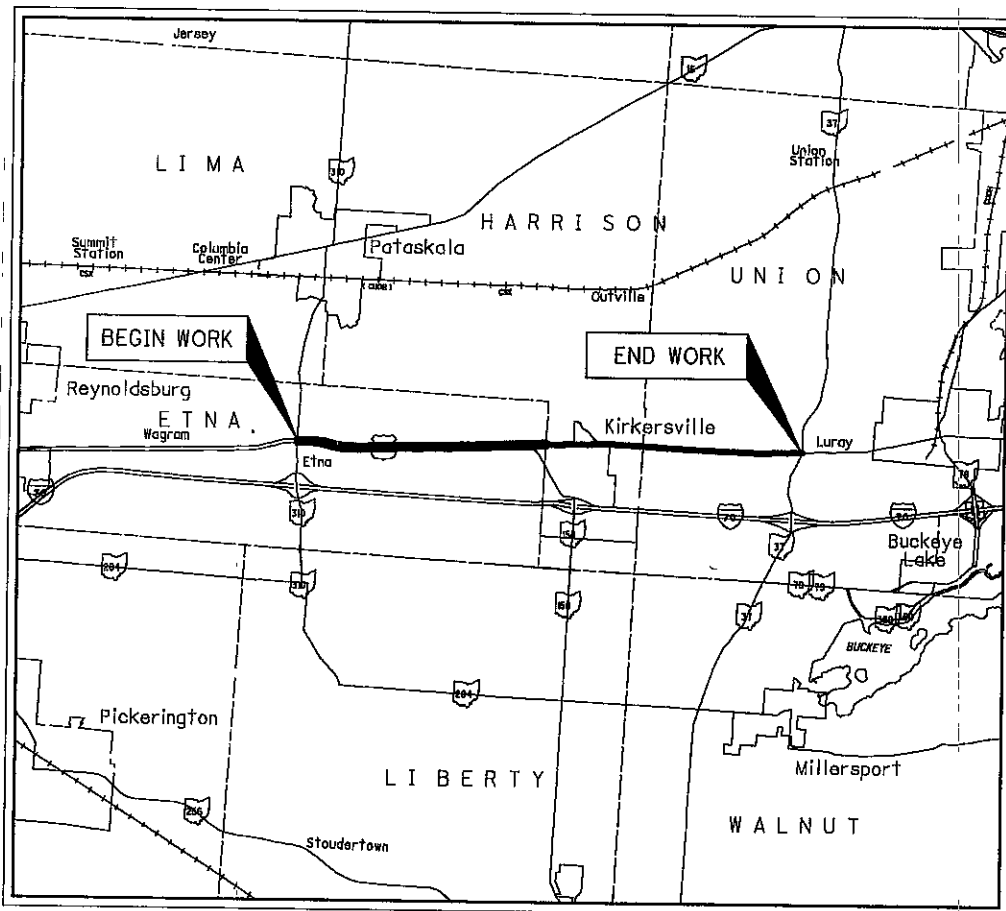


LOCATION MAP
NOT TO SCALE



— PORTION TO BE IMPROVED
Latitude: N 39°57'33" Longitude: W 82°40'58"

UNDERGROUND UTILITIES

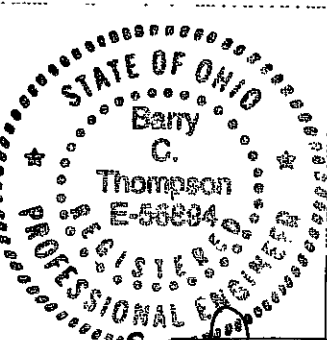
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

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

OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: 1-800-929-0988

DESIGN EXCEPTIONS: NONE

ENGINEER'S SEAL



PLAN PREPARED BY:
District
Production

RMC = Rural Major Collector

DESIGN DESIGNATION	SECTIONS	
	(5.27-8.96)	(8.96-13.29)
Functional Classification	RMC	RMC
Current ADT (2007)	9210	3380
Design Year ADT (2019)	10820	3970
Design Hourly Volume (2019)	1080	400
Directional Distribution	50%	50%
Trucks (24 Hour B&C)	4%	7%
Design Speed	55mph	55mph
Legal Speed	55mph	55mph

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

LIC-40-5.27
LICKING COUNTY
ETNA, HARRISON, AND
UNION TOWNSHIPS

PROJECT DESCRIPTION:

4-LANE AND 2 LANE ASPHALT CONCRETE
RESURFACING, AND RELATED WORK.

Project Earth Disturbed Area =
N/A (Maintenance Project)
Estimated Contractor Earth Disturbed Area =
N/A (Maintenance Project)
Notice of Intent Earth Disturbed Area =
N/A (Maintenance Project)

LOCATION	COUNTY	ROUTE	PROJECT TERMINI		NET LENGTH MILES	VILLAGE
			BEGIN	END		
1	LIC	SR 40	5.38	13.29	7.89	KIRKERSVILLE

INDEX OF SHEETS:

TITLE SHEET _____ 1
GENERAL NOTES _____ 2-6A
ASPHALT CONCRETE DATA _____ 7
SHOULDER TREATMENT _____ 8
EXTRA AREAS DATA _____ 9
BRIDGE TREATMENT _____ 10
KIRKERSVILLE/PLAN SHEET _____ 11
CURB RAMP INSERT SHEETS _____ 12A-12C
CENTER/EDGE LINE SUB-SUMMARY _____ 13
AUXILIARY MARKING SUB-SUMMARY _____ 14
AUXILIARY MARKING DETAILS _____ 15-17
RPM LOCATION SUB-SUMMARY _____ 18
GENERAL SUMMARIES _____ 19,20

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. PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED

DATE 8-1-06 DISTRICT DEPUTY DIRECTOR

APPROVED

DATE 9-1-06 DIRECTOR, DEPARTMENT OF TRANSPORTATION

STANDARD CONSTRUCTION DRAWINGS

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	7-16-04	TC-65.10	1-21-05	800	7-21-06
BP-4.1	7-16-04	TC-65.11	1-21-05	832	4-25-06
GR-1.1	7-16-04	TC-71.10	01-21-05		
GR-2.1	1-16-04	TC-73.10	01-19-01		
GR-5.3	1-16-04				
		MT-95.30	4-20-01		
		MT-97.10	4-19-02		
		MT-97.11	4-19-02		
		MT-99.20M	1-30-95		

SPECIAL PROVISIONS

FEDERAL PROJECT NO. E050 (522)
PID NO. 25195
CONSTRUCTION PROJECT NO.
TITLE SHEET
LIC-40-5.27
1/20

LIC - USR 40 - 5.27 (Village of Kirkersville)
060491 PID - 25195
Dist 5 11/15/2006

4-04-06
1000000

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 PROJECT LIMITS AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT OWNERS AND VERIFY LOCATIONS:

AMERICAN ELECTRIC POWER CO.
CENTRAL OHIO REGION
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
ATTN: RICH ECKLE
614-883-6829

COLUMBIA GAS TRANSMISSION CORP.
301 MAPLE STREET
P.O. BOX 330
SUGAR GROVE, OHIO 43155
ATTN: JOHN RADER
740-746-2279

NATIONAL GAS AND OIL COOPERATIVE
120 O'NEIL DRIVE
HEBRON, OHIO 43025
ATTN: GREG WILSON
740-348-5412

SPRINT TELEPHONE CO.
P.O. BOX 1031
PATASKLA, OHIO 43062
ATTN: DENNIS FIGLEY
740-927-3000

SOUTH WEST LICKING COMMUNITY
WATER & SEWER DISTRICT
8821 YORK ROAD S.W.
PATASKALA, OHIO 43062
740-927-0410

TIME WARNER CABLE
1266 DUBLIN ROAD
COLUMBUS, OHIO 43215
ATTN: KEVIN RICH
614-481-5263

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 EXCEPT SHALE BE WAIVED. 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		
OW-167 (NO EDGE LINES)	16		
R-33 (DO NOT PASS)	8		
R-34 (PASS WITH CARE)	9		
OW-128 (BEGIN ROAD CONSTRUCTION AHEAD)	21		
OC-8 (END ROAD CONSTRUCTION)	21		
TOTAL	75		

ITEM 614 WORK ZONE PAVEMENT MARKINGS

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED TO BE USED AS DIRECTED BY THE ENGINEER TO MAINTAIN TRAFFIC DURING CONSTRUCTION.

ITEM 614 WORK ZONE LANE LINE, CLASS I 7.44 MILE

QUANTITIES CARRIED TO THE GENERAL SUMMARY

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

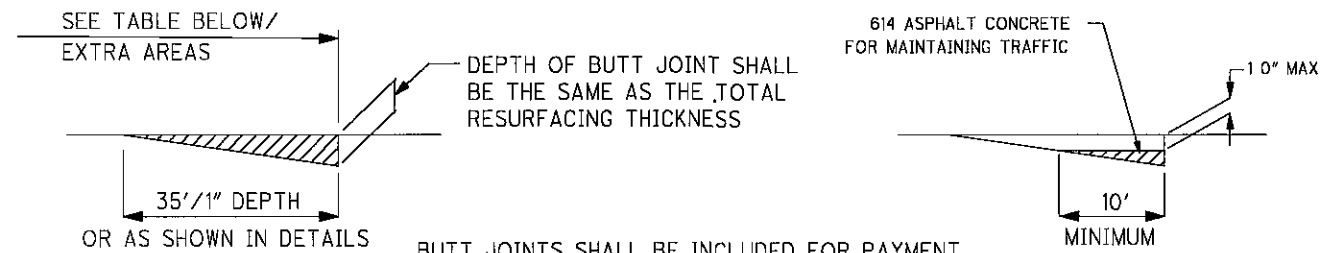
CONVERT THE ENGLISH STANDARD DRAWINGS REFERENCED IN THIS PLAN TO METRIC UNITS USING THE ENGLISH TO SI (METRIC) CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. CONVERSIONS WILL BE APPROPRIATELY PRECISE AND REFLECT STANDARD INDUSTRY SI (METRIC) VALUES WHERE SUITABLE.

