

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

PID NO.
21438
FEDERAL PROJECT NO.
NON-FEDERAL
CONSTRUCTION PROJECT NO.

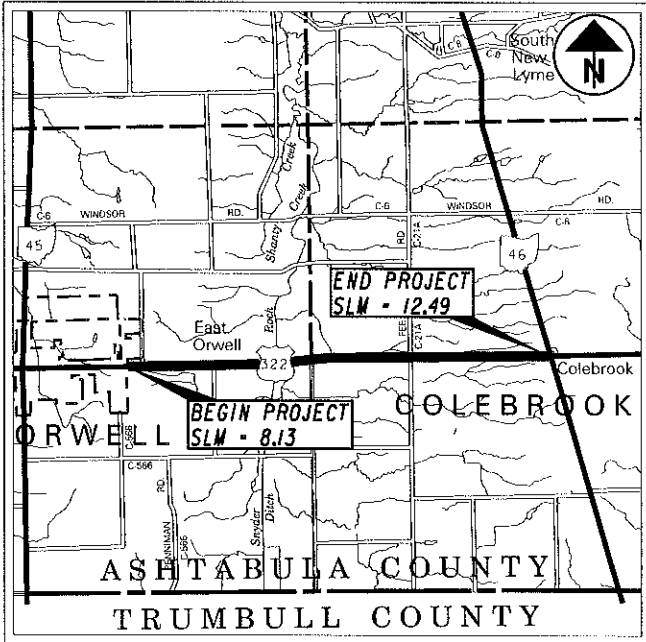
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ATB - USR 322 - 8.13

020085 PID - 21438

Dist 4 2/21/2002

LOCATION MAP



1997 SPECIFICATIONS

THE STANDARD 1997 SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND THE PROPOSAL SHALL GOVERN THESE IMPROVEMENTS.

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

APPROVED: *[Signature]*
DATE 11-30-01 DISTRICT DEPUTY DIRECTOR

APPROVED: *[Signature]*
DATE 12-11-01 DIRECTOR, DEPARTMENT OF TRANSPORTATION

PROJECT DESCRIPTION:

THIS IMPROVEMENT SHALL CONSIST OF MILLING, PAVEMENT REPAIR, REPLACING THE SURFACE COURSE, MINOR GUARDRAIL REPLACEMENT/UPGRADE AND MINOR STRUCTURE WORK.

ENGINEERS SEAL:

SIGNED: *[Signature]*
DATE: 11/30/01

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UNDERGROUND UTILITIES

TWO WORKING DAYS
BEFORE YOU DIG

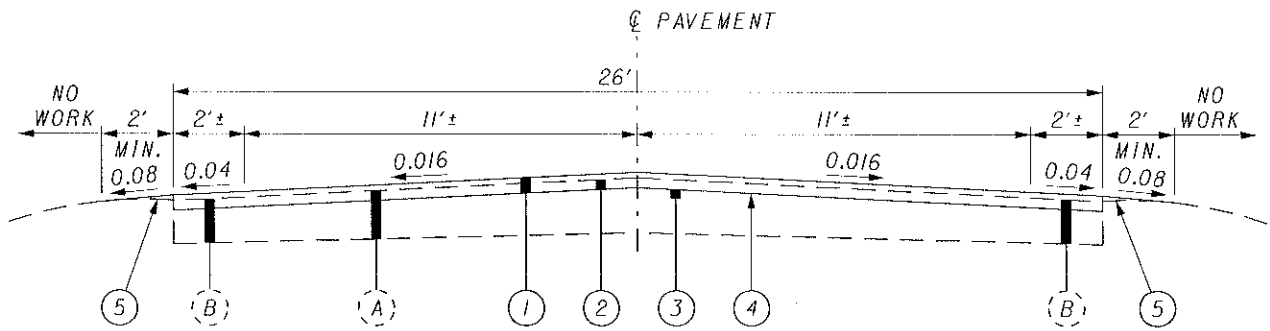
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

PLAN PREPARED BY:



STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS			
BP-3.1	7-28-00	TC-41.20	1-19-01	806	9-9-97	954	9-9-97
BP-4.1	7-28-00	TC-42.20	4-20-01	814	6-2-98		
		TC-52.10	4-20-01	815	2-22-00		
GR-1.1M	10-21-97	TC-52.20	4-20-01	841	10-12-99		
GR-1.2M	1-3-96	TC-65.10	10-19-01	842	1-6-99		
GR-1.3M	11-30-94	TC-65.11	10-19-01	863	10-12-99		
GR-2.1M	4-14-98	TC-65.12	10-19-01	864	7-11-00		
GR-4.1M	11-30-94	TC-71.10M	9-1-93	870	3-27-01		
GR-5.3M	11-30-94	TC-73.10	1-19-01	877	4-13-99		
		MT-35.10	4-20-01	899	10-21-98		
RM-4.2M	10-21-97	MT-97.10M	4-25-94	905	4-1-98		
		MT-97.11M	1-30-95	906	5-5-98		
		MT-99.20M	1-30-95	907	10-21-98		
		MT-105.10M	4-25-94	908	11-7-00		
		MT-105.11M	4-25-94	910	7-11-00		

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US 322 SLM 8.13 TO SLM 9.67 = 1.54 MILES
 US 322 SLM 9.67 TO SLM 9.69 (STRUCTURE)
 US 322 SLM 9.69 TO SLM 12.4 = 2.80 MILES
 4.34 MILES

TYPICAL SECTION

LEGEND

- ① 448 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
- ② 254 1" PAVEMENT PLANING, BITUMINOUS
- ③ 251 3" PARTIAL DEPTH PAVEMENT REPAIR
- ④ 407 TACK COAT
- ⑤ 617 2" COMPACTED AGGREGATE, TYPE A, AS PER PLAN

- (A) EXISTING ASPHALT PAVEMENT
- (B) EXISTING ASPHALT SHOULDER

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CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM 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 PROJECT.

WORK LIMITS

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

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

PROFILE AND ALIGNMENT

THE PROPOSED PAVEMENT RESURFACING SHALL FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. THE PROPOSED ASPHALT CONCRETE OVERLAY SHALL BE AS SHOWN ON THE TYPICAL SECTIONS.

ITEM 407 - TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. FOR ESTIMATING PURPOSES ONLY, THE PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF:

- 407, TACK COAT 0.075 GAL. PER SQ. YARD
- 407, TACK COAT 0.15 GAL. PER SQ. YARD (FOR PLANED SURFACES)

GRADING AND FILLING OPERATIONS

THE PLACEMENT OF COMPACTED AGGREGATE SHALL NOT EXTEND PAST THE EXISTING GRADED SHOULDERS. NO EXCAVATION, GRADING, OR FILLING OPERATIONS SHALL BE PERFORMED IN ANY WETLANDS OR STREAMS, UNLESS THE REQUIRED STATE AND/OR FEDERAL PERMITS HAVE BEEN OBTAINED IN ACCORDANCE WITH ALL APPLICABLE STATE AND/OR FEDERAL LAWS AND REGULATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS IN ANY WETLANDS OR STREAMS.

ITEM 617 - COMPACTED AGGREGATE, TYPE A, AS PER PLAN

UPON COMPLETION OF THE PAVING OPERATION, OR NO LONGER THAN 48 HOURS IN AREAS OF LOW BERM EXCEEDING 2" FROM PLAN TYPICAL, THE CONTRACTOR SHALL PLACE ITEM 617 COMPACTED AGGREGATE ADJACENT TO THE PAVED BERM. MATERIAL SHALL BE 90% LIMESTONE WITH NO SHALE EXCEEDING 5%. CRUSHED LIMESTONE SHALL MEET THE GRADATION AND OTHER MATERIAL REQUIREMENTS OF CMS 411.02. METHOD OF MEASUREMENT SHALL BE AS PER 411.04. PLACEMENT AND COMPACTION SHALL MEET REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 617 COMPACTED AGGREGATE, TYPE A, AS PER PLAN.

