD NOT BE USED WHERE THE OMITTED INTENDS THAT FLAGGERS BE USED. IN ADDITION TO THE REQUIREMENT OF OHS 614 AND THE OMITTED, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC-CONTROL TASKS:

FOR LANE CLOSURES: DURING INITIAL SETUP PERIODS, TEARDOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE-CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC-CONTROL SETUP). IN GENERAL, LEO'S SHOULD BE POSITIONED AT THE POINT OF MOVEMENT AND LANE-CLOSURE (CLOSURE AND RELOCATION) TO CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

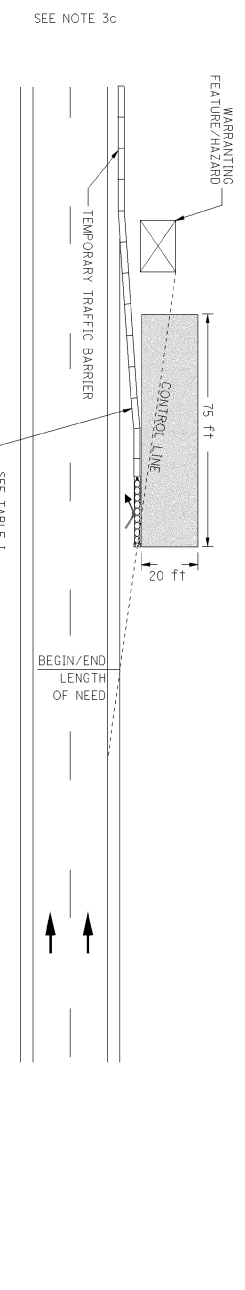
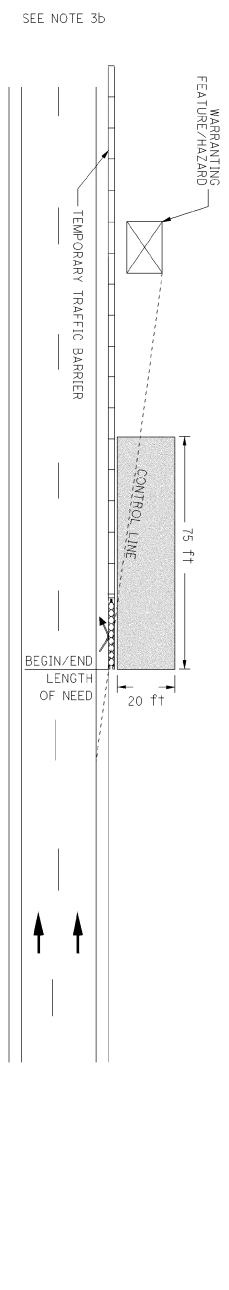
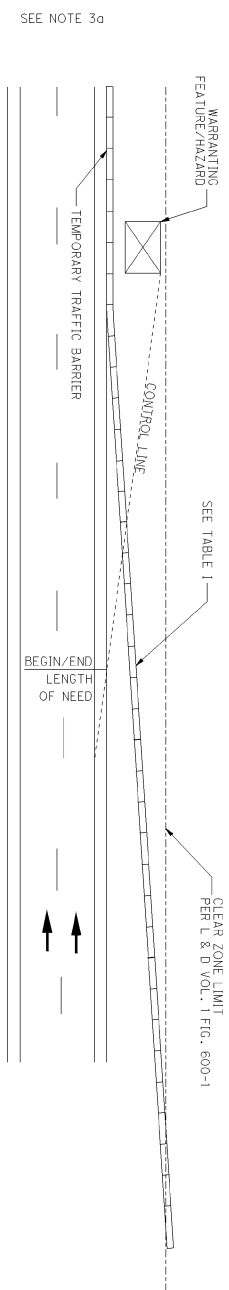
LEO'S SHOULD NOT FORGO THEIR TRAFFIC-CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACT IS PROHIBITIVE AND THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEO'S DUTIES AND PLACEMENT AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO'S WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEO WITH THE APPROPRIATE AGENCIES. THE LEO'S SHALL BE PROVIDED WITH THE TRAFFIC CONTROL OVER THE LEO'S DUTIES AND PLACEMENT AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES. THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PROVIDE A TWO-WAY COMMUNICATION DEVICE TO THE LEO. THE CONTRACTOR SHALL PROVIDE A TWO-WAY COMMUNICATION DEVICE TO THE LEO, WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEO'S (WITH PATROL CAR) REQUIRED BY THE TRAFFIC-MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE HOURLY BASIS UNDER ITEM 614 LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 16 HOURS THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW-ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614 LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