FEATHERING

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

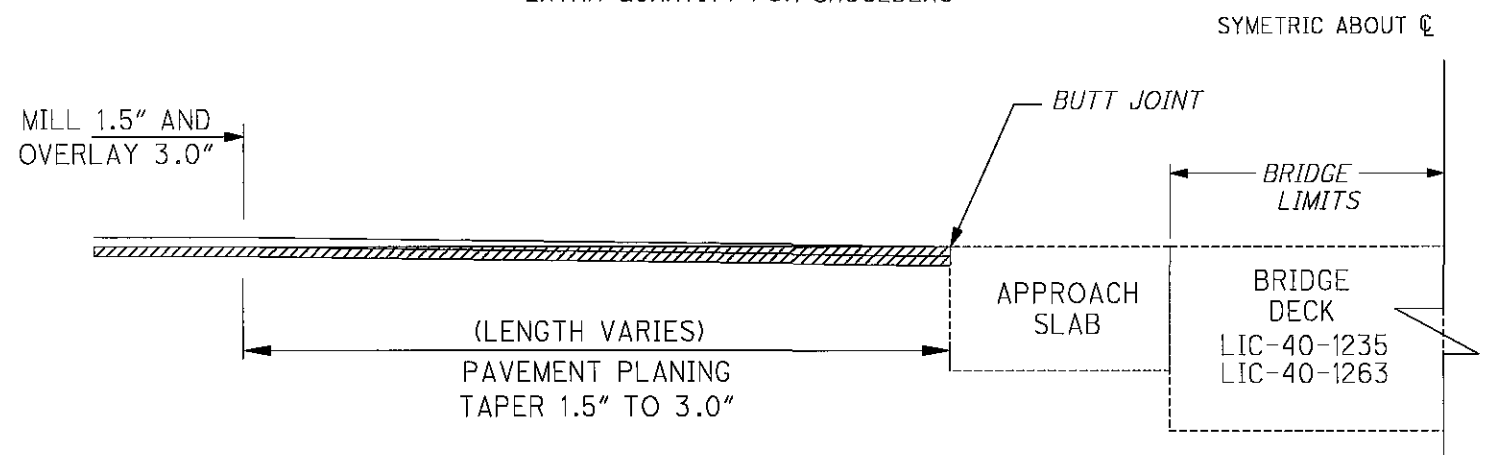
BUTT JOINT

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 SURFACE 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 UNLESS OTHERWISE SHOWN IN THE PLANS.



LOCATION	ROUTE	DESCRIPTION	SLM	254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN SQ. YD.	614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC CU. YD.
1	US 40	BEGIN WORK	5.38	#70	3.2
1	US 40	BRIDGE LIC-40-1235	12.35	*	3.3
1	US 40	BRIDGE LIC-40-1263	12.63	*	3.3
1	US 40	END WORK	13.29	#93	1.1
1	US 40	TOTALS		163	10.9

* QUANTITIES SHOWN ON BRIDGE TREATMENT SHEET
EXTRA QUANTITY FOR SHOULDERS



BUTT JOINT DETAIL AT BRIDGES

L040002.MGN 3-17-06

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 SO 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 - 68693 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 - 10697 GAL.

ITEM 209 LINEAR GRADING

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. THIS WORK MAY BE INTERMITTENT AND SPREAD THROUGHOUT THE PROJECT LIMITS, AS DIRECTED BY THE ENGINEER. ALL LINEAR GRADING WORK SHALL BE DONE BEFORE PLACING THE ASPHALT SURFACE COURSE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE PURPOSES.

ITEM 209 LINEAR GRADING
LOCATION 1 - 3 MILES

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 442 Asphalt Concrete Surface Course, 12.5mm, Type A.

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5mm, Type A
LOCATION 1 - 42.2 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 442 ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (442), AS PER PLAN

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5mm, Type A
LOCATION 1 - 51.7 CU.YD.

ITEM 202 RPM 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 RPM REMOVED
LOCATION 1 - 940 EACH

L040003.MGN.DGN 7-28-06

CALCULATED
CPS
CHECKED
LINE

GENERAL NOTES

LIC-40-5.27

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN

DEPTH OF PAVEMENT PLANING SHALL BE AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE AS DIRECTED BY THE ENGINEER. 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.

MAIN LINE

SLM 5.38 - 9.65 AND SLM 10.04 - 13.29 - PLANE 1.5" IN DEPTH EDGE LINE TO EDGE LINE (24' WIDE)

SLM 9.65 TO SLM 10.04 - PLANE 3.0" IN DEPTH FOR FULL WIDTH OF PAVEMENT.

6500 TONS OF THE RACP (GRINDINGS) SHALL BE DELIVERED TO THE OHIO DEPARTMENT OF TRANSPORTATION - LICKING COUNTY GARAGE AT JACKSONTOWN, OHIO. THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

QUANTITIES SHOWN ON SHEETS 7 AND 8.

ITEM 632 DETECTOR LOOP, AS PER PLAN

ALL DETECTOR LOOPS SHALL BE PLACED SUCH THAT THE LOOP SHALL BE TO A DEPTH OF 4" BELOW PROPOSED SURFACE COURSE SO AS TO ALLOW FOR FUTURE PLANING OF THE ROADWAY WITHOUT DISTURBING DETECTOR LOOPS. PLACEMENT SHALL BE AS PER SPECIFICATION 632.11. ALL MATERIALS (INCLUDING SPLICE KITS), LABOR EQUIPMENT AND INCIDENTALS NECESSARY TO FURNISH A COMPLETED, IN PLACE, WORKING DETECTOR LOOP SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 632 DETECTOR LOOP, AS PER PLAN. ALL LOCATIONS, SIZES AND ORIENTATIONS SHALL BE THE SAME AS EXISTING LOOPS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

ITEM 632 DETECTOR LOOP, AS PER PLAN - 12 EACH

ITEM 604 CATCH BASIN ADJUSTED TO GRADE

ITEM 604 MANHOLE ADJUSTED TO GRADE

ITEM 638 VALVE BOX ADJUSTED TO GRADE

THESE ITEMS SHALL BE USED TO ADJUST CATCH BASINS, MANHOLES AND VALVE BOXES LOCATED THROUGH-OUT THE PROJECT LIMITS AS DIRECTED BY THE ENGINEER. ALL MATERIALS, LABOR EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED SHALL BE INCLUDED FOR PAYMENT WITH THE ITEMS LISTED BELOW.

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 - 18 EACH

ITEM 604 MANHOLE ADJUSTED TO GRADE.
LOCATION 1 - 8 EACH

ITEM 638 VALVE BOX ADJUSTED TO GRADE.
LOCATION 1 - 4 EACH

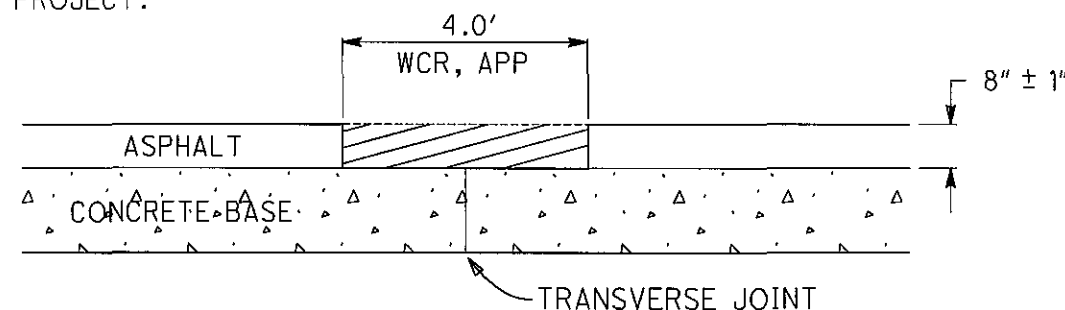
ITEM 202 WEARING COURSE REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING ASPHALT CONCRETE PAVEMENT TO THE UNDERLYING CONCRETE BASE AT TRANSVERSE JOINTS ON US 40. THE INTENT IS TO REPLACE THE DAMAGED ASPHALT BEFORE PLANING THE EXISTING ROADWAY SURFACE. THE REPLACEMENT MATERIAL SHALL BE FLUSH WITH THE EXISTING SURFACE AFTER INITIAL PLACEMENT AND COMPACTION.

REPLACEMENT MATERIAL SHALL BE ITEM 301 ASPHALT CONCRETE BASE, PG 64-22 ALL MATERIALS, (INCLUDING ITEM 301), 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 REMOVED, AS PER PLAN.

THIS WORK SHALL BE PERFORMED ON APPROXIMATELY 250 OF THE JOINTS LOCATED WITHIN THE WORK LIMITS AT THE DIRECTION OF THE PROJECT ENGINEER. MOST OF THE JOINTS TO BE REPAIRED ARE IN THE WESTBOUND 4-LANE SECTION. ALL REPAIR AREAS SHALL BE INLAID WITH ITEM 301 ASPHALT CONCRETE BASE BEFORE OPENING TO TRAFFIC.

AN ESTIMATED QUANTITY OF 1000 SQ.YDS. HAS BEEN ADDED TO THE TOTAL TO BE USED AS DIRECTED BY THE ENGINEER FOR AREAS OF PAVEMENT REPAIR THROUGHOUT THE PROJECT.



$24' \times 4' / 9 = 10.7 \text{ SY/JOINT}$
 $250 \text{ JOINTS} \times 10.7 \text{ SY/JT} = 2667 \text{ SQ.YD.} + 1000 \text{ SQ.YD.} = 3667 \text{ SQ.YD.}$

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
 ITEM 202 WEARING COURSE REMOVED, AS PER PLAN 3667 SQ.YD.

IF AFTER REMOVING THE ASPHALT IT IS DETERMINED BY THE ENGINEER THAT THE CONCRETE BASE IS IN POOR CONDITON (RUBBLE/SOFT) AND NEEDS TO BE REMOVED, THE CONTRACTOR SHALL REMOVE THE CONCRETE BASE AND PLACE LOW STRENGTH MORTAR BACKFILL TO FILL THE VOID TO THE EXISTING CONCRETE BASE ELEVATION. IT IS ESTIMATED THAT APPROXIMATELY 100 OF THE 250 JOINTS WILL REQUIRE COMPLETE REMOVAL AS DESCRIBED. THE FOLLOWING ESTIMATED QUANTITIES SHALL BE USED AS DIRECTED BY THE ENGINEER TO COMPLETE THE WORK AS DESCRIBED.

$24' \times 4' / 9 = 10.7 \text{ SY/JOINT}$
 $100 \text{ JOINTS} \times 10.7 \text{ SY/JT} = 1070 \text{ SY}$

ITEM 202 BASE REMOVED, AS PER PLAN - 1070 SQ.YD.
 ITEM 613 LOW STRENGTH MORTAR BACKFILL - 357 CU.YD.

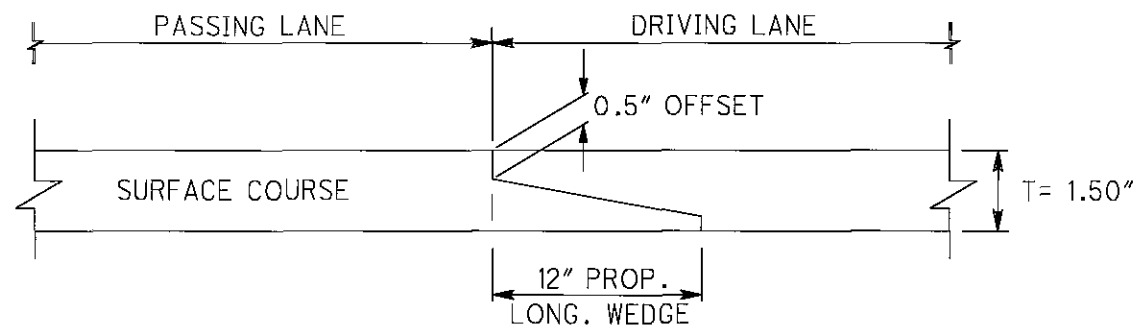
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CALCULATED	CPS	CHECKED	LINE
GENERAL NOTES			
LIC-40-5.27			
5 20			

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN

THE ASPHALT BINDER FOR THE SURFACE COURSE SHALL BE PG 76-22M IN LIEU OF PG 70-22.