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GENERAL NOTES

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UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.06 AND 107.17 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS:

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (UOPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)

OGPUPS 1-800-925-0988

ODOT 330-297-0801 KEN GREENE EXT. 305

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

A T & T
229 West 7th Street, 10th floor
Cincinnati, Ohio 45202
(513) 784-3238
Jeff Ballinger

Annarock Petroleum, LLC
2202 Niles-Cortland Road
Cortland, Ohio 44410
(330) 638-5983
Rocco Maiorca

The Illuminating Company
730 South Avenue
Youngstown, Ohio 44502
(330) 740-7635
Bill Speece

Great Lakes Energy Partners, LLC
PO Box 550
Hartville, Ohio 44632-0550
(330) 877-6747
Sue Barclay

*Orwell Board of Public Affairs
water and sewer
PO Box 354
Orwell, Ohio 44076-0354
(440) 437-8398
Greg Hogue

Northwood Energy Corporation
941 Chatham Lane, suite 100
Columbus, Ohio 43221-2416
(614) 457-1024
Bruce Dean

*Orwell Cable TV & Telephone
PO Box 337
Orwell, Ohio 44076-0337
(440) 437-6111
Walt Stackhouse

Power Gas Marketing & Transmission
13010 State Route 88
Garrettsville, Ohio 44231
(330) 527-2171
Matt Stanton

*Orwell Natural Gas
PO Box 190
Orwell, Ohio 44076-0190
1 800 832-6164
Ann Yeager

*Denotes Limited Basis Member - must be contacted directly

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GENERAL NOTES

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ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4" BY 4" SQUARE OR 4 1/2" DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2" I.D., AND CONFORM TO AASHTO M 181.

HARDWARE (PLATES, SCREWS, BOLTS, ETC.) SHALL BE COMMERCIAL GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.12. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

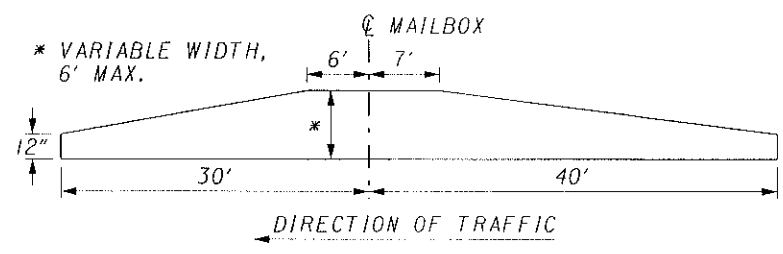
MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT, SINGLE.

PAVED MAILBOX APPROACHES

ALL EXISTING MAIL BOX APPROACHES SHALL BE PAVED WITH ITEM 448 ASPHALT CONCRETE AS PER TYPICAL SHOWN OR AS NEAR AS PRACTICAL. AGGREGATE APPROACHES SHALL HAVE A 2 IN. MIN. THICKNESS; IMPROVED APPROACHES SHALL HAVE A 1 IN. MIN. THICKNESS. THE CONTRACTOR SHALL HAVE THE OPTION OF PAVING THE MAILBOX APPROACHES WITH EITHER THE PAVING OF THE DRIVEWAYS OR THE PAVING OF THE MAINLINE AND SHOULDERS. PAYMENT SHALL BE AS FOLLOWS:

1. SHOULD THE CONTRACTOR ELECT TO PAVE THE MAILBOX APPROACHES WITH THE DRIVEWAYS THEN ALL GRADING, TACK, TOOLS, EQUIPMENT, MATERIAL AND INCIDENTALS REQUIRED FOR THE CONTRACTOR TO LAYOUT AND CONSTRUCT THE MAILBOX APPROACHES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS).

2. SHOULD THE CONTRACTOR ELECT TO PAVE THE MAILBOX APPROACHES WITH THE MAINLINE AND SHOULDERS, THEN ALL GRADING, TACK, TOOLS, EQUIPMENT, MATERIAL AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE MAILBOX APPROACHES SHALL BE INCLUDED IN THE UNIT BID FOR ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22, AS PER PLAN.



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GENERAL NOTES

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ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

1) THE ET-2000 (1997) MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS265	ET-2000 (1997) PLAN, ELEVATION AND SECTIONS	6/20/97	3/6/98
SSI42	ET2000 PLUS 50'-0" PLAN, ELEVATION AND SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SSI41	ET2000 PLUS PLAN, ELEVATION AND SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SSI58	ET2000 PLUS 50'-0" WITH 12'-6" PANELS AND HBA POSTS 1-4 PLAN, ELEVATION AND SECTION	5/22/00	7/31/00

2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 (TELEPHONE: 815-464-5917).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DATE	DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" X 18".

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

INTERSECTIONS

INTERSECTIONS SHALL BE RESURFACED A MINIMUM OF 25 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE. A BUTT JOINT, AS PER STANDARD CONSTRUCTION DRAWING BP-3.I, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. INTERSECTIONS SHALL BE RESURFACED WITH STANDARD MIX, AS SHOWN ON THE ASPHALT CONCRETE SHEET. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF ITEM 448.

NO WORK, OTHER THAN A BUTT JOINT AS PER BP-3.I AT THE EDGE LINE, SHALL BE REQUIRED FOR THE FOLLOWING INTERSECTIONS:

- SUNRISE AVENUE (SLM 8.14)
- STALEY ROAD (SLM 8.31)
- MIST AVENUE (SLM 8.61)

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GENERAL NOTES

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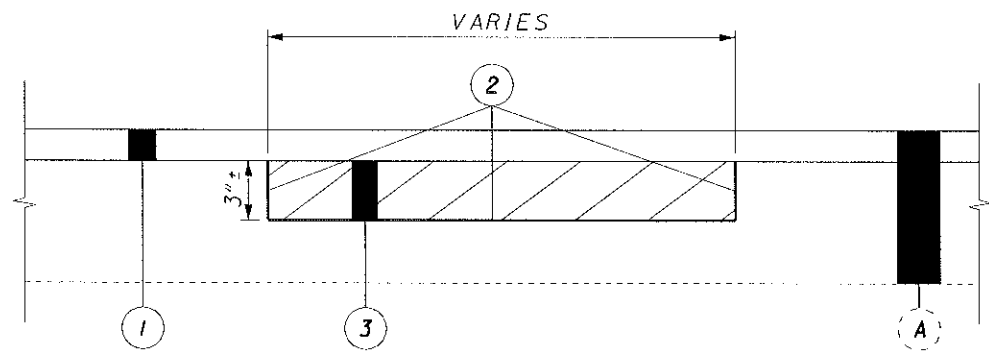
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ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING 3.00"± OF ITEM 448 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE 1 PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.II.

PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF CUBIC YARDS OF PAVEMENT REPAIR.

ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR 280 CU.YD.

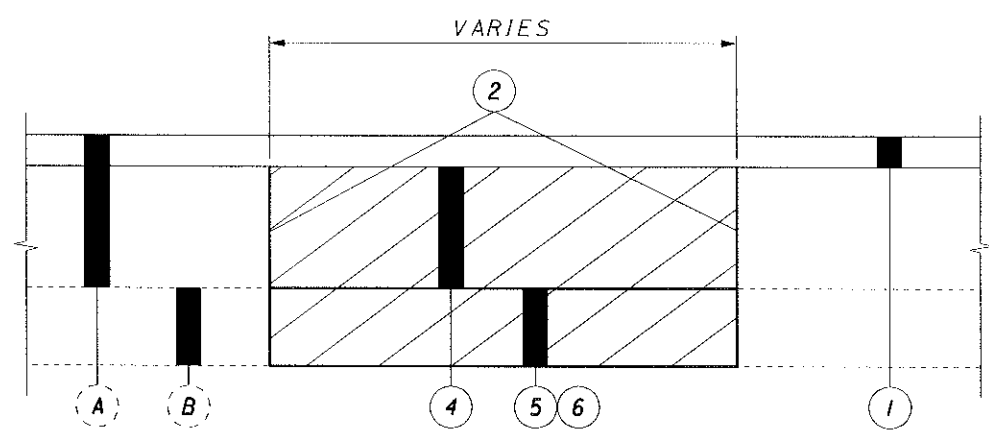


ITEM 253 PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 12"± 301 BITUMINOUS AGGREGATE BASE. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6.00 INCHES.

PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF CUBIC YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 253 PAVEMENT REPAIR 1100 CU. YDS.



LEGEND

- (1) 448 PROPOSED OVERLAY
- (2) 407 TACK COAT
- (3) 251 3"± PARTIAL DEPTH PAVEMENT REPAIR
- (4) 253 12"± PAVEMENT REPAIR
- (5) 203 6" AVG. EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
- (6) 304 6" AVG. AGGREGATE BASE
- (A) EXISTING ASPHALT PAVEMENT
- (B) EXISTING SUBBASE

GENERAL NOTES

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ITEM 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF ALL UNSUITABLE MATERIAL BY EXCAVATING THE EXISTING SUBGRADE AND SUBBASE TO AN AVERAGE DEPTH OF 6" OR AS DIRECTED BY THE ENGINEER. EXACT LIMITS OF REMOVAL SHALL BE DETERMINED BY THE ENGINEER. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION 550 CU. YDS.

ITEM 304 AGGREGATE BASE

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION.

ITEM 304 AGGREGATE BASE 550 CU. YDS.

ITEM 605 AGGREGATE DRAINS

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED, IN CONJUNCTION WITH ITEM 203, AND AS DIRECTED BY THE ENGINEER, AT AREAS WHERE UNSUITABLE SUBGRADE HAS BEEN EXCAVATED AND REPLACED WITH ITEM 304 AGGREGATE BASE.

ITEM 605 AGGREGATE DRAINS 2000 LIN. FT.

ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)

THIS ITEM OF WORK SHALL CONSIST OF PAVING ALL EXISTING DRIVEWAYS A DISTANCE OF 10 FT. FROM THE EDGE OF PAVED SHOULDER UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DRIVEWAYS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE. ASPHALT CONCRETE AVERAGE THICKNESSES SHALL BE 2 IN. FOR AGGREGATE DRIVEWAYS (UNIMPROVED) AND 1 IN. FOR IMPROVED DRIVEWAYS. AGGREGATE DRIVEWAYS SHALL BE GRADED PRIOR TO PAVING SUCH THAT SURFACE DRAINAGE DOES NOT ENCROACH UPON THE PAVED SHOULDER. THE MAXIMUM PAVED WIDTH SHALL NOT EXCEED THAT ALLOWED FOR THROAT AND RADIUS FOR UNCURBED DRIVEWAYS AS PER STANDARD DRIVE DESIGN MANUAL. ALL GRADING, TOOLS, EQUIPMENT, MATERIAL AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE DRIVEWAYS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS).

ITEM 604 - MONUMENT ASSEMBLY, AS PER PLAN

ADJUSTABLE MONUMENT ASSEMBLIES AS SHOWN ON STANDARD CONSTRUCTION DRAWING "RM-1.1", REVISED APRIL 29, 1999, WILL BE PLACED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION AT THE LOCATIONS SPECIFIED AT THE PRE-CONSTRUCTION MEETING. THE MONUMENTS SHALL BE CASTING MODEL #8371 WITH LID #8370-A, MANUFACTURED BY EAST JORDAN IRONWORKS, INC, 301 SPRING STREET, MICHIGAN 49727. MONUMENTS SHALL BE PLACED IN ACCORDANCE WITH THE REFERENCE TIES PROVIDED AT THE PRE-CONSTRUCTION MEETING. THE ACTUAL PLACEMENT OF THE DATUM POINT WITHIN THE MONUMENT ASSEMBLY SHALL BE DIRECTLY AND PHYSICALLY SUPERVISED IN THE FIELD BY A LICENSED SURVEYOR IN THE STATE OF OHIO. SURVEY NOTES VERIFYING THE ACCURACY OF THE POINT SHALL BE SEALED BY THE SURVEYOR AND RETURNED TO THE DISTRICT 4 SURVEY OPERATIONS MANAGER. ANY REQUEST FOR NON PERFORMANCE SHALL BE DIRECTED IN WRITING TO THE DISTRICT 4 PRODUCTION ADMINISTRATOR OR SURVEY OPERATIONS MANAGER AND MUST INCLUDE PROPER WRITTEN JUSTIFICATION.

AN ESTIMATED QUANTITY OF 1 ITEM 604 MONUMENT ASSEMBLY, AS PER PLAN HAS BEEN CARRIED TO THE GENERAL SUMMARY.

GENERAL NOTES

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ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

1) THE ET-2000 (1997) MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS265	ET-2000 (1997) PLAN, ELEVATION AND SECTIONS	6/20/97	3/6/98
SSI42	ET2000 PLUS 50'-0" PLAN, ELEVATION AND SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SSI41	ET2000 PLUS PLAN, ELEVATION AND SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SSI58	ET2000 PLUS 50'-0" WITH 12'-6" PANELS AND HBA POSTS 1-4 PLAN, ELEVATION AND SECTION	5/22/00	7/31/00

2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 (TELEPHONE: 815-464-5917).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DATE	DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" X 18".

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

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GENERAL NOTES

ATB-322-8.13

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MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE TEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.
2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 297-0801 EXT 209, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
3. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUNSET OR ONE HALF-HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM SPACING OF FIFTY (50) FEET. WEIGHTED CHANNELIZERS MAY BE USED IN ACCORDANCE WITH THE ADDITIONAL NOTE PROVIDED HEREIN.
4. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.
5. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO.
6. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS PER THE SHEET TITLED "DROPOFFS IN WORK ZONES".
7. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES.
8. NO WORK SHALL BE PERFORMED FROM 10PM TO 6AM EVERY DAY.
9. IN ADDITION TO THE REQUIREMENTS OF 614 WORK ZONE PAVEMENT MARKINGS (614.10), AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH TEMPORARY MARKINGS) ALL CENTER LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH REPLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 TEMPORARY PAVEMENT MARKINGS
10. A QUANTITY OF 20 CU. YDS. OF 614 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS PRIOR TO RESURFACING, AS DIRECTED BY THE ENGINEER.
11. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.
12. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGN HAS BEEN INCLUDED IN THE PLAN. THIS QUANTITY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING SIGNS: OW-62 [BUMP], OW-71[TWO-WAY TRAFFIC], OW-167 [NO EDGE LINES], OW-171 [UNEVEN LANES SYMBOL]. THESE QUANTITIES SHALL BE AS PER 614.04.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

ITEM 614 TEMPORARY CENTER LINE, CLASS I	8.72 MILE
ITEM 614 WORK ZONE MARKING SIGN	14 EACH

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

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MAINTENANCE OF TRAFFIC NOTES

ATB-322-8.13

WEIGHTED CHANNELIZERS

THE WEIGHTED CHANNELIZER SHALL BE PREDOMINATELY ORANGE IN COLOR AND SHALL BE MADE OF A LIGHTWEIGHT, FLEXIBLE, AND DEFORMABLE MATERIAL. THEY SHALL BE AT LEAST 42 INCHES IN HEIGHT WITH A WEIGHTED BASE. THEY MAY HAVE A "HANDLE" OR LIFTING DEVICE WHICH EXTENDS ABOVE THE 42" MINIMUM HEIGHT.