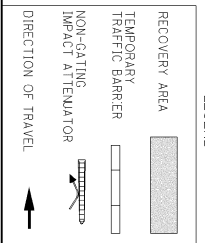


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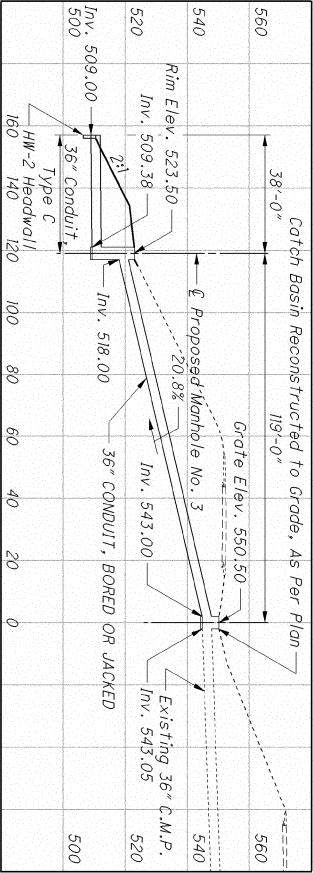
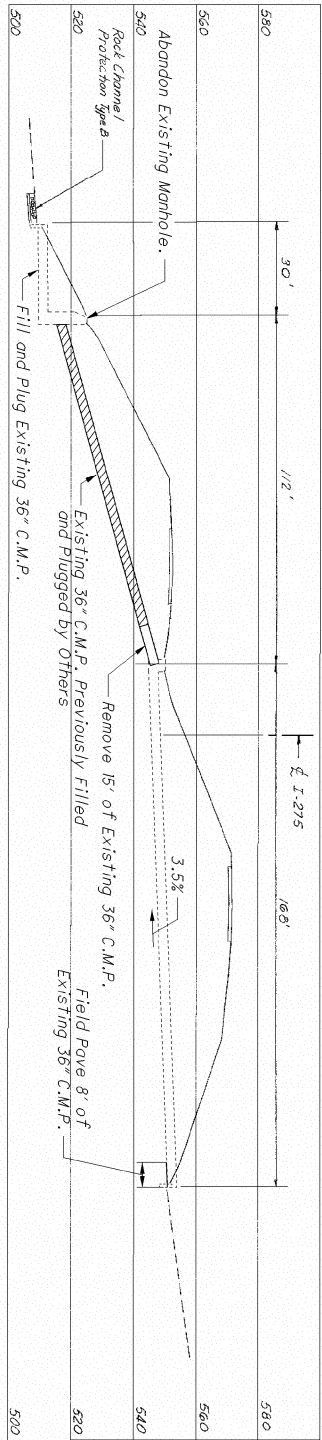
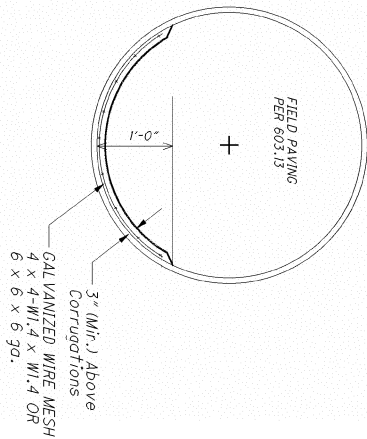
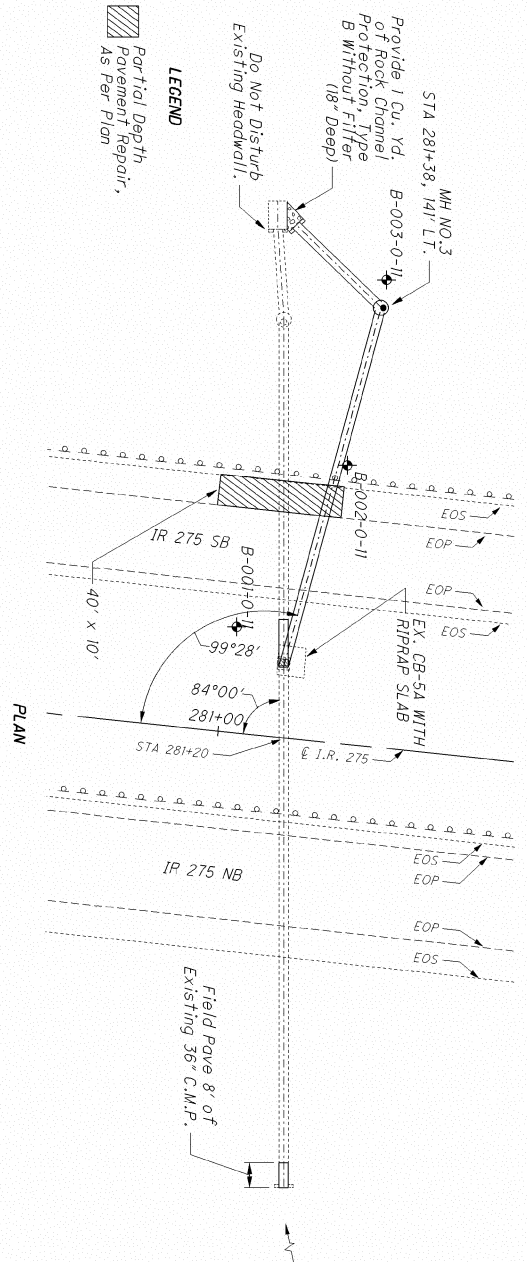
1. Attenuators shall be installed per manufacturers' specifications.
2. Recovery area shall have slopes 3:1 or flatter and be free of workers, hazards, equipment, drop-offs, and material storage.
3. The Contractor shall select one of the three acceptable options for terminating Temporary Traffic Barrier:
 - a) Terminate flared section of temporary traffic barrier outside clear zone with tapered end only where cross slopes are 10:1 or flatter.
 - b) Terminate temporary traffic barrier with an impact attenuator. A non-gating attenuator may be included in the length of need measurement.
 - c) Flare a section of temporary traffic barrier to the length of need control line and terminate with an impact attenuator. A non-gating impact attenuator may be included in the flared section of temporary traffic barrier.
4. The Contractor shall submit documentation, 2 weeks prior to implementation, to the Engineer for acceptance when:
 - a) Deviating from the three acceptable options for terminating temporary traffic barrier. Documentation shall explain any deviations and verify that the recovery area fulfills the manufacturers' specifications and note 2.
 - b) Using a gating impact attenuator in lieu of a non-gating impact attenuator. The gating impact attenuator length shall not be included as part of the length of need or recovery area requirements. Additional temporary traffic barrier will need to be added. The additional cost for the additional barrier required for a gating impact attenuator shall be included in the cost of the gating impact attenuator. Documentation shall verify that the extended recovery area fulfills the manufacturers' specifications and note 2.
5. Gating impact attenuators shall not be used in gore locations or within the clear zone between bi-directional traffic.

