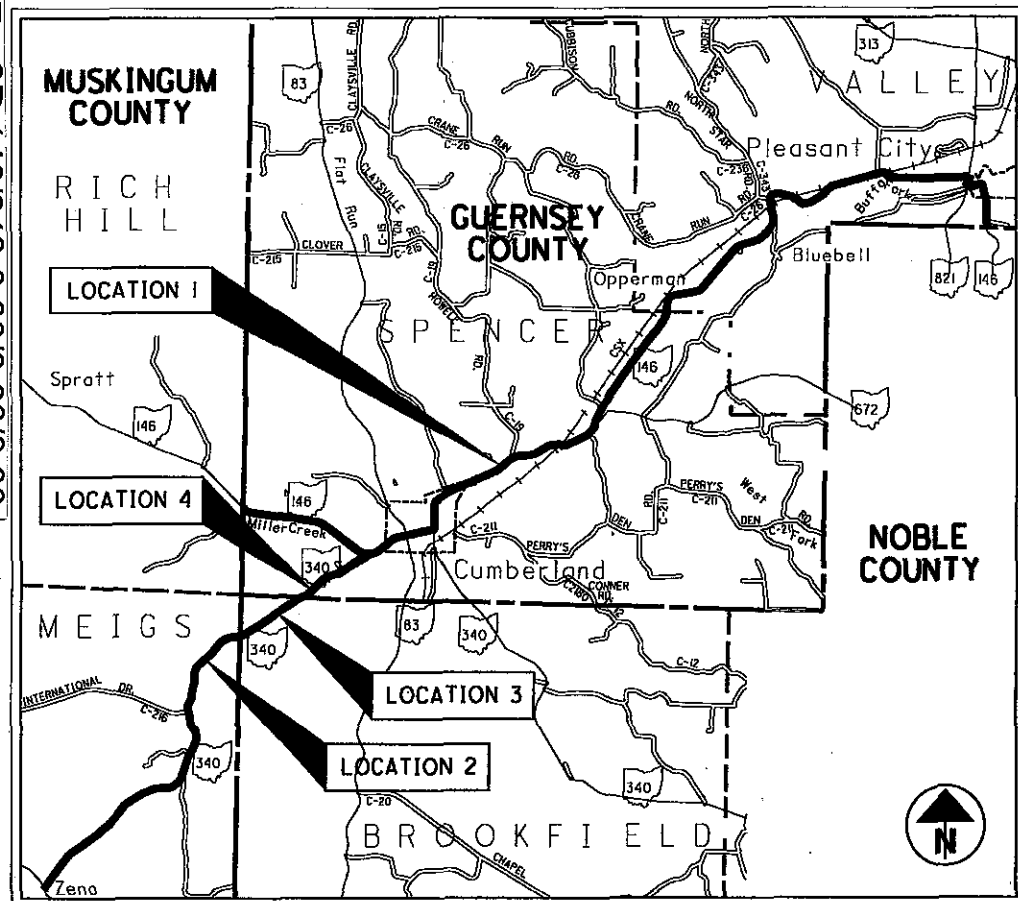


LOCATION MAP

NOT TO SCALE



PORTION TO BE IMPROVED

DESIGN EXCEPTIONS: NONE

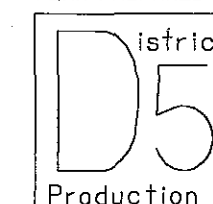
**UNDERGROUND UTILITIES**  
TWO WORKING DAYS  
**BEFORE YOU DIG**  
CALL 1-800-362-2764 (TOLL FREE)  
OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY

RMC = Rural Major Collector

DESIGN DESIGNATION	SECTIONS			
	GUE - SR 146 (10.00-10.62)	MUS - SR 340 (10.00-3.65)	NOB - SR 340 (10.00-0.71)	GUE - SR 340 (10.00-0.88)
Functional Classification	RURAL MAJOR COLLECTOR	RURAL MINOR COLLECTOR	RURAL MINOR COLLECTOR	RURAL MINOR COLLECTOR
Current ADT (2006)	1900	200	200	200
Design Year ADT (2018)	2000	210	210	210
Design Hourly Volume (2018)	220	25	25	25
Directional Distribution	50%	50%	50%	50%
Trucks (24 Hour B&C)	8%	15%	15%	15%
Design Speed	55mph	55mph	55mph	55mph
Legal Speed	55mph	55mph	55mph	55mph

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	7-16-04	MT-97.10	4-19-02	800	7-15-05
BP-4.1	7-16-04	MT-97.11	4-19-02	832	4-17-04
		MT-99.20M	1-30-95	833	2-12-03
GR-1.1	7-16-04				
GR-2.1	1-16-04	TC-41.20	01-19-01		
GR-2.4	4-18-03	TC-42.20	07-16-04		
GR-3.4	4-18-03	TC-65.10	01-21-05		
GR-4.1	4-18-03	TC-65.11	01-21-05		
GR-4.2	4-15-05	TC-71.10	01-21-05		
		TC-73.10	01-19-01		

PLAN PREPARED BY:



STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

PROJECT DESCRIPTION:

2 LANE ASPHALT CONCRETE RESURFACING,  
CULVERT REPLACEMENT, AND RELATED WORK.

LOCATION	COUNTY	ROUTE	PROJECT TERMINI		NET LENGTH MILES
			BEGIN	END	
1	GUE	SR 146	0.00	10.62	10.62
2	MUS	SR 340	0.00	3.65	3.65
3	NOB	SR 340	0.00	0.71	0.71
4	GUE	SR 340	0.00	0.88	0.88

GUE-146-0.00  
MUS-340-0.00  
NOB-340-0.00  
GUE-340-0.00

SPENCER TOWNSHIP, GUERNSEY COUNTY  
VALLEY TOWNSHIP, GUERNSEY COUNTY  
MEIGS TOWNSHIP, MUSKINGUM COUNTY  
BROOKFIELD TOWNSHIP, NOBLE COUNTY

INDEX OF SHEETS:

TITLE SHEET \_\_\_\_\_ 1  
GENERAL NOTES \_\_\_\_\_ 2-7  
ASPHALT CONCRETE DATA \_\_\_\_\_ 8,9  
SHOULDER TREATMENT \_\_\_\_\_ 10  
EXTRA AREAS DATA \_\_\_\_\_ 11,12  
BRIDGE TREATMENT \_\_\_\_\_ 13  
BRIDGE DECK DETAILS \_\_\_\_\_ 14-16  
CULVERT REPAIRS \_\_\_\_\_ 17-19  
CUMBERLAND/PLAN SHEET \_\_\_\_\_ 20  
CURB RAMP INSERT SHEETS \_\_\_\_\_ 20A-20C  
CENTER/EDGE LINE SUB-SUMMARY \_\_\_\_\_ 21  
AUXILIARY MARKING SUB-SUMMARY \_\_\_\_\_ 22,23  
RPM LOCATION SUB-SUMMARY \_\_\_\_\_ 24,25  
LOCATION 1 SUB-SUMMARY \_\_\_\_\_ 26  
LOCATION 2 SUB-SUMMARY \_\_\_\_\_ 27  
LOCATION 3 SUB-SUMMARY \_\_\_\_\_ 28  
LOCATION 4 SUB-SUMMARY \_\_\_\_\_ 29  
GENERAL SUMMARY \_\_\_\_\_ 30

2005 SPECIFICATIONS

THE STANDARD 2005 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 THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY AND PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS INDICATED IN THE PROPOSAL.

APPROVED *[Signature]*  
DATE 8-19-05 DISTRICT DEPUTY DIRECTOR

APPROVED *[Signature]*  
DATE 9-12-05 DIRECTOR, DEPARTMENT OF TRANSPORTATION



*[Signature]*  
8-19-05

GUE - SR 146/340-0.00/0.00/0.00  
050578 PID - 25670  
Dist 5 11/16/2005

FEDERAL PROJECT NO. NON-FEDERAL  
PID NO. 25670  
CONSTRUCTION PROJECT NO.  
TITLE SHEET  
GUE-146-0.00  
1/30

## UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT SHOULD NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA. BELOW IS A LIST OF UTILITIES LOCATED WITHIN THE WORK AREA AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT OWNERS AND VERIFY LOCATIONS:

ADELPHIA COMMUNICATIONS  
P.O. BOX 1297  
351 HIGHLAND AVENUE  
CAMBRIDGE, OHIO 43725  
ATTN: CHUCK GIBSON  
740-432-7321

AMERICAN ELECTRIC POWER  
1900 LICKING ROAD  
ZANESVILLE, OHIO 43701  
740-348-4030  
ATTN: TRACY WINTERMUTE

AMERICAN ELECTRIC POWER CO. TRANSMISSION  
825 TECH CENTER DR.  
GAHANNA, OHIO 43230  
ATTN: TOD WICK  
740-552-1899

COLUMBIA GAS TRANSMISSION  
301 MAPLE STREET  
P.O. BOX 330  
SUGAR GROVE, OHIO 43155  
ATTN: WALLER WELCH  
740-746-2219

EAST OHIO GAS CO.  
7015 FREEDOM AVE.  
NORTH CANTON, OHIO 44720  
ATTN: TIM MCNUTT  
216-798-7209

GUERNSEY-MUSKINGUM-ELECTRIC COOP.  
17 SOUTH LIBERTY STREET  
NEW CONCORD, OHIO 43762  
ATTN: JOHN MARSHALL  
740-826-7661

GUERNSEY COUNTY WATER  
11272 EAST PIKE  
CAMBRIDGE, OHIO 43725  
ATTN: CLARENCE RIDGLEY  
740-439-1269

VERIZON  
9444 CAMPBELL ST.  
CAMBRIDGE, OHIO 43725  
ATTN: BEN NOBLE  
740-432-7137

## RAILROAD INVOLVEMENT

THE COMMUNITY IMPROVEMENT CORPORATION HAS/IS PURCHASING THE RAILROAD LANDS LOCATED WITHIN THE PROJECT LIMITS. THEY WILL BE UPGRADING ALL AT-GRADE RAIL CROSSINGS ALONG THE PROJECT. THE POSSIBILITY EXISTS FOR BOTH CONTRACTORS TO BE ON SITE AT THE SAME TIME. THE CONTRACTOR SHALL CONTACT THE COMMUNITY IMPROVEMENT CORPORATION TO COORDINATE THE RESURFACING PROJECT WITH THE RAILROAD CONTRACTOR. BELOW IS THE CONTACT INFORMATION FOR THE COMMUNITY IMPROVEMENT CORPORATION:

MR. BOB OESS  
COMMUNITY IMPROVEMENT CORPORATION  
806 COCHRAN ROAD  
CAMBRIDGE, OHIO 43725  
740-432-1881

## NOTIFICATION OF ROAD CLOSURE OR RESTRICTION

IN ORDER FOR ODOT TO PROPERLY PERMIT OVERSIZE LOADS, PREPARE PROPER SIGNING WHEN REQUIRED AND FURTHER TO NOTIFY THE GENERAL MOTORING PUBLIC, THE CONTRACTOR SHALL NOTIFY (IN WRITING) THE DISTRICT 5 HIGHWAY MANAGEMENT ADMINISTRATOR WITH COPIES FOR THE DISTRICT 5 ROADWAY SERVICES MANAGER AND PROJECT ENGINEER NOT LESS THAN 21 DAYS BEFORE SUCH CLOSURE OR LANE RESTRICTIONS.

## SEND NOTIFICATION TO:

DISTRICT 5 HIGHWAY MANAGEMENT ADMINISTRATOR  
P.O. BOX 306  
JACKSONSTOWN, OH 43030  
PHONE: (740) 323-4400 EXT. 5241

## ITEM 617, COMPACTED AGGREGATE, AS PER PLAN

ALL AGGREGATE SHALL BE 100% CRUSHED LIMESTONE. ALL QUALITY REQUIREMENTS SHALL BE WAIVED EXCEPT SHALE. OTHER GRADATION REQUIREMENTS SHALL BE AS SPECIFIED EXCEPT THE PLASTICITY INDEX SHALL BE WAIVED. IF SO DIRECTED, THE CONTRACTOR MAY USE RECYCLED ASPHALT CONCRETE PAVEMENT (RACP MEETING REQUIREMENTS OF 617.02) IN LIEU OF CRUSHED LIMESTONE.

## PROFILE AND ALIGNMENT

THE PROPOSED PAVEMENT RESURFACING SHALL FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT.

## TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

## TACK COAT FOR INTERMEDIATE COURSE

THE RATE OF APPLICATION OF THE 407 TACK COAT FOR INTERMEDIATE COURSE SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.05 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

## PAVEMENT MARKING

STOP LINES, CROSSWALK LINES, CHANNELIZING LINES, ETC., SHOWN IN THE PLANS ARE TAKEN FROM EXISTING MARKINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DOCUMENT EXISTING MARKING LOCATIONS (i.e. BY USE OF VIDEO, PICTURES) AND PLACE NEW PAVEMENT MARKINGS AS NEAR AS POSSIBLE TO THE EXISTING LOCATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DOCUMENTATION OF PAVEMENT MARKING SHALL BE SUPPLIED TO THE ENGINEER BEFORE COMMENCEMENT OF ANY OPERATION WHICH WILL REMOVE/OBLITERATE MARKINGS.

## 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.

**ITEM 614 WORK ZONE MARKING SIGNS**

A QUANTITY OF WORK ZONE MARKING SIGNS HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

WORK ZONE MARKING SIGNS	LOCATIONS			
	1	2	3	4
OW-167 (NO EDGE LINES)	22	4	2	2
R-33 (DO NOT PASS)	12	6		2
R-34 (PASS WITH CARE)	10	4	2	3
OW-128 (BEGIN ROAD CONSTRUCTION AHEAD)	23	1		2
OC-8 (END ROAD CONSTRUCTION)	23	1		2
TOTAL	90	16	4	11

**ITEM 202: RAISED PAVEMENT MARKER REMOVED**

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE PLANS TO REMOVE RAISED PAVEMENT MARKERS FOR DISPOSAL BY THE CONTRACTOR. RPM REMOVAL SHALL NOT OCCUR SOONER THAN 10 DAYS PRIOR TO RESURFACING OF THE ROADWAY. ALL RPM'S REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

**ITEM 202 RAISED PAVEMENT MARKER REMOVED**

- LOCATION 1 - 1146 EACH
- LOCATION 2 - 407 EACH
- LOCATION 3 - 47 EACH
- LOCATION 4 - 83 EACH

**SPOT LEVELING**

THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED AS DIRECTED BY THE ENGINEER TO RESTORE ROADWAY CROWN/PROFILE WHERE NO PLANING OCCURS. PLACING OF SPOT LEVELING MATERIAL SHALL TAKE PLACE PRIOR TO PLACING OF THE 1.0" INTERMEDIATE COURSE.

**ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I, PG 70-22**

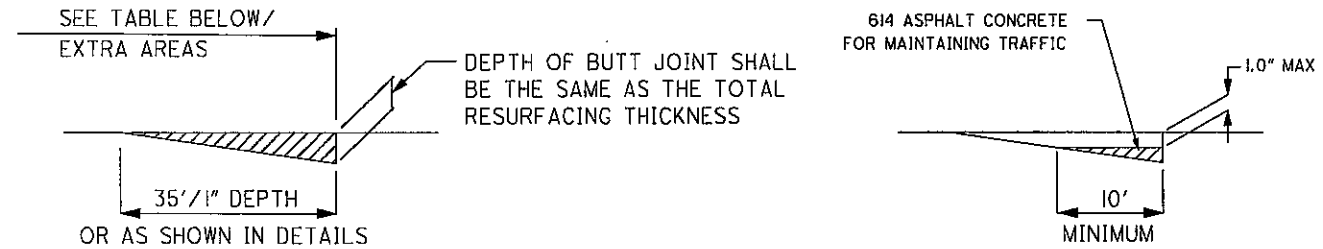
LOCATION 1 - 400 CU. YD.

**CONVERSION OF METRIC DRAWINGS**

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) OF THE 2002 CONSTRUCTION AND MATERIALS SPECIFICATIONS. TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 IEEE/ASTM SI 10 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

**BUTT JOINT**

A BUTT JOINT WILL BE REQUIRED AT LOCATIONS SPECIFIED BELOW AND AT EXTRA AREAS WITH WEARING COURSE REMOVED. AFTER THE JOINT IS CONSTRUCTED, THE DROP OFF CREATED SHALL BE MINIMIZED BY IMMEDIATELY PLACING THE PROPOSED 448 INTERMEDIATE COURSE TO WITHIN 1.0" OF EXISTING ROADWAY SURFACE OR BY PLACING WEDGE AS SHOWN. BUTT JOINTS SHALL BE AS PER SCD BP-3.1, 7-16-04.



LOCATION	ROUTE	DESCRIPTION	SLM	202 WEARING COURSE REMOVED SQ. YD.	614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC CU. YD.
1	SR 146	BEGIN WORK	0.00	156	0.75
1	SR 83	@ SR 146 BOTH SIDES	1.87	**	3.6
1	SR 340	@ SR 146 IN CUMBERLAND	2.16	**	1.8
1	MAIN ST.	@ SR 146 IN CUMBERLAND	2.16	**	1.5
1	SR 146	GUE-146-0256	2.56	***	1.5
1	SR 146	GUE-146-0344	3.44	***	1.5
1	SR 146	GUE-146-0390	3.90	***	1.5
1	SR 146	GUE-146-0410	4.10	***	1.5
1	SR 146	GUE-146-0752	7.52	***	1.5
1	SR 146	GUE-146-0785	7.85	***	1.5
1	SR 146	GUE-146-0941	9.41	***	0
1	SR 146	GUE-146-1002	10.02	***	1.5
1	SR 672	@ SR 146	4.35	*	3.25
1	SR 146	@ RR	7.54	156	0.75
1	SR 146	@ RR	7.88	140	0.50
1	SR 146	@ RR	8.37	280	1.0
1	SR 146	@ RR	8.97	280	1.0
1	SR 146	@ SR 821	9.86	*	2.9
1	SR 146	@ SR 821	9.99	*	2.9
1	MAIN ST.	@ SR 146 IN PLEASANT CITY	10.15	*	1.5
1	SR 146	END WORK	0.00	140	0.75
1	SR 146	TOTALS		1152	32.7
2	SR 340	BEGIN WORK	0.00	*	3.80
2	SR 340	MUS-146-0186	1.86	***	1.5
2	SR 340	MUS-146-0294	2.94	***	1.5
2	SR 340	TOTALS			6.80
4	SR 340	GUE-340-0078	0.78	***	1.5

**FEATHERING**

FEATHERING OF THE ASPHALT CONCRETE SHALL BE DONE IN ACCORDANCE WITH SCD DRAWING BP-3.1, 7-16-04

\* QUANTITY SHOWN ON SHEET 11

\*\* QUANTITY SHOWN ON SHEET 12

\*\*\* QUANTITY SHOWN ON SHEET 13

# INCLUDED WITH PAVEMENT PLANING

GENERAL NOTES

GUE-146-0.00

**ITEM 253 - PAVEMENT REPAIR, AS PER PLAN**

AN ESTIMATED QUANTITY FOR PAVEMENT REPAIR HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER. REPAIRS SHALL TAKE PLACE PRIOR TO THE PAVING OPERATIONS. THE INTENT OF THIS OPERATION IS TO REPAIR THOSE AREAS OF PAVEMENT WHICH HAVE COMPLETELY FAILED (PUMPING OF SUB-BASE MATERIAL) AND NOT TO CORRECT SURFACE IRREGULARITIES. DEPTH OF EXCAVATION SHALL BE APPROXIMATELY 7". AFTER EXCAVATION HAS BEEN COMPLETED, THE FACE OF THE REPAIR SHALL BE COATED WITH 407 TACK COAT. REPLACEMENT MATERIAL WILL BE 7" OF ITEM 301 ASPHALT CONCRETE BASE, PG 64-22 (PLACED AND COMPACTED AS DIRECTED). ALL EXCAVATION, MATERIALS, LABOR, EQUIPMENT, TOOLS, TRAFFIC CONTROL AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 253 PAVEMENT REPAIR, AS PER PLAN.

THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE DESCRIBED PURPOSE.

**ITEM 253 PAVEMENT REPAIR, AS PER PLAN**

LOCATION 1 - 5000 SQ. YD.                      LOCATION 2 - 1450 SQ. YD.  
LOCATION 3 - 400 SQ. YD.                      LOCATION 4 - 750 SQ. YD.

**ITEM 407 TACK COAT, MISC.: FOR LONGITUDINAL JOINT**

IN ORDER TO ASSURE A GOOD BOND AT THE LONGITUDINAL JOINT, A RUBBERIZED ASPHALT EMULSION (ITEM 407 TACK COAT AS PER 702.13) SHALL BE APPLIED TO THE FACE OF THE SURFACE COURSE OF ASPHALT PAVEMENT IMMEDIATELY BEFORE PLACING THE ADJACENT PAVEMENT. RUBBERIZED TACK SHALL HAVE 100% COVERAGE ON THE FACE OF THE TOP COURSE AND BE APPLIED AT THE RATE OF 0.25 GALLONS PER SQUARE YARD, AS DIRECTED BY THE ENGINEER. CARE SHALL BE TAKEN (AS PER SECTION 407.07) IN THE APPLICATION OF THE TACK SQ AS TO AVOID PLACING EMULSION ON THE TOP SURFACE OF THE PAVEMENT. THE FOLLOWING QUANTITY OF ITEM 407 TACK COAT, MISC.: FOR LONGITUDINAL JOINT SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIAL TO PERFORM THE ABOVE WORK.

**ITEM 407 TACK COAT, MISC.: FOR LONGITUDINAL JOINT**

LOCATION 1 - 55387 FT                      LOCATION 3 - 3750 FT  
LOCATION 2 - 19958 FT                      LOCATION 4 - 4650 FT

**ITEM 408 PRIME COAT, AS PER PLAN**

THE CONTRACTOR SHALL APPLY ONE COAT OF MC-70 (AS PER SECTION 702) AT A RATE OF 0.40 GALLON PER SQUARE YARD TO THE COMPLETED AGGREGATE SHOULDER (ITEM 617) AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A SHIELD TO PREVENT THE SPRAYING OR DRIFTING OF LIQUID BITUMINOUS MATERIAL ONTO THE EDGE OF PAVEMENT OR EDGE LINE. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO 107.10 OF THE SPECIFICATIONS. THE FOLLOWING QUANTITY OF PRIME COAT, AS PER PLAN SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT TO PERFORM THE ABOVE MENTIONED WORK.

**ITEM 408 PRIME COAT, AS PER PLAN**

LOCATION 1 - 9780 GAL.                      LOCATION 3 - 666 GAL.  
LOCATION 2 - 3548 GAL.                      LOCATION 4 - 826 GAL.

**ITEM 301 ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN**

THIS ITEM SHALL BE USED AS DIRECTED BY THE ENGINEER TO PLACE 6.0" OF ITEM 301 ON A PREVIOUSLY PREPARED SUBBASE (TO BE PLACED BY OTHERS) AND SHALL OCCUR PRIOR TO THE RESURFACING OF SR 340. THE QUANTITIES SHOWN ARE BASED ON ESTIMATED AREAS OF 150' X 10' (GUE 340-0.10), 175' X 20' (GUE 340-0.54), & 180' X 20' (MUS 340-3.II). ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO PLACE AND COMPACT ABOVE MENTIONED MATERIAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 301 ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN. THE PLACEMENT OF ITEM 301 IS ANTICIPATED TO OCCUR BETWEEN JUNE 1ST AND JUNE 30TH, 2006. THE CONTRACTOR SHALL COOPERATE WITH ODOT D-05 ROADWAY SERVICES TO ENSURE THAT THE 301 MATERIAL IS PLACED WITHIN 5 DAYS OF THE COMPLETED SUBBASE WORK AT EACH LOCATION.