THE MARKINGS ON THE WEIGHTED CHANNELIZER SHALL BE HORIZONTAL, CIRCUMFERENTIAL, ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES 6 INCHES WIDE. EACH WEIGHTED CHANNELIZER SHALL HAVE A MINIMUM OF TWO ORANGE AND TWO WHITE STRIPES. ANY NON-RETROREFLECTIVE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES SHALL NOT EXCEED 2 INCHES WIDE. THE WEIGHTED CHANNELIZER SHALL HAVE A 4-INCH MINIMUM WIDTH, REGARDLESS OF ORIENTATION.

WEIGHTED CHANNELIZERS MAY BE USED DURING THE DAY OR NIGHT.

MAXIMUM SPACING OF THE WEIGHTED CHANNELIZER SHALL BE 40 FEET.

STEPS SHOULD BE TAKEN TO ENSURE THAT THE WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DISPLACED BY WIND OR MOVING TRAFFIC. BALLASTS SHOULD NOT PRESENT A HAZARD IF THE WEIGHTED CHANNELIZERS ARE INADVERTENTLY STRUCK, NOR SHOULD THEY AFFECT THE VISIBILITY OF THE WEIGHTED CHANNELIZERS. ALL BALLASTS USED SHOULD BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

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MAINTENANCE OF TRAFFIC NOTES

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HOLIDAY WORK LIMITATIONS

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

MEMORIAL DAY
LABOR DAY

FOURTH OF JULY

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 THIS PERIOD:

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 12:00N MONDAY
MONDAY	12:00N FRIDAY THROUGH 12:00N TUESDAY
TUESDAY	12:00N MONDAY THROUGH 12:00N WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 12:00N THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 12:00N MONDAY
FRIDAY	12:00N THURSDAY THROUGH 12:00N MONDAY
SATURDAY	12:00N FRIDAY THROUGH 12:00N 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.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07.

GUARDRAIL REPLACEMENT

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE THE EXISTING GUARDRAIL, PREPARE THE SITE, AND INSTALL NEW GUARDRAIL IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON THE SITE, READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED UNTIL SUCH TIME AS THE ENGINEER IS ASSURED OF COMPLIANCE.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT OTHER PROJECTS MAY BE ONGOING IN AREAS IMMEDIATELY ADJACENT TO AND WITHIN THE PROJECT LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECT(S). IN ACCORDANCE WITH 105.07, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS A MUTUALLY ACCEPTABLE WORK SCHEDULE SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECEIVE DAILY APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREA OR COOPERATION SHALL BE RESOLVED BY THE ENGINEER. COMPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

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MAINTENANCE OF TRAFFIC NOTES

ATB-322-8.13

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE

A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. PAVERS, ROLLERS AND OTHER EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY WHEN PAVING OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY. OTHERWISE THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE THE R/W, THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. WHEN PARKING ALONG THE HIGHWAY THE EQUIPMENT SHALL BE PLACED AND DELINEATED AS PER 614.03. ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA. NO EQUIPMENT SHALL BE PARKED ON PRIVATE PROPERTY UNLESS PRIOR APPROVAL OF THE OWNER AND THE PROJECT ENGINEER/SUPERVISOR HAS BEEN GRANTED.

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

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MAINTENANCE OF TRAFFIC NOTES

ATB - 322 - 8.13

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GENERAL NOTES

1. It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified herein, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.

2. While the need for certain advisory signing is noted herein, it is not intended that this be indicative of all signing that may be required to advise or warn motorists, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.

3. In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown herein may be required.

4. The drop-off treatment selected for use at any given location shall be appropriate for the prevailing conditions of the site.

5. Where concrete barrier is specified, it shall be in accordance with Standard Construction Drawing RM-4.2M and Item 622.

6. When drums are specified for a drop-off condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.

7. When OW-151 (Low Shoulder) signs or OW-171 (Uneven Lanes symbol), OWP-171 (uneven lane plaque), and OC-53 (Maintain Present Lane) signs are required, they shall be placed 750' in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all intersecting roadways within the limits of the condition. When the drop-off condition extends more than one-half mile, additional signs shall be erected at intervals of a maximum of one mile.

8. For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate any difference in elevation between pavements, the Optional Wedge Treatment shall be provided.

9. Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10', drums may be placed on the opposite level from that of traffic provided the drop-off depth does not exceed 5' and approval is granted by the Project Engineer.

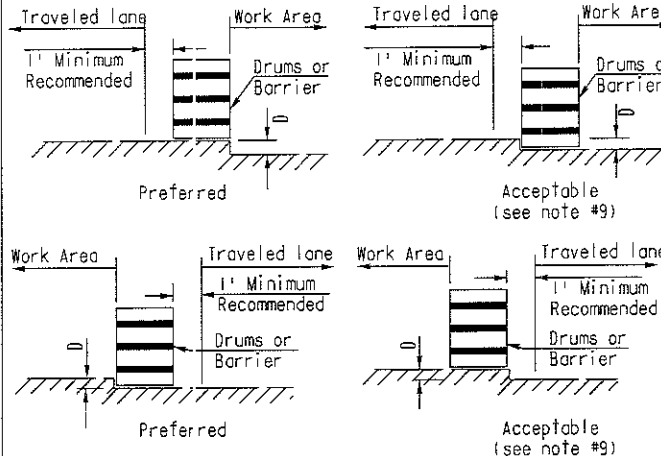
10. Pavement Repairs (or similar work):
 a. Lengths greater than 60 feet - utilize appropriate treatment from Condition I.
 b. Lengths of 60 feet or less - repairs shall be affected in accordance with Item 255.0B. Drums may be used as a separator adjacent to the traveled lane.

CONDITION I

1. These treatments are to be used for resurfacing, pavement planing excavation, etc., between, beside or within traveled lanes.

Distance From Traveled Lane	D (in)	Treatment
1FT-12FT	< 1/2	Erect OW-171, AND OWP-171.
1FT-12FT	1/2-3	1. Lane closure utilizing drums* as shown below. (use only on 3 or more lanes) -OR- 2. Optional Wedge Treatment.
1FT-12FT	3 - 5	Lane closure utilizing drums as shown below
1FT-12FT	5 - 12	Lane closure utilizing portable concrete barrier as shown below.
>12FT-20FT	12 - 24	Lane closure utilizing drums as shown below
>12FT-20FT	>24	Lane closure utilizing portable concrete barrier as shown below.

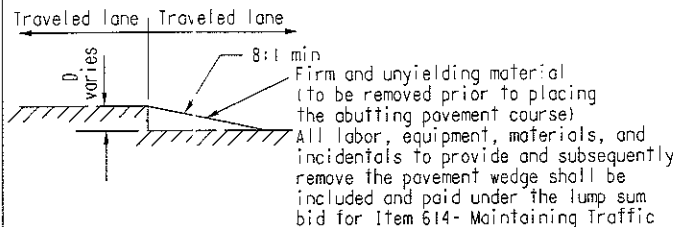
*Cones may be used for daytime only conditions.



OPTIONAL WEDGE TREATMENT

(MILLING OR RESURFACING)

1. This treatment may be used when permitted for Condition I only.
2. OW-171, OWP-17, and OC-53 signs required.



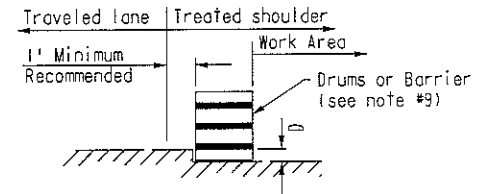
CONDITION II

DROPOFFS WITHIN GRADED SHOULDER AREA
 [except for linear grading areas]

The treatments indicated below are for use in conjunction with resurfacing, planing, or excavation within the graded shoulder area.

