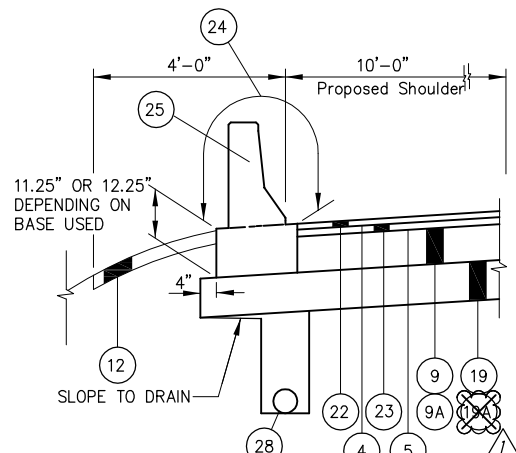


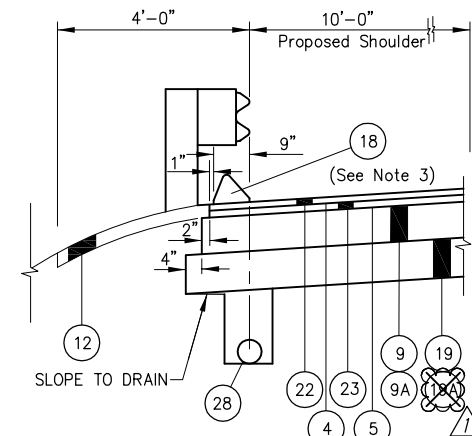
**SHOULDER DETAIL**

SCALE: 1" = 2'



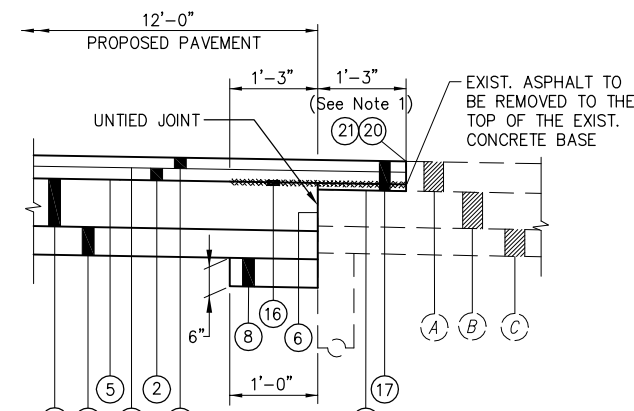
**TYPE D BARRIER DETAIL**

SCALE: 1" = 2'



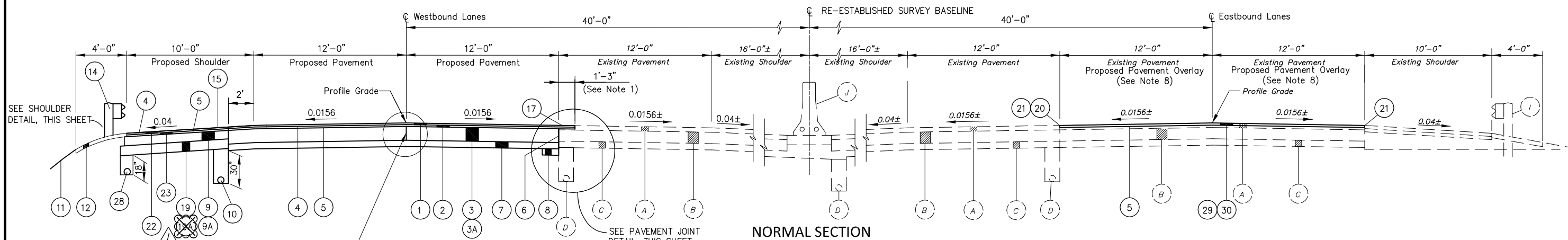
**ASPHALT CURB SHOULDER DETAIL**

SCALE: 1" = 2'



**PAVEMENT JOINT DETAIL**

NOT TO SCALE



**NORMAL SECTION**

STA. 453+47.30 TO STA. 468+75.22 = 1527.92 L.F.  
 STA. 471+36.34 TO STA. 535+41.18 = 6404.84 L.F.  
 STA. 537+31.19 TO STA. 547+62.49 = 1031.30 L.F.  
 STA. 557+51.17 TO STA. 559+00.00 = 148.83 L.F.  
 STA. 586+99.00 TO STA. 649+94.57 = 6295.57 L.F.  
 STA. 651+54.13 TO STA. 695+60.76 = 4406.63 L.F.  
 STA. 709+11.61 TO STA. 713+41.50 = 429.89 L.F.  
 STA. 715+37.25 TO STA. 740+00.00 = 2462.75 L.F.

LONGITUDINAL JOINT AS PER ODOT STANDARD CONSTRUCTION DRAWING BP-2.1  
 SEE LONGITUDINAL JOINT DETAIL THIS SHEET

SEE PAVEMENT JOINT DETAIL, THIS SHEET.

**ITEM LEGEND**

- |    |              |   |     |                        |  |
|----|--------------|---|-----|------------------------|--|
| 1  | ITEM SP 404  | 1-1/2" ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG 70-22 (FR)                   | 15  | ITEM SPECIAL           | SONIC NAP ALERT PATTERN (SNAP)   |
| 2  | ITEM SP 402  | 1-3/4" ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE BASE COURSE, PG 70-22 (FR) | 16  | ITEM SPECIAL           | ASPHALT PAVEMENT REINFORCEMENT   |
| 3  | ITEM 305     | CONCRETE BASE (T=12") (BASE BID ITEM) (SEE NOTE 4)  | 17  | ITEM 254               | PAVEMENT PLANING, ASPHALT CONCRETE (VARIABLE DEPTH)  |
| 3A | ITEM SP 302  | 12" BITUMINOUS AGGREGATE BASE, PG 64-22 (ALTERNATE BID ITEM) (SEE NOTE 5)                   | 18  | ITEM 609               | ASPHALT CONCRETE CURB, TYPE 1, PG 64-22  |
| 4  | ITEM SP 407  | TACK COAT FOR INTERMEDIATE COURSE, AS PER PLAN (APPLIED @ 0.06 GAL./S.Y.)                   | 19  | ITEM SP 304            | 9" AGGREGATE BASE (SHOULDER) (BASE BID ITEM) (SEE NOTE 4)  |
| 5  | ITEM SP 407  | TACK COAT, AS PER PLAN (APPLIED @ 0.075 GAL./S.Y.), SEE SHEET 10.                           | 19A | <del>ITEM SP 304</del> | <del>9" RECYCLED AGGREGATE BASE, AS PER PLAN (SHOULDER) (ALTERNATE BID ITEM) AND ITEM SPECIAL CRUSHED MATERIAL STOCKPILED ON SITE (SEE NOTE 6)</del> |
| 6  | ITEM 252     | FULL DEPTH PAVEMENT SAWING  | 20  | ITEM SP 404A           | JOINT SEALER (APPLIED TO VERTICAL FACE)  |
| 7  | ITEM SP 304  | 7" AGGREGATE BASE   | 21  | ITEM SPECIAL           | SAW CUT JOINT (SEE NOTE 2)   |
| 8  | ITEM SP 605  | AGGREGATE DRAIN, AS PER PLAN  | 22  | ITEM SP 404            | 1-1/2" ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED STONE, PG 64-22  |
| 9  | ITEM SPECIAL | ROLLER COMPACTED CONCRETE (SHOULDER T=9") (BASE BID ITEM) (SEE NOTE 4)                      | 23  | ITEM SP 402            | 1-3/4" ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE BASE COURSE, PG 64-22   |
| 9A | ITEM SP 302  | BITUMINOUS AGGREGATE BASE, PG 64-22 (T=8") (SHOULDER) (ALTERNATE BID ITEM) (SEE NOTE 5)     | 24  | ITEM SP 536A           | MASONRY COATING, SEE SHEET 8.  |
| 10 | ITEM SP 605  | 6" SHALLOW PIPE UNDERDRAIN, WITH FABRIC WRAP  | 25  | ITEM 622               | CONCRETE BARRIER, TYPE D, AS PER PLAN  |
| 11 | ITEM 659     | SEEDING AND MULCHING  | 26  | ITEM SP 304            | 12" AGGREGATE BASE   |
| 12 | ITEM 617     | COMPACTED AGGREGATE (T=3") (WITHOUT GUARDRAIL)  | 27  | ITEM 204               | SUBGRADE COMPACTION  |
| 13 | ITEM SP 627  | STONE SHOULDER PROTECTION (T=3") (WITH GUARDRAIL)   | 28  | ITEM SP 605            | 6" BASE PIPE UNDERDRAIN, WITH FABRIC WRAP  |
| 14 | ITEM SP 526  | CLASS C CONCRETE, APPROACH SLAB, USING TYPE I CEMENT (T=12")                                | 29  | ITEM 254               | 2" PAVEMENT PLANING, ASPHALT CONCRETE  |
|    | ITEM 606     | GUARDRAIL, TYPE 5, USING STEEL POSTS  | 30  | ITEM SP 404            | 2" ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG 70-22 (FR)  |

**EX. ITEM LEGEND**

- |     |  |
|-----|--|
| (A) | ASPHALT CONCRETE (T=5"±)                   |
| (B) | 10"± REINFORCED CONCRETE PAVEMENT          |
| (C) | 6"± AGGREGATE BASE                         |
| (D) | 6" UNDERDRAIN                              |
| (E) | REINFORCED CONCRETE APPROACH SLAB (T=10"±) |
| (F) | 7"± AGGREGATE BASE                         |
| (G) | 10"± BITUMINOUS AGGREGATE BASE             |
| (H) | REINFORCED CONCRETE APPROACH SLAB (T=12"±) |
| (I) | GUARDRAIL, TYPE 5                          |
| (J) | CONCRETE BARRIER                           |

NOTE 1: ASPHALT PAVEMENT PLANING OPERATION WITHIN THIS 15" AREA MAY OCCUR BEFORE OR AFTER PLACEMENT OF ITEM 305 - CONCRETE BASE (T=12") OR ITEM SP 302 - 12" BITUMINOUS AGGREGATE BASE, PG 64-22. REQUIREMENTS FOR ASPHALT PLACED WITHIN THIS 15" AREA SHALL BE IN STRICT COMPLIANCE WITH SP 400. CONTRACTOR TO EXCAVATE PAVEMENT EVERY 500' BY MEANS APPROVED BY THE CHIEF ENGINEER TO LOCATE EDGE OF EXISTING CONCRETE BASE PAVEMENT TO SET PAVING AND STRIPING LIMITS. THIS OPERATION SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT.

NOTE 2: SAW CUT IS REQUIRED. SAW CUT MAY BE WAIVED BY CHIEF ENGINEER PROVIDED CONTRACTOR DEMONSTRATES ABILITY TO PROVIDE A STRAIGHT, VERTICAL FACE CUT WITH NO DAMAGE TO ADJACENT PAVEMENT. SEE SHEET 9 FOR SAW CUTTING NOTES.

NOTE 3: ASPHALT CURB TO BE SEALED AS PER THE REQUIREMENTS OF SP 400.

NOTE 4: THE BASE BID PAVEMENT SECTION FOR THIS PROJECT SHALL BE AS FOLLOWS:  
 MAINLINE PAVEMENT: CONCRETE BASE PAVEMENT WITH AN ASPHALT OVERLAY  
 SHOULDER PAVEMENT: ROLLER COMPACTED CONCRETE WITH AN ASPHALT OVERLAY  
 SHOULDER AGGREGATE: ITEM SP 304 - AGGREGATE BASE

NOTE 5: THE ALTERNATE PAVEMENT SECTION FOR THIS PROJECT SHALL BE AS FOLLOWS:  
 MAINLINE PAVEMENT: FULL DEPTH ASPHALT PAVEMENT SECTION  
 SHOULDER PAVEMENT: FULL DEPTH ASPHALT PAVEMENT SECTION

NOTE 6: THE SHOULDER AGGREGATE BASE MATERIAL ALTERNATE SHALL BE AS FOLLOWS: SHOULDER AGGREGATE: ITEM SP 304 - RECYCLED AGGREGATE, AS PER PLAN. THIS SHOULDER AGGREGATE BASE MATERIAL ALTERNATE CAN BE UTILIZED FOR EITHER THE BASE BID PAVEMENT SECTION OR THE PAVEMENT ALTERNATE SECTION.

NOTE 7: ALL EXPOSED SUBGRADE WILL HAVE SUBGRADE STABILIZATION PERFORMED USING ITEM 206 - CHEMICALLY STABILIZED SUBGRADE, AS PER PLAN. SEE GENERAL NOTES SHEET 10.