ITEM 301 ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN  
LOCATION 2 - 50 CU. YD.                      LOCATION 4 - 115 CU. YD.

**RESIDENCE AND COMMERCIAL DRIVES**

An estimated quantity of Item 448 Asphalt Concrete has been included in the plan to be used as directed by the Engineer to pave approach areas to existing driveways. Paving shall typically extend 4' into the driveway (measured from the edge of pavement or paved shoulder if present).

There are 5 types of drives: concrete, asphalt, gravel, gravel with asphalt apron, and field/oil well drives. Field drives and oil well drives shall not be paved. Gravel drives shall be paved back 4' into the driveway unless otherwise directed by the engineer. Concrete and asphalt drives shall have butt joints or as short a asphalt taper as possible (preferred 4') as directed by the Engineer so as to provide a smooth transition. Gravel drives with asphalt aprons shall also have butt joints or as short a asphalt taper as possible (preferred 4') but only if the existing asphalt apron is in an acceptable condition to be paved over as directed by the Engineer. If the asphalt apron cannot be paved over (for example, broken into small pieces) as determined by the Engineer, it shall be removed before being paved back 4' into the driveway. All grading, prime or tack coat, materials, labor, equipment tools and incidentals necessary to complete the drives shall be included in the unit price bid for Item 448 Asphalt Concrete Surface Course, Type I, PG 70-22.

ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG 70-22  
LOCATION 1 - 63 CU. YD.  
ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG 70-22  
LOCATION 2 - 24 CU. YD.

**MAIL BOX TURN OUTS**

A QUANTITY OF ASPHALT CONCRETE HAS BEEN PROVIDED IN THE PLAN TO COVER MAIL BOX TURN OUTS. TURN OUTS SHALL BE PAVED AS SHOWN IN THE DETAIL IN DRAWING BP-4.1, 7-16-04.

ANY EXTRA GRADING OF THE SHOULDERS, PRIME OR TACK COAT, MATERIALS, LABOR, EQUIPMENT TOOLS AND INCIDENTALS NECESSARY TO COMPLETE MAIL BOX TURN OUTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I, PG 70-22 AND ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG 70-22

ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I, PG 70-22  
LOCATION 1 - 31 CU. YD.  
ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG 70-22  
LOCATION 1 - 21 CU. YD.

g146003.MGN 5-27-05

CALCULATED  
MJE  
CHECKED  
LME

GENERAL NOTES

GUE-146-0.00

4  
30

**ITEM 209 LINEAR GRADING, AS PER PLAN**

IN ORDER TO PROVIDE POSITIVE DRAINAGE FROM THE ROADWAY SURFACE TO THE SHOULDER BREAK, THE EXISTING ROADWAY SHOULDERS SHALL BE GRADED AND SHAPED USING A GRADER OF ADEQUATE SIZE TO PERFORM THE WORK TO THE SATISFACTION OF THE ENGINEER.

ALL EXCESS MATERIAL REMAINING AROUND GUARDRAIL AND OTHER AREAS AFTER THE GRADER WORK IS COMPLETED AND NOT DISPOSED OF ON THE SITE, SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. ALL EQUIPMENT, LABOR, OR INCIDENTALS REQUIRED TO COMPLETE THIS ITEM SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR ITEM 209 LINEAR GRADING, AS PER PLAN. THIS WORK MAY BE INTERMITTENT AND SPREAD THROUGHOUT THE PROJECT LIMITS, AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE PURPOSES.

ITEM 209 LINEAR GRADING, AS PER PLAN  
LOCATION 1 - 3 MILES

**ITEM 604 MANHOLE, ADJUSTED TO GRADE  
ITEM 604 CATCH BASIN, ADJUSTED TO GRADE  
ITEM 638 VALVE BOX ADJUSTED TO GRADE**

THESE ITEMS SHALL BE USED TO ADJUST MANHOLES, CATCH BASINS, AND VALVE BOXES LOCATED IN CUMBERLAND TO GRADE. ALL MATERIALS, LABOR EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED SHALL BE INCLUDED FOR PAYMENT WITH THE ABOVE ITEMS. IF THESE ITEMS ARE CURRENTLY AT GRADE, IT IS ASSUMED THAT THESE ITEMS SHOULD REMAIN AT GRADE AND THESE QUANTITIES MAY BE NON-PERFORMED.

ANY GAS VALVE BOXES AND TELEPHONE COMPANY MANHOLES ON THIS PROJECT SHALL BE ADJUSTED TO GRADE BY THE RESPECTIVE OWNERS.

ITEM 604 CATCH BASIN ADJUSTED TO GRADE.  
LOCATION 1 - 11 EACH

**PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN**

THE ROADWAY SHALL BE PLANED SUCH THAT POSITIVE DRAINAGE IS CREATED FROM THE CENTER LINE TO THE EDGE OF PAVEMENT IN TANGENT SECTIONS AND SHALL FOLLOW EXISTING SUPERELEVATIONS WHERE APPLICABLE. THIS MAY REQUIRE ADDITIONAL MILLING DEPTH DUE TO EXISTING GRADER PATCHES AND PAVEMENT REPAIR. ALL SPECIFICATIONS OF ITEM 254 SHALL APPLY.

THE QUANTITIES FOR ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN ARE CARRIED TO THE SUB-SUMMARIES FOR THE ABOVE DESCRIBED PURPOSE. THE GRINDINGS FROM THE PLANING OPERATION SHALL BE DELIVERED TO THE OHIO DEPARTMENT OF TRANSPORTATION: OUTPOST LOCATED AT 15385 CHANDLERSVILLE ROAD, CUMBERLAND, OHIO. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

**ITEM 606 GUARDRAIL TYPE 5, AS PER PLAN**

AN ESTIMATED QUANTITY FOR PLACEMENT OF GUARDRAIL AT GUE 340-0.10 AND MUS 340-3.11 HAS BEEN CARRIED TO THE GENERAL SUMMARY. THIS ITEM SHALL INCLUDE THE PLACING OF ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE AND SHALL BE PAID FOR UNDER ITEM 606 GUARDRAIL TYPE 5, AS PER PLAN.

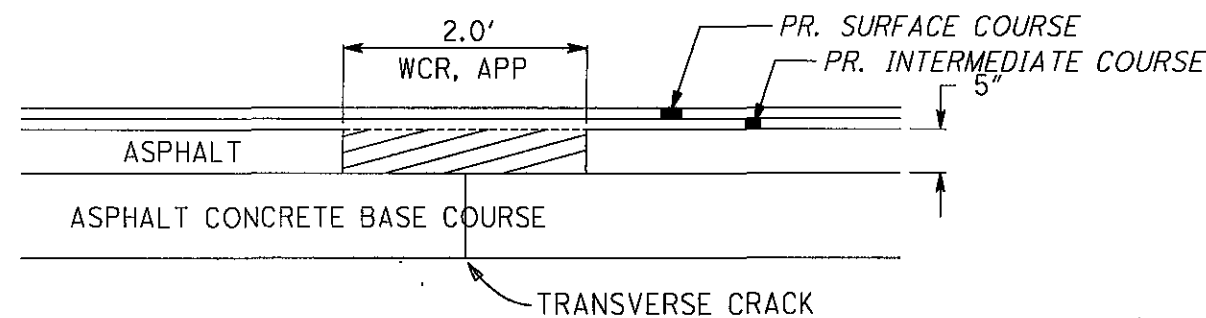
LOCATION 2 - 150 L.F. TYPE 5 GUARDRAIL, 2 - ANCHOR ASSEMBLY TYPE A  
LOCATION 4 - 150 L.F. TYPE 5 GUARDRAIL, 2 - ANCHOR ASSEMBLY TYPE A


**MAINTENANCE OF TRAFFIC**

PLACING OF THE ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE SHALL OCCUR AS CLOSE BEHIND THE PLANING OPERATION AS POSSIBLE, WHERE APPLICABLE, SUCH THAT TRAFFIC SHALL NOT BE MAINTAINED ON THE PLANED SURFACE AT THE END OF THE WORK DAY.

**ITEM 202 WEARING COURSE REMOVED, AS PER PLAN**

THIS ITEM SHALL CONSIST OF REMOVING ASPHALT CONCRETE PAVEMENT A DEPTH OF 5 INCHES. THE INTENT IS TO REPLACE THE DAMAGED ASPHALT AND TO CREATE A SMOOTH SURFACE BEFORE PLACING THE PROPOSED INTERMEDIATE AND SURFACE COURSES. THE REPLACEMENT MATERIAL SHALL BE ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 70-22, ALL MATERIALS, EXCLUDING ITEM 448, LABOR, EQUIPMENT, TRAFFIC CONTROL AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 202 WEARING COURSE REMOVE, AS PER PLAN. THIS WORK SHALL BE PERFORMED ON APPROXIMATELY 60 OF THE TRANSVERSE CRACKS LOCATED WITHIN THE WORK LIMITS AT THE DIRECTION OF THE PROJECT ENGINEER, ALL REPAIR AREAS SHALL BE INLAID WITH ITEM 448 ASPHALT CONCRETE BEFORE OPENING TO TRAFFIC.



 ITEM 202  
WEARING COURSE REMOVED, A.P.P.

$20.5' \times 2' / 9 = 4.6 \text{ SY/JOINT}$   
 $60 \text{ JOINTS} \times 4.6 \text{ SY/JT} = 276 \text{ SY}$

LOCATION 2:

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 202 WEARING COURSE REMOVED, AS PER PLAN	276 S. Y.
ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 70-22	38 C. Y.

g146005.mgn 5-27-05

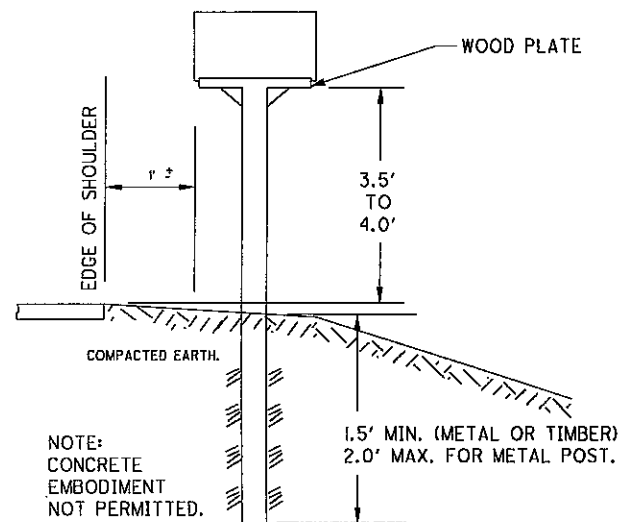
CALCULATED  
MADE  
CHECKED  
LINE

**GENERAL NOTES**

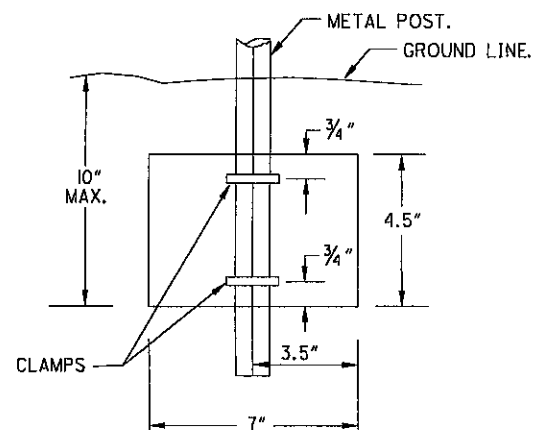
**GUE-146-0.00**

5  
30

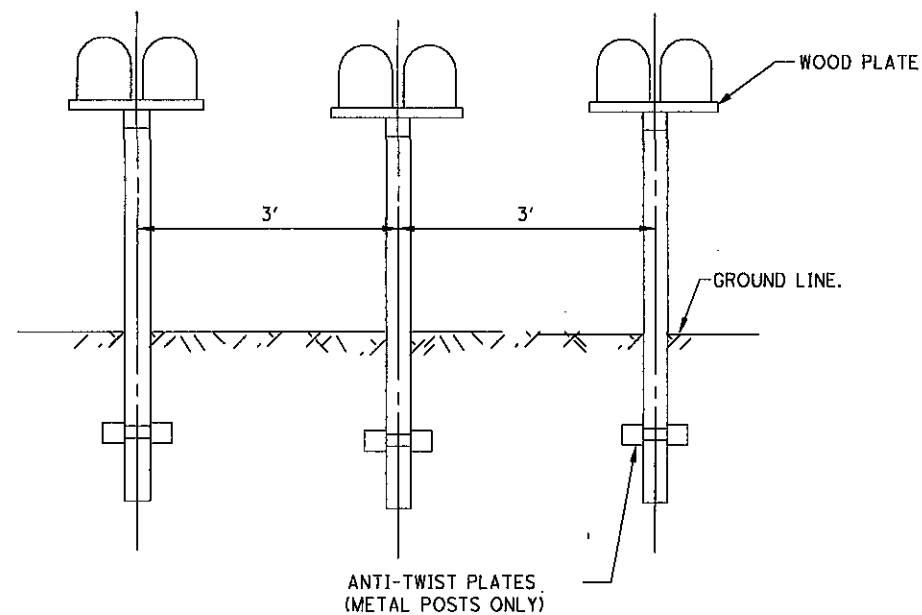
**MAILBOX DETAILS**



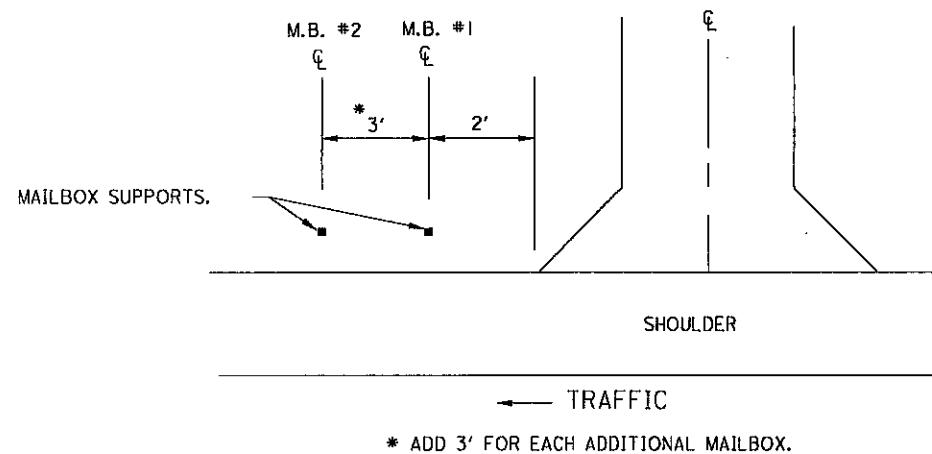
**TYPICAL MAILBOX LOCATION**



**ANTI-TWIST PLATE**



**GROUP MAILBOX INSTALLATION**



**ITEM SPECIAL - MAILBOX SUPPORT**

**DESCRIPTION**

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 LOCATION SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER. THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING POSTS AND OTHER MATERIAL NOT CONSIDERED SALVAGEABLE AND DISPOSED OF IN ACCORDANCE WITH 202.02.

**MATERIALS**

WOOD POSTS SHALL BE NOMINAL 4" x 4" SQUARE OR 4" DIAMETER ROUND. ALL WOOD INCLUDING POST AND PLATES SHALL 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.

**SETTING POSTS**

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

**MOUNTING BOXES**

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.

**BASIS OF PAYMENT**

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 WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR THE TYPE SPECIFIED, COMPLETE IN PLACE.

**PAYMENT WILL BE MADE UNDER:**

ITEM	UNIT	DESCRIPTION
SPECIAL	EACH	MAILBOX SUPPORT SYSTEM SINGLE
SPECIAL	EACH	MAILBOX SUPPORT SYSTEM DOUBLE

**QUANTITY**

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE PURPOSE

- SPECIAL MAILBOX SUPPORT SYSTEM, SINGLE - LOCATION 1 - 2 EACH
- SPECIAL MAILBOX SUPPORT SYSTEM, DOUBLE - LOCATION 1 - 1 EACH
- SPECIAL MAILBOX SUPPORT SYSTEM, SINGLE - LOCATION 2 - 1 EACH

g146006.MGN 5-27-05

CALCULATED  
MJE  
CHECKED  
LME

MAILBOX DETAILS AND QUANTITIES

GUE-146-0.00

6  
30

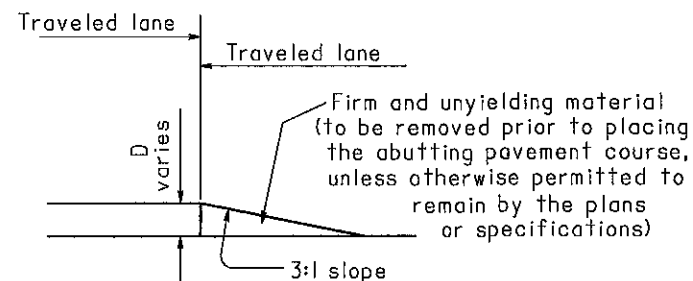


**GENERAL NOTES**

- 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 hereon, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.
- While the need for certain advisory signing is noted hereon, 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.
- 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 hereon may be required.
- The drop-off treatment selected for use at any given location shall be as appropriate for the prevailing conditions at the site.
- Where concrete barrier is specified, it shall be in accordance with Standard Construction Drawing MC-9.2 and Item 622.
- When drums are specified for a dropoff condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.
- When OW-151 (Low Shoulder) signs or OW-171 (Uneven Lanes) and OWP-171 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 dropoff condition extends more than one-half mile, additional signs should be erected at intervals of one mile or less.
- For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate any difference in elevation between pavements, a 3:1 slope treatment similar to the Optional Wedge Treatment shall be provided.
- 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 dropoff depth does not exceed 5" and approval is granted by the Project Engineer.
- Pavement Repairs (or similar work):
  - Lengths greater than 60 feet - utilize appropriate treatment from Condition I.
  - Lengths of 60 feet or less - repairs shall be effected in accordance with 255.08. Drums may be used as a separator adjacent to the traveled lane.

**OPTIONAL WEDGE TREATMENT  
(MILLING OR RESURFACING)**

- This treatment may be used when permitted for Condition I only.
- OW-171 and OWP-171 signs required.



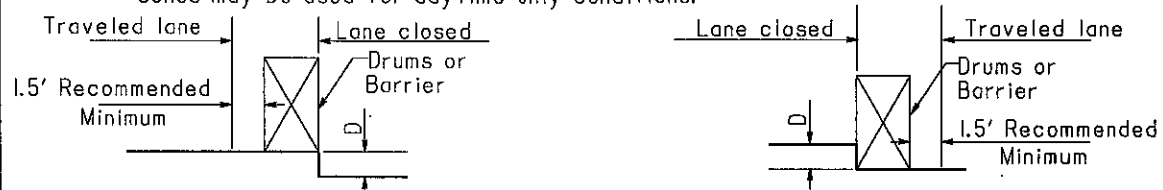
**CONDITION I**

**DROPOFFS BETWEEN TRAVELED LANES**

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

D (In.)	Treatment
≤ 1/2	Erect OW-171 and OWP-171 signs.
> 1/2 - 3	1) Lane closure utilizing drums as shown below OR 2) Optional Wedge Treatment
> 3 - 5	Lane closure utilizing drums as shown below.
> 5	Lane closure utilizing portable concrete barrier as shown below.

\*Cones may be used for daytime only conditions.



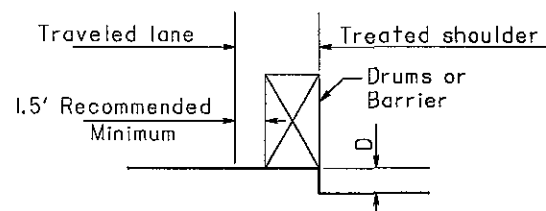
**CONDITION II**

**DROPOFFS WITHIN GRADED SHOULDER AREA**

- The treatments indicated below are for use in conjunction with resurfacing, planing, or excavations within the graded shoulder area.
- The graded shoulder area is that flat or gradually sloping area between the edge of a normally traveled lane and the more steeply sloping ditch foreslope or embankment slope. Its surface may be soil or turf, and/or it may be inclusive of a "treated" area (improved with aggregates, asphaltic materials, or concrete). For the purposes herein, its maximum width shall be considered to be twelve (12) feet.

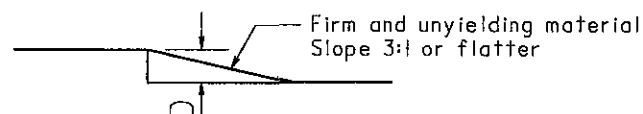
D (In.)	Treatment
≤ 1/2	1) If edgelines are present, no treatment necessary OR 2) Erect OW-171 and OWP-171 signs.
> 1/2 - 5	1) If min. lane width requirements can be met, maintain lanes utilizing drums as shown below OR 2) If min. lane width requirements cannot be met, close adjacent lane utilizing drums OR 3) Optional Shoulder Treatment.
> 5 - 12 Daylight only	If min. lane width requirements can be met, maintain lanes utilizing drums as shown below.
> 5 - 24	1) If min. lane width requirements can be met, maintain lanes utilizing portable concrete barrier as shown below. OR 2) If min. lane width requirements cannot be met, close adjacent lane utilizing drums.
> 24	Lane closure utilizing portable concrete barrier as shown below.

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



**OPTIONAL SHOULDER TREATMENT**

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



**GUE-146-0.00**

**CONDITION III**

**DROPOFFS BEYOND GRADED SHOULDER OR BACK OF CURB**

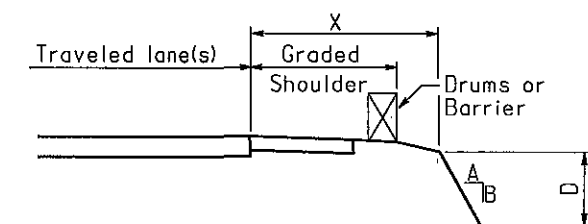
- See Note 2 under Condition II.
- Use Chart A or B below, as applicable.

**CHART A**

USE FOR: 1. Uncurbed Facilities.

2. Curbed Facilities, where:

- Curbs are less than 6" in height.
- Curbs are 6" or greater in height and the legal speed is greater than 40 mph.

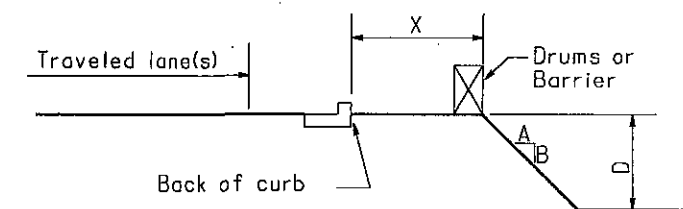


X (Ft.)	D (In.)	A/B	Treatment Required	
			Day	Night
0-4	Any	Any	(a)	(a)
4-30	Any	3:1 or Flatter	None	None
4-12	< 3	Steeper than 3:1	None	None
4-12	> 3 - < 12	Steeper than 3:1	Drums	Drums
4-12	> 12	Steeper than 3:1	Drums	Barrier
> 12 - 20	< 12	Steeper than 3:1	None	None
> 12 - 20	> 12 - < 24	Steeper than 3:1	Drums	Drums
> 12 - 20	> 24	Steeper than 3:1	Drums	Barrier
> 20 - 30	< 24	Steeper than 3:1	None	Drums
> 20 - 30	> 24	Steeper than 3:1	Drums	Barrier
> 30	Any	Any	None	None

(a) Use treatment specified under Condition II.