TABLE 1

SPEED LIMIT (MPH)	PES FLARE RATE MINIMUM
25	8:1
30	8:1
35	10:1
40	11:1
45	13:1
50	14:1
55	16:1
60	17:1
65	18:1



SHEET NUMBER							ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
2	3	4	7									
LUMP						201	1000	LUMP	FT	CLEARING AND GROBBING		
						202	35200	15	EACH	PIPE REMOVED, OVER 24"		
						202	58700	1	FT	MANHOLE ABANDONED		
						SPECIAL	20270000	30	FT	FILL AND PLUG EXISTING CONDUIT		2
						LUMP	1100	LUMP	FT	COFFERDAMS AND EXCAVATION BRACING		
						606	16500	100	FT	GUARDRAIL REPAIR, TYPE 5		2
										EROSION CONTROL		
						601	34100	1	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITHOUT FILTER		
						659	10000	2420	SO YD	SEEDING AND MULCHING		
						659	20000	0.33	TON	COMMERCIAL FERTILIZER		
						659	31000	0.50	ACRE	LIME		
						659	35000	13	M GAL	WATER		
						670	00700	125	SO YD	DITCH EROSION PROTECTION		
										EROSION CONTROL		
						632	30000	2500	EACH	CONCRETE MASONRY		
										DRAINAGE		
						602	20000	0.76	CU YD	CONCRETE MASONRY		
						603	01500	20	FT	6" CONDUIT, TYPE F		2
						603	16500	38	FT	36" CONDUIT, TYPE C		
						603	96550	8	FT	FIELD PAVING OF EXISTING PIPE, 36" CMP		
						603	96600	120	FT	CONDUIT, BORED OR JACKED: 36" TYPE B		2
						604	09501	1	EACH	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN		2
						604	31500	1	EACH	MANHOLE, NO. 3		
										PAVEMENT		
										PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN		2
						251	01001	70	SO YD	MAINTENANCE OF TRAFFIC		
						614	1110	16	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE		
						614	12336	1	EACH	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)		
						614	13300	9	EACH	BARBER REFLECTOR, TYPE B		
						614	13350	8	EACH	OBJECT MARKER, ONE WAY		
						622	40020	400	FT	PORTABLE CONCRETE BARRIER, 32"		
						614	11000	LUMP		MAINTAINING TRAFFIC		
						623	10000	LUMP		CONSTRUCTION LAYOUT STAKES		
						624	10000	LUMP		MOBILIZATION		