NOTE 8: ASPHALT PAVEMENT PLANING AND OVERLAY IN THIS AREA WILL BE PERFORMED PER STANDARD DRAWING DURING NIGHT TIME CLOSURES PRIOR TO FIRST PHASE OF MAINTENANCE OF TRAFFIC. FOR LIMITING STATIONS, SEE PAVEMENT CALCULATIONS SHEET 117

ADDENDUM NO. 1	CH	1/28/13
NO.	REVISIONS	BY DATE

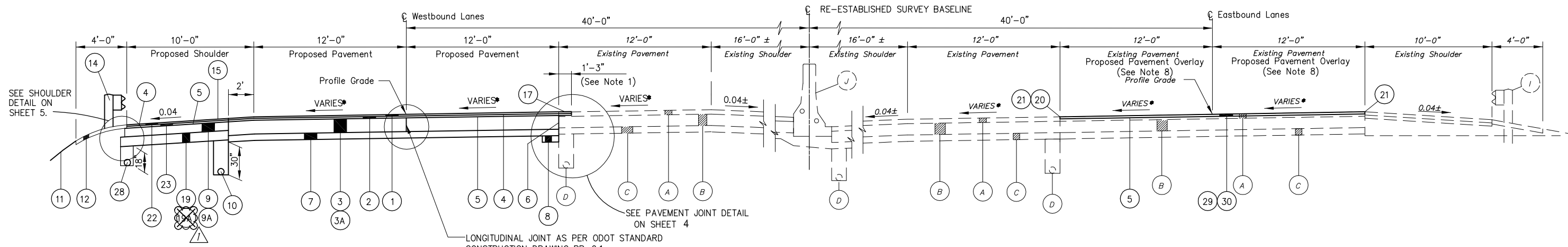
**OHIO TURNPIKE COMMISSION**

OHIO TURNPIKE WESTBOUND RIGHT TWO LANES & SHOULDER RECONSTRUCTION TYPICAL SECTIONS

**GPD GROUP**  
 520 South Main Street, Suite 2531, Akron, Ohio 44311 Fax 330-572-2101  
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DESIGNED: CLH CHECKED: MVJ DATE: 12/21/12  
 DRAWN: CLH IN CHARGE: MRG SCALE: NTS

CONTRACT 39-13-01 SHEET 4 OF 253



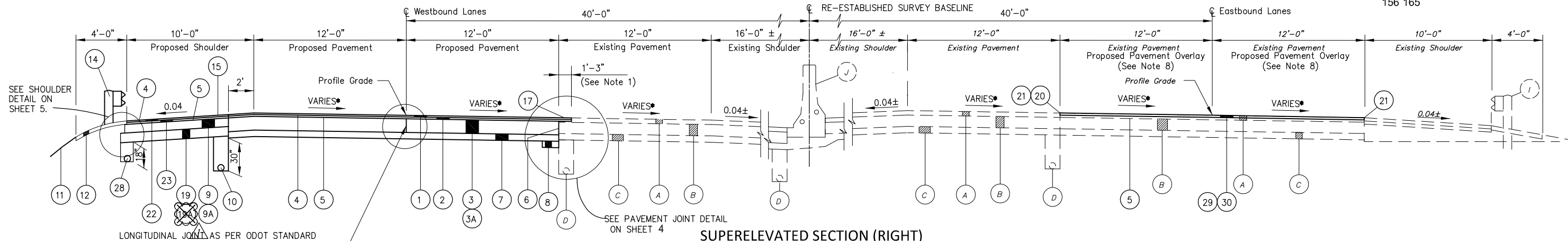
**SUPERELEVATED SECTION (LEFT)**

NOTE 1: ASPHALT PAVEMENT PLANING OPERATION WITHIN THIS 15" AREA MAY OCCUR BEFORE OR AFTER PLACEMENT OF ITEM 452-NON-REINFORCED CONCRETE PAVEMENT (T=12") OR ITEM SP 302-12" BITUMINOUS AGGREGATE BASE COURSE, PG 64-22. REQUIREMENTS FOR ASPHALT PLACED WITHIN THIS 15" AREA SHALL BE IN STRICT COMPLIANCE WITH SP 400. CONTRACTOR TO EXCAVATE PAVEMENT EVERY 500' BY MEANS APPROVED BY THE CHIEF ENGINEER TO LOCATE EDGE OF EXISTING CONCRETE BASE PAVEMENT TO SET PAVING AND STRIPING LIMITS. THIS OPERATION SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT.

NOTE 2: SAW CUT IS REQUIRED. SAW CUT MAY BE WAIVED BY CHIEF ENGINEER PROVIDED CONTRACTOR DEMONSTRATES ABILITY TO PROVIDE A STRAIGHT, VERTICAL FACE CUT WITH NO DAMAGE TO ADJACENT PAVEMENT. SEE SHEET 9 FOR SAW CUTTING NOTES.

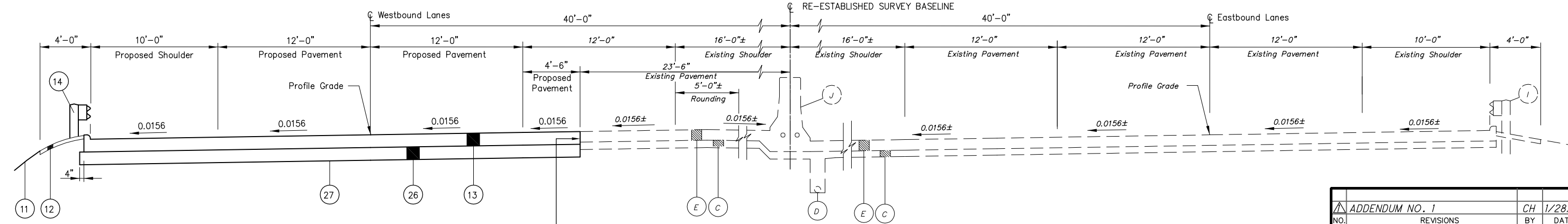
STA. 430+00.00 TO STA. 440+00.09 FULL SUPERELEVATION = 1000.09 L.F.  
 STA. 441+59.94 TO STA. 447+70.02 FULL SUPERELEVATION = 610.08 L.F.  
 STA. 449+23.93 TO STA. 450+68.46 FULL SUPERELEVATION = 144.53 L.F.  
 STA. 450+68.46 TO STA. 451+68.46 (BACK) SUPERELEVATION TRANSITION = 100.00 L.F.  
 STA. 451+72.30 (AHEAD) TO STA. 453+47.30 SUPERELEVATION TRANSITION = 175.00 L.F.  
 STA. 559+00.00 TO STA. 562+00.00 SUPERELEVATION TRANSITION = 300.00 L.F.  
 STA. 562+00.00 TO STA. 582+54.00 FULL SUPERELEVATION = 2054.00 L.F.  
 STA. 582+54.00 TO STA. 583+55.29 (BACK) SUPERELEVATION TRANSITION = 101.29 L.F.  
 STA. 585+24.00 (AHEAD) TO STA. 586+99.00 SUPERELEVATION TRANSITION = 175.00 L.F.

\* NOTE: SLOPE VARIES. SEE PAVEMENT ELEVATION TABLE SHEETS 156-165 FOR SLOPES. (7% MAXIMUM ROLLOVER FOR SHOULDERS)



**SUPERELEVATED SECTION (RIGHT)**

STA. 695+60.76 TO STA. 698+35.76 SUPERELEVATION TRANSITION = 275.00 L.F.  
 STA. 698+35.76 TO STA. 706+36.61 FULL SUPERELEVATION = 800.85 L.F.  
 STA. 706+36.61 TO STA. 709+11.61 SUPERELEVATION TRANSITION = 275.00 L.F.



**SUPERELEVATED APPROACH SLAB SECTION (LEFT)**

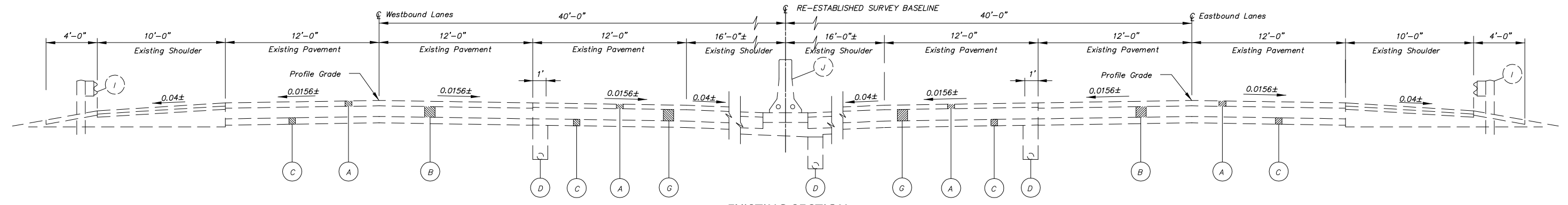
STA. 440+00.09 TO STA. 440+19.38 = 19.29 L.F.  
 STA. 441+40.39 TO STA. 441+59.94 = 19.55 L.F.  
 STA. 447+70.02 TO STA. 447+85.74 = 15.72 L.F.  
 STA. 449+07.93 TO STA. 449+23.93 = 16.00 L.F.

FOR EXISTING AND PROPOSED LEGEND SEE SHEET 4.

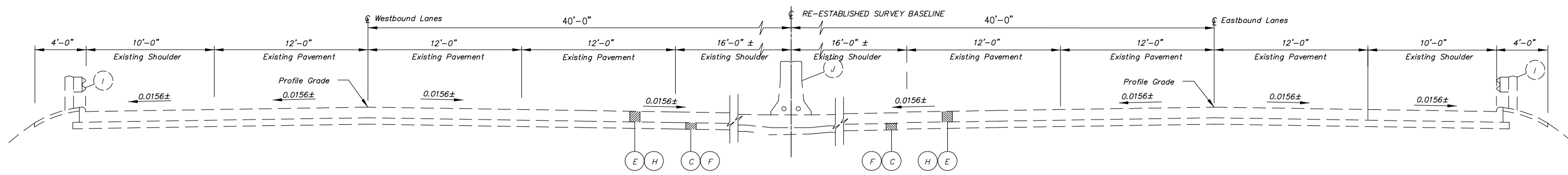
ADDENDUM NO. 1		CH	1/28/13
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
OHIO TURNPIKE WESTBOUND RIGHT TWO LANES & SHOULDER RECONSTRUCTION TYPEICAL SECTIONS			
<b>GPD GROUP</b>			
<small>Glass, Pfeil, Schomer, Burns &amp; Dalrymple, Inc. 520 South Main Street, Suite 2531, Akron, Ohio 44311 Fax 330-572-2101 Copyright © Glass, Pfeil, Schomer, Burns &amp; Dalrymple, Inc. 2012</small>			
DESIGNED: CLH	CHECKED: MVJ	DATE: 12/21/12	
DRAWN: CLH	IN CHARGE: MRG	SCALE: NTS	
CONTRACT 39-13-01 SHEET 5 OF 253			

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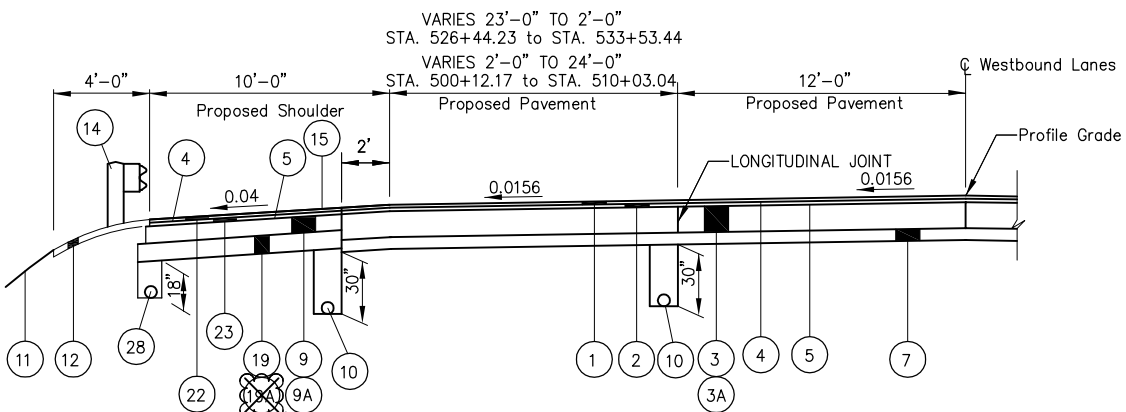
Technician: chuff



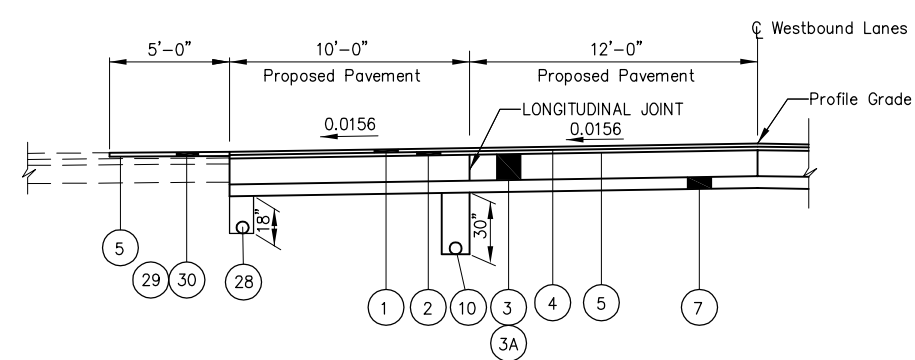
**EXISTING SECTION**



**EXISTING APPROACH SLAB SECTION**



**RAMP ENTRANCE/EXIT DETAIL**



**SERVICE ENTRANCE DETAIL**

VARIES 23'-0" TO 2'-0"  
STA. 526+44.23 TO STA. 533+53.44  
VARIES 2'-0" TO 24'-0"  
STA. 500+12.17 TO STA. 510+03.04

NOTE:  
LONGITUDINAL JOINT AS PER ODOT STANDARD  
CONSTRUCTION DRAWING BP-2.1

NOTE:  
LONGITUDINAL JOINT AS PER ODOT STANDARD  
CONSTRUCTION DRAWING BP-2.1

Drawing File: C:\2012\2012161\roadway\sheet\2012161\01.dwg Layout: Layout4 Date: 08-26-2013 Time: 10:01:56 AM

Technician: chuff

FOR EXISTING AND PROPOSED LEGEND SEE SHEET 4.