**CHART B**

USE FOR: Curbed facilities, where the curb is 6" or greater in height and the legal speed is 40 mph or less.



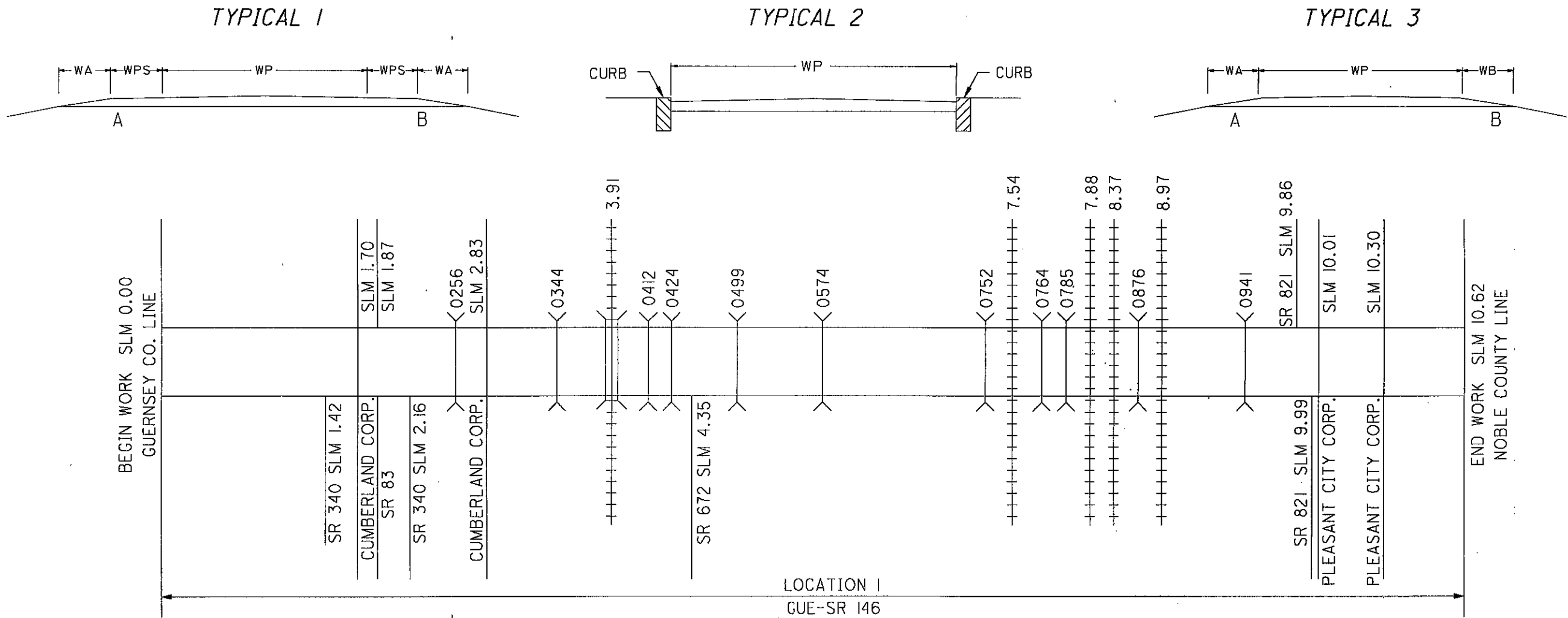
X (Ft.)	D (In.)	A/B	Treatment Required	
			Day	Night
0-10	< 12	Any	None	Drums
0-10	> 12	Any	Drums	Drums
> 10	Any	Any	None	None

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF LOCATION AND DESIGN

**DROPOFFS IN  
WORK ZONES**

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
----------	-------	--------	---------	----------	------	---------

ASPHALT CONCRETE



DEDUCT FOR BRIDGES (I) LENGTH X PAVEMENT WIDTH

PAVEMENT DATA																			
LOCATION	COUNTY	ROUTE	BEGIN LOG POINT	END LOG POINT	LENGTH		PAVEMENT WIDTH (FEET)	NUMBER OF LANES	TYPICAL	EXISTING PAVEMENT TYPE	PAVEMENT AREA	PROPOSED PAVEMENT						ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN	WORK ZONE CENTERLINE
					MILES	LIN. FT.						407		448 ASPHALT CONCRETE					
												TACK COAT @ 0.075 gal./s.y.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 gal./s.y.	THICKNESS	INTERMEDIATE COURSE, TYPE 1, PG 70-22	THICKNESS	SURFACE COURSE, TYPE 1, PG 70-22		
1	GUE	SR 146	0.00	1.70	1.70	8976.0	20.0	2	1	448	19947	1496	997	1	554.1	1	554.1		3.40
			1.70	2.16	0.46	2428.8	30.0	2	2	448	8096	607	405	1	224.9	1	224.9	8096	1.38
			2.16	2.44	0.28	1478.4	20.0	2	2	448	3285	246	164	1	91.3	1	91.3	3285	0.84
			2.44	4.35	1.91	10084.8	22.0	2	1	448	24652	1849	1233	1	684.8	1	684.8		3.82
			4.35	9.86	5.51	29092.8	18.0	2	3	448	58186	4364	2909	1	1616.3	1	1616.3		11.02
			9.99	10.62	0.63	3326.4	18.0	2	3	448	6653	499	333	1	184.8	1	184.8		1.26
DEDUCT FOR BRIDGES											(1662)	(125)	(83)	1	(46.2)	1	(46.2)		
TOTALS												8936	5958		3310.0		3310.0	11381	21.72

G:\46001.MAC 5-27-05

CALCULATED  
MJE  
CHECKED  
LME

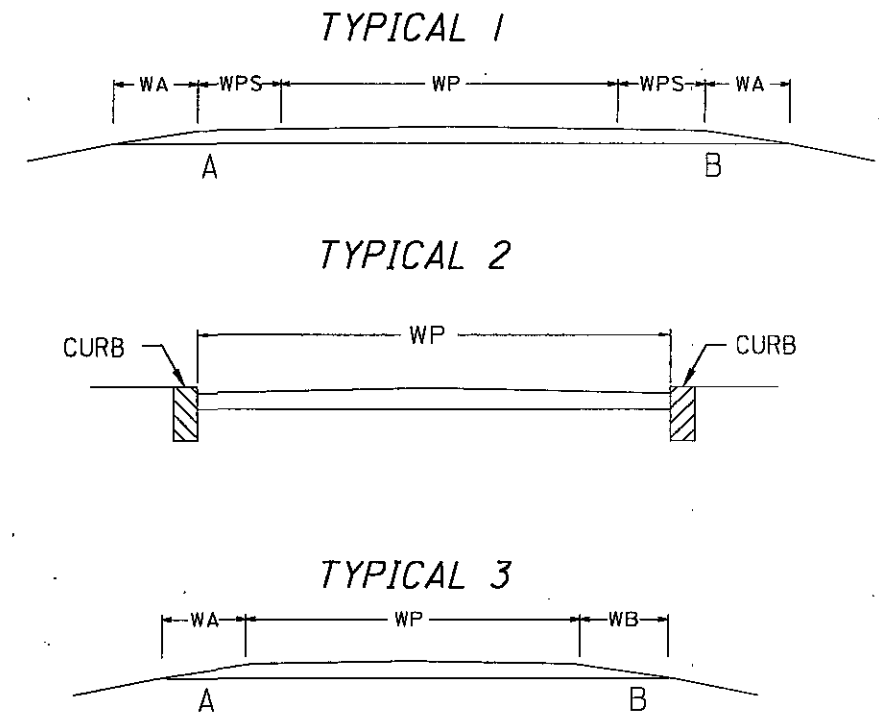
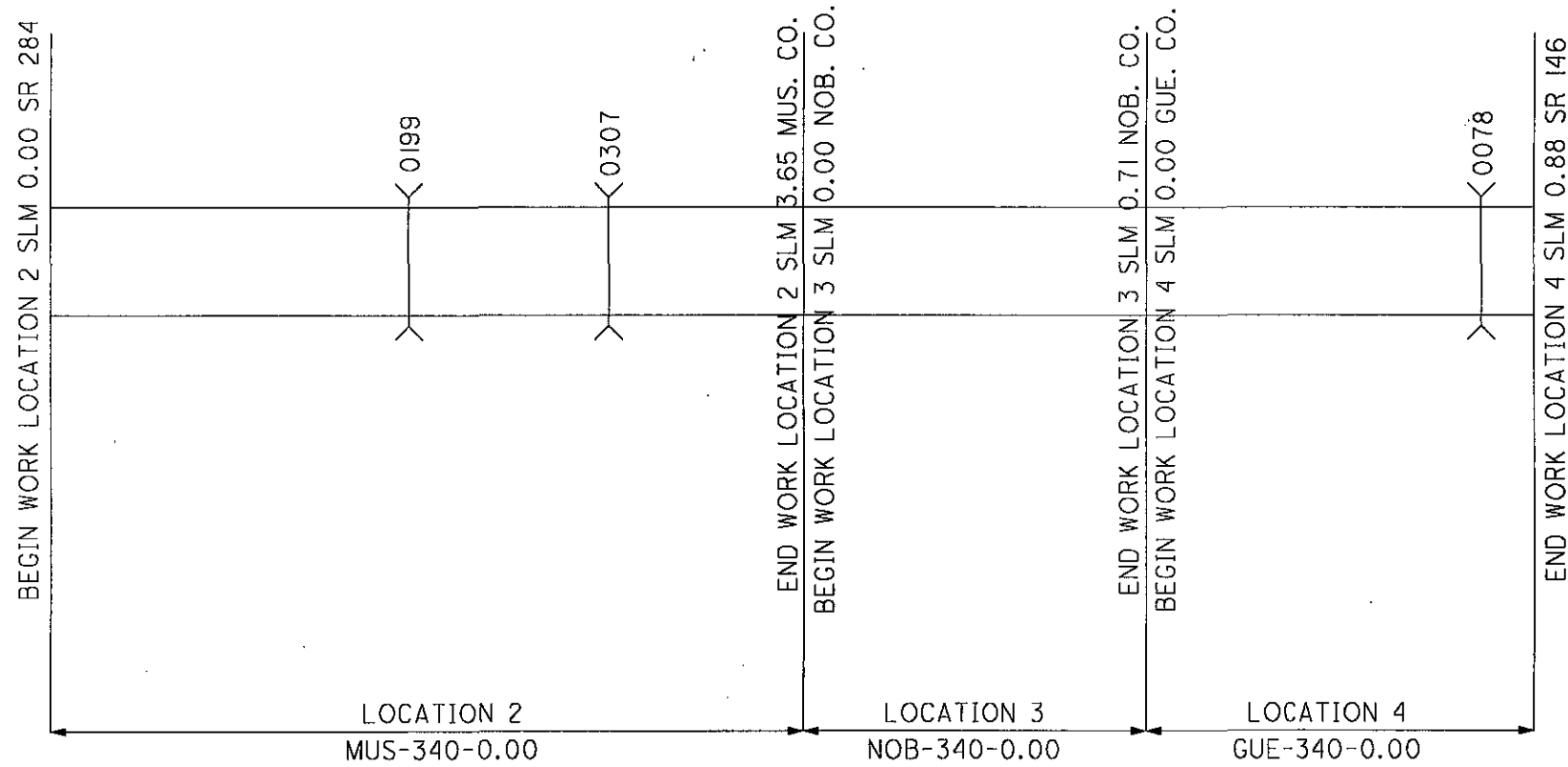
ASPHALT CONCRETE

GUE-146-0.00

8  
30



ASPHALT CONCRETE



DEDUCT FOR BRIDGES (I) LENGTH X PAVEMENT WIDTH

PAVEMENT DATA																		
L O C A T I O N	C O U N T Y	R O U T E	B E G I N L O G P O I N T	E N D L O G P O I N T	L E N G T H		P A V E M E N T W I D T ( F E E T	N U M B E R O F L A N E S	T Y P I C A L	E X I S T I N G P A V E M E N T T Y P E	P A V E M E N T A R E  S Q. Y A R D S	407		P R O P O S E D P A V E M E N T  448 ASPHALT CONCRETE				W O R K Z O N E  C E N T E R L I N E  M I L E
					TACK C O A T @ 0.075 g a l. /S.Y.	TACK C O A T F O R I N T E R M E D I A T E C O U R S E @ 0.05 g a l./s.y.						T H I C K N E S  I N C H E S	I N T E R M E D I A T E C O U R S E, T Y P E 1, P G 70-22	T H I C K N E S  I N C H E S	S U R F A C E C O U R S E, T Y P E 1, P G 70-22			
					G A L S.	G A L S.						I N C H E S	C U. Y A R D S	I N C H E S	C U. Y A R D S			
2	MUS	SR 340	0.00	1.86	1.86	9820.8	20.5	2	3	448	22370	1678	1119	1	621.4	1	621.4	3.72
			1.86	3.65	1.79	9451.2	18.0	2	3	448	18902	1418	945	1	525.1	1	525.1	3.58
DEDUCT FOR BRIDGES											(387)	(29)	(19)	1	(10.8)	1	(10.8)	
TOTALS												3067	2045		1135.7		1135.7	7.30
3	NOB	SR 340	0.00	0.71	0.71	3748.8	18.0	2	3	448	7498	562	375	1	208.3	1	208.3	1.42
			DEDUCT FOR BRIDGES														1	
TOTALS												562	375		208.3		208.3	1.42
4	GUE	SR 340	0.00	0.88	0.88	4646.4	18.0	2	3	448	9293	697	465	1	258.1	1	258.1	1.76
			DEDUCT FOR BRIDGES											(175)	(13)	(9)	1	(4.9)
TOTALS												684	456		253.2		253.2	1.76

G146002.MAC 5-27-05

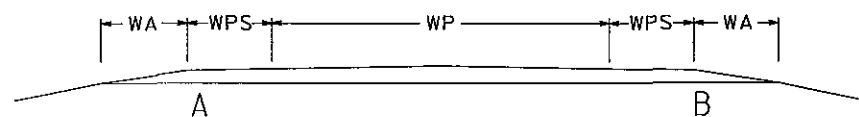
CALCULATED  
MADE  
CHECKED  
LME

ASPHALT CONCRETE

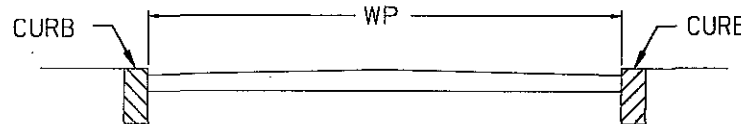
GUE-146-0.00

9  
30

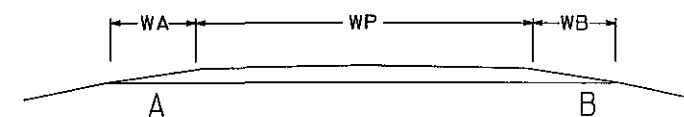
TYPICAL 1



TYPICAL 2



TYPICAL 3



DEDUCT FOR BRIDGES (I) LENGTH X SHOULDER WIDTH

SHOULDER DATA

LOCATION	COUNTY	ROUTE	BEGIN LOG POINT	END LOG POINT	LENGTH		TYPICAL	PROPOSED WIDTH (FT.)		SHOULDER AREA	407	448 ASPHALT CONCRETE				617						
					MILES	LIN.FT.		A	B		TACK COAT @ 0.075 GAL./SQ. YD.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./SQ. YD.	THICK	INTERMEDIATE COURSE TYPE I, PG 70-22	THICK	SURFACE COURSE TYPE I, PG 70-22	AVERAGE THICKNESS	COMPACTED AGGREGATE, 2' EACH SIDE				
																			SQ. YDS.	GAL.	GAL.	IN.
1	GUE	146	0.00	1.70	1.7	8976	1	2	2	3989	299	199	1	110.8	1	110.8	2.0	221.6				
			1.70	2.44	0.74	3907.2	2															
			2.44	4.35	1.91	10084.8	1	1	1	2241	168	112	1	62.3	1	62.3	2.0	249.0				
			4.35	9.86	5.51	29092.8	3											2.0	718.3			
			9.99	10.62	0.63	3326.4	3											2.0	82.1			
DEDUCT FOR BRIDGES										(317.0)	(24)	(16)	1	(8.8)	1	(8.8)	2.0	(17.6)				
SUBTOTAL LOCATION 1											443	295		164.3		164.3		1253.4				
2	MUS	340	0.00	3.65	3.65	19272	3										2.0	475.9				
			DEDUCT FOR BRIDGES										(74.0)							2.0	(4.1)	
			SUBTOTAL LOCATION 2																		471.8	
			3	NOB	340	0.00	0.71	0.71	3748.8	3										2.0	92.6	
			SUBTOTAL LOCATION 3																		92.6	
4	GUE	340	0.00	0.88	0.88	4646.4	3											2.0	114.7			
			DEDUCT FOR BRIDGES										(33.0)								2.0	(1.8)
			SUBTOTAL LOCATION 4																		112.9	

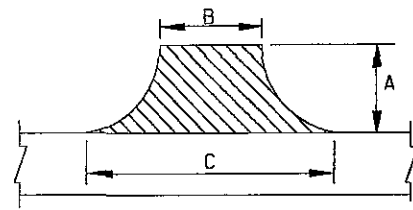
CALCULATED  
MJE  
CHECKED  
LME

SHOULDER TREATMENT

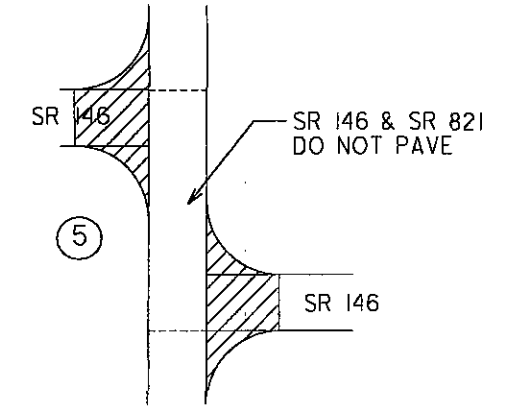
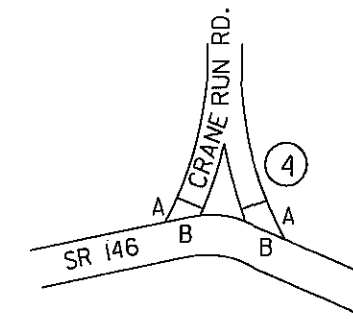
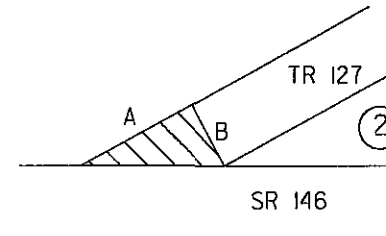
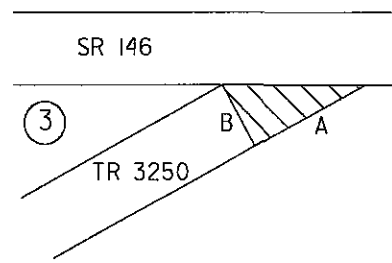
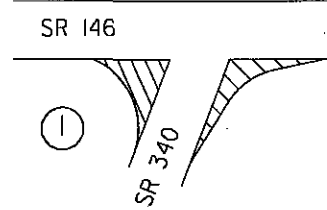
GUE-146-0.00

10  
30

g146001.mst 5-27-05



INTERSECTIONS



ALL AREAS TAKEN FROM PREVIOUS PLANS

PAVEMENT DATA

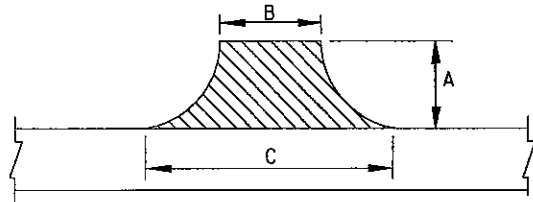
LOCATION	COUNTY	ROUTE	BEGIN LOG POINT	SIDE	DESCRIPTION	INTERSECTIONS			AREA SQ. YDS.	407		448 ASPHALT CONCRETE			202	254			
						A IN FEET	B IN FEET	C IN FEET		TACK COAT @ 0.075 GAL./SQ. YD.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./SQ. YD.	THICK	INTERMEDIATE COURSE TYPE I, PG 70-22	AVERAGE THICKNESS	SURFACE COURSE TYPE I, PG 70-22	WEARING COURSE REMOVED	PAVEMENT PLANING ASPHALT CONCRETE, AS PER PLAN		
																		GAL.	GAL.
1	GUE	SR 146		RT	SCOTT ROAD	45	20	86	265	20	13	1	7.4	1	7.4				
				RT	SR 340 - SEE LOCATION 4 SHOWN BELOW														
					CUMBERLAND SEE SHEET 12														
				LT	HOWELL RD. (CO. RD. 19)	35	20	83	200	15	10	1	5.6	1	5.6				
				RT	IOWA RD. (TWP. RD. 127)	32	16	53	123	9	6	1	3.4	1	3.4				
				RT	SR 672	75	20	105	521	39	26	1	14.5	1	14.5	521			
				LT	IOWA RD. (TWP. RD. 127) 2	63	80		280	21	14	1	7.8	1	7.8				
				RT	TRIPLETT LANE (TWP. RD. 3250) 3	22	73		89	7	4	1	2.5	1	2.5				
				RT	GARVIN SCHOOL RD.	31	99		171	13	9	1	4.8	1	4.8				
				LT	CRANE RUN RD. (CO. RD. 26) 4	40	17	84	224	17	11	1	6.2	1	6.2				
				LT	CRANE RUN RD. (CO. RD. 26) 4	31	98		165	12	8	1	4.6	1	4.6				
				LT	HICKLE RD. (TWP. RD. 326)	27	15	51	99	7	5	1	2.8	1	2.8				
				RT	TWP. RD. 3266 STEPHENS ROAD	29	17	61	128	9	6	1	3.5	1	3.5				
					SR 146 @ SR 821 5	70	26	96	474	36	24	1	13.2	1	13.2	474			
	SR 146 @ SR 821 5	80	28	94	542	41	27	1	15.1	1	15.1	542							
	MAIN ST. PLEASANT CITY	22	29	42	87	7	4	1	2.4	1	2.4	87							
	LT	TWP. RD. 2389 MARKETSVILLE ROAD	22	18	50	83	6	4	1	2.3	1	2.3							
<b>SUBTOTAL LOCATION 1</b>									<b>259</b>	<b>171</b>		<b>96.1</b>		<b>96.1</b>	<b>1624</b>				
2	MUS	SR 340		CL	AT SR 284	65	21	123	520	39	26	1	14.4	1	14.4	520			
				RT	PROUTY	80	40	15	244	18	12	2	13.6	2	13.6				
				LT	SISK RD.	32	15	70	151	11	8	1	4.2	1	4.2				
				LT	INTERNATIONAL DR.	35	25	73	191	14	10	1	5.3	1	5.3				
<b>TOTALS LOCATION 2</b>									<b>82</b>	<b>56</b>		<b>37.5</b>		<b>37.5</b>	<b>520</b>				
4	GUE	SR 340		LT	ZEBEDEE RD.	30	15	57	120	9	6	1	3.3	1	3.3				
				CL	AT SR 146 1	75	2	104	442	33	22	1	12.3	1	12.3				
<b>TOTALS LOCATION 4</b>									<b>42</b>	<b>28</b>		<b>15.6</b>		<b>15.6</b>					