PROFILE OF PROPOSED CULVERT

PROFILE OF EXISTING CULVERT

ESTIMATED QUANTITIES (carried to General Summary)		
ITEM	TOTAL	UNIT
202*	15	FT
202	1	EACH
202	30	FT
251	44	SO YD
503*		LUMP
601	1	CU YD
602*	0.76	CU YD
603*	38	FT
603	8	FT
604*	120	FT
604*	1	EACH
604*	1	EACH

* INDICATES ITEMS TO BE COMPLETED BY THE INTERIM COMPLETION DATE. SEE NOTE ON SHEET 2.

PROJECT: HAM-275-5.28		DRILLING FIRM / OPERATOR: HCN / CJB		DRILL RIG: DIEDRICH D50 TRACK		STATION / OFFSET: 281+02.5, 33.94 LT		EXPLORATION ID: B-001-0-11												
TYPE: CULVERT REPLACEMENT		SAMPLING FIRM / LOGGER: HCN / JDD		HAMMER: DIEDRICH AUTOMATIC		ALIGNMENT: I-275		ELEVATION: 551.9 (MSL) EOB: 16.5 ft												
PID: 92075 BR ID:		DRILLING METHOD: 3.25" HSA		CALIBRATION DATE: 9/8/10		COORD: 445926.127 N, 1326405.286 E		PAGE 1 OF 1												
START: 10/24/11 END: 10/24/11		SAMPLING METHOD: SPT		ENERGY RATIO (%): 83.7																
MATERIAL DESCRIPTION AND NOTES		ELEV.	DEPTH	SPT/RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)				ATTERBERG	OOT CLASS (G)	BACK FILL					
		551.9							GR	CS	FS	SI	CL	LL	PL	PI	WC			
VERY STIFF, BROWN, SOME GRAY, SILTY CLAY, LITTLE SHALE PIECES, TRACE LIMESTONE PIECES, TO FRAGMENTS, FINE ROOTS AND GRAVEL, (EMBANKMENT FILL), DAMP			1	4	14	78	SS-1	3.75	3	4	3	42	48	39	20	19	20	A-6b (12)		
			2																	
			3	9	8	22	78	SS-2	4.00	-	-	-	-	-	-	-	-	-	17	A-6b (V)
			4																	
STIFF TO VERY STIFF, BROWN, LITTLE GRAY, CLAY, LITTLE SHALE PIECES, TRACE LIMESTONE PIECES, (EMBANKMENT FILL), DAMP		546.9	5	4	6	20	100	SS-3	4.25	4	7	3	34	52	44	21	23	18	A-7-6 (14)	
			6																	
			7																	
			8	3	3	13	89	SS-4	1.50	-	-	-	-	-	-	-	-	-	22	A-7-6 (V)
VERY STIFF, BROWN AND GRAY, TRACE DARK BROWN, CLAY, TRACE SHALE PIECES, SAND, SMALL LIMESTONE FRAGMENTS AND FINE GRAVEL, DAMP		539.4	9																	
			10	4	7	10	24	100	SS-5	4.00	1	3	2	38	56	45	23	22	18	A-7-6 (14)
			11																	
			12																	
		535.4	13	6	6	22	100	SS-6	3.00	-	-	-	-	-	-	-	-	24	A-7-6 (V)	
			14																	
			15																	
			16	11	14	18	45	100	SS-7	4.00	3	3	5	40	49	45	20	25	18	A-7-6 (15)