ADDENDUM NO. 1		CH	1/28/13
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
OHIO TURNPIKE WESTBOUND RIGHT TWO LANES & SHOULDER RECONSTRUCTION TYPICAL SECTIONS			
<b>GPD GROUP</b>		330-572-2100	
<small>Glass, Pyle, Schomer, Burns &amp; Dalrymple, Inc.</small>		<small>520 South Main Street, Suite 2531, Akron, Ohio 44311 Fax 330-572-2101</small>	
DESIGNED: CLH	CHECKED: MVJ	DATE: 12/21/12	
DRAWN: CLH	IN CHARGE: MRG	SCALE: NTS	
CONTRACT 39-13-01 SHEET 7 OF 253			

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAIL ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. PROVISIONS OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL, IN ALL CASES, BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

CONTRACTION JOINTS IN CONCRETE PAVEMENT OR BASE WIDENING

CONTRACTION JOINTS SHALL BE CONSTRUCTED AS PER STANDARD CONSTRUCTION DRAWING BP-2.2, EXCEPT THAT THE SPACING SHALL BE 14 FOOT MAXIMUM.

ITEM SP604 - CATCH BASIN, NO. CB-1

EXISTING TOP OF GRATE ELEVATIONS FOR ALL STORM STRUCTURES SHALL BE FIELD MEASURED AND RECORDED BY THE CONTRACTOR PRIOR TO REMOVAL OF THE STRUCTURES. PROPOSED CATCH BASINS SHALL BE INSTALLED AT THE SAME TOP OF GRATE ELEVATIONS AS EXISTING WITH THE INVERT ELEVATIONS SHOWN IN THE PLANS. REPLACE OUTLET PIPES AS SHOWN IN PLANS OR AS DIRECTED BY ENGINEER. PROPOSED DRAINAGE PIPES SHALL BE CONNECTED TO EXISTING PIPES USING MASONRY COLLAR AS PER STANDARD DRAWING DM-1.1. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED WITH ITEM SP604 - CATCH BASIN, NO. CB-1.

COATED DOWEL BARS

DOWEL BARS REQUIRED ON STANDARD DRAWING BP-2.2 SHALL BE COATED IN ACCORDANCE WITH 709.13.

ITEM 202 - GUARDRAIL REMOVED FOR SALVAGE, AS PER PLAN

THIS ITEM SHALL INCLUDE REMOVAL AND SALVAGE OF THE FOLLOWING MATERIALS AT EACH LOCATION IDENTIFIED IN THE PLANS: EXISTING TYPE E (ET-2000PLUS) ANCHOR ASSEMBLY EXTRUDER HEAD, CABLE ANCHOR, ANGLE STRUT, CABLE ASSEMBLY, BEARING PLATE, TWO TUBE SLEEVES, AND THE FIRST TWO 12.5' GUARDRAIL PANELS. CONTRACTOR SHALL USE CARE IN THE REMOVAL PROCESS TO MINIMIZE DAMAGE TO THE MATERIALS.

ITEM SP304 - 9" RECYCLED AGGREGATE BASE, AS PER PLAN (SHOULDER)

THE CONTRACTOR SHALL CRUSH THE EXISTING CONCRETE BASE PAVEMENT FOR USE AS ITEM SP304 - 9" RECYCLED AGGREGATE BASE, AS PER PLAN (SHOULDER). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRANSPORTATION, CRUSHING OPERATIONS, TESTING, PERMITTING AND ASSOCIATED WORK IN ORDER TO PREPARE AND CREATE THIS MATERIAL. IT IS THE INTENT OF THIS ITEM TO PROCESS ALL OF EXISTING CONCRETE BASE PAVEMENT INTO ITEM SP304. THIS MAY RESULT IN EXCESS MATERIAL AFTER ALL THE REQUIRED MATERIAL HAS BEEN PLACED IN THE SHOULDER LIMITS. ANY AND ALL EXCESS MATERIAL REMAINING SHALL BE THE PROPERTY OF THE COMMISSION AND SHALL BE STOCKPILED NEAR THE SALT DOME AT M.P. 93.1 EB. THE STOCKPILE OF RECYCLED PORTLAND CEMENT CONCRETE (RPCC) MUST MEET THE REQUIREMENTS OF ODOT ITEM 304, AND OTC ITEM SP304, WITH THE EXCEPTION OF THE SODIUM SULFATE SOUNDNESS TESTING, WHICH WILL BE REPLACED WITH MAGNESIUM SULFATE SOUNDNESS TESTING. THE SOUNDNESS LOSS MUST BE LESS THAN 15% WHEN TESTED USING MAGNESIUM SULFATE PER AASHTO T104.

AN ESTIMATED RESIDUAL QUANTITY OF 10,000 CU. YD. FOR ITEM SPECIAL - CRUSHED MATERIAL STOCKPILE HAS BEEN ADDED TO THE GENERAL SUMMARY FOR THE ALTERNATE BID ITEM.

IF THE CONTRACTOR OPTS TO USE THE ALTERNATE BID ITEM 302 FOR THE SHOULDER BASE, THEN THE ITEM SP304 - AGGREGATE BASE THICKNESS WILL NEED TO BE INCREASED TO 10" WHICH RESULTS IN THE ITEM SP304 - RECYCLED AGGREGATE BASE, AS PER PLAN (SHOULDER) QUANTITY OF 7910 CU. YD.

ITEM SPECIAL - ROLLER COMPACTED CONCRETE (T=9")

THIS ITEM SHALL COMPLY WITH OTC SPECIFICATION FOR ROLLER COMPACTED CONCRETE AND SHALL INCLUDE ALL EQUIPMENT, MATERIAL, LABOR AND OTHER INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK. SAW CUT JOINTS SHALL BE INSTALLED TO MATCH ADJACENT JOINTS IN ITEM 452 AND SHALL BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN ON STANDARD CONSTRUCTION DRAWING GR-1.1. THE TRANSITION IN HEIGHT WILL OCCUR OVER THE FIRST OR LAST TWENTY FIVE (25) FEET. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM SPECIAL - PRECAST REINFORCED CONCRETE OUTLET

THIS ITEM SHALL BE IN ACCORDANCE WITH OTC STANDARD DRAWING UD-1 AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS TO COMPLETE THIS ITEM.

ITEM SP605 - AGGREGATE DRAIN, AS PER PLAN

THE ENTIRE OUTSIDE PERIMETER OF THE AGGREGATE DRAIN SHALL BE WRAPPED WITH FILTER FABRIC, TYPE A, AS PER ODOT SPECIFICATION 712.09. DURING THE EXCAVATION OF THE TRENCH FOR AGGREGATE DRAIN, SPECIAL CARE IS NEEDED TO PREVENT DAMAGE TO THE ADJACENT EXISTING UNDERDRAIN FILTER FABRIC WRAP. PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM SP605 - AGGREGATE DRAIN, AS PER PLAN.

PAVEMENT REPAIRS

THE FOLLOWING QUANTITIES, ARE INCLUDED AS A CONTINGENCY, TO BE USED AS DIRECTED BY THE CHIEF ENGINEER FOR PAVEMENT REPAIR MEASURES TO MAINTAIN TRAFFIC. CONTRACTOR SHALL FOLLOW ODOT CMS FOR ITEM 255, EXCEPT THAT PLACEMENT OF THE DOWEL BARS ARE NOT REQUIRED. CONCRETE SHALL BE CLASS FS, AND MAINTENANCE OF TRAFFIC COSTS INCURRED BY THE CONTRACTOR FOR THESE CURRENTLY UNKNOWN AND UNDEFINED PAVEMENT REPAIRS WILL BE COMPENSATED ON A TIME AND MATERIALS BASIS AS APPROVED BY THE CHIEF ENGINEER. DEPTH FOR PARTIAL REMOVAL WILL BE 5" (+/-) TO THE SURFACE OF THE CONCRETE BASE. REPLACEMENT MATERIALS ARE SPECIFIED IN 251.03 UNIT PRICES BID FOR THE ITEMS IMMEDIATELY BELOW SHALL NOT INCLUDE MAINTENANCE OF TRAFFIC COSTS.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR	1500 SQ. YD.
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT	1500 SQ. YD.
ITEM 255 - FULL DEPTH PAVEMENT SAWING	1300 FT.

ITEM SPECIAL - ASPHALT PAVEMENT REINFORCEMENT

THIS ITEM SHALL INCLUDE FURNISHING AND PLACING AN ASPHALT PAVEMENT REINFORCEMENT GRID AT THE LOCATIONS AS SHOWN ON THE PLANS. THE ASPHALT PAVEMENT REINFORCEMENT GRID SHALL BE "GLASGRID - CG200" AS MANUFACTURED BY SAINT-GOBAIN TECHNICAL FABRICS OR APPROVED EQUAL. THE ASPHALT PAVEMENT REINFORCEMENT GRID SHALL BE INSTALLED AS PER THE RECOMMENDATIONS OF THE MANUFACTURER. THE UNIT PRICE BID PER SQUARE YARD FOR ITEM SPECIAL - ASPHALT PAVEMENT REINFORCEMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND OTHER INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK. AN ESTIMATED 192 C.Y. OF SP 402 ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE BASE COURSE. PG 70-22 (FR) HAS BEEN CARRIED TO GENERAL SUMMARY TO BE PLACED UNDER THE REINFORCEMENT AT THE TESTING LOCATIONS.

ITEM 305 - CONCRETE BASE (T=12")

WHEN THIS ITEM IS TO BE OVERLAID WITH ASPHALT, COMPOUNDS FOR CURING CONCRETE AS DESCRIBED IN 705.07 SHALL NOT BE USED EXCEPT THAT CURING COMPOUNDS SHALL MEET THE REQUIREMENTS OF ASTM C309 AND SHALL BE COMPATIBLE WITH ITEM SPECIAL TRACKLESS TACK COAT. CURING SHALL BE IN ACCORDANCE WITH ALTERNATE METHODS SPECIFIED IN ODOT SPECIFICATION 451.10 AND SUPPLEMENTED WITH SPECIFICATION 305.02. CONTRACTOR MAY USE OTHER WATER BASED CURING COMPOUNDS AS AN ALTERNATIVE METHOD WHICH RESULT IN A SURFACE THAT PREVENTS DE BONDING BETWEEN CONCRETE BASE AND ASPHALT OVERLAY. THE SPECIFICATIONS FOR ALTERNATIVE CURING COMPOUNDS SHALL BE SUBMITTED TO THE CHIEF ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY APPLICATION OR PURCHASE.

ITEM SPECIAL - SAW CUT JOINT

THIS ITEM SHALL CONSIST OF SAW CUTTING WITH A DIAMOND BLADE AT JOINTS WHERE EXISTING ASPHALT AND PROPOSED ASPHALT MEET. THE LOCATION AND DEPTH SHALL BE AS SPECIFIED IN THE PLANS AND/OR AS DIRECTED BY THE CHIEF ENGINEER. PAYMENT FOR THIS ITEM WILL BE AT UNIT BID PRICE PER LINEAR FOOT FOR ITEM SPECIAL - SAW CUT JOINT AND SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THIS ITEM. THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY:

ITEM SPECIAL - SAW CUT JOINT 86,156 FT.

ALL MAINTENANCE OF TRAFFIC NECESSARY TO COMPLETE THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO ITEM SP 614 - MAINTAINING TRAFFIC.

ITEM 209 - DITCH CLEANOUT

THIS ITEM SHALL CONSIST OF FIELD SURVEY, CLEARING, EXCAVATION AND EMBANKMENT AS NECESSARY TO REESTABLISH THE CROSS SECTION OF THE EXISTING DITCHES AS DIRECTED BY THE CHIEF ENGINEER. PAYMENT FOR THIS ITEM WILL BE AT UNIT BID PRICE PER LINEAR FOOT FOR ITEM 209 - DITCH CLEANOUT AND SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THIS ITEM. ALL MAINTENANCE OF TRAFFIC NECESSARY TO COMPLETE THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO ITEM SP 614 - MAINTAINING TRAFFIC.

THE FOLLOWING TABLE SHOWS AREAS EXPECTED TO REQUIRE THIS TREATMENT;

STATION TO STATION	SIDE	LENGTH (FT.)	WIDTH (FT.)	AREA (S.Y.)
454+88 455+88	LT.	100	20	222.2
515+50 516+50	LT.	100	20	222.2
511+10 511+60	LT.	50	20	111.1
570+50 571+50	LT.	100	20	222.2
598+00 599+00	LT.	100	20	222.2
603+00 605+00	LT.	200	20	444.4
608+00 608+75	LT.	75	20	166.7
612+50 615+50	LT.	300	20	666.7
617+50 617+75	LT.	25	20	55.6
622+50 625+50	LT.	300	20	666.7
632+00 634+00	LT.	200	20	444.4
638+00 641+75	LT.	375	20	833.3
643+25 643+75	LT.	50	20	111.1
645+00 649+50	LT.	450	20	1000.0
651+25 651+75	LT.	50	20	111.1
653+50 656+50	LT.	300	20	666.7
659+50 661+50	LT.	200	20	444.4
662+50 663+50	LT.	100	20	222.2
671+50 672+50	LT.	100	20	222.2
677+50 678+50	LT.	100	20	222.2
681+75 682+25	LT.	50	20	111.1
689+75 690+25	LT.	50	20	111.1
693+00 702+50	LT.	950	20	2111.1
715+75 724+00	LT.	825	20	1833.3
729+00 740+00	LT.	1100	20	2444.4
10% CONTINGENCY		625	20	1388.9
TOTAL		6875		15277.8

SEEDING & MULCHING

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

ITEM 659 - SOIL ANALYSIS TEST	6 EACH
ITEM 659 - TOPSOIL	7,717 CU. YD.
ITEM 659 - SEEDING AND MULCHING	69,516 SQ. YD.
ITEM 659 - REPAIR SEEDING AND MULCHING	3,476 SQ. YD.
ITEM 659 - INTER-SEEDING	3,476 SQ. YD.
ITEM 659 - COMMERCIAL FERTILIZER	9.39 TON
ITEM 659 - LIME	14.37 ACRES
ITEM 659 - WATER	375 M. GAL.