CONSTRUCTION OF THE SURFACE COURSE WILL INCLUDE CREATING A WEDGE ALONG THE LONGITUDINAL JOINT BETWEEN THE DRIVING AND PASSING LANES AS SHOWN IN DETAIL BELOW. THE PASSING LANE SHALL BE CONSTRUCTED FIRST WITH THE WEDGE EXTENDING 1.0 FT INTO THE DRIVING LANE. THE PROPOSED WEDGE SHALL REMAIN IN PLACE DURING PLACEMENT OF THE SURFACE COURSE FOR THE DRIVING LANE.



LONGITUDINAL JOINT DETAIL FOR SURFACE COURSE

(PROPOSED LONGITUDINAL WEDGE SHALL REMAIN IN PLACE DURING PLACEMENT OF SURFACE COURSE FOR DRIVING LANE)

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MODIFY STANDARD PAVING EQUIPMENT SUCH THAT THE LONGITUDINAL JOINTS MAY BE CREATED AS SHOWN IN THE DETAIL ABOVE. THE PASSING LANE SHALL BE COMPACTED WITH A ROLLER NOT EXTENDING MORE THAN 2" BEYOND THE TOP OF THE UNCONFINED EDGE. THE TAPERED, UNCONFINED FACE OF THE WEDGE SHALL BE COMPACTED WITH A SMALL ROLLER ATTACHED TO THE PAVER. AFTER A LIFT HAS BEEN PLACED FOR A SECTION OF THE PASSING LANE, THEN A LIFT FOR THE ADJACENT DRIVING LANE SHALL BE CONSTRUCTED SUCH THAT THE LONGITUDINAL JOINT IS COMPLETED WITHIN 24 HOURS. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO PERFORM ALL WORK AS DESCRIBED WITHIN GIVEN PLAN NOTE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN

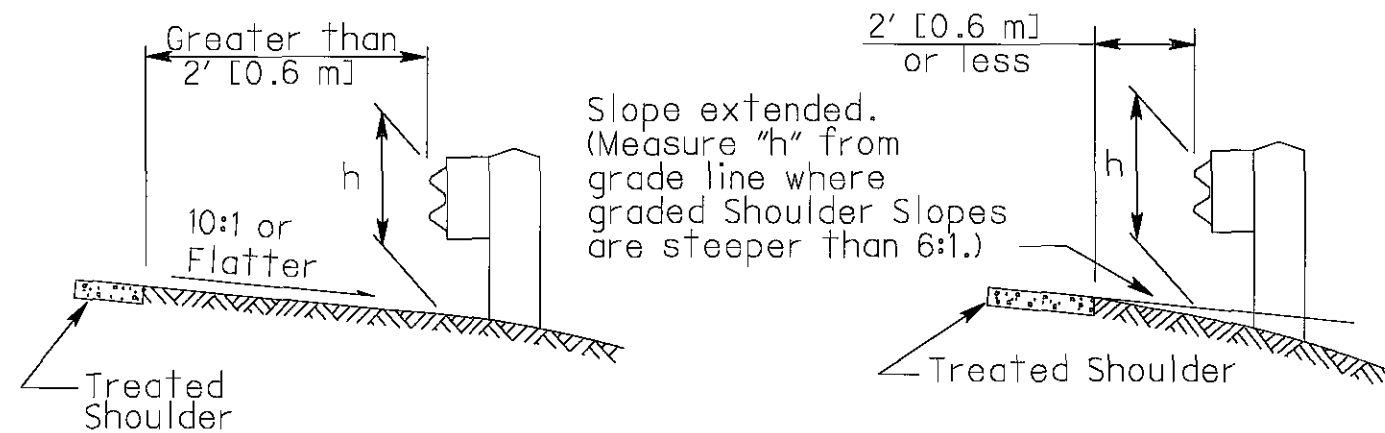
GUARDRAIL WORK

THE GUARDRAIL RUN SHOWN BELOW IN THE TABLE SHALL BE REMOVED AND REPLACED WITH THE PROPOSED ITEMS LISTED. ALL WORK SHALL BE AS PER O.D.O.T. SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWINGS. AN ESTIMATED QUANTITY OF ITEM 203 EMBANKMENT IS CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER TO CORRECT SHOULDER SLOPES AT VARIOUS LOCATIONS THROUGHOUT THE LENGTH OF THE PROJECT. ALL MATERIALS, LABOR, TOOLS, EQUIPMENT AND TRAFFIC CONTROL SHALL BE INCLUDED IN THE APPROPRIATE UNIT PRICE BID TO COMPLETE THE WORK DESCRIBED.

LOCATION	SLM		SIDE	202 GUARDRAIL REMOVED FT	606 GUARDRAIL, TYPE 5 FT	606 ANCHOR ASSEMBLY, TYPE E-98 EACH
	FROM	TO				
1	12.38	12.42	RT	250	200	2

ITEM 203 EMBANKMENT, AS PER PLAN - 100 CU.YD.

GUARDRAIL HEIGHT: For initial installation, construct the guardrail within $\pm 1"$ [25] of the standard height, h , or $27\frac{3}{4}"$ [706] to the top of W-Beam rail. (See MEASURING GUARDRAIL HEIGHT Detail.) When subsequent projects, such as resurfacings, affect the height of existing guardrail, the finished height is to be within $\pm 3"$ [75] of the standard height.



MEASURING HEIGHT OF GUARDRAIL

GENERAL NOTES

LIC-40-5.27

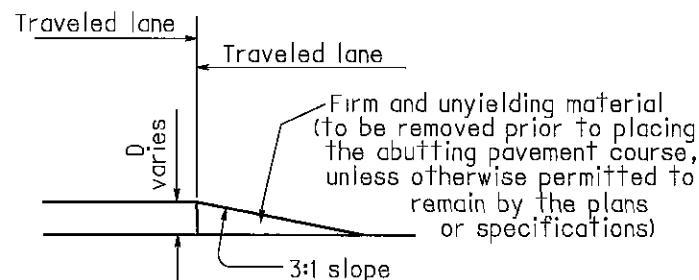
L040005.mgn.dgn 7-31-06

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.



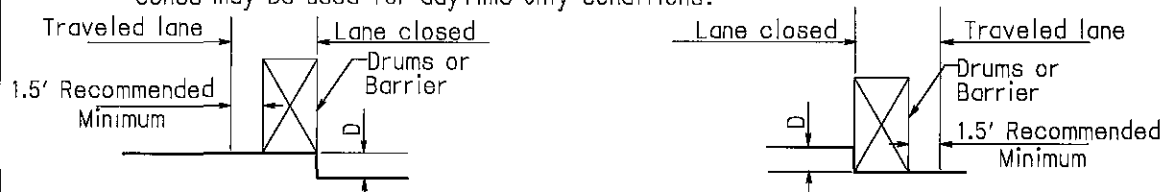
CONDITION I

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.



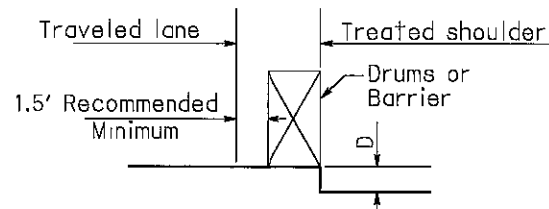
CONDITION II

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.

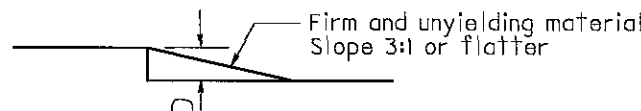
D (In.)	Treatment
≤ 1/2	1) If edgelines are present, no treatment necessary OR 2) Erect OW-171 and OWP-171 signs.
> 1/2 - 5	1) If min. lane width* requirements can be met, maintain lanes utilizing drums as shown below OR 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing 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.



LIC-40-5.27

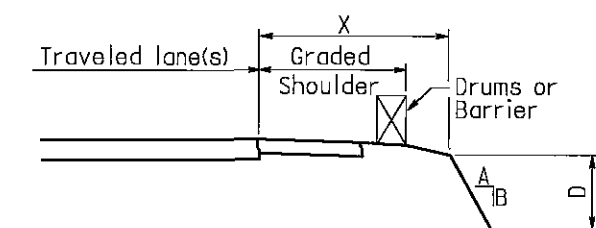
CONDITION III

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:
- Uncurbed Facilities.
 - 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.

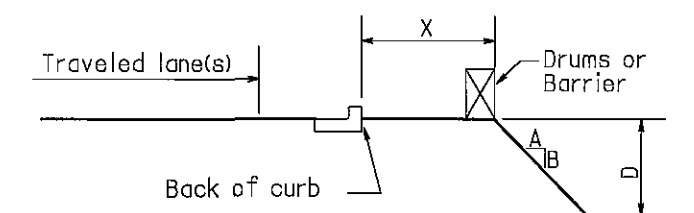


X (Ft.)	D (In.)	A/B	Treatment Required	
			Day	Night
0-4	Any	Any	(a)	(a)
4-30	Any	3:1 or Flatter	None	None
4-12	< 3	Steeper than 3:1	None	None
4-12	> 3 - < 12	Steeper than 3:1	Drums	Drums
4-12	> 12	Steeper than 3:1	Drums	Barrier
> 12 - 20	< 12	Steeper than 3:1	None	None
> 12 - 20	> 12 - < 24	Steeper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

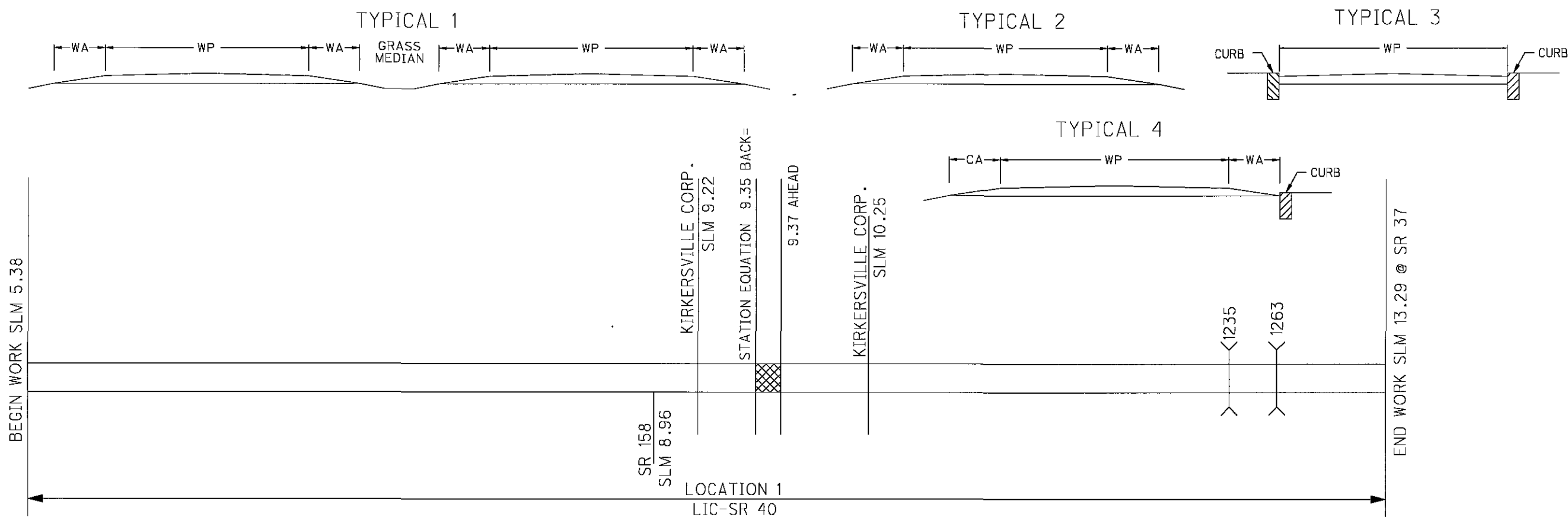


X (Ft.)	D (In.)	A/B	Treatment Required	
			Day	Night
0-10	< 12	Any	None	Drums
0-10	> 12	Any	Drums	Drums
> 10	Any	Any	None	None