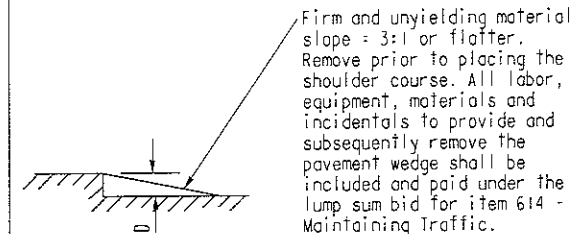
Distance From Traveled Lane	D (in)	Treatment
1FT-12FT	< 1/2	1.) If edgelines are present, no treatment necessary. -OR- 2.) Erect OW-171, OWP-171, and OC-53 signs
1FT-12FT	1/2-5	1) If min. lane widths* requirements can be met, maintain lanes utilizing drums as shown below. -OR- 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums. (use on only 3 or more lanes) -OR- 3) Optional shoulder treatment
>12FT-30FT	<= 24	Shoulder closure utilizing drums as shown below
>12FT-30FT	>24	Shoulder closure utilizing portable concrete barrier as shown below

*Minimum lane widths shall be 10' unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

1. This treatment shall not be used within a bituminous shoulder where a hot longitudinal joint per 401.15 is required.
2. OW-151 signs required.



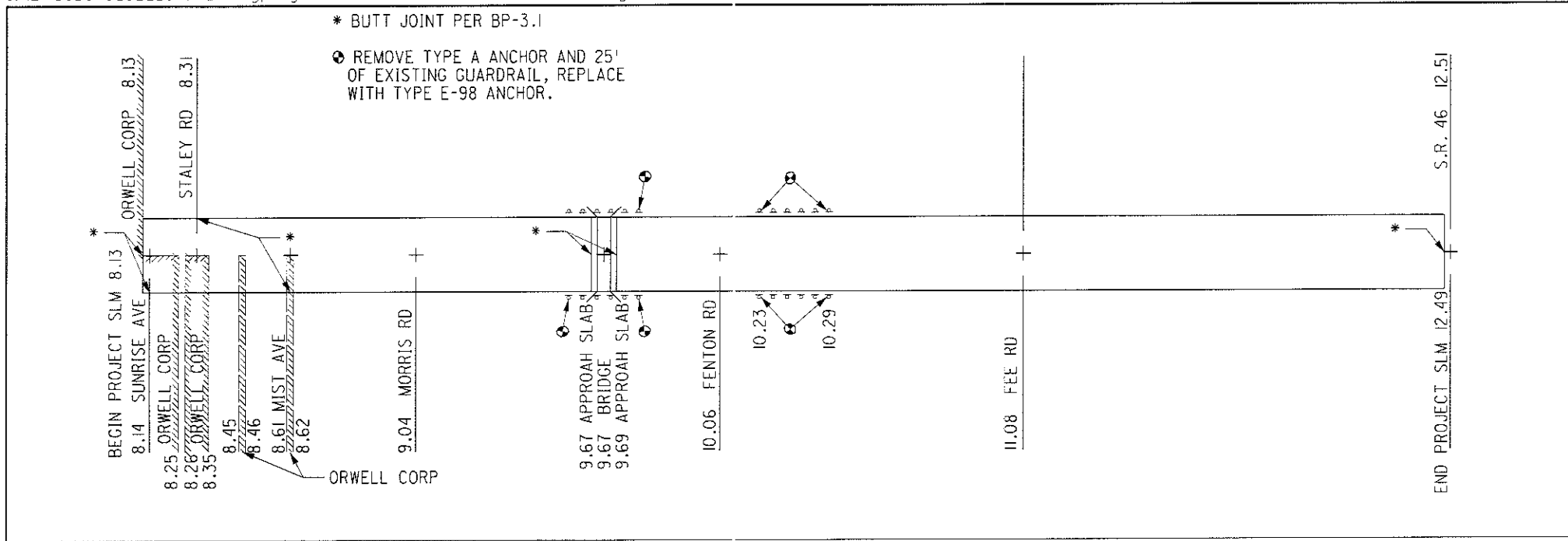
SHEET NUMBER							ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	8	9	15	16	21							
ROADWAY												
			350				202	38000	350	LIN FT	GUARDRAIL REMOVED	
					325		202	54101	325	EACH	RAISED PAVEMENT MARKER REMOVED FOR STORAGE, AS PER PLAN	21
	550						203	12000	550	CU YD	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	8
	1						604	38501	1	EACH	MONUMENT ASSEMBLY, AS PER PLAN	8
			7				606	22010	7	EACH	ANCHOR ASSEMBLY, TYPE E-98	6
			5				SPECIAL	69050000	5	EACH	MAILBOX SUPPORT	5
DRAINAGE												
	2000						605	31100	2000	LIN FT	AGGREGATE DRAIN	8
PAVEMENT												
280							251	01002	280	CU YD	PARTIAL DEPTH PAVEMENT REPAIR	7
1100							253	02000	1100	CU YD	PAVEMENT REPAIR	7
			66479				254	01000	66479	SQ YD	PAVEMENT PLANING, BITUMINOUS	
	550						304	20000	550	CU YD	AGGREGATE BASE	8
			10223				407	10000	10223	GALLON	TACK COAT	3
			2785				448	47020	2785	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	
			79				448	48020	79	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)	8
			284				617	10101	284	CU YD	COMPACTED AGGREGATE, TYPE A, AS PER PLAN	3
TRAFFIC CONTROL												
					306		621	00200	306	EACH	RAISED PAVEMENT MARKER, INSTALLATION ONLY	21
			8.72				642	00100	8.72	MILE	EDGE LINE, TYPE 1	
			4.36				642	00300	4.36	MILE	CENTER LINE, TYPE 1	
			1				642	01112	1	EACH	SCHOOL SYMBOL MARKING, 96", TYPE 2	
MAINTENANCE OF TRAFFIC												
	14						614	12460	14	EACH	WORK ZONE MARKING SIGN	
	20						614	13000	20	CU YD	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	
	8.72						614	21000	8.72	MILE	TEMPORARY CENTER LINE, CLASS 1	
											FOR STRUCTURE ATB-322-0967 (Over ROCK CREEK)	22
							614	11000	LUMP		MAINTAINING TRAFFIC	
							623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
							624	10000	LUMP		MOBILIZATION	
							806	16000	3	MONTH	FIELD OFFICE, TYPE A	



ATB-322-8.13

GENERAL SUMMARY

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PAVEMENT DATA

ROUTE	LOG POINT TO LOG POINT	LENGTH		WP AVG. FEET	PAVEMENT AREA SQ.YD.	254	407	407	448 ASPHALT CONCRETE		617	202	606	SPECIAL				
		MILES	LIN.FT.			PAVEMENT PLANING, BITUMINOUS S. Y.	TACK COAT @ 0.15 GAL/SY GAL.	TACK COAT @ 0.075 GAL/SY GAL.	AVG. THICK INCHES	C. Y.	AVG. THICK INCHES	C. Y.	COMPACTED AGGREGATE, TYPE A, APP C. Y.	GUARDRAIL REMOVED L. F.	ANCHOR ASSEMBLY, TYPE E-98 EACH	MAILBOX SUPPORT, SINGLE EACH		
S.R. 322	8.13 - 9.67	1.54	8132	26	23491	23491	3524		1.5	979			101	50	1			
S.R. 322	9.67 - 9.69	0.02	116		STRUCTURE LIMITS (SEE SHEETS 22-25 FOR DETAILS)													
S.R. 322	9.69 - 12.49	2.80	14774	26	42680	42680	6402		1.5	1779			183	300	6			
DRIVES					2818			212		1	79							
MAILBOX APPROACHES					496			38	1	14						5		
INTERSECTIONS					308	308	47		1.5	13								
TOTALS CARRIED TO GENERAL SUMMARY					69793	66479	9973	250		2785	79	284	350	7	5			

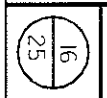
	ATB-322-8.13	ASPHALT CONCRETE	CALCULATED RCB CHECKED
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CENTER LINE						GENERAL SPEC. 640		COMMENTS
COUNTY	ROUTE	TRU LOG	FROM	TRU LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	
ATB	322	8.13	EAST CORP. ORWELL	12.49	JCT. SR 46	4.36	1.76	
TOTAL						4.36	1.76	