ITEM 659 - TOPSOIL IS ONLY APPLICABLE WHEN TOPSOIL IS PHYSICALLY REMOVED FROM THE SLOPES AND MOVED TO A CONSTRUCTED TOP SOIL STOCK PILE SOLELY FOR THE PURPOSE OF TEMPORARY STORAGE PRIOR TO REUSE. SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON AN ASSUMED LIMIT 10' BEYOND THE SHOULDER FOR THE LENGTH OF THE PROJECT, THE TOTAL AREA OF DITCH CLEANOUT AS SHOWN PREVIOUSLY, SLOPE REPAIR AREAS, AND ON THE SLOPES WHERE DRAIN PIPE REPLACEMENT OCCURS. FOR THE PURPOSES OF THE DRAIN PIPE REPLACEMENT AREA CALCULATIONS A WIDTH OF 30' AND A LENGTH OF 37' WAS ASSUMED FOR EACH OF THE 77 PIPE PLACEMENT AREAS.

ITEM SPECIAL - PRESSURE RELIEF JOINT, TYPE A

THIS ITEM OF WORK SHALL CONSIST OF INSTALLING PRESSURE RELIEF JOINT, TYPE A, AT EACH APPROACH TO EACH MAINLINE BRIDGE ACROSS THE NEW PAVEMENT AND OUTSIDE SHOULDER IN ACCORDANCE WITH THE DETAIL SHOWN ON OHIO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING BP-2.3 (07-16-04).

PRESSURE RELIEF JOINT LOCATIONS WILL BE FIELD LOCATED BY THE CHIEF ENGINEER. APPROXIMATE LOCATIONS FOR WESTBOUND LANES ARE SHOWN IN THE FOLLOWING TABLE;

ITEM SPECIAL - PRESSURE RELIEF JOINT, TYPE A		
STATION	SIDE	FT.
439+98.00	LT	78
441+62.00	LT	79
447+67.00	LT	64
449+26.00	LT	65
468+72.00	LT	85
471+39.00	LT	85
535+39.00	LT	61
537+33.00	LT	61
547+60.00	LT	36
557+53.00	LT	36
649+92.00	LT	63
651+56.00	LT	63
713+39.00	LT	75
715+42.00	LT	75
TOTAL		927


THE FOLLOWING QUANTITIES ARE PROVIDED IN THE GENERAL SUMMARY:  
 ITEM SPECIAL - PRESSURE RELIEF JOINT, TYPE A 927 FT.  
 ITEM SP605 - 6" UNCLASSIFIED PIPE UNDERDRAIN, WITH FABRIC WRAP 941 FT.  
 ITEM 603 - 6" CONDUIT, TYPE F, 707.41 NON-PERFORATED ASTM D3034 (SDR 35) 707.42 OR 707.33 117 FT.

ITEM 642 - PERMANENT PAVEMENT MARKINGS

PERMANENT PAVEMENT MARKING LOCATIONS SHALL BE DETERMINED BY REFERENCING THE BASE PAVEMENT JOINTS, AS SHOWN ON OTC STANDARD DRAWING RPM-1.

ITEM SP626 - RAISED PAVEMENT MARKER

THIS ITEM SHALL BE INSTALLED IN ACCORDANCE WITH SP626 WITH THE FOLLOWING CHANGES IN SPACING: 120' FOR ALL TANGENT SECTIONS AND 80' FOR ALL CURVES.

ADDENDUM NO. 1		CH	1/28/13
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
OHIO TURNPIKE WESTBOUND RIGHT TWO LANES & SHOULDER RECONSTRUCTION GENERAL NOTES			
 <b>GPD GROUP</b> <small>Grant, Pfeil, Schomer, Burns &amp; Dalrymple, Inc.</small> 520 South Main Street, Suite 2531, Akron, Ohio 44311 Fax 330-572-2101 Copyright © Grant, Pfeil, Schomer, Burns & Dalrymple, Inc. 2012			
DESIGNED: CLH	CHECKED: MVJ	DATE: 12/21/12	
DRAWN: CLH	IN CHARGE: MRG	SCALE: N/A	
CONTRACT 39-13-01		SHEET 9 OF 253	

ITEM 206 - CHEMICALLY STABILIZED SUBGRADE, AS PER PLAN

THIS WORK SHALL COMPLY WITH ALL REQUIREMENTS SPECIFIED IN ITEM 206 - CHEMICALLY STABILIZED SUBGRADE OF ODOT 2010 CMS EXCEPT AS NOTED BELOW:

ITEM 206.02 MATERIALS: CURING COAT SUBMITTAL NOT REQUIRED

ITEM 206.03 SUBMITTALS: MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS IS NOT REQUIRED BY THE CONTRACTOR.

ITEM 206.05 CONSTRUCTION:

A. SPREADING - USE AN APPLICATION RATE OF 4% LIME-KILN DUST AND 6% PORTLAND CEMENT BY DRY UNIT WEIGHT. THE APPLICATION RATE WILL VARY DEPENDING ON THE IN-SITU DRY UNIT WEIGHT OF THE SOIL. QUANTITY OF PORTLAND CEMENT IS BASED ON A IN-SITU DRY UNIT WEIGHT OF 110 LBS/FT<sup>3</sup>. THE CONTRACTOR SHALL APPLY 4% LIME-KILN DUST AND ALLOW THE SOIL-LIME-KILN DUST MIXTURE TO MELLOW FOR AT LEAST 24 HOURS BEFORE APPLYING 6% PORTLAND CEMENT

D. CURING - THE TREATED AREA SHALL BE SHAPED TO THE REQUIRED LINES, GRADES AND CROSS SECTIONS AND FINAL COMPACTION, BY WAY OF SMOOTH DRUM ROLLER WEIGHING AT LEAST 10 TONS, SHALL CONTINUE UNTIL UNIFORM AND ADEQUATE COMPACTION IS OBTAINED. THE CONTRACTOR SHALL MAINTAIN THE SURFACE OF THE LIME-KILN DUST-MODIFIED/PORTLAND CEMENT-STABILIZED SOIL SUBGRADE IN A MOIST CONDITION DURING THE CURING PERIOD. DURING THE CURING PERIOD, NO TRAFFIC SHALL BE PERMITTED ON THE COMPLETED WORK BEYOND THAT REQUIRED FOR MAINTAINING MOIST CONDITIONS. THE LENGTH OF THE CURING PERIOD WILL DEPEND ON THE ACCEPTANCE OF THE CEMENT STABILIZED SOIL SUBGRADE. THE ACCEPTANCE OF THE LIME-KILN DUST-MODIFIED/PORTLAND CEMENT-STABILIZED SOIL SUBGRADE WILL BE EVALUATED AFTER 72 HOURS OF CURING. z OIL SUBGRADE, ADDITIONAL CURING MAY BE REQUIRED. SUFFICIENT PROTECTION FROM FREEZING SHALL BE GIVEN TO THE CHEMICALLY STABILIZED MATERIAL FOR 7 DAYS AFTER ITS CONSTRUCTION OR AS APPROVED BY THE CHIEF ENGINEER.

E. PROOF ROLLING - ACCEPTANCE TESTING OF THE LIME-KILN DUST-MODIFIED/PORTLAND CEMENT-STABILIZED SOIL SUBGRADE WILL BE PERFORMED AFTER 72 HOURS OF CURING. AN AUTOMATIC DYNAMIC CONE PENETROMETER (ADCP) WILL BE USED AS THE INITIAL ACCEPTANCE TEST FOR THE CEMENT STABILIZED SOIL SUBGRADE. THE ADCP WILL MEASURE THE PENETRATION RATE (PR) IN MM/BLOW FOR THE LIME-KILN DUST-MODIFIED/PORTLAND CEMENT-STABILIZED SOIL SUBGRADE THROUGH THE TREATMENT DEPTH. THE MAXIMUM PENETRATION RATE THROUGHOUT THE LIME-KILN DUST-MODIFIED/PORTLAND CEMENT-STABILIZED SOIL SUBGRADE MUST AVERAGE 11.0 MM/BLOW TESTS WILL BE PERFORMED EVERY 200 LINEAR FEET OF ROADWAY. IF THE AVERAGE PR OF THE LIME-KILN DUST-MODIFIED/PORTLAND CEMENT-STABILIZED SOIL SUBGRADE IS BELOW 11.0 MM/BLOW, THEN THE CONTRACTOR CAN PROCEED WITH CONSTRUCTION OF THE PAVEMENT STRUCTURE. IF THE AVERAGE PR OF THE LIME-KILN DUST-MODIFIED/PORTLAND CEMENT-STABILIZED SOIL SUBGRADE IS ABOVE 11.0 MM/BLOW, THEN THE LIME-KILN DUST-MODIFIED/PORTLAND CEMENT-STABILIZED SOIL SUBGRADE MUST CONTINUE TO CURE FOR TWO ADDITIONAL DAYS AND THEN BE PROOF ROLLED IN ACCORDANCE WITH ODOT ITEM 204.

F. PROTECTION - ALL THE PROVISIONS OF 206.05 PARAGRAPH F APPLY AS WELL AS THE FOLLOWING: FINISHED PORTIONS OF THE STABILIZED SUBGRADE THAT ARE TRAVELED ON BY EQUIPMENT USED IN CONSTRUCTING ANY OTHER SECTION SHALL BE PROTECTED IN SUCH A MANNER AS TO PREVENT EQUIPMENT FROM MARRING OR DAMAGING ANY COMPLETED AND ACCEPTED WORK. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY DAMAGE TO THE STABILIZED SUBGRADE THAT ARISES DUE TO HIS OPERATIONS.

G. THE SOILS REPORT FOR THE DESIGN OF THE CHEMICALLY STABILIZED SUBGRADE MAY BE VIEWED AT THE OHIO TURNPIKE COMMISSION OFFICES LOCATED AT 682 PROSPECT STREET, BEREA, OHIO 44017, TELEPHONE (440) 234-2081.

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK UNDER ITEM 206 - CHEMICALLY STABILIZED SUBGRADE, AS PER PLAN:

ITEM 206 - LIME-KILN DUST MODIFIED SOIL SUBGRADE, 16 INCHES DEEP, AS PER PLAN	115,106 SQ. YD.
ITEM 206 - CEMENT STABILIZED SUBGRADE, 16 INCHES DEEP, AS PER PLAN	115,106 SQ. YD.
ITEM 206 - LIME-KILN DUST	3039 TONS
ITEM 206 - CEMENT	4558 TONS
ITEM 206 - WATER FOR CURING	1770 GAL.
ITEM 206 - TEST ROLLING	39 HOURS

ITEM 604 - CATCH BASIN ADJUSTMENTS, GRATES AND CASTINGS, AS PER PLAN

THE FOLLOWING CONTINGENCY ITEMS HAVE BEEN INCLUDED IN THE ESTIMATED QUANTITIES FOR USE IN ADJUSTING, REPAIRING, AND/OR REBUILDING SHOULDER CATCH BASINS. FOR CATCH BASINS ADJUSTED TO GRADE THE CONTRACTOR SHALL REBUILD FROM THE TOP OF PRECAST STRUCTURE TO THE BOTTOM OF THE CASTING AT THE EXISTING GRADE. THE USE OF BRICK TO REBUILD THE CATCH BASIN SHALL BE PROHIBITED. THE CONTRACTOR SHALL SAWCUT PAVEMENT AROUND THE EXISTING CATCH BASIN, A MINIMUM OF 12" AROUND THE CASTING AND REMOVE THE CASTING AND SAWCUT ASPHALT CONCRETE. THE CONTRACTOR SHALL FORM AND POUR, USING CLASS "C" CONCRETE, TO REBUILD THE CATCH BASIN TO SECURE CONCRETE TO THE EXISTING PRECAST STRUCTURE, THE CONTRACTOR SHALL INSTALL #4 DOWEL BARS, SPACED 12" O/C (3 PER SIDE UNLESS DIRECTED OTHERWISE BY THE CHIEF ENGINEER) IN ACCORDANCE WITH ITEMS 509 AND 510. THE DOWEL BARS SHALL BE IMBEDDED AT LEAST 6" INTO THE EXISTING PRECAST STRUCTURE AND SECURED WITH NON-SHRINK NON-METALLIC GROUT THAT CONFORMS TO SP 952. THE CONTRACTOR SHALL USE FORMS SIZED TO CONFORM TO THE INTERIOR OF THE CATCH BASIN, AND THAT WILL INSURE A SMOOTH INTERIOR FINISH. ALL OTHER CONCRETE SURFACES SHALL HAVE A BROOMED FINISH. AFTER THE CASTING IS SET TO THE FINAL GRADE, THE AREA AROUND THE ADJUSTED CATCH BASIN CASTING SHALL BE BACK FILLED WITH CLASS "C" CONCRETE TO THE EXISTING SURFACE. FOR CATCH BASINS ADJUSTED TO GRADE WITH DISTANCES FROM THE TOP OF THE PRECAST STRUCTURE TO THE BOTTOM OF THE CASTING THAT ARE GREATER THAN 12", THE SAME METHOD SHALL BE USED TO REBUILDING THE CATCH BASINS TO GRADE. FOR CATCH BASINS ADJUSTED TO GRADE WITH DISTANCES FROM THE TOP OF THE PRECAST STRUCTURE TO THE BOTTOM OF THE CASTING THAT ARE LESS THAN 4", THE SAME METHOD SHALL BE USED TO REBUILDING THE CATCH BASINS TO GRADE, EXCEPT THAT NO FORMS OR DOWELS ARE REQUIRED.