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
BUREAU OF LOCATION AND DESIGN

**DROPOFFS IN
WORK ZONES**

DESIGNED DRAWN TRACED CHECKED REVIEWED DATE REVISED



* AVERAGE WIDTH FOR 2-4 LANE TRANSITION

PAVEMENT DATA

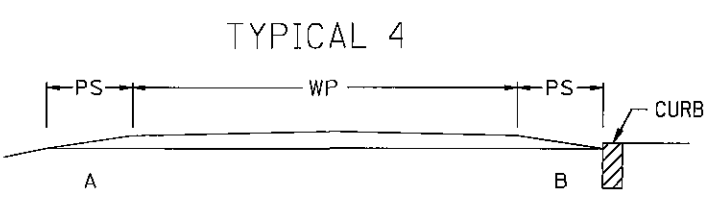
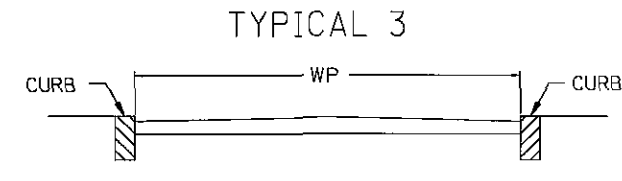
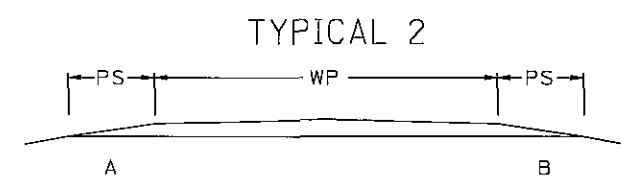
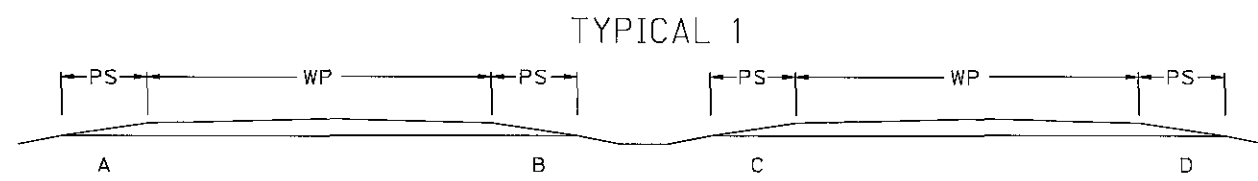
LOCATION	COUNTY	ROUTE	BEGIN LOG POINT	END LOG POINT	LENGTH		PAVEMENT WIDTH (FEET)	NUMBER OF LANES	TYPICAL	EXISTING PAVEMENT TYPE	PAVEMENT AREA SQ YARDS	PROPOSED PAVEMENT						ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN SQ. YARDS	WORK ZONE CENTERLINE MILE
					MILES	LIN FT						407		448 ASPHALT CONCRETE		442 ASPHALT CONCRETE			
												TACK COAT @ 0.075 gal/S Y	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 gal/s y	THICKNESS INCHES	INTERMEDIATE COURSE, TYPE 2, PG 64-28 CU YARDS	THICKNESS INCHES	SURFACE COURSE, 12.5mm, TYPE A, APP CU YARDS		
1	LIC	US 40	5.38	6.89	1.51	7973	48.0	4	1	446	42522	3189	2126	1.5	1771.7	1.5	1771.7	42522	
1	LIC	US 40	6.89	6.97	0.08	422	67.0	5	2	404	3145	236	157	1.5	131.0	1.5	131.0	3145	
1	LIC	US 40	6.97	7.11	0.14	739	48.0	4	1	404	3942	296	197	1.5	164.3	1.5	164.3	3942	
1	LIC	US 40	7.11	7.24	0.13	686	67.0	5	2	404	5110	383	255	1.5	212.9	1.5	212.9	5110	
1	LIC	US 40	7.24	8.96	1.72	9082	48.0	4	1	404	48435	3633	2422	1.5	2018.1	1.5	2018.1	48435	
1	LIC	US 40	8.96	9.00	0.04	211	67.0	5	2	404	1572	118	79	1.5	65.5	1.5	65.5	1572	
1	LIC	US 40	9.00	9.10	0.10	528	48.0	4	1	404	2816	211	141	1.5	117.3	1.5	117.3	2816	
1	LIC	US 40	9.10	9.31	0.21	1109	42.0	4	1	404	5174	388	259	1.5	215.6	1.5	215.6	5174	
1	LIC	US 40	9.31	9.41	0.10	528	37.5	2	2	404	2200	165	110	1.5	91.7	1.5	91.7	2200	0.20
1	LIC	US 40	9.41	9.74	0.33	1742	24.0	2	2	404	4646	348	232	1.5	193.6	1.5	193.6	4646	0.66
1	LIC	US 40	9.74	9.89	0.15	792	24.0	2	3	404	2112	158	106	1.5	88.0	1.5	88.0	2112	0.30
1	LIC	US 40	9.89	10.00	0.11	581	24.0	2	4	404	1549	116	77	1.5	64.5	1.5	64.5	1549	0.22
1	LIC	US 40	10.00	12.10	2.10	11088	24.0	2	2	404	29568	2218	1478	1.5	1232.0	1.5	1232.0	29568	4.20
1	LIC	US 40	12.10	13.02	0.92	4858	30.0	3	2	404	16192	1214	810	1.5	674.7	1.5	674.7	16192	1.84
1	LIC	US 40	13.02	13.29	0.27	1426	24.0	2	2	404	3802	285	190	1.5	158.4	1.5	158.4	3802	0.54
												12959	8639		7199.4		7199.4	172785	7.96
											(940)	(71)	(47)	1.5	(39.2)	1.5	(39.2)	(940.0)	(0.05)
												12888	8592		7160.2		7160.2	171845	7.91

SHOULDER TREATMENT

CALCULATED
CPS
CHECKED
LME

SHOULDER TREATMENT

LIC-40-5.27

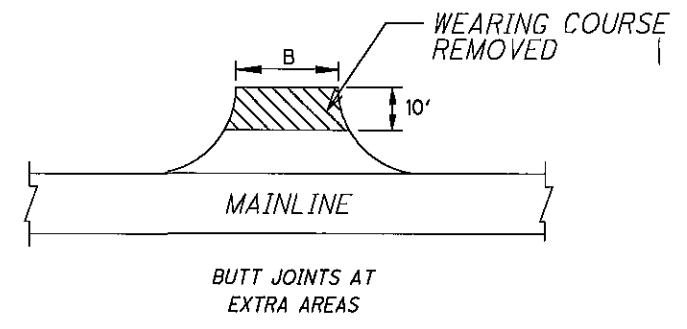
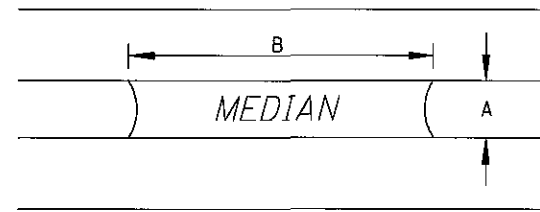
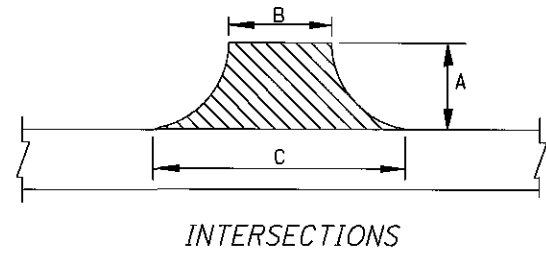


SHOULDER DATA

LOCATION	COUNTY	ROUTE	BEGIN LOG POINT	END LOG POINT	LENGTH		TYPICAL	PROPOSED WIDTH (FT.)				SHOULDER AREA SQ YDS	407	407	448 ASPHALT CONCRETE	442 ASPHALT CONCRETE	617		254		
					MILES	LIN FT		A	B	C	D		TACK COAT @ 0.075 GAL/SQ YD	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL/SQ YD	THICK	INTERMEDIATE COURSE, TYPE 2, PG 64-28	THICK	SURFACE COURSE, 12.5MM, TYPE A, AS PER PLAN	AVERAGE THICKNESS	COMPACTED AGGREGATE, AS PER PLAN	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN
													GAL	GAL	IN	CU. YDS	IN.	CU. YDS.	IN.	CU YDS	SQ YDS.
1	LIC	US 40	5.38	8.69	3.31	17477	1	4			4	15535	1165			1.5	647.3	2.0	863.1		
1	LIC	US 40	8.69	9.31	0.62	3274	1	4	4	4	4	5820	436			1.5	242.5	2.0	161.7		
1	LIC	US 40	9.31	9.59	0.28	1478	2	4	4			1314	99			1.5	54.8	2.0	36.5		
1	LIC	US 40	9.59	9.65	0.06	317	2	4	8			422	32			1.5	17.6	2.0	7.8		
1	LIC	US 40	9.65	9.70	0.05	264	2	9	8			499	37			1.5	20.8			499	
1	LIC	US 40	9.70	9.74	0.04	211	2	13	8			493	37			1.5	20.5			493	
1	LIC	US 40	9.74	9.78	0.04	211	3	21	11			751	56			1.5	31.3			751	
1	LIC	US 40	9.78	9.79	0.01	53	3	15	10			147	11			1.5	6.1			147	
1	LIC	US 40	9.79	9.89	0.1	528	3	20	11			1819	136			1.5	75.8			1819	
1	LIC	US 40	9.89	10.00	0.11	581	4	11	11			1420	106			1.5	59.2			1420	
1	LIC	US 40	10.00	10.02	0.02	106	2	8	11			223	17			1.5	9.3			223	
1	LIC	US 40	10.02	10.04	0.02	106	2	8	5			153	11			1.5	6.4			153	
1	LIC	US 40	10.04	10.25	0.21	1109	2	5	5			1232	92			1.5	51.3	2.0	27.4		
1	LIC	US 40	10.25	12.10	1.85	9768	2	3	3			6512	488			1.5	271.3	2.0	241.2		
1	LIC	US 40	12.10	12.29	0.19	1003	2									1.5		2.0	24.8		
1	LIC	US 40	12.29	12.39	0.1	528	2	14	8			1291	97			1.5	53.8	2.0	13.0		
1	LIC	US 40	12.39	12.56	0.17	898	2	3	3			598	45			1.5	24.9	2.0	22.2		
1	LIC	US 40	12.56	12.76	0.2	1056	2	12	8			2347	176			1.5	97.8	2.0	26.1		
1	LIC	US 40	12.76	13.02	0.26	1373	2	2	2			610	46			1.5	25.4	2.0	33.9		
1	LIC	US 40	13.02	13.29	0.27	1426	2	3	3			950	71			1.5	39.6	2.0	35.2		
DEDUCT FOR BRIDGES												(666)	(50)			1.5	(27.8)	2.0	(7.0)		
TOTALS												41468	3110					1727.9		1485.7	5503