CALCULATED  
MADE  
CHECKED  
LIME

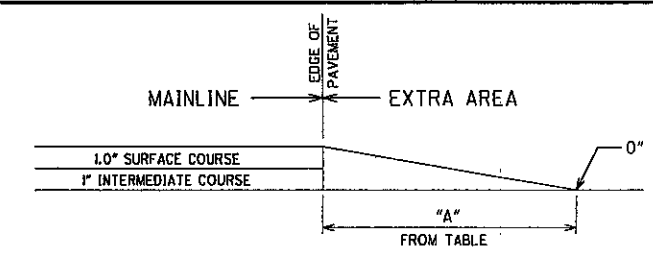
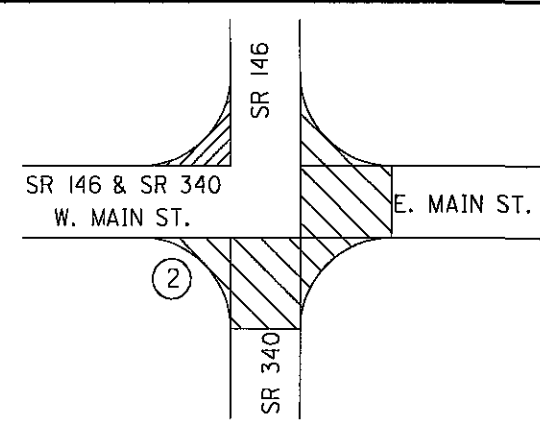
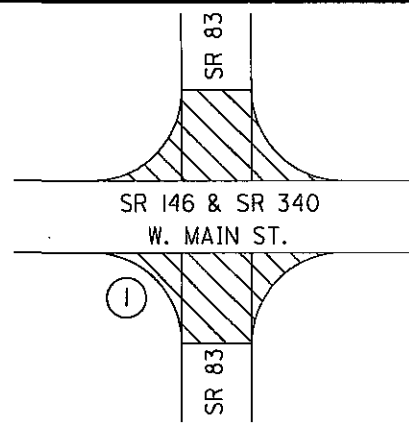
EXTRA AREAS

GUE - 146 - 0.00

g14600 I.MEA 5-27-05



INTERSECTIONS



FEATHER DETAIL

ALL AREAS TAKEN FROM PREVIOUS PLANS

PAVEMENT DATA

LOCATION	COUNTY	ROUTE	BEGIN LOG POINT	SIDE	DESCRIPTION	INTERSECTIONS			AREA SQ. YDS.	407		448 ASPHALT CONCRETE			202	254	
						A IN FEET	B IN FEET	C IN FEET		TACK COAT @ 0.075 GAL./SQ. YD.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./SQ. YD.	THICK IN.	INTERMEDIATE COURSE TYPE I, PG 70-22 CU. YDS.	AVERAGE THICKNESS IN.	SURFACE COURSE TYPE I, PG 70-22 CU. YDS.	WEARING COURSE REMOVED SQ. YDS.	PAVEMENT PLANING ASPHALT CONCRETE, AS PER PLAN SQ. YDS.
1	GUE	SR 146			CUMBERLAND												
				RT	ALLEY	12	12	20	21	2	1	1	0.6	1	0.6	21	
				RT	ALLEY	17	12	19	29	2	1	1	0.8	1	0.8	29	
				LT	ALLEY	17	12	19	29	2	1	1	0.8	1	0.8	29	
				RT	ALLEY	17	12	19	29	2	1	1	0.8	1	0.8	29	
				LT	ALLEY	17	10	19	27	2	1	1	0.8	1	0.8	27	
				LT	CEMETERY ST.	18	20	35	55	4	3	1	1.5	1	1.5	55	
				RT	ALLEY	17	10	19	27	2	1	1	0.8	1	0.8	27	
				RT	CHURCH ST. (SR 83)	20	22	58	89	7	4	1	2.5	1	2.5	89	
				LT	CHURCH ST. (SR 83)	20	25	55	89	7	4	1	2.5	1	2.5	89	
				RT	ALLEY	21	12	18	35	3	2	1	1.0	1	1.0	35	
				LT	ALLEY	19	12	18	32	2	2	1	0.9	1	0.9	32	
				RT	ALLEY	25	12	20	44	3	2	1	1.2	1	1.2	44	
				LT	DRIVE	17	12	19	29	2	1	1	0.6	1	0.6	29	
				RT	ALLEY	19	12	20	34	3	2	1	0.9	1	0.9	34	
				RT	AREA ADJACENT TO ALLEY	10	21	21	23	2	1	1	0.6	1	0.6	23	
				LT	ALLEY	18	12	24	36	3	2	1	1.0	1	1.0	36	
				RT	ALLEY	19	12	19	33	2	2	1	0.9	1	0.9	33	
				LT	ALLEY	19	12	20	34	3	2	1	0.9	1	0.9	34	
				RT	ALLEY	19	12	19	33	2	2	1	0.9	1	0.9	33	
				RT	BROAD ST.	18	24	43	67	5	3	1	1.9	1	1.9	67	
				LT	BROAD ST.	15	13	32	38	3	2	1	1.0	1	1.0	38	
				RT	ALLEY	20	12	20	36	3	2	1	1.0	1	1.0	36	
				LT	ALLEY	20	12	19	34	3	2	1	1.0	1	1.0	34	
				RT	ALLEY	19	12	21	35	3	2	1	1.0	1	1.0	35	
				LT	BANK ST.	18	12	20	32	2	2	1	0.9	1	0.9	32	
				RT	ALLEY	19	12	20	34	3	2	1	0.9	1	0.9	34	
				LT	ALLEY	19	12	20	34	3	2	1	0.9	1	0.9	34	
				RT	SR 340 (CAMBRIDGE ST.)	30	21	55	127	10	6	1	3.5	1	3.5	127	
				RT	E. MAIN ST.	25	30	50	111	8	6	1	3.1	1	3.1	111	
				RT	NORTH ST.	10	20	23	24	2	1	1	0.7	1	0.7	24	
				LT	NORTH ST.	15	13	24	31	2	2	1	0.9	1	0.9	31	
				RT	ALLEY	10	12	16	16	1	1	1	0.4	1	0.4	16	
				RT	ALLEY	10	12	16	16	1	1	1	0.4	1	0.4	16	
				RT	ALLEY	10	12	16	16	1	1	1	0.4	1	0.4	16	
				RT	ALLEY	10	12	16	16	1	1	1	0.4	1	0.4	16	
				RT	ALLEY	10	20	28	27	2	1	1	0.7	1	0.7	27	
				RT	ALLEY	8	12	16	12	1	1	1	0.3	1	0.3	12	
				RT	WALNUT ST.	30	11	39	83	6	4	1	2.3	1	2.3	83	
				RT	ELM ST.	12	13	30	29	2	1	1	0.8	1	0.8	29	
				RT	MAPLE ST.	40	11	50	136	10	7	1	3.8	1	3.8	136	
				LT	SINGER ST.	35	16	72	171	13	9	1	4.8	1	4.8	171	
				RT	CARL ST.	33	18	43	112	8	6	1	3.1	1	3.1	112	
SUBTOTAL LOCATION 1										147	98		54.5		54.5	1432	

GI46002.MEA 5-27-05

CALCULATED MJE CHECKED LME  
 EXTRA AREAS - CUMBERLAND  
 GUE-146-0.00  
 12/30

**BRIDGE DECK DATA**

L O C A T I O N	COUNTY, ROUTE, BRIDGE NO.	LENGTH (BRIDGE LIMITS) LIN.FT.	WIDTH LIN. FT.	BRIDGE DECK AREA  SQ. YDS.	202	407	448 ASPHALT CONCRETE					
					WEARING COURSE REMOVED DEPTH VAR.  SQ. YDS.	TACK COAT @ 0.075 GAL./SQ. YD.  GAL.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./SQ. YD.  GAL.	THICK	INTERMEDIATE COURSE TYPE I, PG 70-22  CU. YDS.	THICK	SURFACE COURSE TYPE I, PG 70-22  CU. YDS.	
								IN.		IN.		
1	GUE-146-0256	20	28	62	611							
	GUE-146-0344	22.33	28	69	611							
	GUE-146-0390	210	23.4	546	733							
	GUE-146-0410	130	27.5	397	611							
	GUE-146-0752	105	28.17	329	300							
	GUE-146-0785	100	25.7	286	300							
	GUE-146-0941	31	30	103	673	8	5	1	2.9	1	2.9	
	GUE-146-1002	94	24	251	200							
SUBTOTAL LOCATION 1				2043	4039	8	5		2.9		2.9	
BRIDGE DEDUCTS FOR PAVED ROADWAY		712.33	21	1662								
BRIDGE DEDUCTS FOR PAVED SHOULDER		712.33	4	317								
2	MUS-340-0186	78	23.08	200	456							
2	MUS-340-0294	88	25.5	249	600							
SUBTOTAL LOCATION 2				449	1056							
BRIDGE DEDUCTS FOR PAVED ROADWAY		166	21	387								
BRIDGE DEDUCTS FOR PAVED SHOULDER		166	4	74								
4	GUE-340-0078	75	32.8	273	500							
SUBTOTAL LOCATION 4				347	500							
BRIDGE DEDUCTS FOR PAVED ROADWAY		75	21	175								
BRIDGE DEDUCTS FOR PAVED SHOULDER		75	4	33								

**BRIDGE DEDUCTIONS**

(BRIDGE LENGTH X PAVEMENT WIDTH) (WHEN APPLICABLE, APPROACH SLABS ADDED FOR CALCULATION PURPOSES)

TOTAL CARRIED TO SHEETS 8 & 9

g146001.MBT 5-27-05

CALCULATED  
MJE  
CHECKED  
LME

**BRIDGE DECK TREATMENT**

**GUE-146-0.00**

LOCATION 1

**GUE-146-0256**

BUTT JOINT AT BRIDGE ENDS, 125' TAPERS AT EACH BRIDGE END.

**GUE-146-0344**

BUTT JOINT AT BRIDGE ENDS, 125' TAPERS AT EACH BRIDGE END.

**GUE-146-0390**

BUTT JOINT AT APPROACH SLABS, 150' TAPERS AT EACH END OF APPROACH SLABS.

**GUE-146-0410**

BUTT JOINT AT APPROACH SLABS, 125' TAPERS AT EACH END OF APPROACH SLABS.

**GUE-146-0752**

WEST END - BUTT JOINT AT APPROACH SLABS, 125' TAPERS AT END OF APPROACH SLAB.

EAST END - BUTT JOINT AT APPROACH SLABS, 10' TAPERS AT END OF APPROACH SLAB.

**GUE-146-0785**

WEST END - BUTT JOINT AT APPROACH SLABS, 100' TAPERS AT END OF APPROACH SLAB.

EAST END - BUTT JOINT AT APPROACH SLABS, 50' TAPERS AT END OF APPROACH SLAB.

**GUE-146-0941**

MILL 1" OFF BRIDGE AND APPROACH SLAB, 100' TAPER AT EACH END OF APPROACH SLABS.

FILL WITH 2" OVERLAY SAME AS ROADWAY.

**GUE-146-1002**

WEST END - BUTT JOINT AT APPROACH SLABS, 50' TAPERS AT END OF APPROACH SLAB.

EAST END - BUTT JOINT AT APPROACH SLABS, 50' TAPERS AT END OF APPROACH SLAB.

LOCATION 2

**MUS-340-0186**

BUTT JOINT AT APPROACH SLABS, 125' TAPERS AT EACH END OF APPROACH SLABS.

**MUS-340-0294**

BUTT JOINT AT APPROACH SLABS, 125' TAPERS AT EACH END OF APPROACH SLABS.

LOCATION 4

**GUE-340-0078**

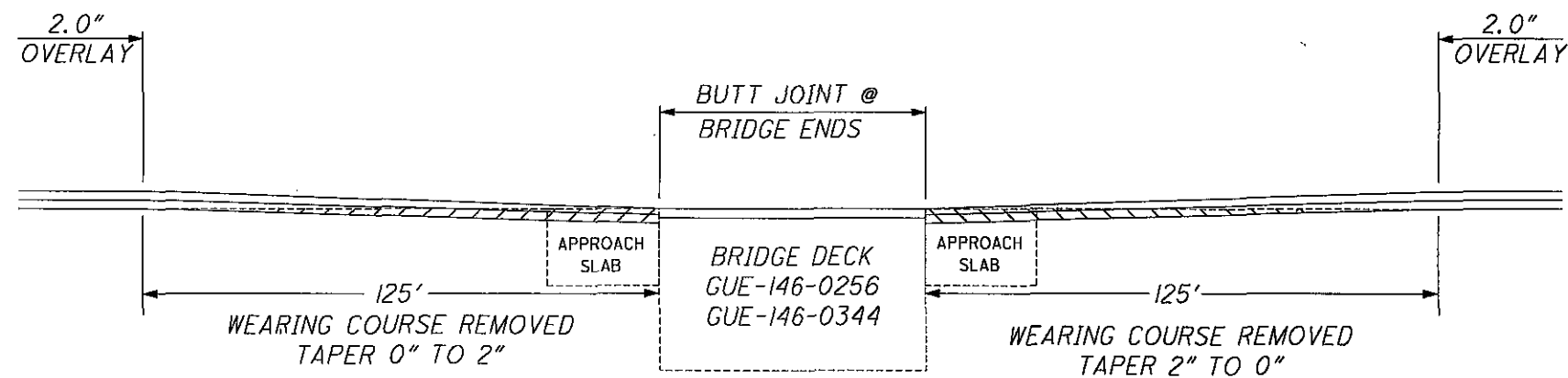
BUTT JOINT AT APPROACH SLABS, 125' TAPERS AT EACH END OF APPROACH SLABS.

**BRIDGE DEDUCTIONS**

(BRIDGE LENGTH X PAVEMENT WIDTH)

(APPROACH SLABS ADDED FOR CALCULATION PURPOSES)

TOTAL CARRIED TO SHEETS 8 & 9



202 WEARING COURSE REMOVED:

LOCATION 1

GUE-146-0256 - [2(125' X 22')] / 9 = 611 SQ. YD.

GUE-146-0344 - [2(125' X 22')] / 9 = 611 SQ. YD.

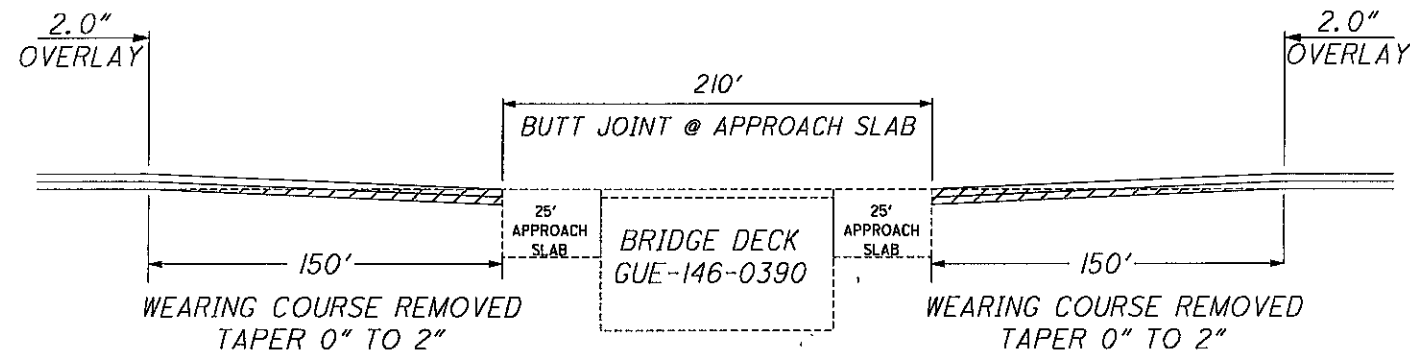
TOTAL CARRIED TO SHEET 13

CALCULATED  
MADE  
CHECKED  
LME

BRIDGE DECK DETAILS

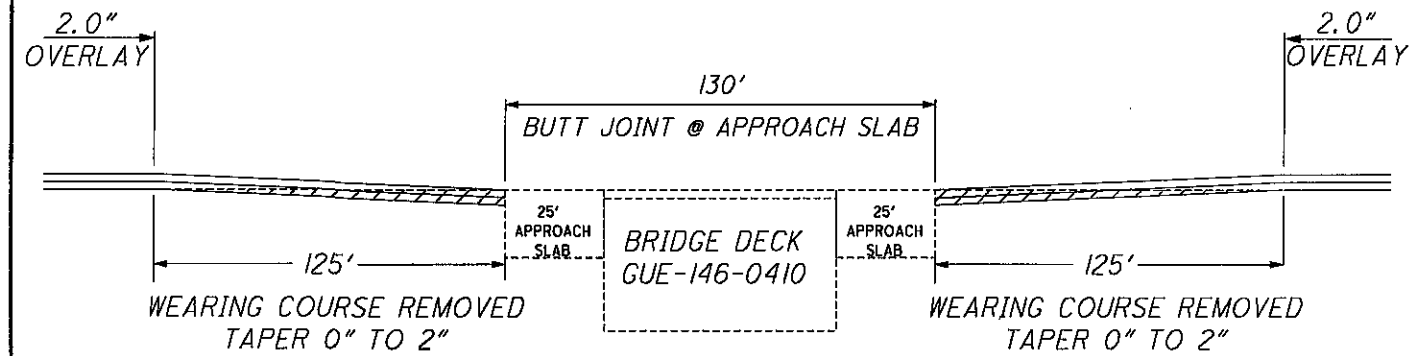
GUE-146-0.00

14  
30



202 WEARING COURSE REMOVED:  
LOCATION 1  
GUE-146-0390

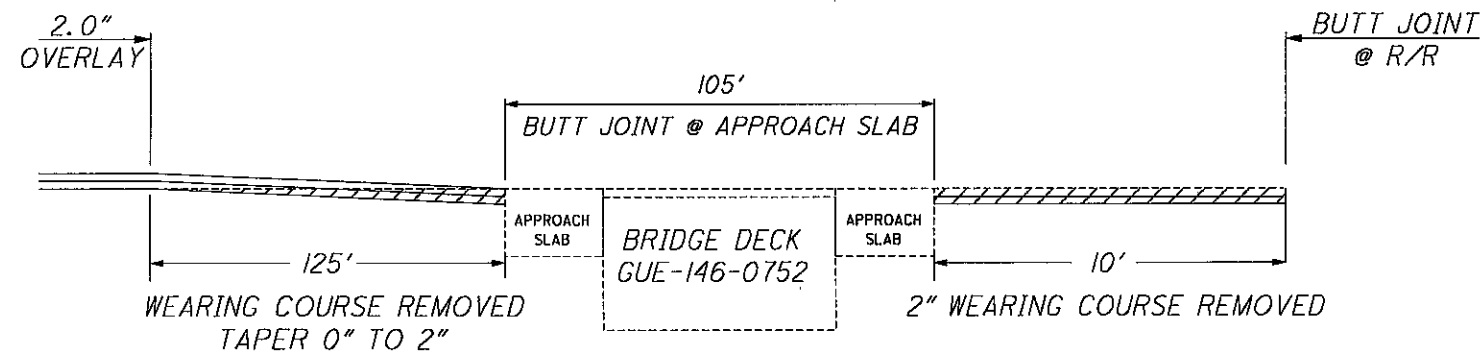
$[2(150' \times 22')] / 9 = 733 \text{ SQ. YD.}$



202 WEARING COURSE REMOVED:  
LOCATION 1  
GUE-146-0410

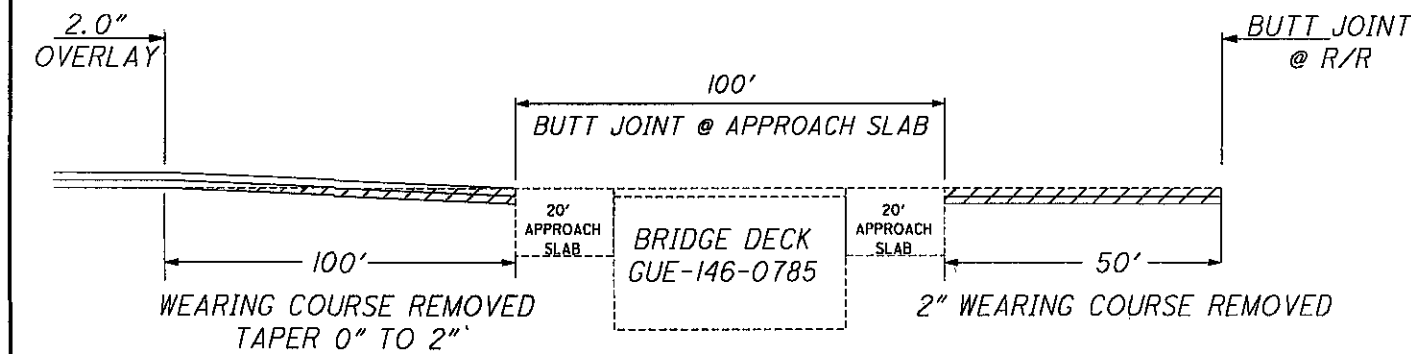
$[2(125' \times 22')] / 9 = 611 \text{ SQ. YD.}$

TOTAL CARRIED TO SHEET 13



202 WEARING COURSE REMOVED:  
LOCATION 1  
GUE-146-0752

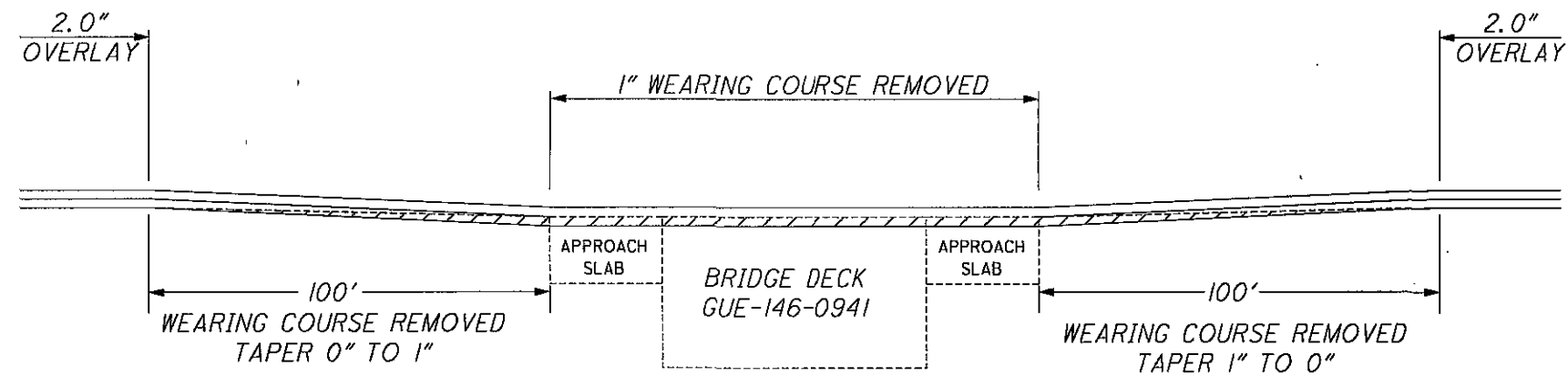
$[(125' \times 20') + (10' \times 20')] / 9 = 300 \text{ SQ. YD.}$