A CONTINGENCY QUANTITY OF CATCH BASIN GRATE AND CASTING, AS PER PLAN, HAS BEEN INCLUDED FOR USE AS DIRECTED BY THE CHIEF ENGINEER. THE REPLACEMENT GRATE AND CASTING SUPPLIED SHALL BE HEAVY DUTY.

ALL CONCRETE, DOWELS, DOWEL HOLES, GROUT, SAW CUTTING, LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE MENTIONED WORK SHALL BE INCLUDED IN THE BID PRICE PER ITEM:

ITEM 604 - CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN	5 EACH
ITEM 604 - CATCH BASIN ADJUSTED TO GRADE, GREATER THAN 12", AS PER PLAN	5 EACH
ITEM 604 - CATCH BASIN GRATE AND CASTING, AS PER PLAN	5 EACH

ITEM 604 - CATCH BASIN ADJUSTMENTS, GRATES AND CASTINGS, AS PER PLAN - (CONTINUED)

OTC STANDARD DRAWINGS CB-1, CB-2, CB-3, CB-4, AND CB-5 ARE PROVIDED FOR INFORMATION AS TO THE TYPES OF BASINS THAT MAY NEED ADJUSTMENT.

ITEM SP 407 - TACK COAT, AS PER PLAN AND

ITEM SP 407 - TACK COAT FOR INTERMEDIATE COURSE, AS PER PLAN

DESCRIPTION: THIS WORK CONSISTS OF PREPARING AND TREATING A PAVED SURFACE WITH NTSS-IHM TRACKLESS TACK PRODUCED BY BLACKLIDGE EMULSIONS, INC. MEET ALL REQUIREMENTS OF CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 407 TACK COAT EXCEPT AS NOTED BELOW.

MATERIAL: CONFORM TO THE FOLLOWING TYPICAL PHYSICAL PROPERTIES:

PARAMETER	TEST METHOD	MIN.	MAX.
SAYBOLT FUROL VISCOSITY, SFS @ 25C	AASHTO T59	15	100
STORAGE STABILITY, 24 HRS, %	AASHTO T59	--	1
STORAGE STABILITY, 5 DAYS, %	AASHTO T59	--	5
RESIDUE BY DISTILLATION, %	AASHTO T5950	--	
OIL DISTILLATE, %	AASHTO T59	--	1
SIEVE TEST, %	AASHTO T59	--	0.30
TEST ON RESIDUE:			
PENETRATION, @ 25C	AASHTO T49	--	20
SOFTENING POINT RANGE DEG C	AASHTO T53	65	--
SOLUBILITY, %	AASHTO T44	97.5	--
ORIGINAL BINDER DSR@82C			
G*/SIN ,,10 RAD/SEC	AASHTO T315	1.00	--

NOTE: PRODUCT SHOULD NOT CONTAIN FILLER SUCH AS CLAY, ETC. KEEP FROM FREEZING. SUPPLY CERTIFIED TEST DATA FROM AN INDEPENDENT LAB TO THE ENGINEER SHOWING THE MATERIAL SUPPLIED WAS TESTED FOR AND MEETS THE ABOVE PROPERTIES.

EQUIPMENT: ALL REQUIREMENTS OF 407.03 APPLY. SEE MANUFACTURER'S REPRESENTATIVE FOR CORRECT DISTRIBUTOR SETTINGS. THOROUGHLY CLEAN ALL EQUIPMENT IF CATIONIC EMULSION WAS PREVIOUSLY USED.

WEATHER LIMITATIONS: ALL REQUIREMENTS OF 407.04 APPLY.

PREPARATION OF SURFACE: ALL REQUIREMENTS OF 407.05 APPLY.

APPLICATION OF ASPHALT MATERIAL: UNIFORMLY APPLY THE ASPHALT MATERIAL WITH A DISTRIBUTOR PER THE REQUIREMENTS OF 407.06 EXCEPT AS NOTED. IF PRODUCT IS STORED FOR AN EXTENDED PERIOD OF TIME, PRIOR TO APPLICATION, AGITATE OR GENTLY CIRCULATE THE MATERIAL. ALL NOZZLES AND SPRAY PATTERNS SHALL BE IDENTICAL TO ONE ANOTHER ALONG THE DISTRIBUTOR SPRAY BAR. THE ANGLE OF THE NOZZLE SHOULD BE A 15 TO 30 DEGREE ANGLE TO THE SPRAY BAR AXIS TO MAXIMIZE OVERLAP OR AS RECOMMENDED BY THE NOZZLE MANUFACTURER. CONTACT THE MANUFACTURER'S REPRESENTATIVE FOR REQUIRED SPRAY NOZZLE SIZE, AND DISTRIBUTOR AND NOZZLE SETTINGS. APPLY AT A RATE OF 0.075 GALLONS PER SQUARE YARD TO ALL MILLED SURFACES AND AT A RATE OF 0.06 GALLONS PER SQUARE YARD TO ALL SMOOTH PAVED SURFACES AND BETWEEN COURSES OF ASPHALT. RECOMMENDED APPLICATION TEMPERATURE IS 160F TO 180F. DO NOT EXCEED 180F. DILUTION IS NOT ALLOWED.

THE ENGINEER AND MANUFACTURER'S REPRESENTATIVE WILL APPROVE RATE OF APPLICATION, TEMPERATURE, DISTRIBUTOR SETTINGS, AND AREAS TO BE TREATED BEFORE APPLICATION OF THE TACK COAT. THE ENGINEER WILL DETERMINE THE ACTUAL APPLICATION IN GALLONS PER SQUARE YARD BY A CHECK ON THE PROJECT. THE APPLICATION IS CONSIDERED SATISFACTORY WHEN THE MATERIAL IS APPLIED UNIFORMLY WITH NO VISIBLE EVIDENCE OF STREAKING OR RIDGING AND THE APPLICATION RATE IS ±10% OF THE SPECIFIED RATE.

METHOD OF MEASUREMENT: ALL REQUIREMENTS OF 407.07 APPLY.

BASIS OF PAYMENT: ALL REQUIREMENTS OF 407.08 APPLY.

ASPHALT SURFACE COURSE PAVING WITH MATERIAL TRANSFER DEVICE

IN ADDITION TO THE REQUIREMENTS OF SP 400, A MATERIAL TRANSFER DEVICE (MTD) SHALL BE USED FOR ALL SURFACE COURSE MAINLINE AND RAMP PAVING. THE MTD SHALL BE SELF PROPELLED AND NOT ATTACHED TO THE ASPHALT SPREADING AND FINISHING EQUIPMENT. THE MTD SHALL BE CAPABLE OF REMIXING AND TRANSFERRING THE ASPHALT MIXTURE FROM THE MTD TO THE ASPHALT SPREADING AND FINISHING EQUIPMENT. ALL COSTS ASSOCIATED WITH THE USE OF THIS EQUIPMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT SP 404 ITEMS.

ITEM SP 606E - ANCHOR ASSEMBLY, TYPE E (ET-2000PLUS), AS PER PLAN

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19. THIS REFLECTIVE SHEETING WILL BE SUPPLIED BY THE OHIO TURNPIKE COMMISSION AND INSTALLED BY THE CONTRACTOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM SP 606E, ANCHOR ASSEMBLY, TYPE E (ET-2000PLUS), AS PER PLAN, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.



LIME-KILN DUST MODIFICATION / CEMENT STABILIZATION AT CULVERTS AND APPROACH SLAB AREAS

BRIDGE APPROACH SLABS

EXCAVATE 16 INCHES OF THE EXPOSED SOIL SUBGRADE FROM THE EDGE OF THE BRIDGE FACE TO 20 FEET BEYOND THE BRIDGE FACE AND SPREAD THE EXCAVATED SOIL IN THE AREA TO BE CHEMICALLY STABILIZED. PERFORM CHEMICAL STABILIZATION ON THE EXCAVATED SOIL USING THE SAME REQUIREMENTS AS THE ADJACENT SUBGRADE. AFTER CHEMICALLY STABILIZING THE EXCAVATED SOIL, PLACE THE EXCAVATED SOIL BACK IN THE EXCAVATION FROM THE BRIDGE FACE TO 20 FEET BEYOND THE BRIDGE FACE AND COMPACT ACCORDING TO THE PROJECT SPECIFICATIONS.

BOX CULVERTS WHERE DEPTH OF COVER IS GREATER THAN 4 FEET:

CHEMICALLY STABILIZE ACCORDING TO ITEM 206 - CHEMICALLY STABILIZED SUBGRADE, AS PER PLAN.

BOX CULVERTS WHERE DEPTH OF COVER IS BETWEEN 2-4 FEET:

EXCAVATE 12 INCHES OF THE EXPOSED SOIL SUBGRADE FROM 20 FEET BEYOND BOTH ENDS OF THE BOX CULVERT AND THE SPREAD THE EXCAVATED SOIL IN THE AREA TO BE CHEMICALLY STABILIZED. PERFORM CHEMICAL STABILIZATION ON THE EXCAVATED SOIL USING THE SAME REQUIREMENTS AS THE ADJACENT SUBGRADE. AFTER CHEMICALLY STABILIZING THE EXCAVATED SOIL, PLACE THE EXCAVATED SOIL BACK IN THE EXCAVATION FROM 20 FEET BEYOND BOTH ENDS OF THE BOX CULVERT AND COMPACT ACCORDING TO THE PROJECT SPECIFICATIONS.

BOX CULVERTS WHERE DEPTH OF COVER IS LESS THAN 2 FEET:

EXCAVATE 16 INCHES OF THE EXPOSED SOIL SUBGRADE FROM THE EDGE OF THE BOX CULVERT TO 20 FEET BEYOND THE END OF THE BOX CULVERT AND SPREAD THE EXCAVATED SOIL IN AN AREA TO BE CHEMICALLY STABILIZED. PERFORM CHEMICAL STABILIZATION ON THE EXCAVATED SOIL USING SAME REQUIREMENTS AS THE ADJACENT SUBGRADE. AFTER CHEMICALLY STABILIZING THE EXCAVATED SOIL, PLACE THE EXCAVATED SOIL BACK IN THE EXCAVATION FROM THE EDGE OF THE BOX CULVERT TO 20 FEET BEYOND THE BOX CULVERT AND COMPACT ACCORDING TO PROJECT SPECIFICATIONS.

COMPACT THE EXISTING SUBGRADE MATERIAL OVER THE BOX CULVERT USING A NON-VIBRATORY ROLLER AND TEST FOR PERCENT COMPACTION ACCORDING TO THE PROJECT SPECIFICATIONS. DO NOT PROOF ROLL. IF THE COMPACTED SOIL DOES NOT MEET THE SPECIFICATION REQUIREMENTS FOR DENSITY, THE ENGINEER WILL DELINEATE THE AREA TO BE UNDERCUT AND BACKFILL WITH ITEM SP304 MATERIAL.

FOR ALL SCENARIOS LISTED ABOVE IN AREAS INACCESSIBLE TO THE SPECIFIED COMPACTION EQUIPMENT, THE CONTRACTOR SHALL ENSURE THAT THE SPECIFIED COMPACTION IS OBTAINED USING OTHER SUITABLE EQUIPMENT.

PAYMENT FOR EXCAVATION AND EMBANKMENT REQUIRED TO COMPLETE THE STABILIZATION IN THE AREAS SHALL BE INCLUDED IN AND INCIDENTAL TO ITEM 206 - LIME-KILN DUST MODIFIED / CEMENT STABILIZED SUBGRADE, 16 INCHES DEEP, AS PER PLAN.