7-31-06
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EXTRA AREA



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	S I D E	D E S C R I P T I O N	I N T E R S E C T I O N S			A R E S Q Y D S	407		448 ASPHALT CONCRETE			202	254
						A I N F E E T	B I N F E E T	C I N F E E T		T A C K C O A T @ 0 0 7 5 G A L ./ S Q. Y D	T A C K 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 0 5 G A L ./ S Q. Y D	A V G. T H I C K I N	S U R F A C E C O U R S E T Y P E I, P G 7 0 - 2 2 M	W E A R I N G C O U R S E R E M O V E D S Q Y D S	P A V E M E N P L A N I N G A S P H A L T C O N C R E T E, A S P E R P L A N	
																G A L.
1	LIC	US 40		RT	CANAL ST.	15	17	31	40	3		1.5	17	19		
				RT	PIKE ST	13	44	64	78	6		1.5	3.3	49		
				RT	SMOKE RD	25	18	60	108	8		1.5	4.5	20		
				CL	TURN LANE @ SMOKE RD				360	27		1.5	15.0			
				LT	SMOKE RD	25	18	60	108	8		1.5	4.5	20		
				LT	LONGWOOD DR.	23	33	65	125	9		1.5	5.2	37		
				RT	WATKINS RD	25	18	75	129	10		1.5	5.4	20		
				LT	WATKINS RD	25	18	75	129	10		1.5	5.4	20		
				RT	YORK RD.	25	18	75	129	10		1.5	5.4	20		
				LT	YORK RD	25	18	60	108	8		1.5	4.5	20		
				RT	SR 158	76	30	109	587	44		1.5	24.5	33		
				RT	OUTVILLE RD.	30	29	51	133	10		1.5	5.6	133		
				LT	FIFTH ST	23	25	45	89	7		1.5	3.7	89		
				LT	FOURTH ST	16	40	46	76	6		1.5	3.2	76		
				LT	THIRD ST	25	38	52	125	9		1.5	5.2	125		
				RT	THIRD ST	15	24	37	51	4		1.5	2.1	51		
				LT	ALLEY	10	12		13	1		1.5	0.6	13		
				LT	SECOND ST.	25	20	44	89	7		1.5	3.7	89		
				LT	ALLEY	20	10	30	44	3		1.5	1.9	44		
				RT	FIRST ST	20	30	57	97	7		1.5	4.0	97		
				RT	CEMETERY RD	30	16	58	123	9		1.5	5.1	18		
				LT	GALE RD	40	18	79	216	16		1.5	9.0	20		
				RT	SWAMP RD.	35	19	87	206	15		1.5	8.6	21		
				CL	AREA FOR MEDIAN CROSSOVERS				3895	292		1.5	162.3			
TOTALS LOCATION 1										530			294.2	1035		

LO40001 MEA 7-31-06

CALCULATED
CPS
CHECKED
LME

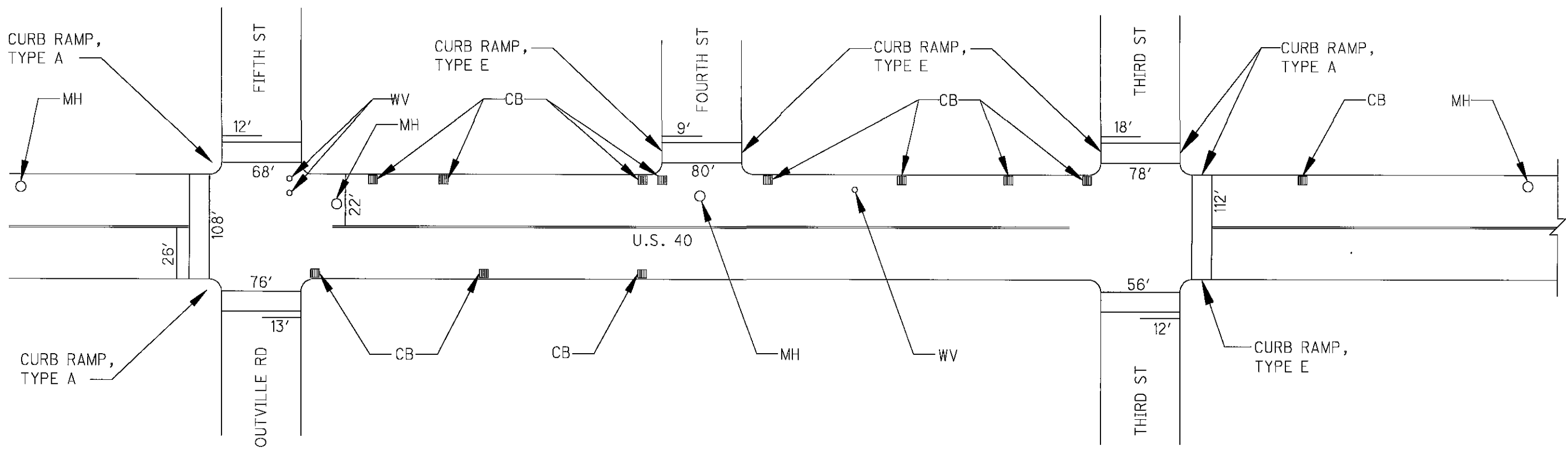
EXTRA AREA

LIC-40-5.27

MH - MANHOLE
 WV - WATER VALVE
 CB - CATCH BASIN

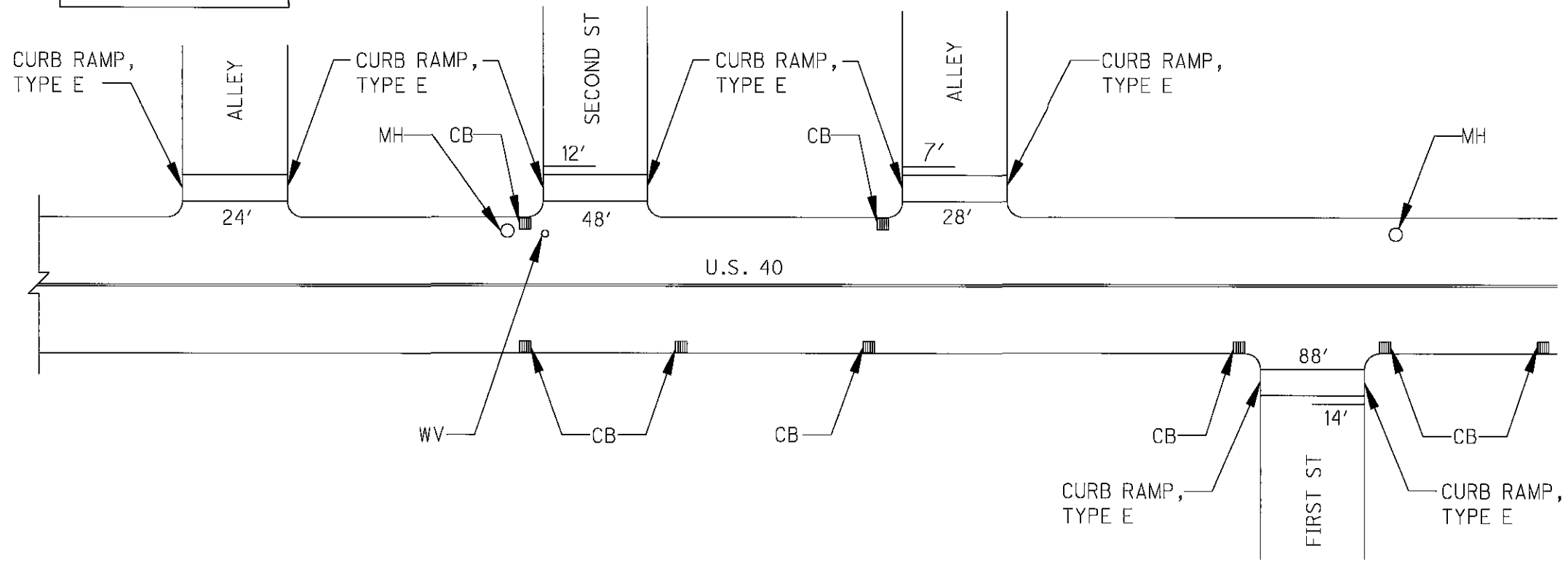
* DRAWING NOT TO SCALE

US 40 - KIRKERSVILLE



MH - MANHOLE
 WV - WATER VALVE
 CB - CATCH BASIN

* DRAWING NOT TO SCALE



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

TRUNCATED DOMES SHALL BE INCLUDED FOR PAYMENT WITH ITEM 608 CURB RAMP, AS PER PLAN AS INDICATED ON PLAN INSERT SHEET 12C.

LOCATION 1

CURB RAMP, TYPE "A" = 3
 CURB RAMP, TYPE "E" = 13

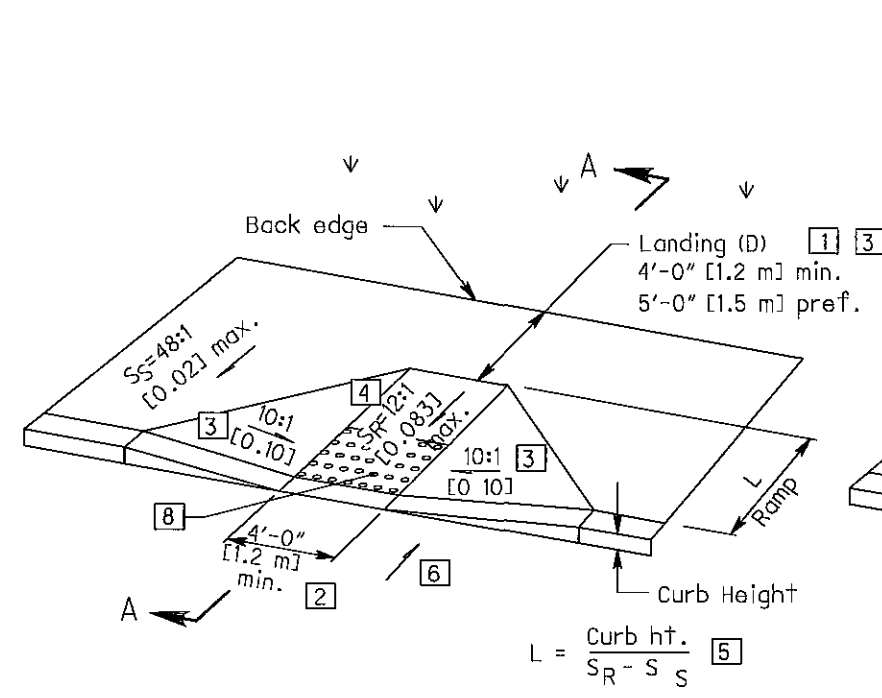
ITEM 202 CURB REMOVED - 14 FT
 ITEM 202 WALK REMOVED - 972 SQ.FT.
 ITEM 608 CURB RAMP, AS PER PLAN - 1026 SQ.FT.
 QUANTITIES CARRIED TO THE GENERAL SUMMARY.