STANDARD ODOT SOIL BORING LOG (11.X.17) - CH.DOT.GDT - 1188.FT.08.03 - N:\PROJECTS\2011\111827\WORKING FILES\LABORATORY\FIELD DATA\BORING LOGS\111827.TEEST.BORING.LOGS.GPJ

NOTES: NONE
 ABANDONMENT METHODS, MATERIALS, QUANTITIES: SOIL CUTTINGS

PROJECT: HAM-275-5.28	DRILLING FIRM / OPERATOR: HCN / CJB	DRILL RIG: DIEDRICH D50 TRACK	STATION / OFFSET: 281+32.51, 89.6 LT	EXPLORATION ID: B-002-0-11
TYPE: CULVERT REPLACEMENT	SAMPLING FIRM / LOGGER: HCN / JDD	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: I-275	
PID: 92075 BR ID:	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 9/8/10	ELEVATION: 550.8 (MSL) EOB: 31.5 ft.	PAGE 1 OF 1
START: 10/18/11 END: 10/18/11	SAMPLING METHOD: SPT	ENERGY RATIO (%): 83.7	COORD: 445980.032 N, 1326372.228 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)				ATTERBERG			WC	ODOT CLASS (SI)	BACK FILL	
								GR	CS	FS	SI	Cl	LL	PL				PI
STIFF TO VERY STIFF, GRAY AND BROWN, CLAY, LITTLE TO SOME SHALE PIECES, LITTLE TO TRACE LIMESTONE PIECES TO FLOATERS (EMBANKMENT FILL), MOIST	550.8	1	1	2	7	67	SS-1	2.00	-	-	-	-	-	-	21	A-7-6 (V)		
		2	2	3														
		3	3	4	10	89	SS-2	3.00	0	5	3	40	52	43	21	22	19	A-7-6 (13)
VERY STIFF, BROWN TRACE GRAY, CLAY, TRACE GRAVEL, SHALE PIECES AND LIMESTONE PIECES, (EMBANKMENT FILL), MOIST	548.8	4	4	4														
		5	5	5														
		6	19	4	13	67	SS-3	3.00	-	-	-	-	-	-	-	-	20	A-7-6 (V)
VERY STIFF, BROWN AND GRAY, CLAY, LITTLE SHALE PIECES, TRACE TO LITTLE LIMESTONE PIECES, TRACE GRAVEL (EMBANKMENT FILL), MOIST	543.8	7	7	7														
		8	24	9	24	78	SS-4	3.50	-	-	-	-	-	-	-	-	17	A-7-6 (V)
		9	8	8														
VERY STIFF, BROWN, GRAY, AND DARK BROWN, CLAY, LITTLE SHALE PIECES, TRACE SMALL LIMESTONE PIECES, AND GRAVEL (EMBANKMENT FILL), MOIST	538.8	10	4	7	20	100	SS-5	4.00	1	5	2	45	47	43	23	20	23	A-7-6 (13)
		11	7	7														
		12	7	6	21	100	SS-6	4.00	-	-	-	-	-	-	-	-	19	A-7-6 (V)
VERY STIFF, BROWN, LITTLE GRAY, CLAY, TRACE TO LITTLE ROCK PIECES, GRAVEL, AND SAND (EMBANKMENT FILL), MOIST	525.8	13	6	9														
		14	4	6	25	89	SS-7	3.00	4	10	3	37	46	41	19	22	17	A-7-6 (13)
		15	4	6	12													
VERY STIFF, BROWN, LITTLE GRAY, CLAY, TRACE TO LITTLE ROCK PIECES, GRAVEL, AND SAND (EMBANKMENT FILL), MOIST	519.3	16	8	12	33	67	SS-8	3.25	-	-	-	-	-	-	-	-	18	A-7-6 (V)
		17	8	12														
		18	8	11	35	100	SS-9	4.25	-	-	-	-	-	-	-	-	20	A-7-6 (V)
VERY STIFF, BROWN, LITTLE GRAY, CLAY, TRACE TO LITTLE ROCK PIECES, GRAVEL, AND SAND (EMBANKMENT FILL), MOIST	519.3	19	8	9	25	78	SS-10	3.50	3	6	4	39	48	41	19	22	20	A-7-6 (13)
		20	8	9														
		21	8	9														
		22																
		23																
		24																
		25																
		26																
		27																
		28																
		29																
		30																
		31																
		EOB																