ADDENDUM NO. 1		CH	1/28/13
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
OHIO TURNPIKE WESTBOUND RIGHT TWO LANES & SHOULDER RECONSTRUCTION GENERAL NOTES			
<b>GPD GROUP</b>			
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DESIGNED: CLH	CHECKED: MVJ	DATE: 01/10/13	
DRAWN: CLH	IN CHARGE: MRG	SCALE: N/A	
CONTRACT 39-13-01		SHEET 10 OF 253	

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PAVEMENT CALCULATIONS - WESTBOUND AREAS OF WORK


STATION TO STATION	SIDE	LENGTH	PAVEMENT WIDTH	SHOULDER WIDTH	SURFACE AREA	APPROACH SLAB AREA	PLANIMETERED AREA	202	203	204	252	254	SP304			305	SP402		SP404			SP404A	SP407		SPECIAL	SP302		SP605	SPECIAL	SPECIAL	
								PAVEMENT REMOVED	EXCAVATION (T=6"+/- MAINLINE PAYMENT, T=12.5"+/- SHOULDER, T=12"+/- APPROACH SLABS)	SUBGRADE COMPACTION	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE (T=5"+/-)	PAVEMENT PLANING, ASPHALT CONCRETE (T=2"+/-)	9" AGGREGATE BASE (SHOULDER)	7" AGGREGATE BASE	12" AGGREGATE BASE	CONCRETE BASE (T=12")	1-3/4" ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE BASE COURSE, PG64-22	1-3/4" ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE BASE COURSE, PG70-22 (FR)	1-1/2" ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED STONE, PG64-22	1-1/2" ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG70-22 (FR)	2" ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG70-22 (FR)	JOINT SEALER	TACK COAT FOR INTERMEDIATE COURSE, AS PER PLAN (0.06 GAL./S.Y.)	TACK COAT, AS PER PLAN (0.075 GAL./S.Y.)	ROLLER COMPACTED CONCRETE (SHOULDER T=9")	12" BITUMINOUS AGGREGATE BASE, PG 64-22 (ALTERNATE BID)	8" BITUMINOUS AGGREGATE BASE, PG 64-22 (SHOULDER) (ALTERNATE BID)	AGGREGATE DRAIN, AS PER PLAN	ASPHALT PAVEMENT REINFORCEMENT	SONIC NAP ALERT PATTERN (SNAP)
RIGHT TWO LANES AND OUTSIDE SHOULDER																															
430+00.00	439+94.63	LT.	994.63	26.00	25860			2652	479		995	138			2873		43	146		125		995	172	216		958		18	276		
430+00.00	439+94.63	LT.	994.63		7957			1105	307					235	559								53	66	902		201			0.19	
440+00.09	440+19.38	LT.	19.29			752			28	84						28															
441+40.39	441+59.94	LT.	19.55			762			28	85																					
441+65.29	447+65.44	LT.	600.15	26.00	15604			1600	289		600	83			337		1734		88		76		600	104	130		578		11	167	
441+65.29	447+65.44	LT.	600.15		4801			667	185					142					26		22		32	40	545		121			0.11	
447+70.02	447+85.74	LT.	15.72			613			23	69																					
449+07.93	449+23.93	LT.	16.00			624			23	70																					
449+28.07	451+68.46	LT.	240.39	26.00	6250			641	116		240	33			135		694		35		30		240	42	52		231		4	67	
449+28.07	451+68.46	LT.	240.39		1923			267	74					57					10		9			13	16	218		48		0.05	
451+72.30	468+69.42	LT.	1697.12	26.00	44125			4526	817		1697	236			953		4903		250		214		1697	294	368		1634		31	471	
451+72.30	468+69.42	LT.	1697.12		13577			1886	524					401					73		63			91	113	1540		342		0.32	
468+75.22	468+96.14	LT.	20.92			816			30	91																					
471+15.35	471+36.34	LT.	20.99			819			30	92																					
471+42.07	500+12.17	LT.	2870.10	26.00	74623			7654	1382		2870	399			1612		8291		422		362		2870	497	622		2764		53	797	
471+42.07	500+12.17	LT.	2870.10		22961			3189	886					678					124		106			153	191	2604		579		0.54	
500+12.17	510+03.04	LT.	990.87	39.00	38644			2642	716		991	138			835		4294		215		185		991	258	322		1431		18	275	
500+12.17	510+03.04	LT.	990.87		7927			1101	306					234					43		37			53	66	899		200		0.19	
510+03.04	526+44.23	LT.	1641.19	26.00	42671			4377	790		1641	228			922		4741		242		207		1641	284	356		1580		30	456	
510+03.04	526+44.23	LT.	1641.19		13130			1824	507					388					71		61			88	109	1489		331		0.31	
526+44.23	533+53.44	LT.	709.21	38.50	27305			1891	506		709	99			590		3034		152		131		709	182	228		1011		13	197	
526+44.23	533+53.44	LT.	709.21		5674			788	219					167					31		26			38	47	643		143		0.13	
533+53.44	535+37.11	LT.	183.67	26.00	4775			490	88		184	26			103		531		27		23		184	32	40		177		3	51	
533+53.44	535+37.11	LT.	183.67		1469			204	57					43					8		7			10	12	167		37		0.03	
535+41.18	535+56.46	LT.	15.28			726			27	81																					
537+15.91	537+31.19	LT.	15.28			726			27	81																					
537+35.27	547+58.23	LT.	1022.96	26.00	26597			2728	493		1023	142			575		2955		151		129		1023	177	222		985		19	284	
537+35.27	547+58.23	LT.	1022.96		8184			1137	316					242					44		38			55	68	928		206		0.19	
557+55.43	583+55.29	LT.	2599.86	26.00	67596			6933	1252		2600	361			1460		7511		383		328		2600	451	563		2504		48	722	
557+55.43	583+55.29	LT.	2599.86		20799			2889	802					614					112		96			139	173	2359		524		0.49	
585+24.00	595+73.79	LT.	1049.79	26.00	27295			2799	505		1050	146			590		3033		155		132		1050	182	227		1011		19	292	
585+24.00	595+73.79	LT.	1049.79		8398			1166	324					248					45		39			56	70	953		212		0.20	
595+73.79	597+93.70	LT.	219.91	34.00	7477			586	138		220	31			162		831		42		36		220	50	62		277		4	61	
595+73.79	597+93.70	LT.	219.91	5.00	1100							122									7										
597+93.70	649+90.38	LT.	5196.68	26.00	135114			13858	2502		5197	722			2919		15013		765		656		5197	901	1126		5004		96	1444	
597+93.70	649+90.38	LT.	5196.68		41573			5774	1604					1227					225		192			277	346	4715		1048		0.98	
649+94.57	650+10.28	LT.	15.71			613			23	69																					
651+38.42	651+54.13	LT.	15.71			613			23	69																					
651+58.32	713+36.52	LT.	6178.20	26.00	160633			16475	2975		6178	858			3470		17848		909		779		6178	1071	1339		5949		114	1716	
651+58.32	713+36.52	LT.	6178.20		49426			6865	1907					1459					267		229			330	412	5606		1246		1.17	
713+41.50	713+60.16	LT.	18.66			728			27	82																					
715+18.59	715+37.25	LT.	18.66			728			27	82																					
715+42.22	740+00.00	LT.	2457.78	26.00	63902			6554	1183		2458	341			1381		7100		362		310		2458	426	533		2367		46	683	
715+42.22	740+00.00	LT.	2457.78		19662			2731	759					580					106		91			131	164	2230				0.47	
THIRD LANE AND INSIDE SHOULDER AT APPROACH SLABS																															
439+79.08	440+17.97	LT.			406			45	8		12				9		45		2		2			3	3		15				
439+79.08	440+17.97	LT.			265			29	10		14			7					1		1			2	2	29		7			
441+65.29	442+06.14	LT.			265			29	5		12				6		29		1		1			2	2		10		12		
441+65.29	442+06.14	LT.			474			53	18		14			13					3		2			3	4	53		9			
447+37.83	447+65.44	LT.			231			26	4																						

PAVEMENT CALCULATIONS - ADDITIONAL WESTBOUND AREAS OF WORK

STATION TO STATION	SIDE	LENGTH	PAVEMENT WIDTH	SHOULDER WIDTH	SURFACE AREA	APPROACH SLAB AREA	PLANIMETERED AREA	202	203	204	252	254		SP304		305	SP402		SP404		SP404A	SP407		SPECIAL	SP302		SP605	SPECIAL	SPECIAL						
								PAVEMENT REMOVED	EXCAVATION PAYMENT (T=6"/- MAINLINE SHOULDER, T=12.5"/- APPROACH SLABS)	SUBGRADE COMPACTION	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE (T=5"/-)	PAVEMENT PLANING, ASPHALT CONCRETE (T=2"/-)	9" AGGREGATE BASE (SHOULDER)	7" AGGREGATE BASE	12" AGGREGATE BASE	CONCRETE BASE (T=12")	1-3/4" ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE BASE COURSE, PG64-22	1-3/4" ASPHALT CONCRETE BASE COURSE OR RECYCLED ASPHALT CONCRETE BASE COURSE, PG64-22	1-1/2" ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG70-22 (FR)	1-1/2" ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG70-22 (FR)	2" ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG70-22 (FR)	JOINT SEALER	TACK COAT FOR INTERMEDIATE COURSE, AS PER PLAN (0.06 GAL./S.Y.)	TACK COAT, AS PER PLAN (0.075 GAL./S.Y.)	ROLLER COMPACTED CONCRETE (SHOULDER T=9")	12" BITUMINOUS AGGREGATE BASE, PG 64-22 (ALTERNATE BID)	8" BITUMINOUS AGGREGATE BASE, PG 64-22 (SHOULDER) (ALTERNATE BID)	AGGREGATE DRAIN, AS PER PLAN	ASPHALT PAVEMENT REINFORCEMENT	SONIC NAP ALERT PATTERN (SNAP)				
THIRD LANE AND INSIDE SHOULDER AT APPROACH SLABS (CONTINUED)								SQ. YD.	CU. YD.	SQ. YD.	FT.	SQ. YD.	SQ. YD.	CU. YD.	CU. YD.	CU. YD.	SQ. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	FT.	GAL.	GAL.	SQ. YD.	CU. YD.	CU. YD.	CU. YD.	SQ. YD.	MILE				
468+24.73	468+69.42	LT.			275			31	5		12				14	6	31		3	1				2	2		10								
468+24.73	468+69.42	LT.			512			57	20		14								3		1			3	4	57		13							
471+14.38	471+57.34	LT.			444			49	8		12					10		49		2			3	4		16									
471+14.38	471+57.34	LT.			343			38	13		14								2		2			2	3	38		8							
535+20.45	535+42.51	LT.			251			28	5		12					5		28		1			2	2		9									
535+20.45	535+42.51	LT.			262			29	10		14								1		1			2	2	29		6							
537+35.61	537+57.67	LT.			218			24	4		12									1			1	2		8									
537+35.61	537+57.67	LT.			295			33	11		14								2		1			2	2	33		7							
649+64.64	649+90.38	LT.			226			25	4		12									1			2	2		8									
649+64.64	649+90.38	LT.			327			36	13		14								2		2			2	3	36		8							
651+49.58	651+74.78	LT.			280			31	5		12								2		2			2	2		10								
651+49.58	651+74.78	LT.			274			30	11		14								1		2			2	2	30		7							
713+20.82	713+57.25	LT.			384			43	7		12								2		2			3	3		14								
713+20.82	713+57.25	LT.			317			35	12		14								2		2			2	3	35		8							
715+42.22	715+79.95	LT.			257			29	5		12								2		1			2	2		10								
715+42.22	715+79.95	LT.			444			49	17		14								2					3	4	49		11							
OUTSIDE SHOULDER ADDITIONS AND REDUCTIONS																																			
437+83.24	440+68.74	LT.	285.50		0.83	237													1					2	2		26		6						
441+91.33	447+61.88	LT.	570.55		0.83	474													3					3	4	53		12							
448+85.13	451+68.46	LT.	283.33		0.83	235													1					2	2	26		6							
451+72.30	468+36.48	LT.	1664.18		0.83	1381													7					9	12	153		34							
470+54.10	488+54.66	LT.	1800.56		0.83	1494													8					10	12	166		37							
488+54.66	489+14.66	LT.	60.00		-0.50	-30													0					0	0	-3		-1							
489+14.66	493+75.06	LT.	460.40		0.83	382													2					3	3	42		9							
516+96.25	517+54.25	LT.	58.00		-0.50	-29													0					0	0	-3		-1							
517+54.25	522+02.15	LT.	447.90		0.83	372													2					2	3	41		9							
527+31.49	535+66.99	LT.	835.50		0.83	693													4					5	6	77		17							
537+29.67	548+00.66	LT.	1070.99		0.83	889													5					6	7	99		22							
557+60.78	578+36.41	LT.	2075.63		0.83	1723													9					11	14	191		43							
578+36.41	579+04.41	LT.	68.00		-0.50	-34													0					0	0	-4		-1							
579+04.41	581+14.81	LT.	210.40		0.83	175													1					1	1	19		4							
591+24.06	591+82.06	LT.	58.00		-0.50	-29													0					0	0	-3		-1							
591+82.06	595+54.96	LT.	372.90		0.83	310													2					2	3	34		8							
608+04.41	612+29.41	LT.	425.00		0.83	353													2					2	3	39		9							
617+35.49	618+00.49	LT.	65.00		0.83	54													0					0	0	6		1							
618+00.49	618+58.49	LT.	58.00		-0.50	-29													0					0	0	-3		-1							
618+58.49	623+06.39	LT.	447.90		0.83	372													2					2	3	41		9							
629+60.86	629+96.36	LT.	35.50		0.83	29													0					0	0	3		1							
629+96.36	630+64.36	LT.	68.00		-0.50	-34													3					0	0	-4		-1							
630+64.36	632+74.76	LT.	210.40		0.83	175													5					1	1	19		4							
644+16.84	644+74.84	LT.	58.00		-0.50	-29													0					0	0	-3		-1							
644+74.84	649+92.51	LT.	517.67		0.83	430													2					3	4	48		11							
651+17.59	669+02.99	LT.	1785.40		0.83	1482													8					10	12	165		37							
677+32.91	680+68.16	LT.	335.25		0.83	278													2					2	2	31		7							
680+68.16	681+26.16	LT.	58.00		-0.50	-29													0					0	0	-3		-1							
681+26.16	685+86.56	LT.	460.40		0.83	382													2					3	3	42		9							
694+19.49	714+04.99	LT.	1985.50		0.83	1648													9					11	14	183		41							
715+63.18	727+98.58	LT.	1235.40		0.83	1025													6					7	9	114		25							
738+97.90	740+00.00	LT.	102.10		0.83	85													2					1	1	9		2							
SUBTOTALS FROM THIS SHEET								568	150	0	210	0	0	505	50	0	260	93	13	80	11	0	0	130	163	1912	87	425	0	0	0.00				
SUBTOTALS FROM SHEET 116								108282	23396	954	28758	3980	122	6751	16629	318	85518	1236	4351	1059	3729	7	28653	6657	8330	25949	28506	5766	531	7959	5.38				
TOTALS CARRIED TO GENERAL SUMMARY								108850	23546	954	28968	3980	122	7256	16997		85778	1329	4363	1139	3747		28653	6787	8493	27861	28593	6191	531	7959	5.38				