L040001.ket 3-17-06

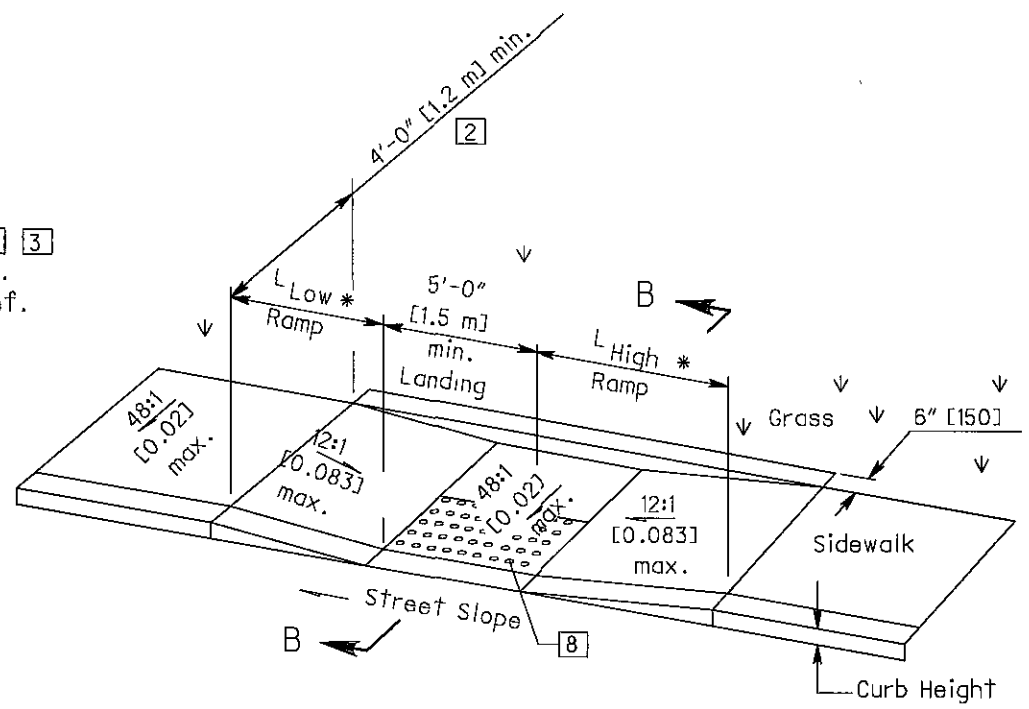
CALCULATED
 CFS
 CHECKED
 LME

KIRKERSVILLE PLAN SHEET

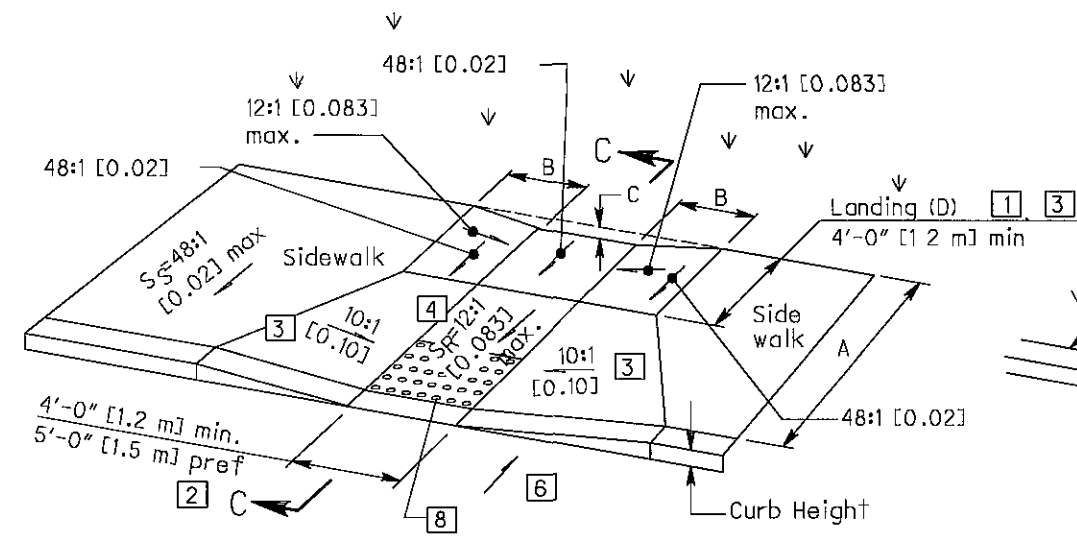
LIC-40-5.27



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

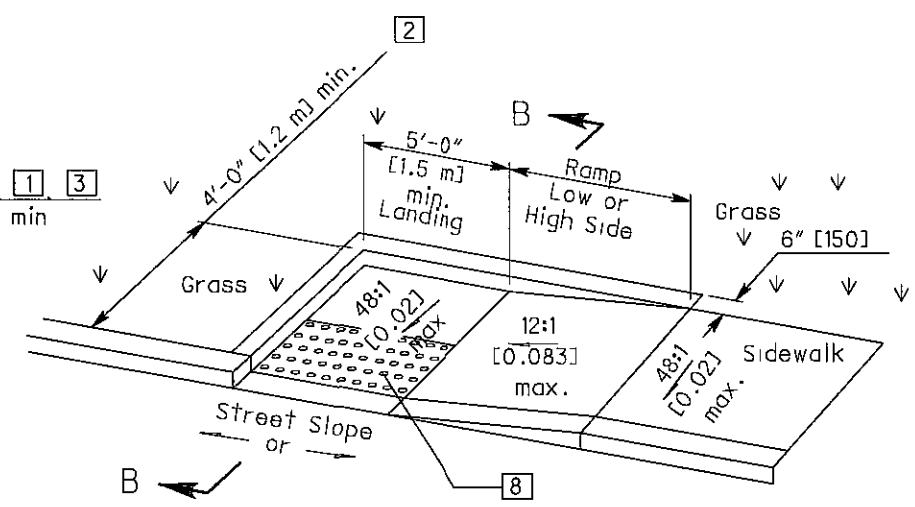


See Sht. 3/3 for SECTION B-B
PARALLEL CURB RAMP DETAIL (DOUBLE)



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

$B = C / 0.083$
 $C = [Curb\ ht. + A(S)]_S - [(A-D)S + D(0.02)]$



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

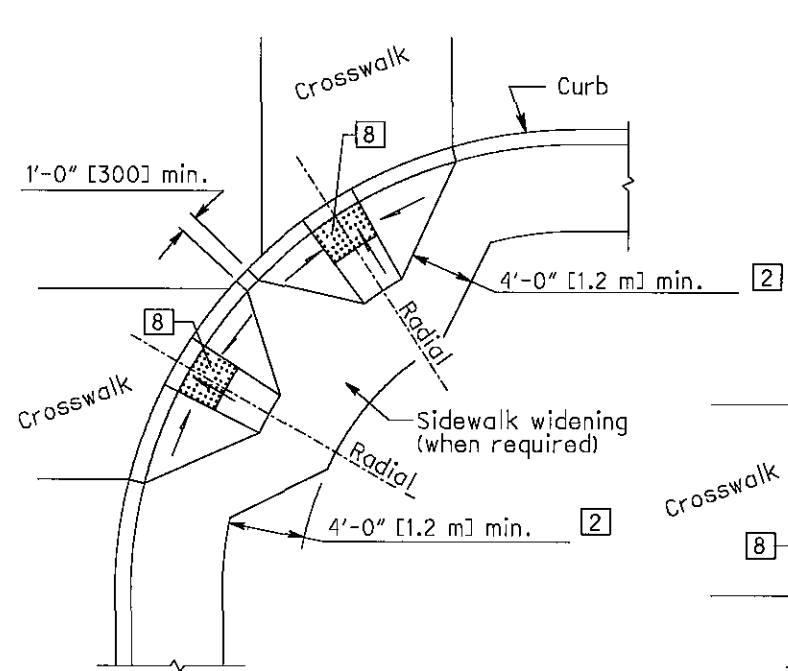
Street Slope	Ramp Length @ 1"/ft [0.083]	
	L _{LOW SIDE*}	L _{HIGH SIDE*}
0.01	5'-5" [1.6 m]	6'-10" [2.1 m]
0.02	4'-10" [1.5 m]	7'-11" [2.4 m]
0.03	4'-5" [1.3 m]	9'-5" [2.9 m]
0.04	4'-1" [1.2 m]	11'-8" [3.6 m]
0.05	3'-9" [1.1 m]	15'-2" [4.6 m]

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

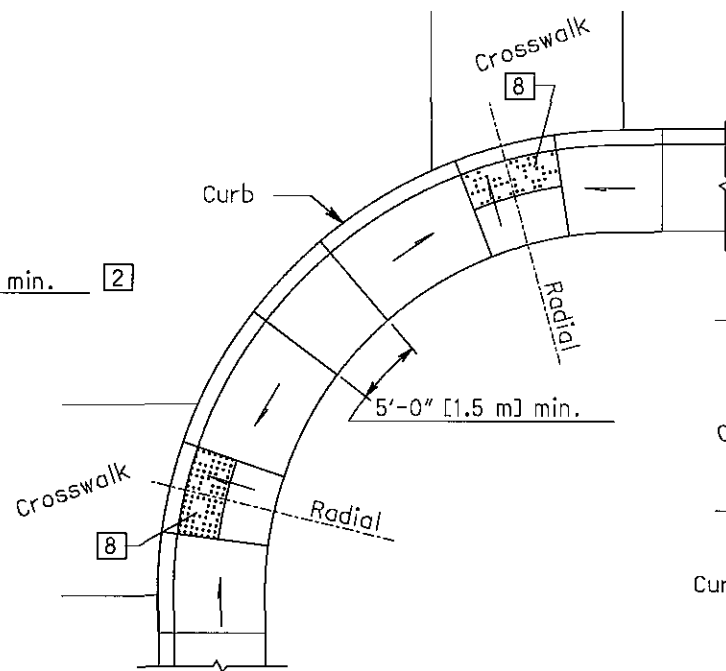
$L_{HIGH} = \frac{Curb\ ht.}{0.083 - Street\ Slope}$ [7]
 $L_{LOW} = \frac{Curb\ ht.}{0.083 + Street\ Slope}$ [7]

LEGEND

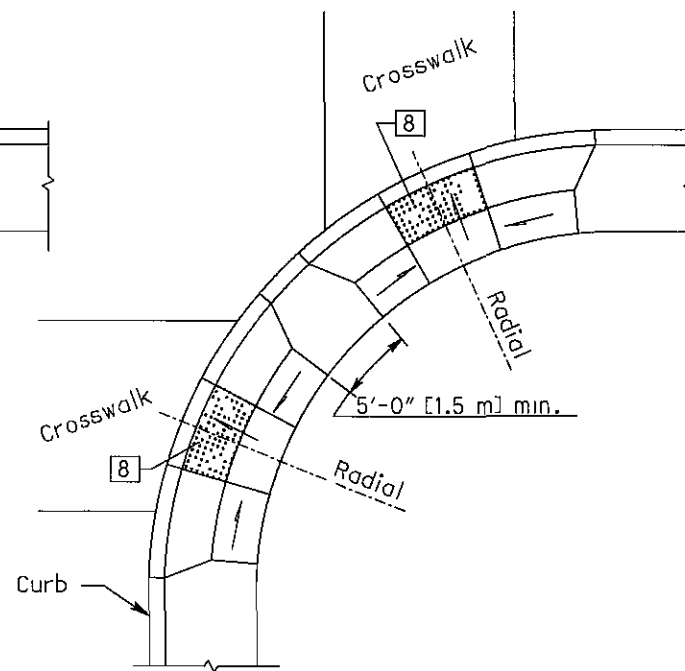
- [1] May be reduced to 3'-0" [915] in existing sidewalks if the landing is unconstrained along the back edge.
- [2] May be reduced to 3'-4" [1.02 m] in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, 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.