LANE LINE						TOTAL MILES	4" LANE LINE		COMMENTS
COUNTY	ROUTE	TRU LOG	FROM	TRU LOG	TO		DASHED	SOLID	
TOTAL									

EDGE LINE						WHITE EDGE LINE			YELLOW EDGE LINE			COMMENTS
COUNTY	ROUTE	TRU LOG	FROM	TRU LOG	TO	TOTAL MILES	HIGHWAY	RAMP	TOTAL MILES	HIGHWAY	RAMP	
ATB	322	8.13	EAST CORP. ORWELL	12.49	JCT. SR 46	8.72	8.72					
TOTAL						8.72	8.72					

AUXILIARY															COMMENTS					
COUNTY	ROUTE LOCATION	TRU LOG	8"	24"	24"		12"	WORD ON PAVEMENT	LANE ARROWS				SYMBOL MARKINGS			ISLAND MARKING	DOTTED LINES	PARKING LOT STALL MARKING		
			CHANNEL LINE	STOP LINE	TRANSVERSE LINES				CROSS-WALK LINES	ONLY	TURN LEFT	TURN RIGHT	THRU	COMB.					R x R	SCHOOL
			LIN FT	LIN FT	WHITE	YELLOW														
ATB	US 322 @ COLEBROOK ELEM. SCHOOL	12.507																	AUXILIARY MARKINGS: TYPE 2, ALKYD	
TOTAL																				



ATB-322-8.13

PAVEMENT MARKING SUB-SUMMARY

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TS 54
DISTRICT 4

Center Line Log Record and Field Sheet

SHEET 4 OF 9

COUNTY ASHTABULA ROUTE 322

Total This Route = Yellow: Solid _____, Yellow: Dash _____, White: Dash _____
Equivalent Yellow _____



				(10.978) MM-11 (10.957)			
.90					.90		
.80					.80		
.70					.70		
		(9.665)					
		(9.650)					
.60					.60		
.50					.50		
.40					.40		
.30					.30		
.20					.20		
.10					.10		
					(11.097)		
9.00				FENTON RD (10.016)	11.00		FEE RD (11.029)

Yellow: Solid _____ Dash 1.000 Yellow: Solid 0.043 Dash 1.000 Yellow: Solid 0.085 Dash 1.000

TOTAL YELLOW THIS PAGE: SOLID 0.128, DASH 3.000, EQUIVALENT LINE 0.878

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PAVEMENT MARKINGS

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TS 54
DISTRICT 4

Center Line Log Record and Field Sheet
COUNTY ASHTABULA ROUTE 322

SHEET 5 OF 9



Total This Route = Yellow: Solid _____, Yellow: Dash _____, White: Dash _____ (14.968)
Equivalent Yellow _____ MM-15

* SEE AUXILIARY PAVEMENT MARKING DETAIL

	(12.969)					* (14.972)		SR 11 SB ON RAMP (14.941)
	MM-15							
.90			.90					SR 11 SB OFF RAMP * (14.898)
								(14.839)
.80			.80					
.70			.70					
.60			.60					
(12.550)					(13.548)			TROUTMAN RD (14.547)
					(13.550)			
.50			.50					
.40		(12.406)	.40					
.30			.30					
.20			.20					
.10			.10					
12.00			13.00					14.00

Yellow: Solid 0.132 Dash 1.000 Yellow: Solid _____ Dash 1.000 Yellow: Solid 0.428 Dash 0.839

TOTAL YELLOW THIS PAGE: SOLID 0.560, DASH 2.839, EQUIVALENT LINE 1.270

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PAVEMENT MARKINGS






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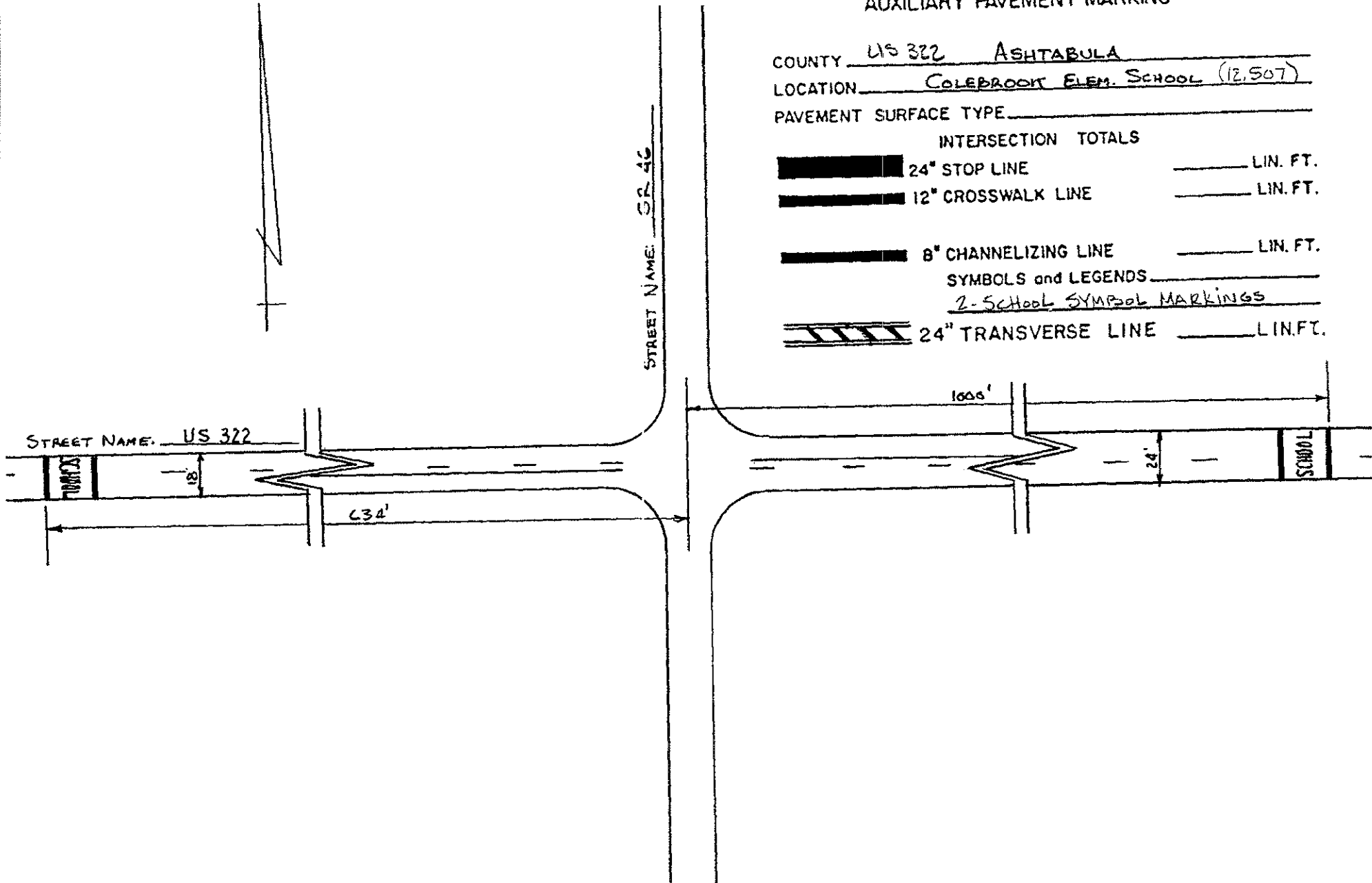
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AUXILIARY PAVEMENT MARKING

COUNTY US 322 ASHTABULA
 LOCATION COLEBROOK ELEM. SCHOOL (12,507)
 PAVEMENT SURFACE TYPE _____

INTERSECTION TOTALS

-  24" STOP LINE _____ LIN. FT.
-  12" CROSSWALK LINE _____ LIN. FT.
-  8" CHANNELIZING LINE _____ LIN. FT.
- SYMBOLS and LEGENDS _____
-  2-SCHOOL SYMBOL MARKINGS _____
-  24" TRANSVERSE LINE _____ LIN. FT.