202 WEARING COURSE REMOVED:  
LOCATION 1  
GUE-146-0785

$[(100' \times 18') + (50' \times 18')] / 9 = 300 \text{ SQ. YD.}$

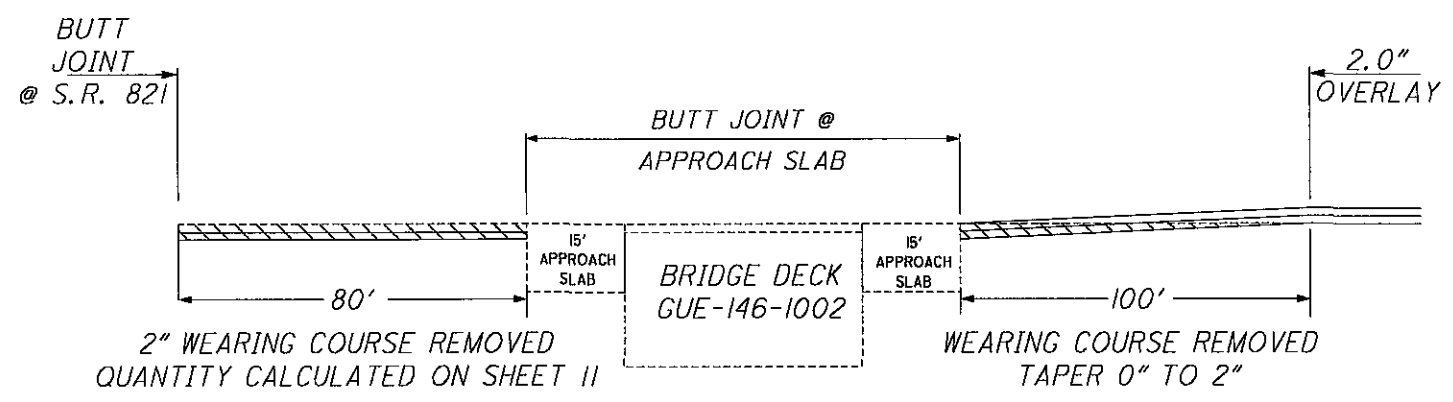




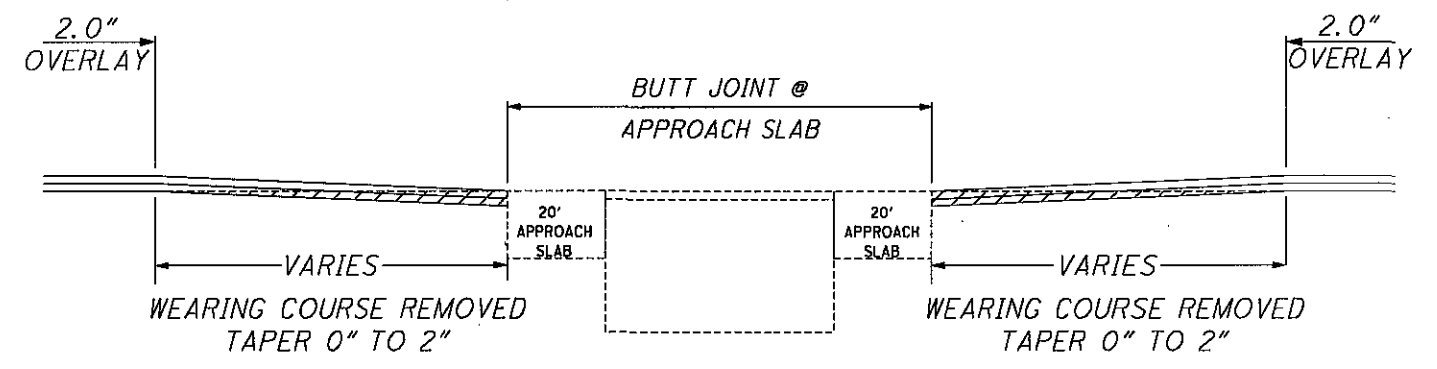
202 WEARING COURSE REMOVED:  
LOCATION 1  
GUE-146-0941

$$[2(100' \times 20') + 2(20' \times 29') + (31' \times 29')] / 9 = 673 \text{ SQ. YD.}$$

TOTAL CARRIED TO SHEET 13



202 WEARING COURSE REMOVED:  
LOCATION 1  
GUE-146-1002

$$(100' \times 18') / 9 = 200 \text{ SQ. YD.}$$


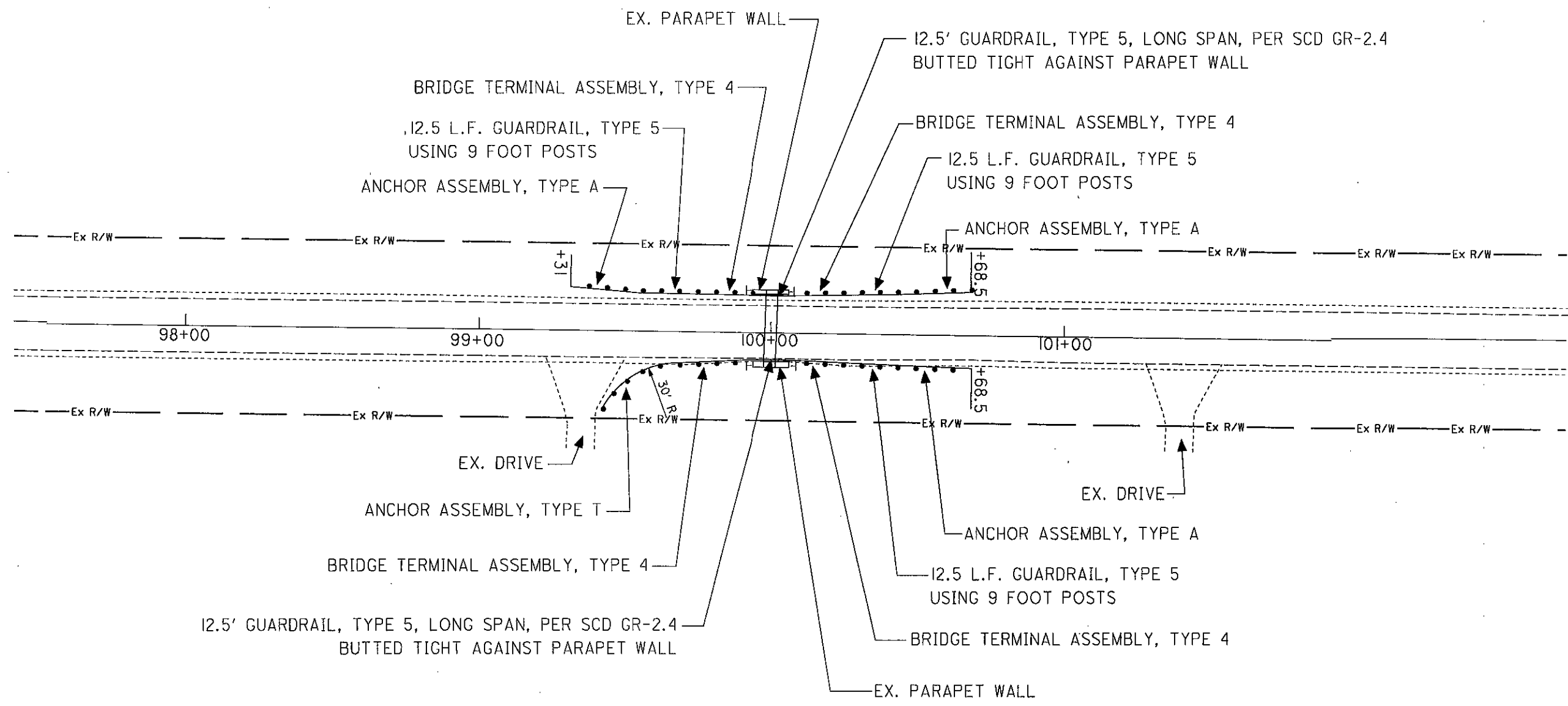
**LOCATION 2**  
BRIDGE DECK INFORMATION  
MUS-340-0186, TAPER LENGTH = 100'  
MUS-340-0294, TAPER LENGTH = 150'

202 WEARING COURSE REMOVED:  
LOCATION 2  
MUS-340-0186 -  $[2(100' \times 20.5')] / 9 = 456 \text{ SQ. YD.}$   
MUS-340-0294 -  $[2(150' \times 18')] / 9 = 600 \text{ SQ. YD.}$

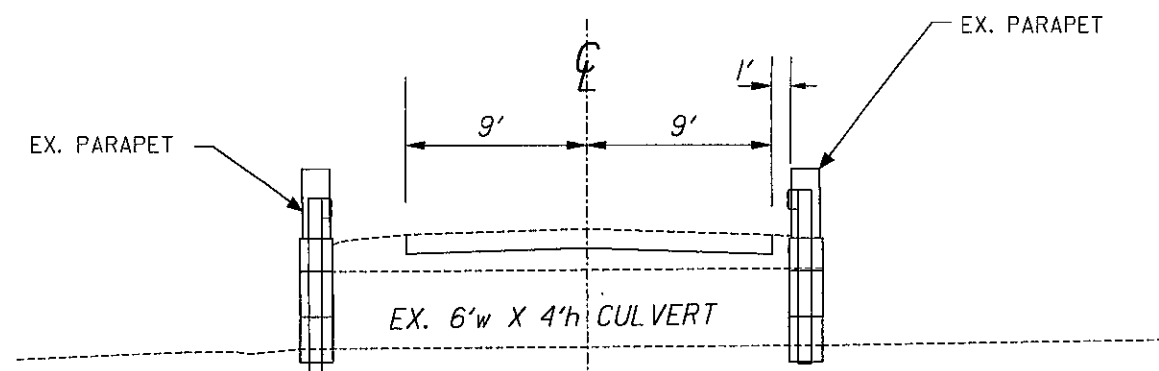
**LOCATION 4**  
BRIDGE DECK INFORMATION  
GUE-340-0078, TAPER LENGTH = 125'

202 WEARING COURSE REMOVED:  
LOCATION 4  
GUE-340-0078 -  $[2(125' \times 18')] / 9 = 500 \text{ SQ. YD.}$

C146002.mbt 5-27-05



GUE-146-0487



LOCATION 1

ITEM	EXTEN.	DESCRIPTION	QUANTITY
606	13030	GUARDRAIL, TYPE 5, USING 9 FOOT POSTS	37.5 FT
606	17290	GUARDRAIL, TYPE 5, LONG SPAN	25 FT
606	35140	BRIDGE TERMINAL ASSEMBLY, TYPE 4	4 EACH
606	25000	ANCHOR ASSEMBLY, TYPE A	3 EACH
606	26500	ANCHOR ASSEMBLY, TYPE T	1 EACH
626	00300	BARRIER REFLECTOR, TYPE A2	6 EACH
630	84900	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	4 EACH

QUANTITIES CARRIED TO GENERAL SUMMARY

EROSION CONTROL

ITEM 601 IS PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE THIS ITEM. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES OF THIS ITEM WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION. IN ADDITION, THIS ITEM SHALL MEET THE REQUIREMENT OF 108.04.

UTILITIES

PLEASE SEE COMPLETE LIST OF UTILITIES LOCATED WITHIN THE LIMITS OF THE PROJECT ON SHEET 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT UTILITY OWNERS TO VERIFY LOCATION OF UTILITIES WITHIN WORK LIMITS OF CULVERT REPLACEMENT.

DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING THE STREAM. ANY MATERIAL THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE.

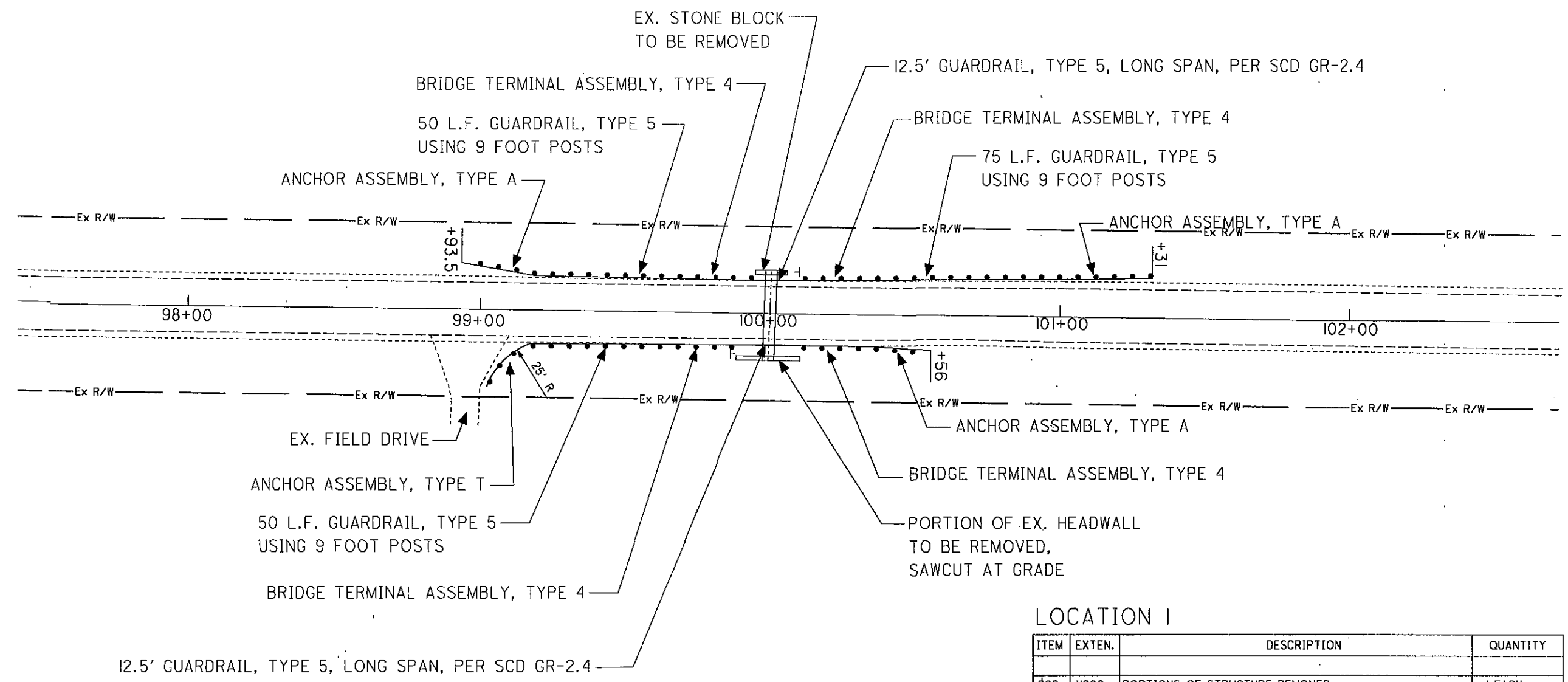


HORIZONTAL SCALE IN FEET

CALCULATED  
CHECKED

GUE-146-5.18 CULVERT REPAIR

GUE-146-0.00



LOCATION 1

ITEM	EXTEN.	DESCRIPTION	QUANTITY
202	11200	PORTIONS OF STRUCTURE REMOVED	1 EACH
606	13030	GUARDRAIL, TYPE 5, USING 9 FOOT POSTS	175 FT
606	17290	GUARDRAIL, TYPE 5, LONG SPAN	25 FT
606	35140	BRIDGE TERMINAL ASSEMBLY, TYPE 4	4 EACH
606	25000	ANCHOR ASSEMBLY, TYPE A	3 EACH
606	26500	ANCHOR ASSEMBLY, TYPE T	1 EACH
626	00300	BARRIER REFLECTOR, TYPE A2	6 EACH
630	84900	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	2 EACH

QUANTITIES CARRIED TO GENERAL SUMMARY

UTILITIES

PLEASE SEE COMPLETE LIST OF UTILITIES LOCATED WITHIN THE LIMITS OF THE PROJECT ON SHEET 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT UTILITY OWNERS TO VERIFY LOCATION OF UTILITIES WITHIN WORK LIMITS OF CULVERT REPLACEMENT.

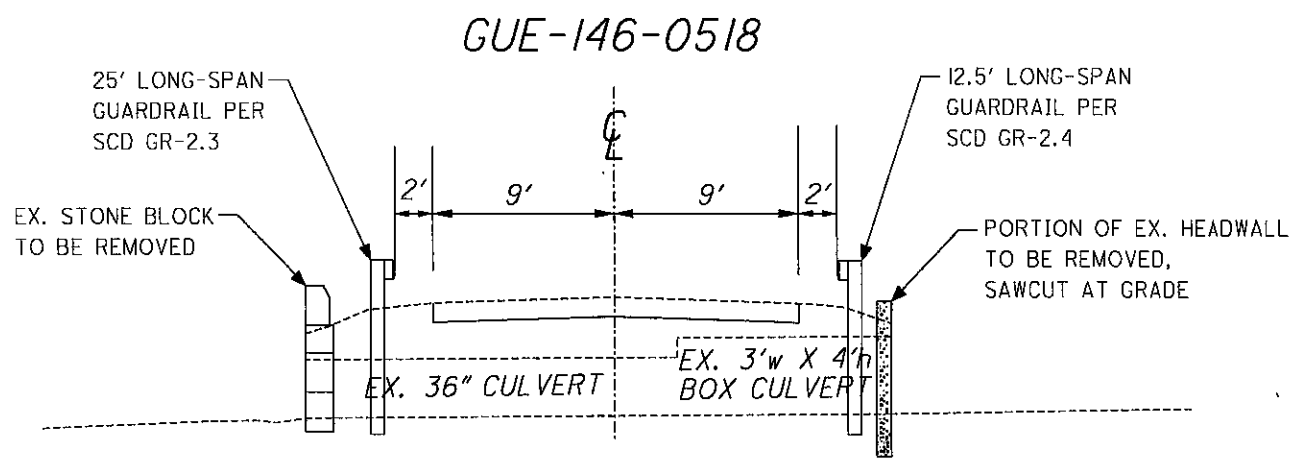
EROSION CONTROL

ITEM 601 IS PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE THIS ITEM.

THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES OF THIS ITEM WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION. IN ADDITION, THIS ITEM SHALL MEET THE REQUIREMENT OF 108.04.

DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING THE STREAM. ANY MATERIAL THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE.



G:\6CULVERT.DET.DGN 5-27-05



HORIZONTAL SCALE IN FEET

CHECKED  
DATE

CHECKED  
DATE

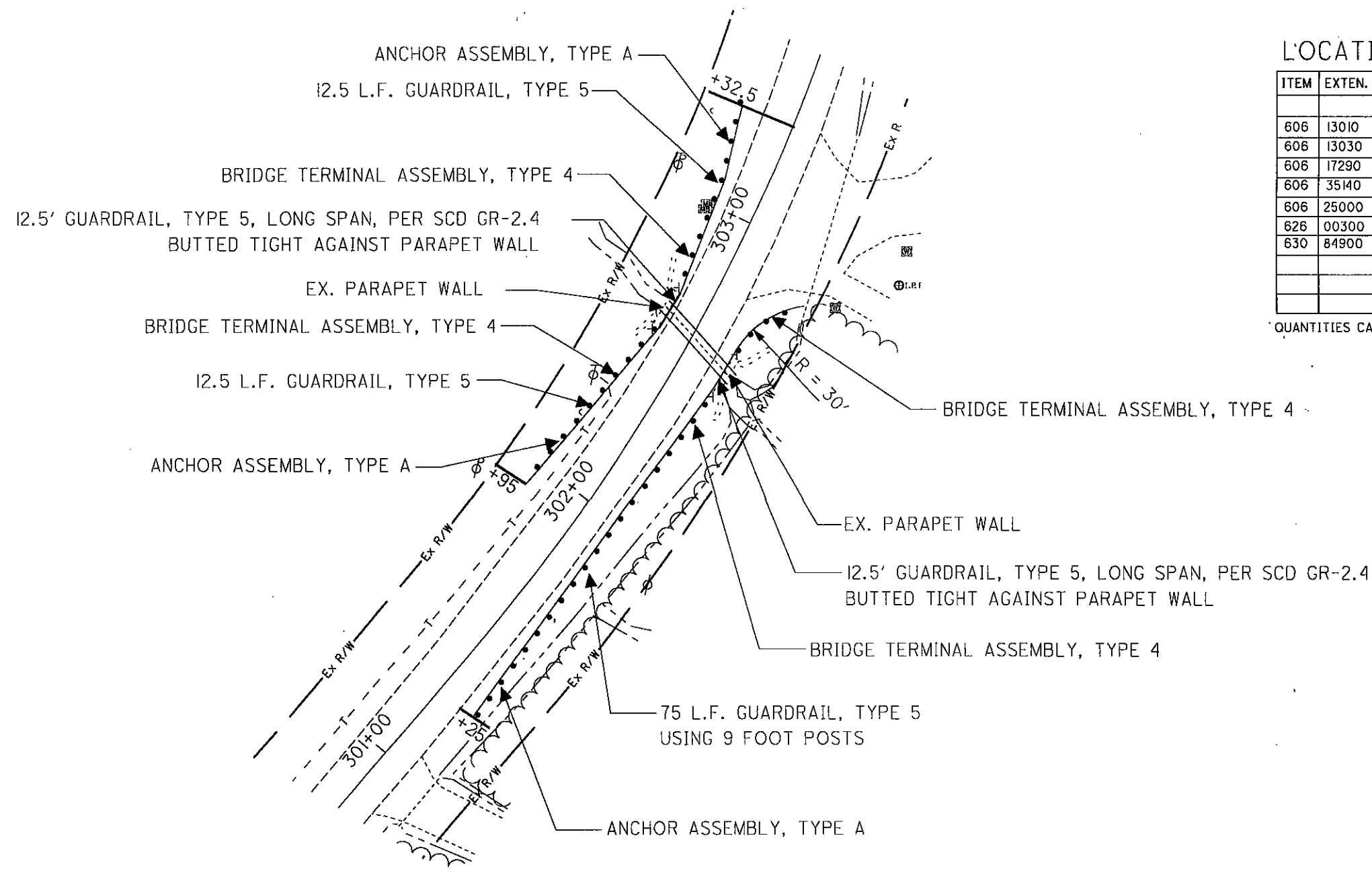
GUE-146-5.70 CULVERT REPAIR

GUE-146-0.00

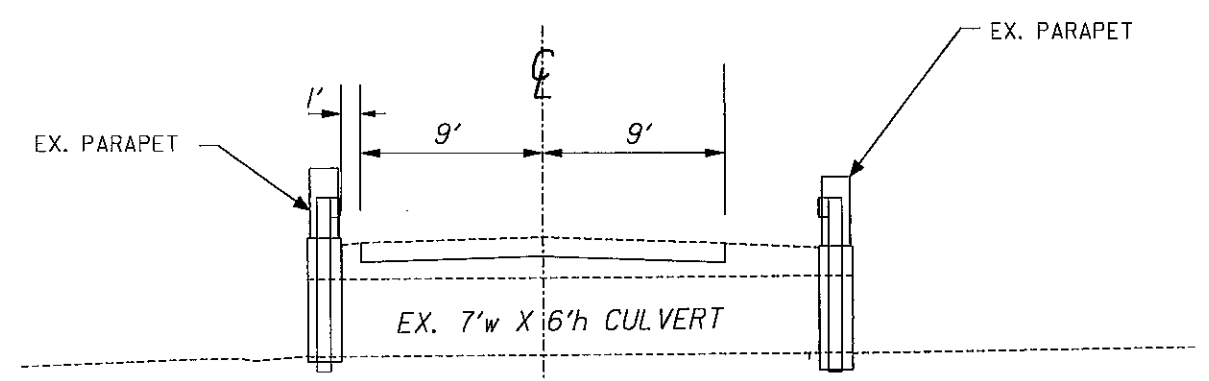
### LOCATION 1

ITEM	EXTEN.	DESCRIPTION	QUANTITY
606	13010	GUARDRAIL, TYPE 5	25 FT
606	13030	GUARDRAIL, TYPE 5, USING 9 FOOT POSTS	75 FT
606	17290	GUARDRAIL, TYPE 5, LONG SPAN	25 FT
606	35140	BRIDGE TERMINAL ASSEMBLY, TYPE 4	4 EACH
606	25000	ANCHOR ASSEMBLY, TYPE A	3 EACH
626	00300	BARRIER REFLECTOR, TYPE A2	6 EACH
630	84900	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	4 EACH

QUANTITIES CARRIED TO GENERAL SUMMARY



### GUE-146-0570



**DEMOLITION DEBRIS**  
 THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING THE STREAM. ANY MATERIAL THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE.