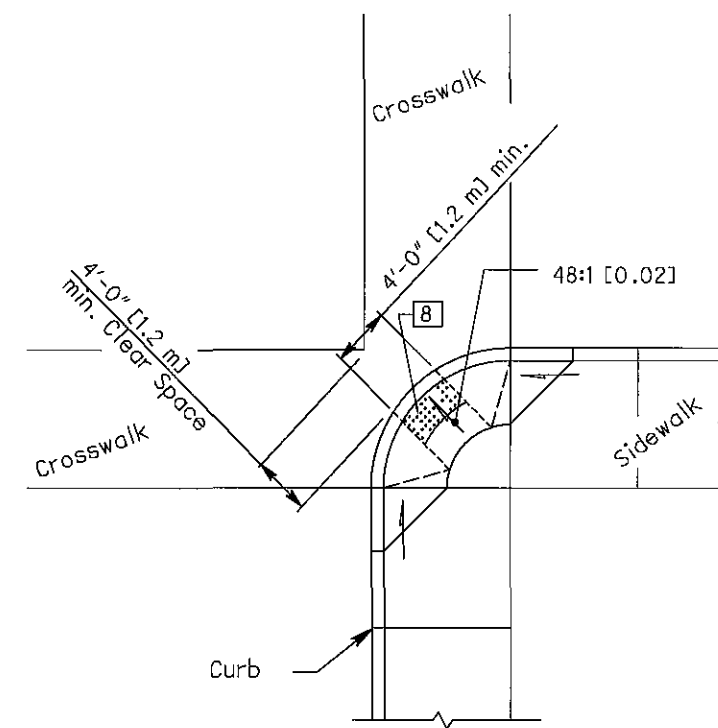
DESIGN A
PERPENDICULAR RAMP



DESIGN B
PARALLEL RAMP



DESIGN C
COMBINATION RAMP



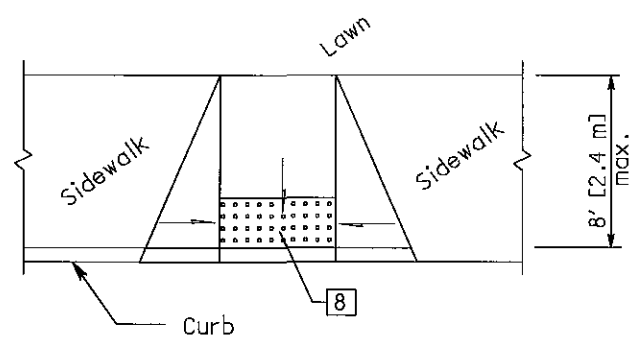
DESIGN D
DIAGONAL RAMP

CORNER CURB RAMP DESIGNS

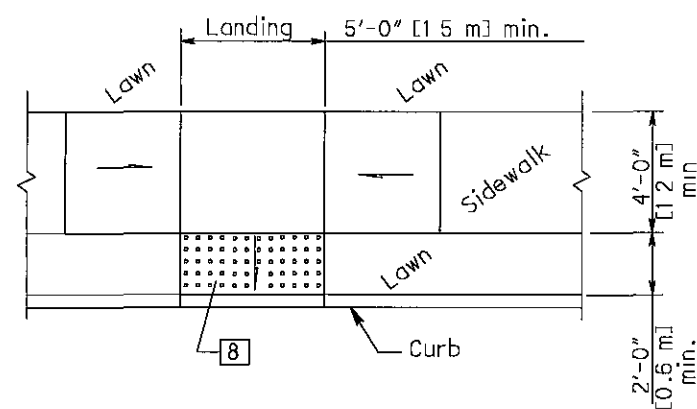
(See Curb Ramp Details on Sht. 1/3 for additional requirements.)

For LEGEND, See sheet 1.

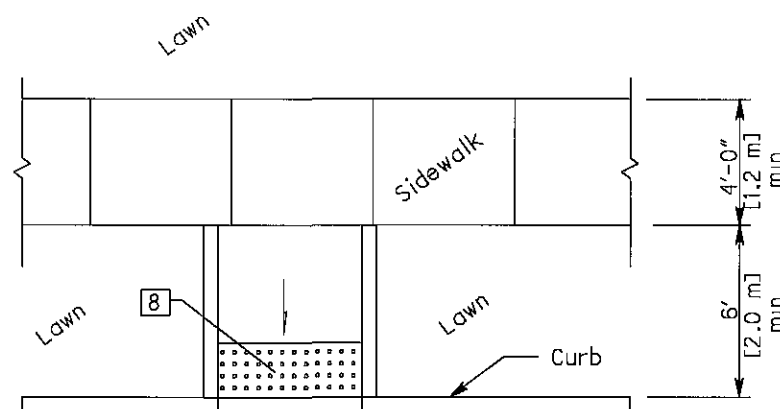
Use in existing walks only and when site constraints prohibit other designs. The diagonal ramp may be perpendicular, parallel or combination. Avoid using where curb radii are less than 20'-0" [6.0 m].



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 1, 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) 729-3315 Handicap Detectable Warning Paver, 4"x8"x2-1/4", Red Blend.

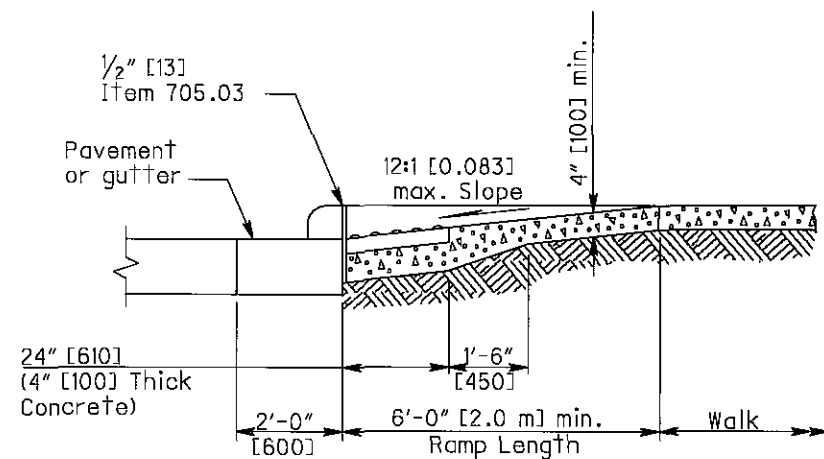
Pavers will laid on top of a 4" [100] unreinforced concrete base. Setting bed and joints to be mortared in accordance with manufacturer's instruction, or with a maximum 1/2" [13] thick bed of latex modified cement mortar. Mortar joints to a width not greater than 1/32" [4] and not less than 1/16" [1.5].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

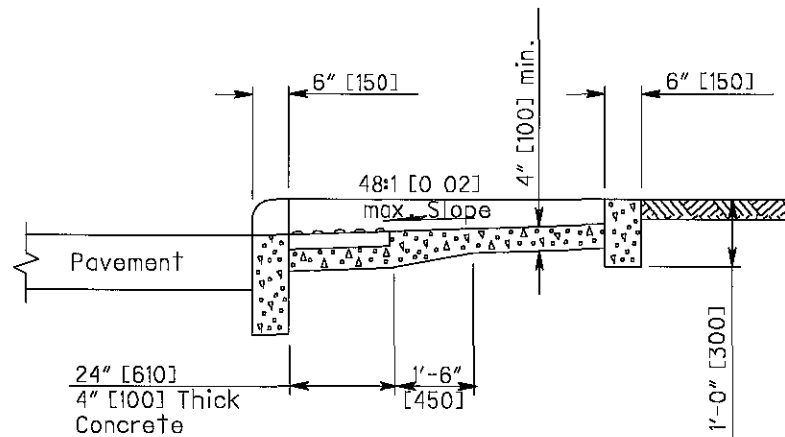
The surface of any two adjacent units should not differ by more than 1/8" [3] in height. Bricks shall be placed in a running bond pattern. Face of all brick shall be clean of cement and protected so as to avoid chipping during construction.

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.

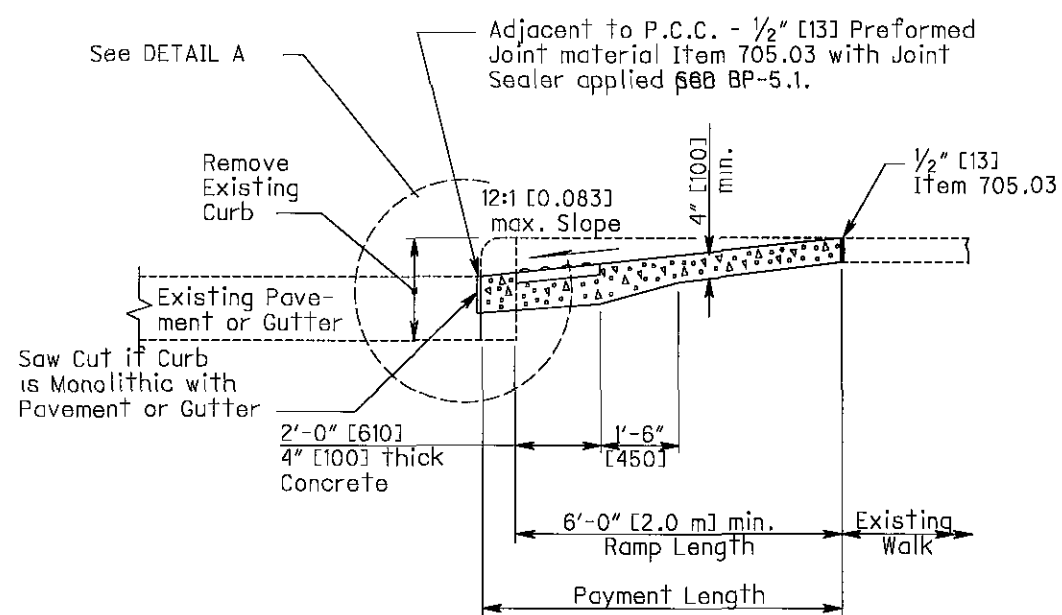
PAYMENT: Walk and curb, Items 608 and 609, shall be measured through the curb ramp area paid for under their respective Items. Item 608 - Curb Ramp, As Per Plan, Each constructed in new curb and walk shall include the cost of any additional materials and installation (including truncated domes), grading, 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.