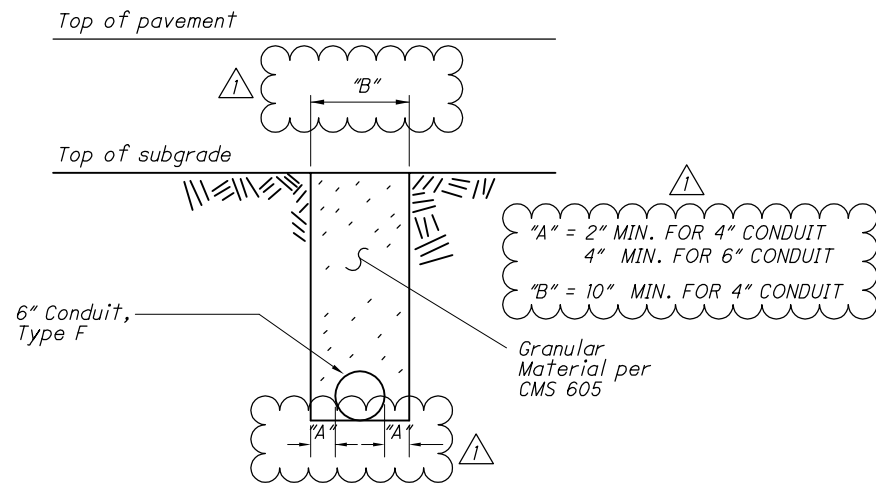
PAVEMENT CALCULATIONS - EASTBOUND "MILL AND FILL" AREAS

STATION TO STATION	SIDE	LENGTH	PAVEMENT WIDTH	SURFACE AREA	254		SP404	SP404A	SP407
					PAVEMENT PLANING, ASPHALT CONCRETE (T=2")	2" ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG70-22 (FR)	JOINT SEALER	TACK COAT FOR INTERMEDIATE COURSE, AS PER PLAN (0.06 GAL./S.Y.)	
					SQ. YD.	CU. YD.	FT.	GAL.	
471+36.34	535+41.18	RT	6404.84	24.00	153716	17080	949	6405	1025
537+31.19	547+62.49	RT	1031.30	24.00	24750	24751	153	1031	165
557+51.17	583+55.29	RT	2604.12	24.00	62499	6944	386	2604	417
585+24.00	649+94.57	RT	6470.57	24.00	155294	17255	959	6471	1035
651+54.13	713+41.50	RT	6187.37	24.00	148497	16500	917	6187	990
715+37.25	740+00.00	RT	2462.75	24.00	59106	6567	365	2463	394
TOTALS CARRIED TO GENERAL SUMMARY					67096	3728	25161	4026	

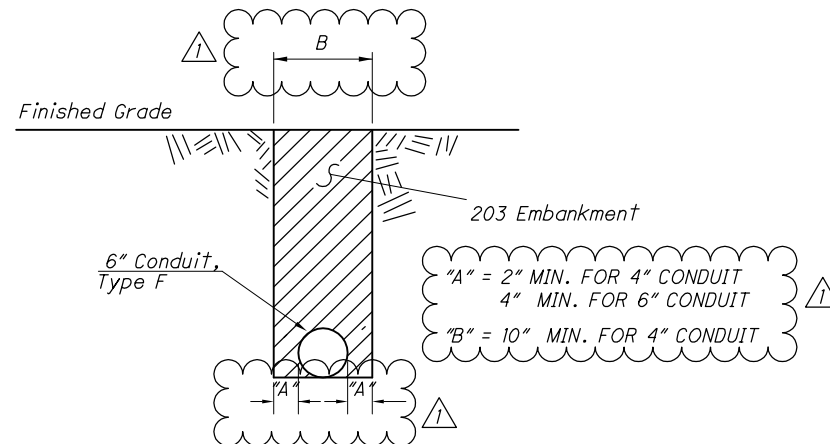
ADDENDUM NO. 1	CH	1/28/13
NO. REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>		
OHIO TURNPIKE WESTBOUND RIGHT TWO LANES & SHOULDER RECONSTRUCTION PAVEMENT CALCULATIONS		
		
<small>GPD GROUP 520 South Main Street, Suite 2531, Akron, Ohio 44311 Fax 330-572-2100</small>		
DESIGNED: CLH	CHECKED: PJF	DATE: 12/21/12
DRAWN: PJF	IN CHARGE: MRG	SCALE: N/A
CONTRACT 39-13-01 SHEET 117 OF 253		

Drawing File: C:\2012\2012161\roadway\sheet\201216165092.dwg Layout: Model  
 Date: 12/21/12 10:31:51 am User: 15702833  
 Technician: chuff

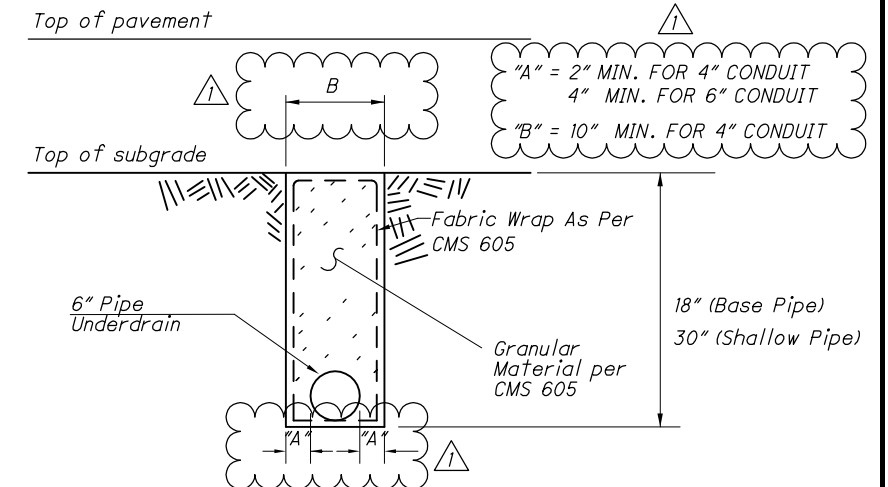




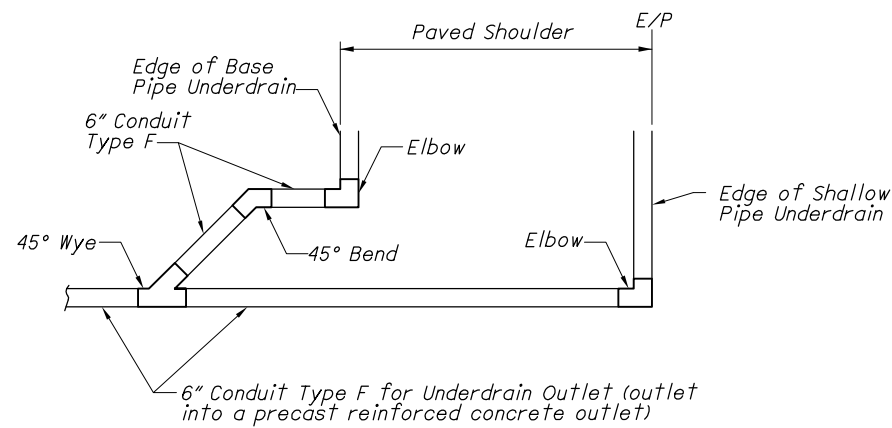
Item 603  
6" Conduit, Type F  
Under Pavement or Base



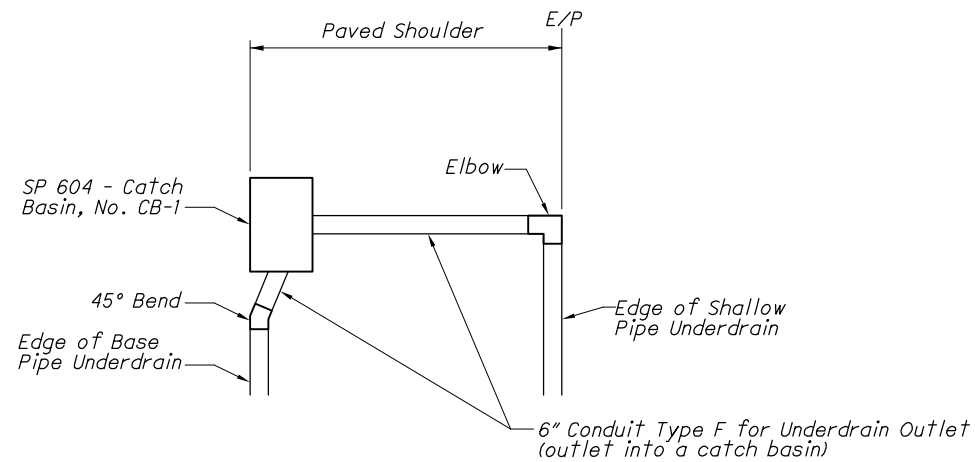
Item 603  
6" Conduit, Type F  
Outside Pavement or Base



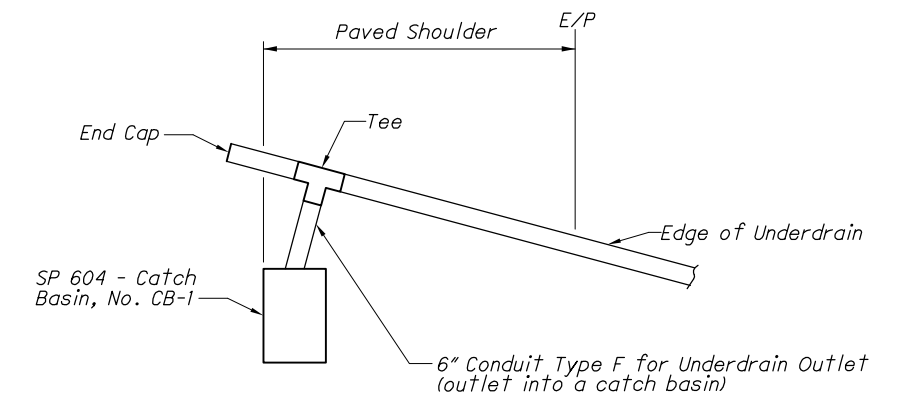
Item SP 605  
6" Pipe Underdrain  
With Filter Fabric Wrap



RIGID OR FLEXIBLE PAVEMENT  
END OF RUN  
PLAN



RIGID OR FLEXIBLE PAVEMENT  
END OF RUN - CONNECTION TO CATCH BASIN  
PLAN



RIGID OR FLEXIBLE PAVEMENT  
PRESSURE RELIEF JOINT UNDERDRAINS -  
CONNECTION TO CATCH BASIN  
PLAN

NOTES

**DESCRIPTION:** This item shall consist of furnishing and installing a pipe underdrain system in accordance with the specifications and the details on the plans or as directed by the Chief Engineer.

**MATERIALS:** The underdrain shall be a pipe underdrain system or a pre-fabricated edge underdrain system meeting the requirements of CMS 605.

**BASIS OF PAYMENT FOR PIPE UNDERDRAIN SYSTEM:** and measured under this item shall be paid for at the contract unit price bid for Item SP605 - 6" Shallow Pipe Underdrain With Fabric Wrap. The price shall be full compensation for excavation and backfill; for furnishing materials, including materials for outlet fittings; and for all labor, tools, equipment and incidentals necessary to complete the work.

ADDENDUM NO. 1		CH	1/28/13
NO.	REVISIONS	BY	DATE
OHIO TURNPIKE COMMISSION			
OHIO TURNPIKE WESTBOUND RIGHT TWO LANES & SHOULDER RECONSTRUCTION UNDERDRAIN DETAILS			
 <small>Glass, Pyle, Schomer, Burns &amp; Dalrymple, Inc.</small> 330-572-2100 <small>520 South Main Street, Suite 2531, Akron, Ohio 44311 Fax 330-572-2101</small> <small>Copyright © Glass, Pyle, Schomer, Burns &amp; Dalrymple, Inc. 2012</small>			
DESIGNED: PJF	CHECKED: CLH	DATE: 12/21/12	
DRAWN: PJF	IN CHARGE: MRG	SCALE: NTS	
CONTRACT 39-13-01		SHEET 170 OF 253	

# TRAFFIC CONTROL NOTES

**ITEM 621 – RAISED PAVEMENT MARKER REMOVED**

RAISED PAVEMENT MARKERS SHALL BE REMOVED FROM THE OHIO TURNPIKE ON THE WESTBOUND LANES WITHIN THE LIMITS OF THE MAINTENANCE OF TRAFFIC ZONE AS WELL AS FROM THE LANE LINE BETWEEN THE SECOND AND THIRD LANES IN THE EASTBOUND DIRECTION AS DIRECTED BY THE CHIEF ENGINEER. IN THE EASTBOUND DIRECTION THE CONTRACTOR SHALL ONLY REMOVE THE EXISTING REFLECTORS. THE EXISTING EASTBOUND REFLECTOR CASTINGS SHALL REMAIN IN PLACE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE TRAFFIC CONTROL GENERAL SUMMARY TO BE USED THROUGHOUT THE PROJECT AS DIRECTED BY THE ENGINEER.