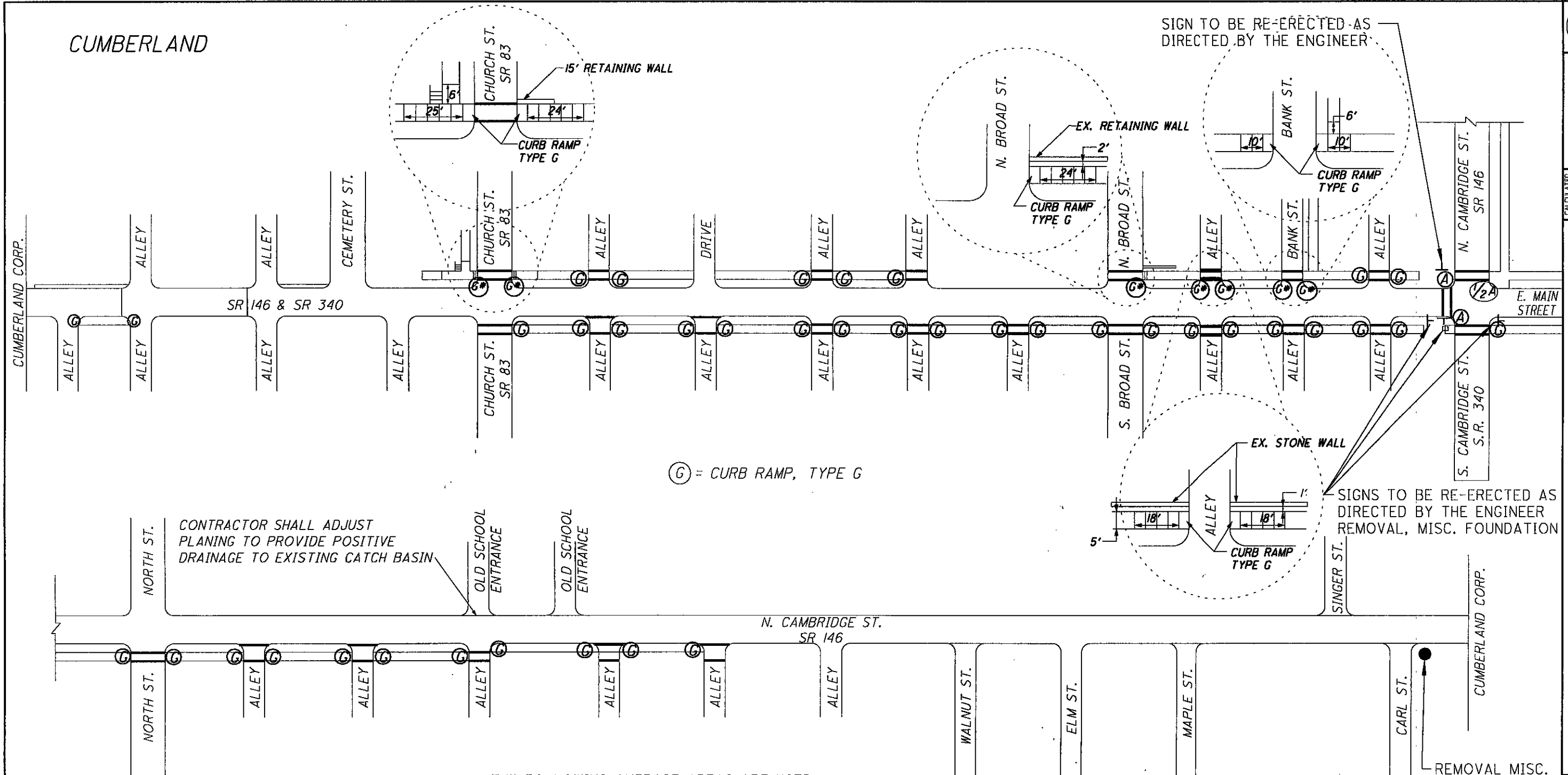
#### UTILITIES

PLEASE SEE COMPLETE LIST OF UTILITIES LOCATED WITHIN THE LIMITS OF THE PROJECT ON SHEET 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT UTILITY OWNERS TO VERIFY LOCATION OF UTILITIES WITHIN WORK LIMITS OF CULVERT REPLACEMENT.

#### EROSION CONTROL

ITEM 601 IS PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE THIS ITEM.  
 THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES OF THIS ITEM WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION. IN ADDITION, THIS ITEM SHALL MEET THE REQUIREMENT OF 108.04.

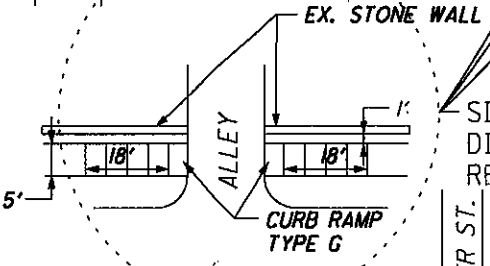
CUMBERLAND



ⓐ = CURB RAMP, TYPE G

CONTRACTOR SHALL ADJUST PLANING TO PROVIDE POSITIVE DRAINAGE TO EXISTING CATCH BASIN

OLD SCHOOL ENTRANCE



SIGNS TO BE RE-ERECTED AS DIRECTED BY THE ENGINEER  
REMOVAL, MISC. FOUNDATION

QUANTITIES

- CURB RAMP, TYPE A = 2 1/2
- CURB RAMP, TYPE G = 47
- ITEM 202 REMOVAL, MISC. I BEAM - 1 EACH
- ITEM 202 REMOVAL, MISC. FOUNDATION - 1 EACH
- ITEM 202 CURB REMOVED - 730 FT.
- ITEM 202 WALK REMOVED - 1871 SQ.FT.
- ITEM 608 CURB RAMP, AS PER PLAN - 1398 SQ.FT.
- ITEM 608 4" CONCRETE WALK, AS PER PLAN - 576 SQ. FT.
- ITEM 630 GROUND MOUNTED SUPPORT, NO. 3 POST - 12 FT.
- ITEM 630 GROUND MOUNTED SUPPORT, NO. 4 POST - 102 FT.
- ITEM 630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION - 20 EACH
- ITEM 630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL - 7 EACH
- QUANTITIES CARRIED TO GENERAL-SUMMARY

THE FOLLOWING AVERAGE AREAS ARE USED FOR CALCULATING CURB RAMP QUANTITIES:  
 TYPE A RAMPS = 108 SQ.FT. , 29 FT. CURB  
 TYPE D RAMPS = 60 SQ.FT. , 15 FT. CURB  
 TYPE E RAMPS = 54 SQ.FT. , 14 FT. CURB  
 TYPE G RAMPS = 24 SQ.FT. , 14 FT. CURB

NOTES:

ITEM 202 REMOVAL, MISC. FOUNDATION

THIS ITEM SHALL BE USED AS DIRECTED BY THE ENGINEER FOR THE REMOVAL OF A SIGN FOUNDATION . THE CONCRETE FOUNDATION SHALL BE REMOVED A MINIMUM OF 1 FOOT BELOW THE GRADE OF THE SURROUNDING AREA.

ⓐ\* = ITEM 608 - 4" CONCRETE WALK, AS PER PLAN

THIS ITEM SHALL BE USED AS DIRECTED BY THE ENGINEER TO REPLACE WALK AS NEEDED TO ACHIEVE PROPER SLOPES FOR CURB RAMP INSTALLATION.

A QUANTITY OF 576 S.F. OF ITEM 608 - 4" CONCRETE WALK, AS PER PLAN HAS BEEN CARRIED TO THE GENERAL SUMMARY.

DRAWING NOT TO SCALE  
 CALCULATED MJE  
 CHECKED LME

PLAN SHEET - CUMBERLAND

GUE-146-0.00

G:\4600\imp1\_5-27-05

Street Slope	Ramp Length @ 1"/ft [0.083]	
	L LOW SIDE*	L HIGH SIDE*
0.01	5'-5" [1.6 m]	6'-10" [2.1 m]
0.02	4'-10" [1.5 m]	7'-11" [2.4 m]
0.03	4'-5" [1.3 m]	9'-5" [2.9 m]
0.04	4'-1" [1.2 m]	11'-8" [3.6 m]
0.05	3'-9" [1.1 m]	15'-2" [4.6 m]

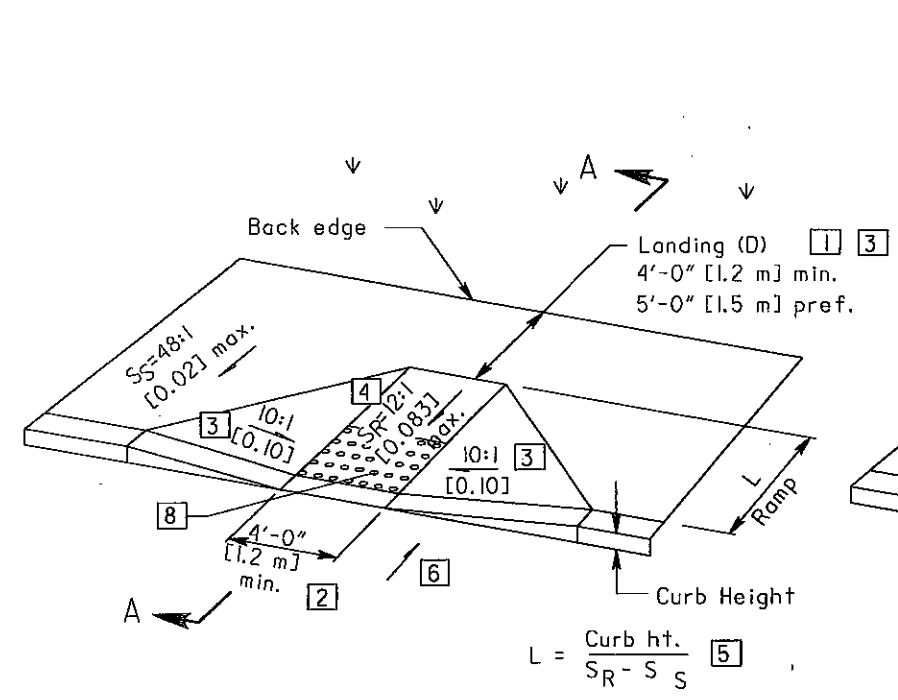
\* Measured along the back of a 6" [150] high curb.

$$L_{HIGH} = \frac{\text{Curb ht.}}{0.083 - \text{Street Slope}} \quad [7]$$

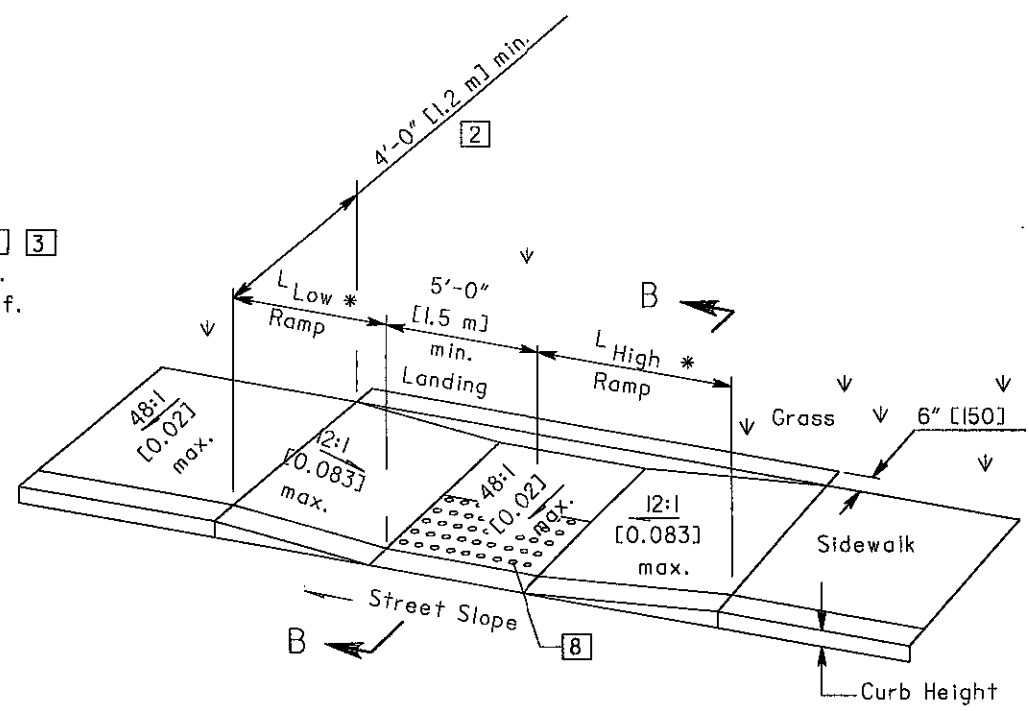
$$L_{LOW} = \frac{\text{Curb ht.}}{0.083 + \text{Street Slope}} \quad [7]$$

LEGEND

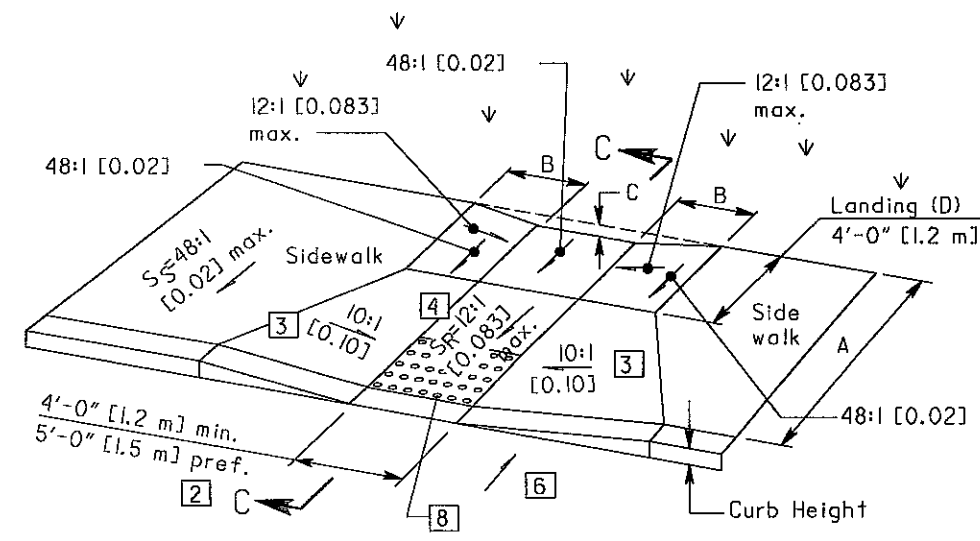
- [1] May be reduced to 3'-0" [915] in existing sidewalks if the landing is unconstrained along the back edge.
- [2] May be reduced to 3'-4" [1.02 m] in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.
- [3] Where landing width (D) has been reduced to 3'-0" [915] the flared sides shall have a maximum slope of 12:1 [0.083].  
Flared sides are not required where the edges of a curb ramp are protected by landscaping or other barriers to travel by wheel chair users or pedestrians across the edge of the curb ramp. However, if the flared sides are used in these areas, they may be of any slope.
- [4] The slope of the ramp toward the curb is preferred to be 12:1 [0.083] or flatter related to the horizontal, but the maximum slope shall be 12:1 [0.083] relative to the existing or proposed walk slope.  
  
In existing sidewalks, where the maximum ramp slope (S) is not feasible, it may be reduced as follows:  
A) 10:1 [0.10] for a max. rise of 6" [150],  
B) 8:1 [0.125] for a max. rise of 3" [75],  
C) 6:1 [0.167] over a max. run of 2'-0" [610] for historic areas where a flatter slope is not feasible.
- [5] The minimum length of a perpendicular ramp is 6' [2.0 m] from the back of a 6" [150] curb and may be increased where feasible to obtain a flatter ramp slope or to better blend with the walk configuration.
- [6] Gutter counter slopes at the foot of perpendicular curb ramps should not exceed 20:1 [0.05] over a distance of 2'-0" [610] from the curb.
- [7] Dimensions derived by equation are nominal. Construct ramps to meet required slopes and existing conditions.
- [8] Detectable Warnings (truncated domes) are to be installed in the location shown. Dimensions of the domes are 24" [610] from the back of the curb by the width of the ramp. See NOTES on sheet 3.



See Sht. 3/3 for SECTION A-A  
PERPENDICULAR CURB RAMP DETAIL



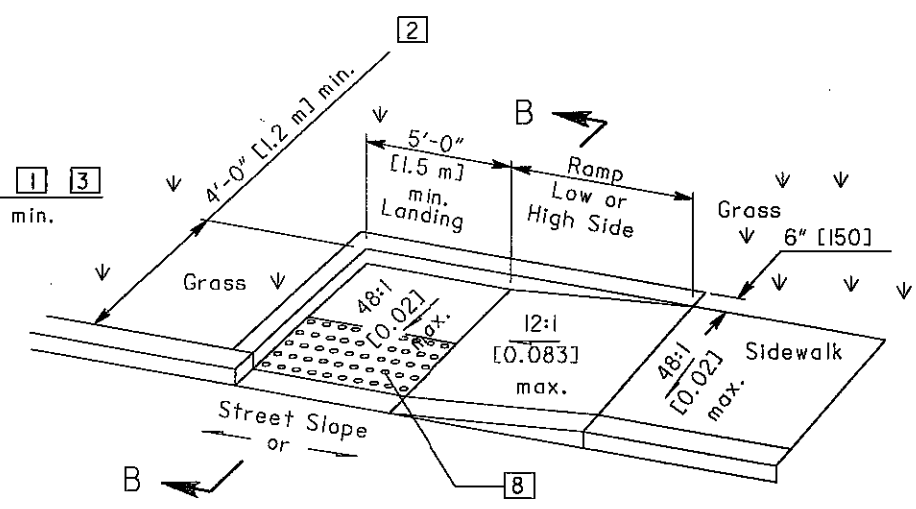
See Sht. 3/3 for SECTION B-B  
PARALLEL CURB RAMP DETAIL (DOUBLE)



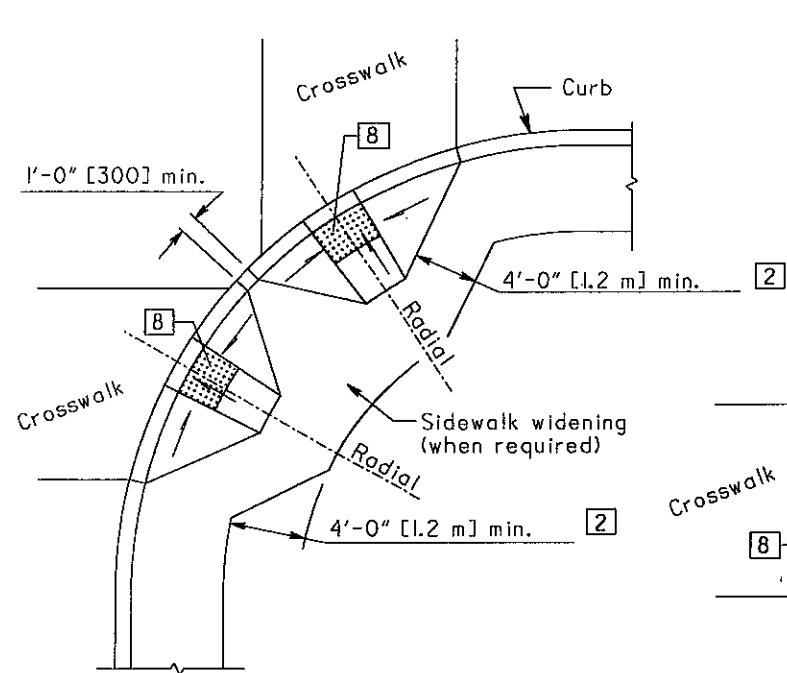
See Sht. 3/3 for SECTION C-C  
COMBINED CURB RAMP DETAIL

$$B = C / 0.083$$

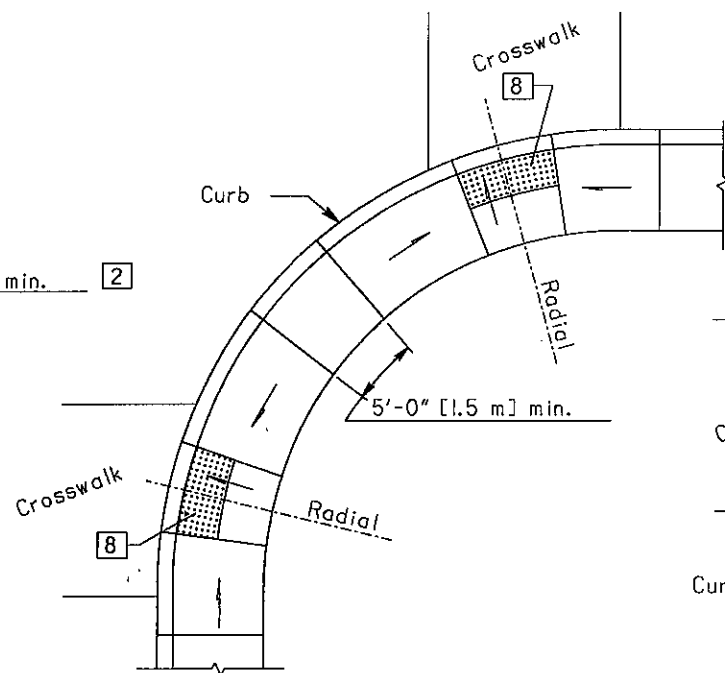
$$C = [\text{Curb ht.} + A(S)]_S [(A-D)S + D(0.02)]$$