RAISED PAVEMENT MARKER, INSTALLATION ONLY
 THE DEPARTMENT WILL SUPPLY THE RPM CASTINGS WITH THE YELLOW/YELLOW, ONE-WAY WHITE AND WHITE/RED RETRO-REFLECTORS INSTALLED IN THE CASTINGS FOR ITEM 621, RAISED PAVEMENT MARKER, INSTALLATION ONLY. THE CONTRACTOR SHALL FURNISH ALL OTHER MATERIAL REQUIRED TO COMPLETE THIS ITEM.

LOADING OF MATERIAL SUPPLIED BY THE DEPARTMENT AT THE RECYCLER'S WAREHOUSE SHALL BE DONE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 1082. ALL CASTINGS SHALL BE PLACED THE SAME WORKING DAY THAT THE RPM SLOTS ARE CUT INTO THE PAVEMENT.

THE CONTRACTOR WILL BE INFORMED AT THE PRE-CONSTRUCTION CONFERENCE AS TO THE LOCATION IN COLUMBUS OF THE DEPARTMENT SUPPLIED RPM MATERIALS. WHEN SPECIFIED, ADDITIONAL RPM MATERIALS WILL BE STORED WITHIN THE DISTRICT FOR USE ON THIS PROJECT. THE CONTRACTOR SHALL PICK UP DEPARTMENT SUPPLIED MATERIALS AT THE SPECIFIED LOCATION(S) FOR TRANSPORT TO THE WORK SITE OR TO THE CONTRACTOR'S STORAGE FACILITY. AN AUTHORIZATION FOR PICK-UP FORM IS GIVEN IN SUPPLEMENTAL SPECIFICATION 1082 DATED JANUARY 6, 1998. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND/OR THE PARTIES LISTED ON THE AUTHORIZATION FORM IN WRITING AT LEAST 5 WORKING DAYS PRIOR TO PICK-UP OF DEPARTMENT SUPPLIED MATERIALS. THE MATERIALS SHALL BE STORED WITHOUT DAMAGE OR CONTAMINATION WITH FOREIGN MATTER. A DEDUCTION IN THE AMOUNT OF THE ACTUAL COST TO THE DEPARTMENT SHALL BE MADE FOR THE MATERIALS DAMAGED BY THE CONTRACTOR OR FOR CASTINGS RECEIVED BY THE CONTRACTOR WHICH WERE NOT INSTALLED OR WERE NOT RETURNED TO THE DEPARTMENT.

RPM REMOVED FOR STORAGE, AS PER PLAN
 IN ADDITION TO THE REQUIREMENTS OF 202.071, THE CONTRACTOR SHALL DELIVER THE REMOVED MARKERS TO THE ODOT DISTRICT OFFICE AT 705 OAKWOOD ST. RAVENNA, OH 44266. THE CONTRACTOR SHALL CONTACT THE DISTRICT (LUKE NAGLE, 330-297-0801 EXT. 329) TWO WORKING DAYS PRIOR TO THE DELIVERY.

NOTE:
 Raised Pavement Markers provided by the Department shall be the Low Profile Type.

RPM REPLACEMENT / REMOVAL

STANDARD CONSTRUCTION DWG.

TC-65.10	10-19-01	TC-65.12	10-19-01
TC-65.11	10-19-01		

LOCATION				ITEM 202	ITEM 621				REMARKS
COUNTY	ROUTE	CENTER LINE LOG MILES		RPM REMOVED FOR STORAGE, AS PER PLAN	INSTALLATION ONLY				
		FROM	TO		RPM WITH YELLOW/YELLOW REFLECTOR	RPM WITH WHITE/RED REFLECTOR	RPM WITH ONE-WAY WHITE REFLECTOR	RPM WITH YELLOW/RED REFLECTOR	
ATB	322	8.13	12.49	325	290		16	ORWELL E. CORP. TO JCT SR 46 (STOP APPROACH)	
TOTALS CARRIED TO GENERAL SUMMARY				325	290		16		

ESTIMATED QUANTITIES

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
815	00101	LUMP		SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU, AS PER PLAN					2 / 4
815	00201	LUMP		FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU, AS PER PLAN					2 / 4
815	00301	LUMP		FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU, AS PER PLAN					2 / 4
815	00401	LUMP		FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU, AS PER PLAN					2 / 4
841	10000	344	SO YD	TREATING OF CONCRETE SURFACES WITH SRS			344		
864	10100	163	SO YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	51	51	61		3 / 4, 4 / 4

25
22
4

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFERENCE SHALL BE MADE TO SUPPLEMENTAL SPECIFICATIONS:

815 DATED 02-22-00
841 DATED 10-12-99
864 DATED 07-11-00

910 DATED 07-11-00
954 DATED 09-09-97

PROPOSED WORK:

REHABILITATION OF EXISTING BRIDGE STRUCTURE ATB-322-0967 SHALL INCLUDE SEALING CONCRETE SURFACES, PAINTING THE PIER PILES AND TREAT CONCRETE DECK SURFACE WITH SOLUBLE REACTIVE SILICATE (SRS).

ITEM 815 SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU, AS PER PLAN

ITEM 815 FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU, AS PER PLAN

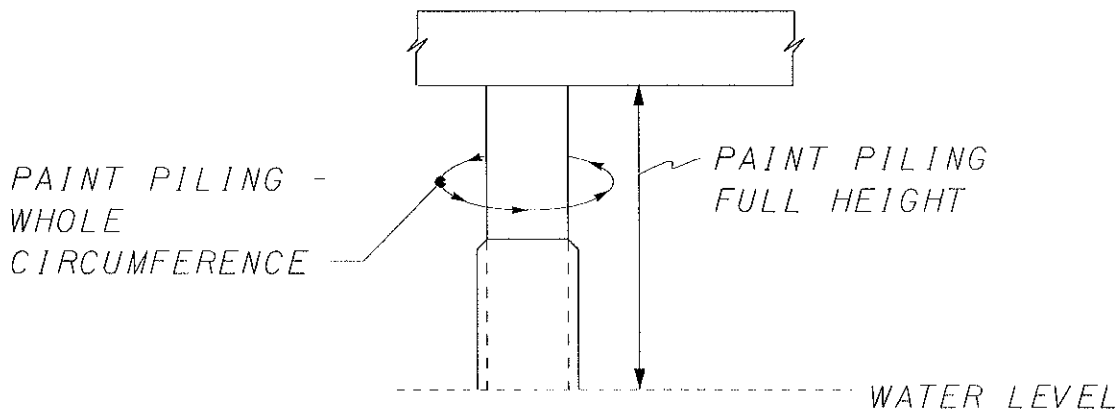
ITEM 815 FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU, AS PER PLAN

ITEM 815 FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU, AS PER PLAN

THIS WORK SHALL BE DONE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 815 EXCEPT THE STRUCTURAL STEEL SHALL BE THE EXPOSED PORTION OF THE STEEL PILES AND THE CORRUGATED ENCASEMENT AT THE PILES FOR STRUCTURE NO. ATB-322-0967.

ALL PAINT SHALL BE FEDERAL COLOR NO. 15526-BLUE.

PAYMENT SHALL BE AT UNIT BID FOR FOR ALL WORK INCLUDING MATERIALS EQUIPMENT, LABOR AND INCIDENTALS NECESSARY TO PERFORM THE ABOVE MENTIONED ITEMS.