NOTES: AREA CUT APPROX. 1 FT. FOR ACCESS.
 ABANDONMENT METHODS, MATERIALS, QUANTITIES: SOIL CUTTINGS

STANDARD ODOT SOIL BORING LOG (11X 17) - CH DOT.GBT - 11/8/11 08:33 - N:\PROJECTS\92075\05.28_PID92075\WORKING FILES\LABORATORY\FIELD DATA\BORING LOGS\115271 TEST BORING LOSS.GPJ

PROJECT: HAM-275-5.28		DRILLING FIRM / OPERATOR: HCN / CJB		DRILL RIG: DIEDRICH D50 TRACK		STATION / OFFSET: 281+38.77, 150.17 L		EXPLORATION ID: B-003-0-11											
TYPE: CULVERT REPLACEMENT		SAMPLING FIRM / LOGGER: HCN / JDD		HAMMER: DIEDRICH AUTOMATIC		ALIGNMENT: I-275		ELEVATION: 523.6 (MSL) EOB: 25.0 ft.											
PID: 92075 BR ID:		DRILLING METHOD: 3.25" HSA / NQ2		CALIBRATION DATE: 9/8/10		ELEVATION: 523.6 (MSL) EOB: 25.0 ft.		PAGE 1 OF 1											
START: 10/18/11 END: 10/18/11		SAMPLING METHOD: SPT / NQ2		ENERGY RATIO (%): 83.7		COORD: 446015.857 N, 1326322.986 E													
MATERIAL DESCRIPTION AND NOTES		ELEV.	DEPTH	SPT/ RQD	N ₆₀	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%)				ATTERBERG			ODOT CLASS (SI)	BACK FILL		
									OR	CS	FS	SI	CL	LL	PL	PI	WC		
VERY STIFF, MOTTLED BROWN, LITTLE GRAY, SILTY CLAY, TRACE SAND, FINE GRAVEL AND FINE ROOTS, MOIST		523.6	1	4	5	11	67	SS-1	3.00	-	-	-	-	-	-	-	-	21	A-6b (V)
		521.1	2																
VERY STIFF, BROWN, CLAY, LITTLE SAND AND FINE GRAVEL, TRACE ROOT HAIRS, MOIST			3	4	6	17	100	SS-2	3.00	10	13	10	20	47	54	20	34	26	A-7-6 (17)
		518.6	4																
VERY STIFF, OLIVE-BROWN TO GRAYISH-BROWN, CLAY, TRACE INTERBEDDED SHALE SEAMS AND PIECES, MOIST			5	5	5	15	100	SS-3	3.50	0	2	2	33	63	51	23	28	22	A-7-6 (17)
		513.6	6																
SHALE, BROWN, TRACE GRAY, HIGHLY WEATHERED, VERY WEAK, LAMINATED.		512.1	7	7	10	32	100	SS-4	4.00	-	-	-	-	-	-	-	-	19	A-7-6 (V)
			8																
INTERBEDDED SHALE (50%) AND LIMESTONE (50%); SHALE, GRAY, MODERATELY WEATHERED, WEAK, LAMINATED; LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, MODERATELY STRONG, THIN BEDDED.		508.6	9	13	22	36	81	SS-5	-	-	-	-	-	-	-	-	-	-	15
			10																
INTERBEDDED SHALE (90%) AND LIMESTONE (10%); SHALE, GRAY, MODERATELY WEATHERED, WEAK, LAMINATED, CALCAREOUS; LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, MODERATELY STRONG, THIN BEDDED, TRACE FRACTURES.			11	50/5	-	100	SS-6	-	-	-	-	-	-	-	-	-	-	-	13
			12																
			13																
			14																
			15																
			16				58	NQ2-1	-	-	-	-	-	-	-	-	-	-	-
			17																
			18																
			19																
			20				40	NQ2-2	-	-	-	-	-	-	-	-	-	-	-
			21																
			22																
			23																
			24				61	NQ2-3	-	-	-	-	-	-	-	-	-	-	-
		498.6	25																

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT.GDT - 118/F.T. 08.33 - N:\PROJECTS\2011\111527\WORKING FILES\LABORATORY-FIELD DATA-BORING LOGS\111527 TEST BORING LOGS.GPJ

NOTES: AREA CUT 6" FOR ACCESS.
 ABANDONMENT METHODS, MATERIALS, QUANTITIES: SOIL CUTTINGS