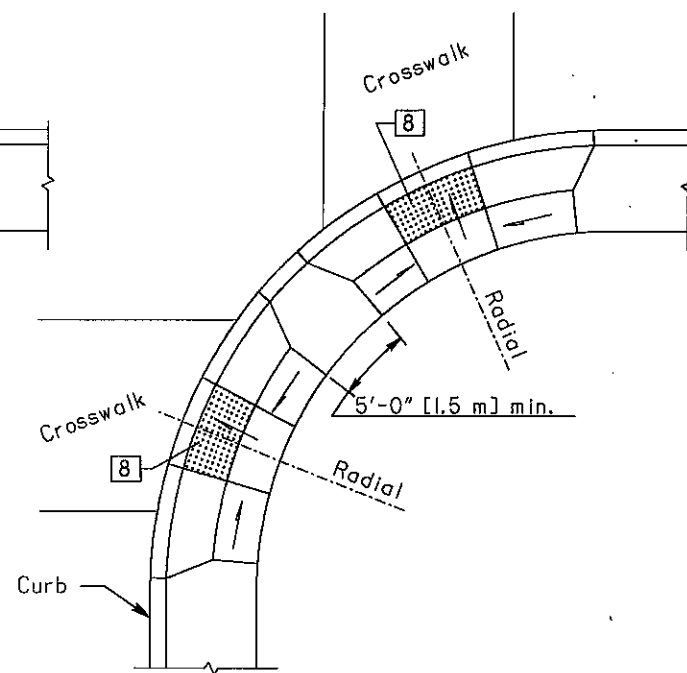
See Sht. 3/3 for SECTION B-B  
PARALLEL CURB RAMP DETAIL (SINGLE)



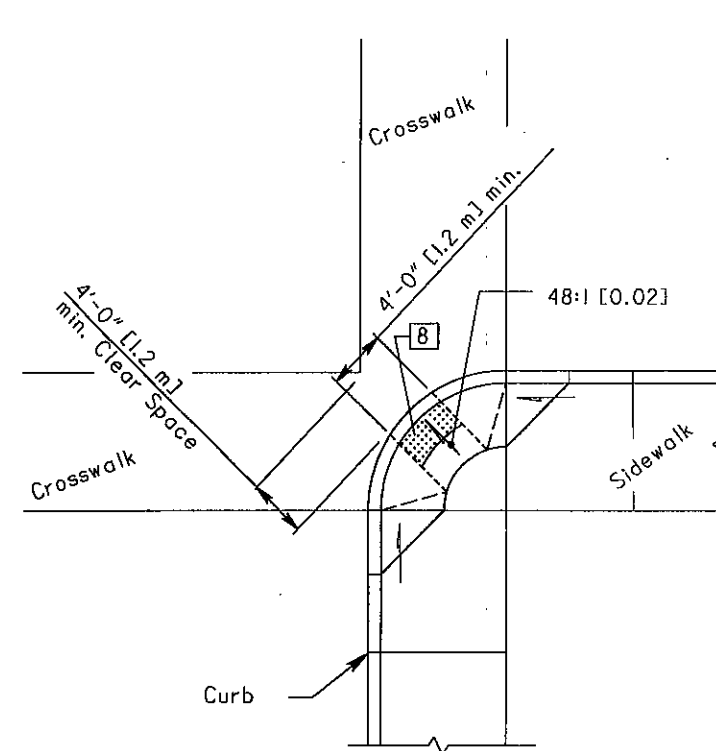
DESIGN A  
PERPENDICULAR RAMP



DESIGN B  
PARALLEL RAMP



DESIGN C  
COMBINATION RAMP

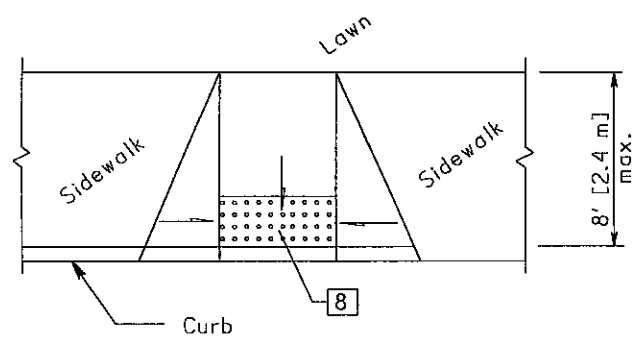


DESIGN D  
DIAGONAL RAMP

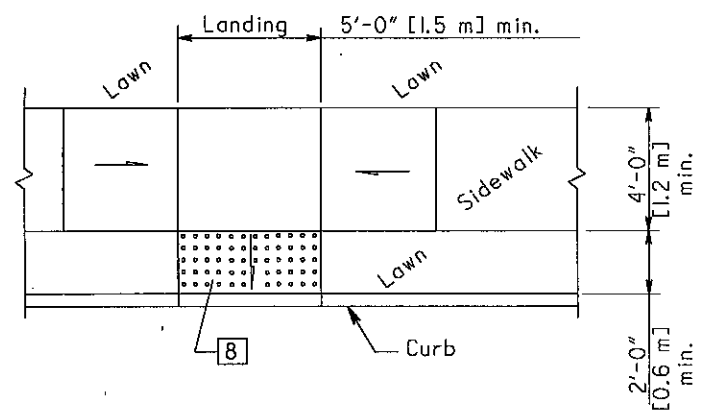
CORNER CURB RAMP DESIGNS

(See Curb Ramp Details on Sht. 1/3 for additional requirements.)

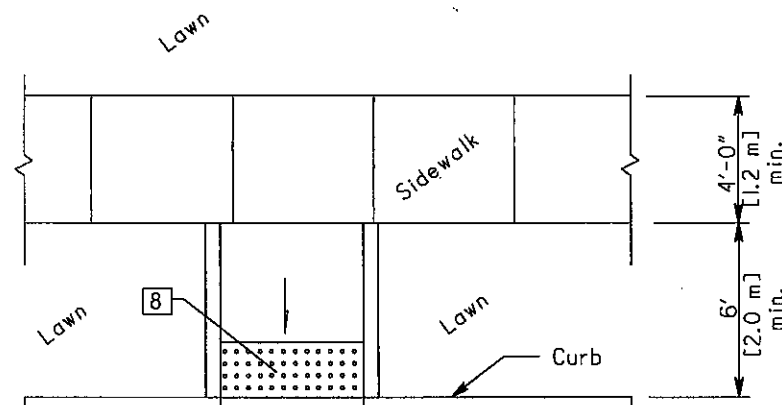
For LEGEND, See sheet 1.



DESIGN E  
PERPENDICULAR RAMP



DESIGN F  
PARALLEL RAMP



DESIGN G  
PERPENDICULAR RAMPS  
w/o FLARES

MID BLOCK CURB RAMP DESIGNS

(See Curb Ramp Details on Sht. 1/3 for additional requirements.)



# NOTES

**SURFACE TEXTURE:** Texture of concrete surfaces shall be obtained by coarse brooming transverse to the ramp slopes and shall be rougher than adjacent walk.

**TRUNCATED DOMES** Install detectable warnings (truncated domes) for a distance of 24" [610] from the back of the curb for the entire width of the ramp opening as shown on details on Sheet 1.

Pavers will meet ASTM C 902 Class SX, Type I, or C 936, or C 1272 Type R.

Acceptable manufacturers and products are:

- Whitacre-Greer Fireproofing Company, 1400 S. Mahoning Ave, Alliance, OH, 44601, (800) WG PAVER ADA Paver, 4"x8"x2-1/4", Clear Red (Rustic) #30.

- Hanover Architectural Products, 240 Bender Rd., Hanover, PA, 17331, (717) 637-0500 Detectable Warning Paver, 12"x12"x2", or 24"x24"x2", Red or Quarry Red.

- Endicott Clay Products, PO Box 17, Fairbury, NE, 68352, (402) 729-5804 Handicap Detectable Warning Paver, 4"x8"x2-1/4", Red Blend.

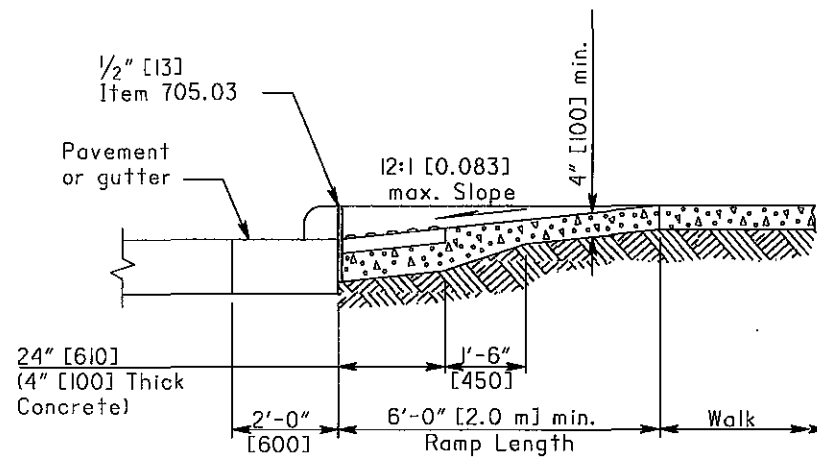
Pavers will be laid on top of a 4" [100] unreinforced concrete base. Setting bed and joints to be mortared in accordance with manufacturer's instruction, or with a maximum 1/2" [13] thick bed of latex modified cement mortar. Mortar joints to a width not greater than 5/32" [4] and not less than 1/16" [1.5]. Pavers shall not be directly touching each other unless they have spacing bars.

Mortared joints are to be flush with top surface and struck so as to give a smooth surface. Pavers shall be laid such that joints are level with adjoining joints so as to provide a smooth transition from brick to brick and brick to concrete surface.

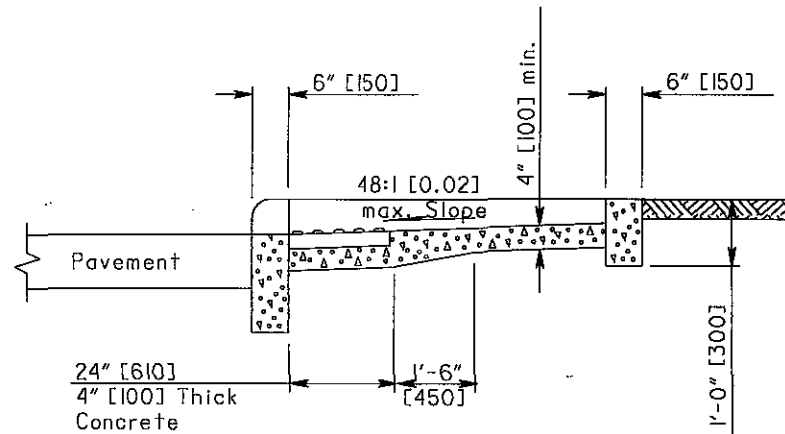
The surface of any two adjacent units should not differ by more than 1/8" [3] in height. Bricks shall be placed in a running bond pattern. Face of all brick shall be clean of cement and protected so as to avoid chipping during construction.

**EXPANSION JOINTS** shall be provided in the curb ramp as extensions of walk joints and consistent with Item 608.03 requirements for a new concrete walk. A 1/2" [13] Item 705.03 expansion joint filler shall be provided around the edge of ramps built in existing concrete walk. Lines shown on this drawing indicate the ramp edge and slope changes and are not necessarily joint lines.

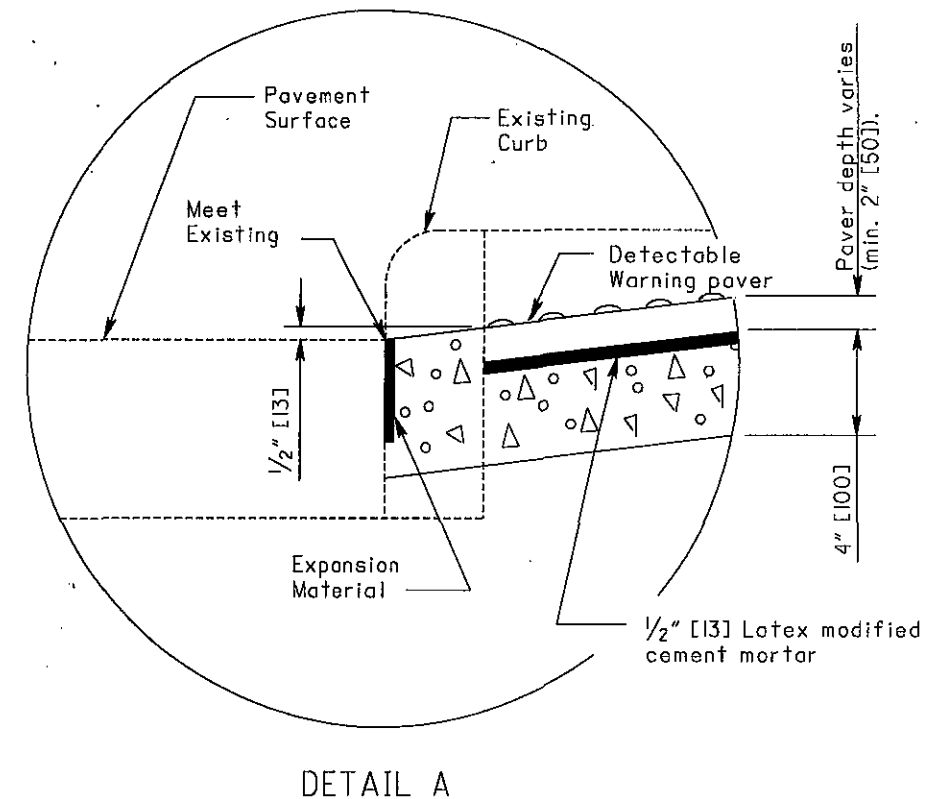
**PAYMENT:** Walk and curb, Items 608 and 609, shall be measured through the curb ramp area paid for under their respective Items. Item 608 - Curb Ramp, As Per Plan, Each constructed in new curb and walk shall include the cost of any additional materials and installation (including truncated domes), grading, forming and finishing. Item 608 - Curb Ramp, As Per Plan, Square Foot [Meter], constructed in existing curb and walk shall include the cost of furnishing and installing all materials (including truncated domes), grading, forming, and finishing of the curb and walk of the curb ramp. Removal of existing curb and walk shall be paid for under Item 202.



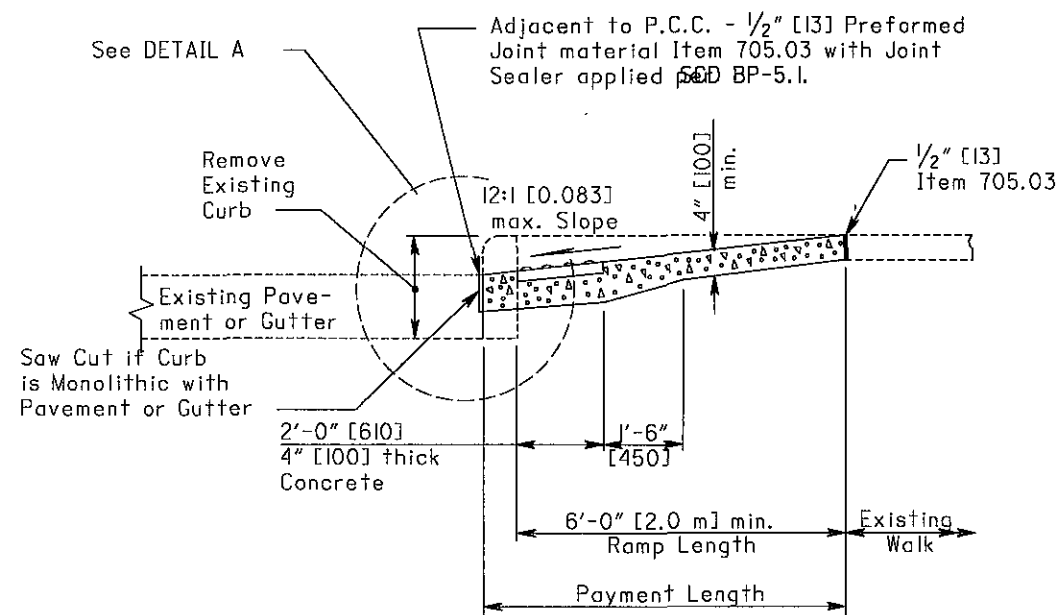
**SECTION A-A  
NORMAL DETAIL**  
See Sheet 1 of 3.  
(Gutter shown)



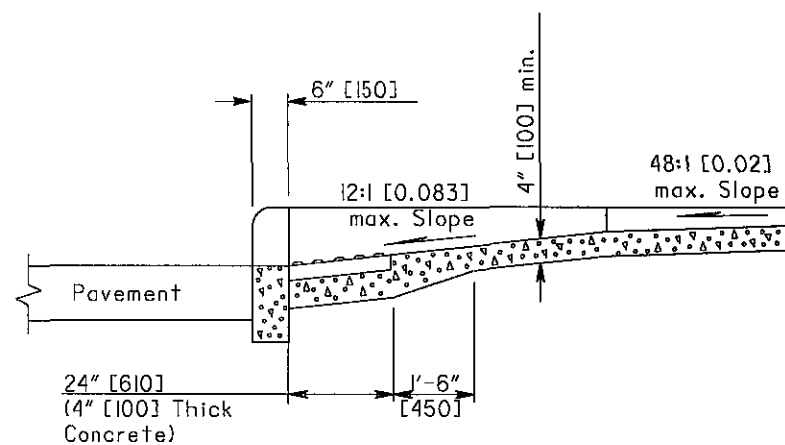
**SECTION B-B**  
See Sheet 1 of 3.



**DETAIL A**



**SECTION A-A  
EXISTING WALK DETAIL**  
See Sheet 1 of 3.



**SECTION C-C**  
See Sheet 1 of 3.

ITEM 642 FAST DRY EDGE LINE SUB-SUMMARY

LOCATION	COUNTY	ROUTE	S.L.M.		WHITE EDGE LINE QUANTITIES			YELLOW EDGE LINE QUANTITIES			PARTICIPATION TYPE				EDGE LINE TOTAL MILES	REMARKS
			FROM	TO	TOTAL MILES	HIGHWAY MILES	RAMP MILES	TOTAL MILES	HIGHWAY MILES	RAMP MILES	IRG	FG	RSG	NON FED STATE		
1	GUE	SR 146	0.00	1.70	3.40	1.70								3.40		
1	GUE	SR 146	1.70	2.16	0.46	0.46								0.46		
1	GUE	SR 146	2.44	10.62	16.36	8.18								16.36		
														TOTAL LOCATION 1	20.22	
2	MUS	SR 340	0.00	3.65	7.30	3.65								7.30		
														TOTAL LOCATION 2	7.30	
3	MUS	SR 340	0.00	0.71	1.42	0.71								1.42		
														TOTAL LOCATION 3	1.42	
4	MUS	SR 340	0.00	0.88	1.76	0.88								1.76		
														TOTAL LOCATION 4	1.76	

ITEM 642 FAST DRY CENTER LINE SUB-SUMMARY

LOCATION	COUNTY	ROUTE	S.L.M.		CENTER LINE QUANTITIES		PARTICIPATION TYPE				CENTER LINE TOTAL MILES	REMARKS
			FROM	TO	TOTAL MILES	EQUIVALENT SOLID LINE	IRG	FG	RSG	NON FED STATE		
1	GUE	SR 146	0.00	9.86	9.86	16.33					9.86	
1	GUE	SR 146	9.99	10.62	0.63	1.05					0.63	
											TOTAL LOCATION 1	10.49
2	MUS	SR 340	0.00	3.65	3.65	5.86					3.65	
											TOTAL LOCATION 2	3.65
3	NOB	SR 340	0.00	0.71	0.71	1.42					0.71	
											TOTAL LOCATION 3	0.71
4	GUE	SR 340	0.00	0.88	0.88	1.44					0.88	
											TOTAL LOCATION 4	0.88

9146001.TEL 5-27-05

CALCULATED  
MJE  
CHECKED  
LME

EDGE / CENTERLINE SUB-SUMMARY

GUE-146-0.00

G146001.TAS 5-27-05

644 THERMOPLASTIC

LOCATION	COUNTY	ROUTE	DESCRIPTION	SLM	SIDE	24" TRANSVERSE LINES		STOP LINE	12" CROSS WALK LINES	WORD ON PAVEMENT		SCHOOL SYMBOL MARKING		LANE ARROWS			RAILROAD SYMBOL MARKING	8" CHANNEL LINE	REMARKS				
						WHITE	YELLOW	24"		ONLY	ONLY	ONLY	ONLY	COMBINATION		TURN							
						FEET	FEET	FEET	FEET	72"	96"	72"	96"	LT/TH	RT/TH	LT				RT	TH	EACH	FEET
										EACH	EACH	EACH	EACH	EACH	EACH	EACH				EACH	EACH	EACH	
1	GUE	SR 146	SCOTT ROAD		RT			25															
			SR 340		RT			10															
			CUMBERLAND (SEE NEXT SHEET)																				
			HOWELL RD. (CO. RD. 19)		LT				19														
			IOWA RD. (TWP. RD. 27)		RT				14														
			IOWA RD. (TWP. RD. 27)		LT				20														
			TRIPLETT LANE (TWP. RD. 3250)		RT				32														
			GARVIN SCHOOL RD. (TWP. RD. 328)		RT				37														
			ON SR 146 SLM 7.52																				
			CRANE RUN RD. (CO. RD. 26) A		LT					17													
			CRANE RUN RD. (CO. RD. 26) B		LT					28													
			ON SR 146 SLM 7.88															2					
			ON SR 146 SLM 8.37															2					
			HICKLE RD. (TWP. RD. 326)							17													
			ON SR 146 @ SLM 8.97															2					
			TWP. RD. 3266		RT					20													
			SR 146 @ SR 821							40													
SR 146 @ SR 821							52																
MAIN ST. - PLEASANT CITY							10	50															
TWP RD. 2389		LT					13																
<b>SUBTOTAL LOCATION 1</b>								<b>354</b>	<b>50</b>							<b>6</b>							
2	MUS	SR 340	ON SR 340 @ SR 284					30															
			SISK ROAD		LT			20															
			INTERNATIONAL ROAD		LT				26														
			PROUTY ROAD		RT				20														
<b>SUBTOTAL LOCATION 2</b>								<b>96</b>															
4	GUE	SR 340	ZABEDEE LANE		LT			16															
			ON SR 340 @ SR 146						12														
<b>TOTALS LOCATION 4</b>								<b>28</b>															

CALCULATED  
MJE  
CHECKED  
LME

AUXILIARY PAVEMENT MARKING SUB-SUMMARY

GUE-146-0.00

644 THERMOPLASTIC

LOCATION	COUNTY	ROUTE	DESCRIPTION	SLM	SIDE	24" TRANSVERSE LINES		STOP LINE	12" CROSS WALK LINES	WORD ON PAVEMENT		SCHOOL SYMBOL MARKING		LANE ARROWS			RAILROAD SYMBOL MARKING	8" CHANNEL LINE	REMARKS
						WHITE	YELLOW	24"		ONLY	ONLY	ONLY	ONLY	COMBINATION		TURN			
						FEET	FEET	FEET	FEET	72"	96"	72"	96"	LT/TH	RT/TH	LT	RT	TH	
										EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
1	GUE	SR 146	CUMBERLAND						26										
			SR 146 IN CUMBERLAND																
			ALLEY		RT			6											
			ALLEY		RT			6											
			ALLEY		LT			6											
			ALLEY		RT			6											
			ALLEY		LT			6											
			CEMETERY ST.		LT			13											
			ALLEY		RT			6											
			CHURCH ST. (SR 83)		RT			13	44										
			CHURCH ST. (SR 83)		LT			13	50										
			ALLEY		RT				24										
			ALLEY		LT				24										
			ALLEY		RT				24										
			DRIVE		LT														
			ALLEY		RT				24										
			ALLEY		LT				24										
			ALLEY		RT				48										
			ALLEY		LT				22										
			ALLEY		RT				24										
			ALLEY		LT				24										
			BROAD ST.		RT				48										
			BROAD ST.		LT				26										
			ALLEY		RT				24										
			ALLEY		LT				24										
			ALLEY		RT				24										
			BANK ST.		LT				24										
			ALLEY		RT				24										
			ALLEY		LT				24										
			ON SR 146 BEFORE SR 340					18	60										
			SR 340 (CAMBRIDGE ST.)		RT			12	54										
			MAIN ST.		RT			13											
			ON SR 146 AFTER MAIN ST.		RT			12	54										
			NORTH ST		RT				40										
			NORTH ST		LT			9											
			ALLEY		RT				24										
			ALLEY		RT				24										
			ALLEY		RT				24										
			ALLEY		RT				24										
			ALLEY		RT				24										
			ALLEY		RT				40										
			ALLEY		RT				12										
			WALNUT ST.		RT				12										
			ELM ST.		RT				10										
			MAPLE ST.		RT				15										
			SINGER ST.		LT				22										
			CARL ST.		RT				14										
								<b>224</b>	<b>920</b>										
								<b>SUBTOTAL LOCATION 1</b>											

G146002.TAS 5-27-05

AUXILIARY PAVEMENT MARKING SUB-SUMMARY

GUE - 146 - 0.00

CALCULATED  
MJE  
CHECKED  
LME

CALC. BY \_\_\_\_\_  
DATE \_\_\_\_\_

CHKD. BY \_\_\_\_\_  
DATE \_\_\_\_\_

DETAIL	
1	TAPERED ACCELERATION LANE
2	DECELERATION LANE
3	MULTILANE DIVIDED/ CONTROLLED ACCESS

DETAIL	
4	4 LANE DIVIDED TO 2 LANE TRANSITION
5	4 LANE UNDIVIDED TO 2 LANE TRANSITION
6	ONE LANE BRIDGE
7	STOP APPROACH
8	THRU APPROACH
9	TWO WAY LEFT TURN LANE

DETAIL	
10	APPROACH W/LT. TURN LANE
11	HORIZONTAL CURVE 40' (NOTE 2)
12	HORIZONTAL CURVE ALT. (NOTE 3)
GAP	CENTERLINE AT 80' TYP.