ITEM 621 – RAISED PAVEMENT MARKER REMOVED 1650 EACH

**ITEM 630 – SIGNING, MISC.: SIGN ERECTED, FLAT SHEET**

THIS ITEM SHALL BE AS OUTLINED IN 630 EXCEPT THAT ALL SIGNS AND SUPPORTS TO BE INSTALLED SHALL BE PROVIDED BY THE OHIO TURNPIKE COMMISSION, THE CONTRACTOR SHALL CONTACT THE CHIEF ENGINEER TO ARRANGE FOR PICKUP OF THE SIGN AND POST MATERIALS FOR THE PROJECT. ALL SIGNS SHALL BE INSPECTED BY OHIO TURNPIKE COMMISSION STAFF IN THE PRESENCE OF THE CONTRACTOR PRIOR TO LOADING OF PROVIDED MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFE TRANSPORTATION OF THE MATERIALS PROVIDED TO THE JOB SITE. UPON ARRIVAL AT THE JOB SITE, THE TRANSPORTED SIGNING MATERIALS SHALL BE INSPECTED BY OHIO TURNPIKE COMMISSION PERSONNEL TO ENSURE THAT NO DAMAGE OCCURRED DURING TRANSPORT. COSTS ASSOCIATED WITH THE PICK-UP OF THE SIGNS AND SUPPORTS, THE TRANSPORTATION TO THE PROJECT SITE AND ANY STORAGE COSTS UNTIL ERECTION SHALL BE CONSIDERED INCIDENTAL TO THE ITEM NECESSITATING THE WORK. THIS ITEM SHALL INCLUDE ALL LABOR AND MATERIAL COSTS NECESSARY TO INSTALL THE SIGNS AS SHOWN IN THE PLANS.

ALL COSTS ASSOCIATED WITH THIS ITEM SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 630 – SIGNING, MISC.: SIGN ERECTED, FLAT SHEET, EACH.

**ITEM 630 – SIGNING MISC.: SIGN ERECTED, OVERHEAD EXTRUSHEET**

THIS ITEM SHALL BE AS OUTLINED IN ITEM 630 EXCEPT THAT ALL OVERHEAD EXTRUSHEET SIGNS TO BE REPLACED AS A PART OF THE PROJECT WILL BE PROVIDED BY THE OHIO TURNPIKE COMMISSION. THE CONTRACTOR SHALL CONTACT THE CHIEF ENGINEER TO ARRANGE FOR A PICK-UP OF THE OVERHEAD SIGNS. ALL OVERHEAD SIGNS PROVIDED SHALL BE INSPECTED BY OHIO TURNPIKE COMMISSION STAFF IN THE PRESENCE OF THE CONTRACTOR PRIOR TO LOADING OF THE PROVIDED MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFE TRANSPORTATION OF THE MATERIALS PROVIDED TO THE JOB SITE. UPON ARRIVAL AT THE JOB SITE, THE TRANSPORTED SIGNING MATERIALS SHALL BE INSPECTED BY OHIO TURNPIKE COMMISSION PERSONNEL TO ENSURE THAT NO DAMAGE OCCURRED DURING TRANSPORT. COSTS ASSOCIATED WITH THE PICK-UP OF THE SIGNS AND SUPPORTS, THE TRANSPORTATION TO THE PROJECT SITE AND ANY STORAGE COSTS UNTIL ERECTION SHALL BE CONSIDERED INCIDENTAL TO THE ITEM NECESSITATING THE WORK.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXISTING CLEARANCE BETWEEN BETWEEN THE LANES OF THE OHIO TURNPIKE AND THE EXISTING OVERHEAD SIGN SUPPORTS. ALL NEW SIGNS SHALL BE INSTALLED SUCH THAT A MINIMUM VERTICAL CLEARANCE OF 17' IS PROVIDED ONCE THE SIGN IS INSTALLED.

THIS ITEM SHALL INCLUDE ALL LABOR AND MATERIAL COSTS NECESSARY TO INSTALL THE OVERHEAD SIGNS AS SHOWN IN THE PLANS, AND SHALL INCLUDE BUT NOT BE LIMITED TO ALL LABOR, TEMPORARY TRAFFIC CONTROL, SIGN BACKING ASSEMBLIES, AND HARDWARE NECESSARY TO INSTALL THE SIGNS TO THE EXISTING SIGN TRUSSES AND CANTILEVERS.

ALL COSTS ASSOCIATED WITH THIS ITEM SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 630 – SIGNING, MISC.: SIGN ERECTED, OVERHEAD EXTRUSHEET, EACH.

**SP 802 – BARRIER REFLECTORS**

FOLLOWING COMPLETION OF THE PROJECT, NEW BARRIER REFLECTORS SHALL BE INSTALLED ON THE EXISTING MEDIAN WALL FROM THE BEGINNING OF PROJECT AT MILE POST (MP) 90.0 (STA. 430+00) TO THE END OF THE PROJECT AT MILE POST (MP) 95.9 (STA. 740+00). BARRIER REFLECTOR SPACING SHALL CONFORM TO SP 802. MATERIAL SPECIFICATIONS SHALL CONFORM TO SP 802.

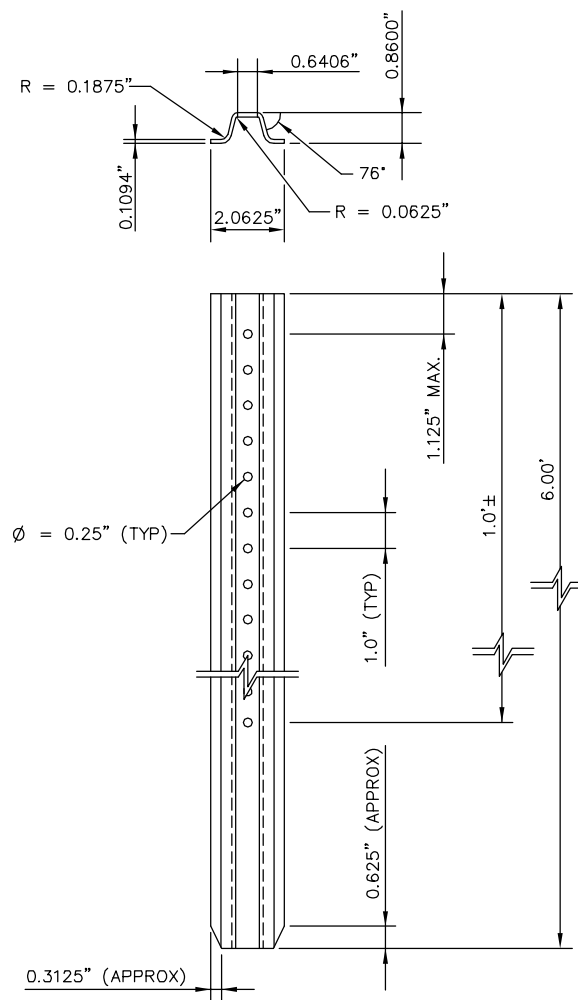
THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE TRAFFIC CONTROL GENERAL SUMMARY FOR USE AS DIRECTED BY THE CHIEF ENGINEER:

SP 802 – BARRIER REFLECTOR, TYPE B 650 EACH

**ITEM 620 – DELINEATOR, POST MOUNTED, AS PER PLAN**

THIS ITEM SHALL BE IN ACCORDANCE WITH ITEM 620 WITH THE FOLLOWING CHANGES:

THE POST FOR THIS ITEM SHALL BE STEEL DRIVE POST. THE POST SHALL BE 6 FEET IN LENGTH WITH A TAPERED BOTTOM EDGE. THE BACKSIDE OF THE POST MAY HAVE LONGITUDINAL RIBS OR MAY BE FLAT AND SHALL HAVE A SMOOTH UNIFORM FINISH. THE NOMINAL WEIGHT OF THE POST SHALL BE 1.12 LBS. PER FOOT. THE POLES SHALL HAVE 12 HOLES, PUNCHES OR DRILLED AT A DIAMETER OF 1/4 INCH, LOCATED 1 INCH ON CENTER STARTING 1-1/8 INCH FROM THE TOP OF THE POST AND ENDING A DISTANCE OF APPROXIMATELY 1 FOOT BELOW TOP OF THE POST. THE STEEL POSTS SHALL BE GALVANIZED, AFTER THE HOLES HAVE BEEN INSTALLED, IN ACCORDANCE WITH ASTM A123. FOR ADDITIONAL INFORMATION REGARDING THE POST, SEE DRIVE POST DETAIL BELOW.



STEEL DRIVE POST DETAIL FOR FLEXIBLE DELINEATORS


N.T.S.

Drawing File: C:\2012\2012161\Traffic\Sheets\2012161\TNO01.dwg Layout: TNO01 Date: Jan 28, 2013 Time: 8:45 am Plot: -152029833

ADDENDUM NO. 1		AKF	1/28/13
NO.	REVISIONS	BY	DATE
OHIO TURNPIKE COMMISSION			
TRAFFIC CONTROL NOTES			
 GPD GROUP 520 South Main Street, Suite 2531, Akron, Ohio 44311 Copyright: Gius, Pyle, Schomer, Burns & DeHaven, Inc.			
DESIGNED: ADG	CHECKED: LOB	DATE: 1/4/2013	
DRAWN: ADG	IN CHARGE: MAH	SCALE: N.T.S.	
CONTRACT 39-13-01 SHEET 171 OF 253			

SHEET NUMBER														ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
171	173	174	175	176	177	178	179	179A	180	181	182	182A	183						
	4	17	25	11	19	23	18							620	00501	117	EACH	DELINEATOR, POST MOUNTED, AS PER PLAN	171
	4	17	25	11	19	23	18							620	31200	117	EACH	REMOVAL OF DELINEATOR	
1,650														621	54000	1,650	EACH	RAISED PAVEMENT MARKER REMOVED	
	164	94	82	76	86	104	132	108						SP626		846	EACH	REPLACEMENT PRISMATIC RETRO REFLECTOR (WHITE)	
	24	94	148	76	86	104	92							SP626		624	EACH	RAISED PAVEMENT MARKER STIMSONITE MODEL 101LPCR	
									58	48				630	03100	106	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
									31	27				630	04100	58	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
										1				630	08200	1	EACH	GROUND MOUNTED SUPPORT, PIPE	
										2				630	08600	2	EACH	SIGN POST REFLECTOR	
										1				630	09050	1	EACH	TRIANGULAR SLIP BASE CONNECTION	
									67	88				630	80100	155	SQ FT	SIGN, FLAT SHEET	
									8	7	10	3		630	84900	28	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
									6	10	10	3		630	86002	29	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
									10	6	4			630	87400	20	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
									1					630	87500	1	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
									8	7	18	6		630	97700	39	EACH	SIGNING, MISC.: SIGN ERECTED, FLAT SHEET	171
									10	6	4			630	97700	20	EACH	SIGNING, MISC.: SIGN ERECTED, OVERHEAD EXTRUSHEET	171
													8	631	94200	8	EACH	REMOVAL OF LUMINAIRE AND DISPOSAL	
													2	631	94304	2	EACH	REMOVAL OF DISCONNECT SWITCH AND DISPOSAL	
													8	631	94404	8	EACH	REMOVAL OF BALLAST AND DISPOSAL	
													4	631	94406	4	EACH	REMOVAL OF SIGNS WIRED	
													4	631	94408	4	EACH	REMOVAL OF SIGN WIRING AND DISPOSAL	
													4	631	94412	4	EACH	REMOVAL OF SIGN SERVICE AND DISPOSAL	
	3.29	3.78	3.77	2.85	3.66	4.73	4.73	2.01						642	00104	28.82	MILE	EDGE LINE, 6", TYPE 1	
	3.29	3.78	3.79	2.85	3.66	4.73	4.73	2.01						642	00204	28.84	MILE	LANE LINE, 6", TYPE 1	
			1,028											642	00404	1,028	FT	CHANNELIZING LINE, 12", TYPE 1	
			290											642	01510	290	FT	DOTTED LINE, 6", TYPE 1	
650														SP802		650	EACH	BARRIER REFLECTOR, TYPE B	

Drawing File: C:\2012\2012161\Traffic\Sheets\2012161\T0001.dwg Layout: T0001  
 Date: Jan 28, 2013 Time: 8:52 am Plot: -152029633

ADDENDUM NO. 1		AKF 1/28/13	
NO.	REVISIONS	BY	DATE
<b>OHIO TURNPIKE COMMISSION</b>			
TRAFFIC CONTROL GENERAL SUMMARY			
 <b>GPD GROUP</b> <small>Gbus, Pyle, Schomer, Burns &amp; DeHaven, Inc. 330-572-2100</small> <small>520 South Main Street, Suite 2531, Akron, Ohio 44311 Fax 330-572-2101</small> <small>Copyright: Gbus, Pyle, Schomer, Burns &amp; DeHaven, Inc. 2013</small>			
DESIGNED: SLB	CHECKED: LOB	DATE: 1/4/2013	
DRAWN: SLB	IN CHARGE: MAH	SCALE: NTS	
CONTRACT 39-13-01 SHEET 172 OF 253			