CALCULATED
JEL
CHECKED
TJP

GENERAL NOTES STRUCTURE ATB-322-0967

ATB-322-08.13

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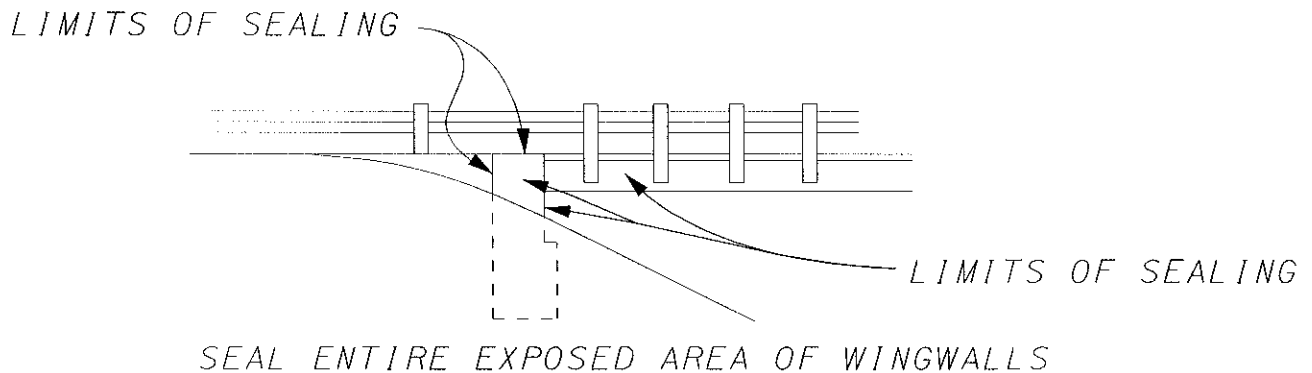
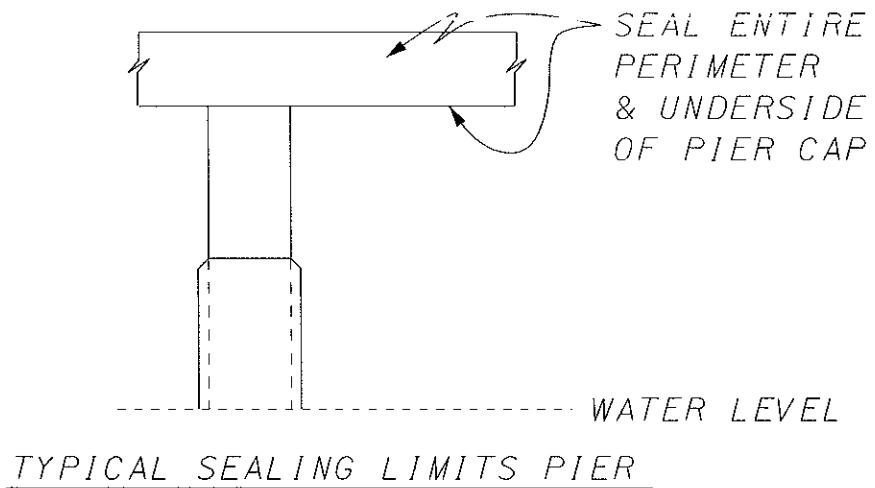
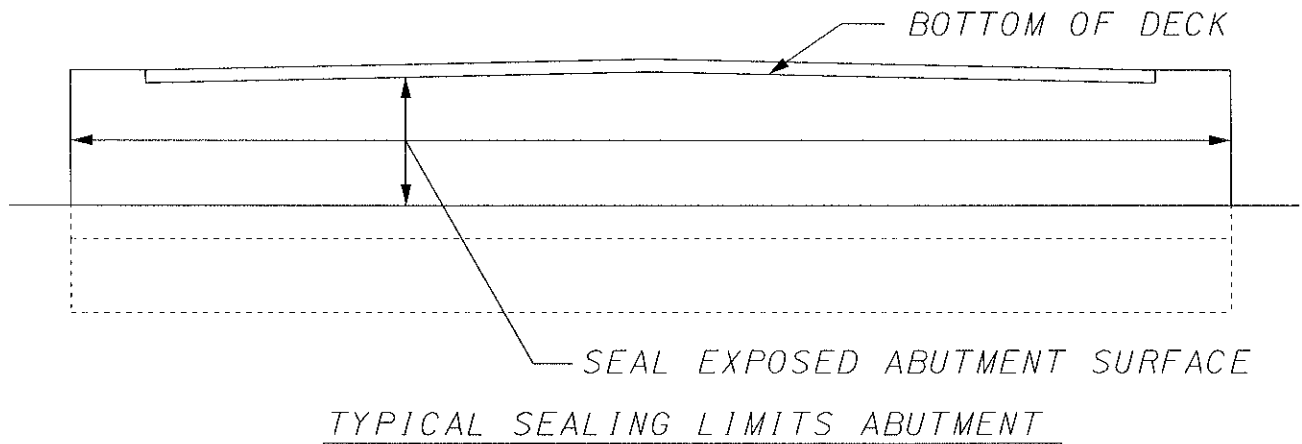
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ITEM 864 - SEALING OF CONCRETE SURFACES (EPOXY - URETHANE)

AFTER ALL OTHER STRUCTURE WORK IS COMPLETED, ALL CONCRETE SURFACES TO BE SEALED SHALL BE SEALED WITH AN EPOXY-URETHANE SEALER SYSTEM.

THE EPOXY URETHANE SEALER SHALL BE FEDERAL COLOR NO. 17778-LIGHT NEUTRAL.

PAYMENT SHALL BE AT UNIT BID FOR FOR ALL WORK INCLUDING MATERIALS EQUIPMENT, LABOR AND INCIDENTALS NECESSARY TO PERFORM THE ABOVE MENTIONED ITEMS.



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GENERAL NOTES STRUCTURE ATB-322-0967

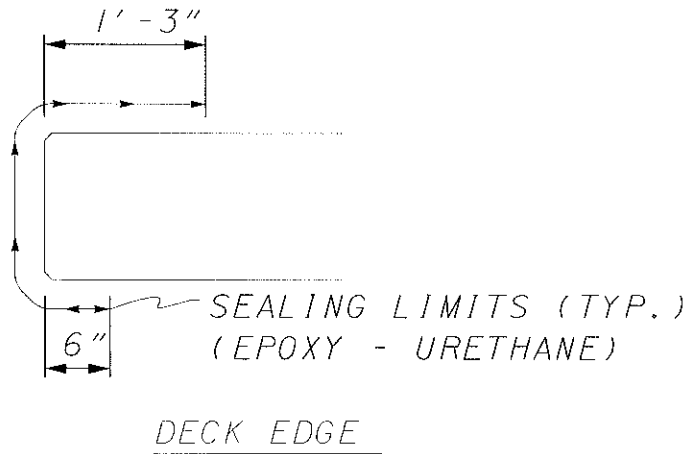
ATB-322-08.13

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ITEM 864 - SEALING OF CONCRETE SURFACES (EPOXY - URETHANE) (CONTINUED)

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STREAM CHANNEL AVOIDANCE

NO EXCAVATION, GRADING, OR FILLING OPERATIONS SHALL BE PERFORMED IN ANY STREAMS, UNLESS THE REQUIRED STATE AND/OR FEDERAL PERMITS HAVE BEEN OBTAINED IN ACCORDANCE WITH ALL APPLICABLE STATE AND/OR FEDERAL LAWS AND REGULATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS IN ANY STREAMS.

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT EPOXY URETHANE SEALER, PAINT OR OTHER MATERIALS USED TO CLEAN, SEAL, OR TREAT THE BRIDGE STRUCTURE SURFACE FROM ENTERING STREAMS OR ANY OTHER WATERS OF THE UNITED STATES.

bbcaughma

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GENERAL NOTES STRUCTURE ATB-322-0967

ATB-322-08.13

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