**RPM LOCATION SUB-SUMMARY**

LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		DEGREE	CURVE	DETAIL	621 ITEM QUANTITIES			PRISMATIC RETRO-REFLECTOR COLORS					REMARKS		
					MILES	LIN.FT.				RPM	RPM CASTING	PRISMATIC RETRO-	ONE-WAY		TWO-WAY					
													WHITE	YELLOW	YELLOW / YELLOW	WHITE / RED	YELLOW / RED			
1	GUE	146	0.00	0.11	0.11	581	6	11	15						15					
			0.11	0.72	0.61	3221	GAP	GAP	40							40				
			0.72	0.88	0.16	845	4	GAP	11							11				
			0.88	1.26	0.38	2006	GAP	GAP	25							25				
			1.26	1.53	0.27	1426	5	11	18							18				
			1.53	1.70	0.17	898	GAP	GAP	11							11				
			2.83	3.13	0.30	1584	GAP	GAP	20							20				
			3.13	3.18	0.05	264	8	11	7							7				
			3.18	3.22	0.04	211	GAP	GAP	3							3				
			3.22	3.47	0.25	1320	11	12	42							42				
			3.47	3.53	0.06	317	4	GAP	4							4				
			3.53	3.78	0.25	1320	GAP	GAP	17							17				
			3.78	3.94	0.16	845	6	11	21							21				
			3.94	4.11	0.17	898	6	11	22							22				
			4.11	4.25	0.14	739	GAP	GAP	9							9				
			4.25	4.50	0.25	1320	24	12	42							42				
			4.50	5.70	1.20	6336	GAP	GAP	79							79				
			5.70	5.75	0.05	264	9	11	7							7				
			5.75	5.80	0.05	264	GAP	GAP	3							3				
			5.80	6.08	0.28	1478	13	12	50							50				
			6.08	6.22	0.14	739	GAP	GAP	9							9				
			6.22	6.29	0.07	370	8	11	9							9				
			6.29	6.81	0.52	2746	GAP	GAP	34							34				
			6.81	6.92	0.11	581	4	GAP	7							7				
			6.92	7.26	0.34	1795	GAP	GAP	22							22				
			7.26	7.37	0.11	581	6	11	15							15				
			7.37	7.84	0.47	2482	19	12	100							100				
			7.84	7.89	0.05	264	GAP	GAP	3							3				
			7.89	8.12	0.23	1214	23	12	37							37				
			8.12	8.21	0.09	475	GAP	GAP	6							6				
			8.21	8.27	0.06	317	3	GAP	4							4				
			8.27	8.37	0.10	528	GAP	GAP	7							7				
			8.37	8.40	0.03	158	4	GAP	2							2				
			8.40	8.90	0.50	2640	GAP	GAP	33							33				
			8.90	8.93	0.03	158	4	GAP	2							2				
			8.93	9.16	0.23	1214	19	12	37							37				
			9.16	9.86	0.70	3696	GAP	GAP	62			16				46				
			10.30	10.46	0.16	845	10	12	18							18				
			10.46	10.62	0.16	845	GAP	GAP	11							11				
<b>SUBTOTAL LOCATION 1</b>									<b>864</b>				<b>16</b>	<b>0</b>	<b>848</b>	<b>0</b>	<b>0</b>			

g146001.TRM 05-27-05

CALCULATED  
M.J.E.  
CHECKED  
L.M.E.

RPM LOCATION SUB-SUMMARY

GUE-146-0.00

CALC. BY \_\_\_\_\_  
DATE \_\_\_\_\_

CHKD. BY \_\_\_\_\_  
DATE \_\_\_\_\_

DETAIL	
1	TAPERED ACCELERATION LANE
2	DECELERATION LANE
3	MULTILANE DIVIDED/ CONTROLLED ACCESS

DETAIL	
4	4 LANE DIVIDED TO 2 LANE TRANSITION
5	4 LANE UNDIVIDED TO 2 LANE TRANSITION
6	ONE LANE BRIDGE
7	STOP APPROACH
8	THRU APPROACH
9	TWO WAY LEFT TURN LANE

DETAIL	
10	APPROACH W/LT. TURN LANE
11	HORIZONTAL CURVE 40' (NOTE 2)
12	HORIZONTAL CURVE ALT. (NOTE 3)
GAP	CENTERLINE AT 80' TYP.

**RPM LOCATION SUB-SUMMARY**

L O C A T I O N	C O U N T Y	R O U T E	B E G I N L O G P O I N T S L M	E N D L O G P O I N T S L M	L E N G T H		D E F G R E E V E	D E T A I L	6 2 1 I T E M Q U A N T I T I E S			P R I S M A T I C R E T R O - R E F L E C T O R C O L O R S					R E M A R K S
					M I L E S	L I N. F T.			R P M	R P M C A S T I N G	P R I S M A T I C R E T R O-	O N E - W A Y		T W O - W A Y			
												W H I T E	Y E L L O W	Y E L L O W / Y E L L O W	W H I T E / R E D	Y E L L O W / R E D	
2	MUS	340	0	1.85	1.85	9768	GAP	GAP	138			16		122			
			1.85	2.08	0.23	1214	11	12	37					37			
			2.08	2.29	0.21	1109	GAP	GAP	14					14			
			2.29	2.38	0.09	475		NOTE 3	12					12			
			2.38	2.42	0.04	211	12	12	11					11			
			2.42	2.48	0.06	317		NOTE 3	8					8			
			2.48	2.54	0.06	317	13	12	16					16			
			2.54	2.57	0.03	158		NOTE 3	4					4			
			2.57	2.61	0.04	211	21	12	11					11			
			2.61	2.75	0.14	739		NOTE 3	18					18			
			2.75	2.81	0.06	317	14	12	16					16			
			2.81	2.87	0.06	317		NOTE 3	8					8			
			2.87	2.9	0.03	158	19	12	8					8			
			2.9	3.05	0.15	792		NOTE 3	20					20			
			3.05	3.07	0.02	106	24	12	5					5			
			3.07	3.12	0.05	264		NOTE 3	7					7			
			3.12	3.14	0.02	106	9	11	3					3			
			3.14	3.19	0.05	264		NOTE 3	7					7			
			3.19	3.22	0.03	158	19	12	8					8			
			3.22	3.31	0.09	475		NOTE 3	12					12			
			3.31	3.52	0.21	1109	GAP	GAP	14					14			
			3.52	3.72	0.2	1056	14	12	29					29			
			3.72	3.78	0.06	317	GAP	GAP	4					4			
<b>SUBTOTAL LOCATION 2</b>									<b>410</b>			<b>16</b>		<b>394</b>			
3	NOB	340	0	0.71	0.71	3749	GAP	GAP	47					47			
<b>SUBTOTAL LOCATION 3</b>									<b>47</b>					<b>47</b>			
4	GUE	340	0	0.09	0.09	475	GAP	GAP	6					6			
			0.09	0.13	0.04	211	6	11	5					5			
			0.13	0.35	0.22	1162	GAP	GAP	15					15			
			0.35	0.39	0.04	211	7	11	5					5			
			0.39	0.47	0.08	422	GAP	GAP	5					5			
			0.47	0.53	0.06	317	8	11	8					8			
			0.53	0.88	0.35	1848	GAP	GAP	39			16		23			
<b>SUBTOTAL LOCATION 4</b>									<b>83</b>			<b>16</b>		<b>67</b>			

g146002.TRM 05-27-05

CALCULATED  
MJE  
CHECKED  
LME

RPM LOCATION SUB-SUMMARY

GUE-146-0.00

G:\46001.mis 5-27-05

SHEET TOTALS																ITEM	ITEM EXT. NO.	GRAND TOTALS	UNIT	DESCRIPTION	
3	4	5	6	8	10	11	12	13	17	18	19	20	21	22	23						24
										1							202	11200	1	EACH	PORTIONS OF STRUCTURE REMOVED
1152						1624	1432	4039									202	23500	8247	SQ.YD.	WEARING COURSE REMOVED
												1871					202	30000	1871	SQ.FT.	WALK REMOVED
												730					202	32000	730	FT.	CURB REMOVED
1146																	202	54000	1146	EACH	RAISED PAVEMENT MARKER REMOVED
												1					202	98100	1	EACH	REMOVAL, MISC. - I BEAM
												1					202	98100	1	EACH	REMOVAL, MISC. - FOUNDATION
		3.00															209	60501	3.00	MILE	LINEAR GRADING, AS PER PLAN
	5000																253	01001	5000	SQ.YD.	PAVEMENT REPAIR, AS PER PLAN
				11381													254	01001	11381	SQ.YD.	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN
				8936	443	259	147	8									407	10000	9793	GALLON	TACK COAT
				5958	295	171	98	5									407	14000	6527	GALLON	TACK COAT FOR INTERMEDIATE COURSE
	55387																407	98000	55387	FT.	TACK COAT, MISC.: FOR LONGITUDINAL JOINT
	9780																408	10001	9780	GALLON	PRIME COAT, AS PER PLAN
400	31			3310.0	164.3	96.1	54.5	2.9									448	46080	4058.8	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 70-22
	84			3310.0	164.3	96.1	54.5	2.9									448	46900	3711.8	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22
		11															604	09000	11	EACH	CATCH BASIN ADJUSTED TO GRADE
												25					606	13010	25	FT.	GUARDRAIL, TYPE 5
									37.5	175	75						606	13030	287.5	FT.	GUARDRAIL, TYPE 5, USING 9 FOOT POSTS
									25	25	25						606	17290	75	FT.	GUARDRAIL, TYPE 5, LONG SPAN
									4	4	4						606	35140	12	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4
									3	3	3						606	25000	9	EACH	ANCHOR ASSEMBLY, TYPE A
									1	1							606	26500	2	EACH	ANCHOR ASSEMBLY, TYPE T
												1398					608	52001	1398	SQ.FT.	CURB RAMP, AS PER PLAN
												576					608	10001	576	SQ. FT.	4" CONCRETE WALK, AS PER PLAN
90																	614	12460	90	EACH	WORK ZONE MARKING SIGN
32.7																	614	13000	32.7	CU.YD.	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
				21.72													614	21400	21.72	MILE	WORK ZONE CENTER LINE, CLASS II
				1253.4													617	10101	1253.4	CU.YD.	COMPACTED AGGREGATE, AS PER PLAN
															864		621	00100	864	EACH	RPM
									6	6	6						626	00300	18	EACH	BARRIER REFLECTOR, TYPE A2
												12					630	03100	12	FT.	GROUND MOUNTED SUPPORT, NO. 3 POST
												102					630	04100	102	FT.	GROUND MOUNTED SUPPORT, NO. 4 POST
									4	2	4						630	84900	10	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
												20					630	85100	20	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION
												7					630	86002	7	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
													20.22				642	00100	20.22	MILE	EDGE LINE, TYPE 1
													10.49				642	00300	10.49	MILE	CENTER LINE, TYPE 1
														354	224		644	00500	578	FT.	STOP LINE
														50	920		644	00600	970	FT.	CROSSWALK LINE
														6			644	01000	6	EACH	RAILROAD SYMBOL MARKING
			2														SPECIAL	69050100	2	EACH	MAILBOX SUPPORT SYSTEM, SINGLE
			1														SPECIAL	69051200	1	EACH	MAILBOX SUPPORT SYSTEM, DOUBLE

LOCATION 1 SUB-SUMMARY

GUE-146-0.00

CALCULATED  
MJE  
CHECKED  
LME



G146002.mis 5-27-05

SHEET TOTALS

3	4	5	6	9	10	11	12	13	17	21	22	23	24	25	ITEM	ITEM EXT. NO.	GRAND TOTALS	UNIT	DESCRIPTION
		276				520		1056							202	23500	1852	SQ.YD.	WEARING COURSE REMOVED
407															202	54000	407	EACH	RAISED PAVEMENT MARKER REMOVED
	1450														253	01001	1450	SQ.YD.	PAVEMENT REPAIR, AS PER PLAN
	50.0														301	46001	50.0	CU. YD.	ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN
				3067		82									407	10000	3149	GALLON	TACK COAT
				2045		56									407	14000	2101	GALLON	TACK COAT FOR INTERMEDIATE COURSE
	19958														407	98000	19958	FT.	TACK COAT, MISC.: FOR LONGITUDINAL JOINT
	3548														408	10001	3548	GALLON	PRIME COAT, AS PER PLAN
		38.0													448	46054	38.0	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 70-22
				1135.7		37.5									448	46080	1173.2	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 70-22
	24.0			1135.7		37.5									448	46900	1197.2	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22
		150													606	13001	150	FT.	GUARDRAIL, TYPE 5, AS PER PLAN
		2													606	25000	2	EACH	ANCHOR ASSEMBLY, TYPE A
16															614	12460	16	EACH	WORK ZONE MARKING SIGN
6.8															614	13000	6.8	CU.YD.	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
				7.30											614	21400	7.30	MILE	WORK ZONE CENTER LINE, CLASS II
					471.8										617	10101	471.8	CU.YD.	COMPACTED AGGREGATE, AS PER PLAN
													410		621	00100	410	EACH	RPM
										7.30					642	00100	7.30	MILE	EDGE LINE, TYPE 1
										3.65					642	00300	3.65	MILE	CENTER LINE, TYPE 1
											96				644	00500	96	FT.	STOP LINE
			1												SPECIAL	69050100	1	EACH	MAILBOX SUPPORT SYSTEM, SINGLE

CALCULATED  
M/JE  
CHECKED  
L/ME

LOCATION 2 SUB-SUMMARY

GUE-146-0.00

G146003.mis 5-27-05

SHEET TOTALS

3	4	5	6	9	10	11	12	13	17	21	22	23	24	25	ITEM	ITEM EXT. NO.	GRAND TOTALS	UNIT	DESCRIPTION
47															202	54000	47	EACH	RAISED PAVEMENT MARKER REMOVED
	400														253	01001	400	SQ. YD.	PAVEMENT REPAIR, AS PER PLAN
				562											407	10000	562	GALLON	TACK COAT
				375											407	14000	375	GALLON	TACK COAT FOR INTERMEDIATE COURSE
	3750														407	98000	3750	FT.	TACK COAT, MISC.: FOR LONGITUDINAL JOINT
	666														408	10001	666	GALLON	PRIME COAT, AS PER PLAN
				208.3											448	46080	208.3	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 70-22
				208.3											448	46900	208.3	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22
4				1.42											614	12460	4	EACH	WORK ZONE MARKING SIGN
															614	21400	1.42	MILE	WORK ZONE CENTER LINE, CLASS II
					92.6										617	10101	92.6	CU.YD.	COMPACTED AGGREGATE, AS PER PLAN
											47				621	00100	47	EACH	RPM
										1.42					642	00100	1.42	MILE	EDGE LINE, TYPE 1
										0.71					642	00300	0.71	MILE	CENTER LINE, TYPE 1

CALCULATED  
MAJE  
CHECKED  
LME

LOCATION 3 SUB-SUMMARY

GUE-146-0.00

SHEET TOTALS

SHEET TOTALS															ITEM	ITEM EXT. NO.	GRAND TOTALS	UNIT	DESCRIPTION	
3	4	5	6	9	10	11	12	13	17	21	22	23	24	25						
								500								202	23500	500	SQ. YD.	WEARING COURSE REMOVED
83																202	54000	83	EACH	RAISED PAVEMENT MARKER REMOVED
	750															253	01001	750	SQ. YD.	PAVEMENT REPAIR, AS PER PLAN
	115.0															301	46001	115.0	CU. YD.	ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN
				684		42										407	10000	726	GALLON	TACK COAT
				456		28										407	14000	484	GALLON	TACK COAT FOR INTERMEDIATE COURSE
	4650															407	98000	4650	FT.	TACK COAT, MISC.: FOR LONGITUDINAL JOINT
	826															408	10001	826	GALLON	PRIME COAT, AS PER PLAN
				253.2		15.6										448	46080	268.8	CU. YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 70-22
				253.2		15.6										448	46900	268.8	CU. YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22
		150														606	13001	150	FT.	GUARDRAIL, TYPE 5, AS PER PLAN
		2														606	25000	2	EACH	ANCHOR ASSEMBLY, TYPE A
11																614	12460	11	EACH	WORK ZONE MARKING SIGN
1.5																614	13000	1.5	CU. YD.	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
				1.76												614	21400	1.76	MILE	WORK ZONE CENTER LINE, CLASS II
					112.9											617	10101	112.9	CU. YD.	COMPACTED AGGREGATE, AS PER PLAN
														83		621	00100	83	EACH	RPM
										1.76						642	00100	1.76	MILE	EDGE LINE, TYPE 1
										0.88						642	00300	0.88	MILE	CENTER LINE, TYPE 1
											28					644	00500	28	FT.	STOP LINE

CALCULATED  
MJE  
CHECKED  
LME

LOCATION 4 SUB-SUMMARY

GUE - 146 - 0.00

G146004.mls 5-27-05

SHEET TOTALS

SHEET TOTALS					ITEM	ITEM EXT. NO.	GRAND TOTALS	UNIT	DESCRIPTION
26	27	28	29						
1					202	11500	1	EACH	PORTIONS OF STRUCTURE REMOVED
8247	1852		500		202	23500	10599	SQ.YD.	WEARING COURSE REMOVED
1871					202	30000	1871	SQ.FT.	WALK REMOVED
730					202	32000	730	FT.	CURB REMOVED
1146	407	47	83		202	54000	1683	EACH	RAISED PAVEMENT MARKER REMOVED
1					202	98100	1	EACH	REMOVAL, MISC. I- BEAM (SHEET 20)
1					202	98100	1	EACH	REMOVAL, MISC. FOUNDATION (SHEET 20)
3.00					209	60501	3.00	MILE	LINEAR GRADING, AS PER PLAN (SHEET 5)
5000	1450	400	750		253	01001	7600	SQ.YD.	PAVEMENT REPAIR, AS PER PLAN (SHEET 4)
11381					254	01001	11381	SQ.YD.	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (SHEET 5)
	50.0		115.0		301	48001	165	CU.YD.	ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN (SHEET 4)
9793	3149	562	726		407	10000	14230	GALLON	TACK COAT
6527	2101	375	484		407	14000	9487	GALLON	TACK COAT FOR INTERMEDIATE COURSE
55387	19958	3750	4650		407	98000	83745	FT.	TACK COAT, MISC.: FOR LONGITUDINAL JOINT
9780	3548	666	826		408	10001	14820	GALLON	PRIME COAT, AS PER PLAN
	38.0				448	46054	38	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 70-22
4058.8	1173.2	208.3	268.8		448	46080	5709	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 70-22
3711.8	1197.2	208.3	268.8		448	46900	5386	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22
11					604	09000	11	EACH	CATCH BASIN ADJUSTED TO GRADE
25					606	13000	25	FT.	GUARDRAIL, TYPE 5
	150		150		606	13001	300	FT.	GUARDRAIL, TYPE 5, AS PER PLAN (SHEET 5)
287.5					606	13030	288	FT.	GUARDRAIL, TYPE 5, USING 9 FOOT POSTS
75					606	17290	75	FT.	GUARDRAIL, TYPE 5, LONG SPAN
12					606	35140	12	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4
9	2		2		606	25000	13	EACH	ANCHOR ASSEMBLY, TYPE A
2					606	26500	2	EACH	ANCHOR ASSEMBLY, TYPE T
1398					608	52001	1398	SQ.FT.	CURB RAMP, AS PER PLAN (SHEET 20)
576					608	10001	576	SQ. FT.	4" CONCRETE WALK, AS PER PLAN (SHEET 20)
90	16	4	11		614	12460	121	EACH	WORK ZONE MARKING SIGN
32.7	6.8		1.5		614	13000	41	CU.YD.	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
21.72	7.30	1.42	1.76		614	21400	32.20	MILE	WORK ZONE CENTER LINE, CLASS II
1253.4	471.8	92.6	112.9		617	10101	1931	CU.YD.	COMPACTED AGGREGATE, AS PER PLAN (SHEET 2)
864	410	47	83		621	00100	1404	EACH	RPM
18					626	00300	18	EACH	BARRIER REFLECTOR, TYPE A2
12					630	03100	12	FT.	GROUND MOUNTED SUPPORT, NO. 3 POST
102					630	04100	102	FT.	GROUND MOUNTED SUPPORT, NO. 4 POST
10					630	84900	10	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
20					630	85100	20	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION
7					630	86002	7	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
20.22	7.30	1.42	1.76		642	00100	30.70	MILE	EDGE LINE, TYPE 1
10.49	3.65	0.71	0.88		642	00300	15.73	MILE	CENTER LINE, TYPE 1
578	96		28		644	00500	702	FT.	STOP LINE
970					644	00600	970	FT.	CROSSWALK LINE
6					644	01000	6	EACH	RAILROAD SYMBOL MARKING
2	1				SPECIAL	69050100	3	EACH	MAILBOX SUPPORT SYSTEM, SINGLE
1					SPECIAL	69050200	1	EACH	MAILBOX SUPPORT SYSTEM, DOUBLE
					614	11000	1	LUMP	MAINTAINING TRAFFIC
					619	16000	2	MONTH	FIELD OFFICE, TYPE A
					623	10000	1	LUMP	CONSTRUCTION LAYOUT STAKES
					624	10000	1	LUMP	MOBILIZATION

CALCULATED  
MJE  
CHECKED  
LME

GENERAL SUMMARY

GUE - 146 - 0.00

G:\4600\l.mgs 5-27-05