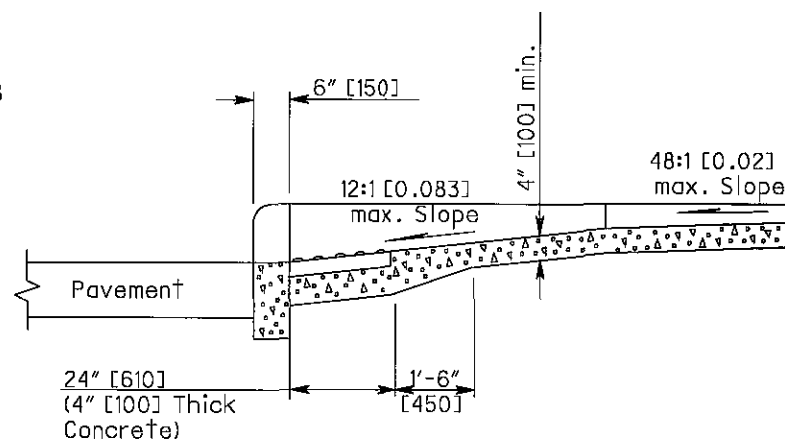
**SECTION A-A
NORMAL DETAIL**
See Sheet 1 of 3.
(Gutter shown)



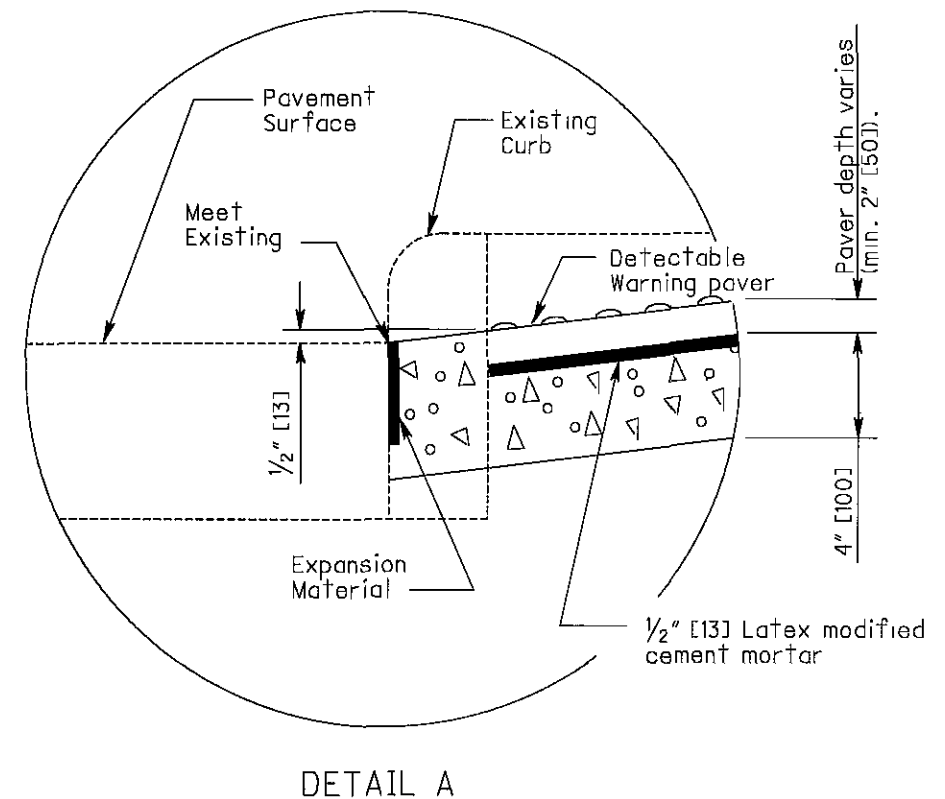
SECTION B-B
See Sheet 1 of 3.



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



SECTION C-C
See Sheet 1 of 3.



DETAIL A

ITEM 642 FAST DRY EDGE LINE SUB-SUMMARY

L O C A T I O N	C O U N T Y	R O U T E	SLM		WHITE EDGE LINE QUANTITIES			YELLOW EDGE LINE QUANTITIES			PARTICIPATION TYPE				E D G E L I N E T O T A L M I L E S	R E M A R K S
			FROM	TO	TOTAL MILES	HIGH-WAY MILES	RAMP MILES	TOTAL MILES	HIGH-WAY MILES	RAMP MILES	IRG	FG	RSG	NON FED STATE		
1	LIC	US 40	EASTBOUND													
			5.38	9.30	4.06	3.92		3.66	3.92					7.72		
1	LIC	US 40	WESTBOUND													
			5.38	9.30	3.98	3.92		3.66	3.92					7.64		
1	LIC	US 40	9.30	13.29	7.98	7.98								7.98		
TOTAL LOCATION 1														23.34		

ITEM 642 FAST DRY LANE LINE SUB-SUMMARY

L O C A T I O N	C O U N T Y	R O U T E	SLM		LANE LINE QUANTITIES		PARTICIPATION TYPE				L A N E L I N E T O T A L M I L E S	R E M A R K S	
			FROM	TO	TOTAL MILES	4 INCH LANE LINE		IRG	FG	RSG			NON FED STATE
						DASHED	SOLID						
			EASTBOUND										
1	LIC	US 40	5.38	9.06	3.68	3.68					3.68		
			WESTBOUND										
1	LIC	US 40	5.38	9.25	3.87	3.87					3.87		
TOTAL LOCATION 1											7.55		

ITEM 642 FAST DRY CENTER LINE SUB-SUMMARY

L O C A T I O N	C O U N T Y	R O U T E	SLM		CENTER LINE QUANTITIES		PARTICIPATION TYPE				C E N T E R L I N E T O T A L M I L E S	R E M A R K S
			FROM	TO	TOTAL MILES	EQUIVALENT SOLID LINE	IRG	FG	RSG	NON FED STATE		
1	LIC	US 40	TURN LANES		0.39	0.69					0.69	
			9.10	13.29	4.25	5.38					5.38	
TOTAL LOCATION 1											6.07	

EDGE/LANE/CENTER LINE SUB-SUMMARY

LIC-40-5.27

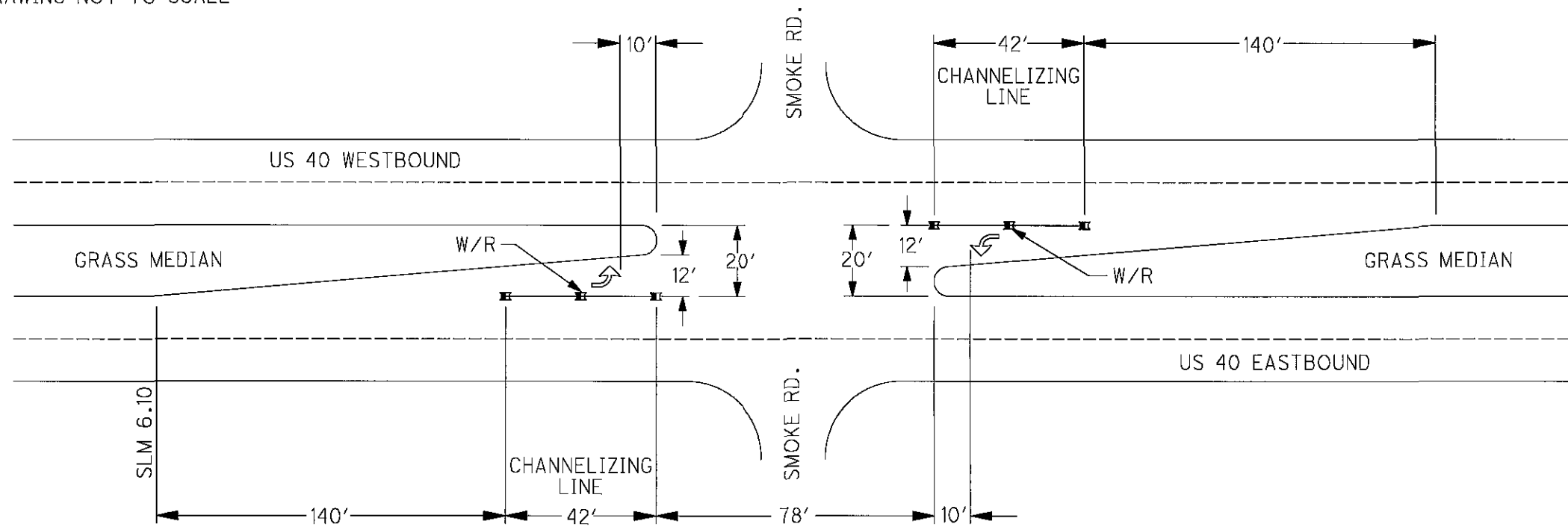
644 THERMOPLASTIC

L O C A T I O N	C O U N T Y	R O U T E	DESCRIPTION	SLM	SIDE	24" TRANSVERSE LINES		STOP LINE 24"	12" CROSS WALK LINES WHITE	WORD ON PAVEMENT		SCHOOL SYMBOL MARKING		LANE ARROWS			ISLAND MARKING		8" CHANNEL LINE FEET	REMARKS	
						WHITE	YELLOW			ONLY	ONLY	ONLY	ONLY	COMBINATION		TURN	WHITE	YELLOW			
						FEET	FEET	FEET	FEET	72"	96"	72"	96"	LT/TH	RT/TH	LT	RT	TH	SQ FT		SQ FT
										EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH			
1	LIC	US 40	CANAL ST.		RT			12											PLACE 15' FROM EL US 40		
			PIKE ST.		RT			20											PLACE 15' FROM EL US 40		
			LEFT TURN AREA @ PIKE ST SMOKE RD	5.94±	CL			20										40	PLACE 30' FROM EL US 40		
			TURN LANES @ SMOKE RD SMOKE RD	6.13±	CL			20						2				84	PLACE 30' FROM EL US 40		
			LEFT TURN LANE BEFORE LONGWOOD DR. LONGWOOD DR	6.92±	CL		222	22		1				2			19	211	PLACE 20' FROM EL US 40		
			TURN LANES @ WATKINS RD. WATKINS RD	7.10±	CL	60	367	22						2		7	13		PLACE 20' FROM EL US 40		
			WATKINS RD		RT			22											PLACE 20' FROM EL US 40		
			YORK RD.		LT			22											PLACE 20' FROM EL US 40		
			YORK RD		RT			20											PLACE 20' FROM EL US 40		
			LEFT TURN LANE AFTER SR 158 SR 158	8.96±	CL			28						2				108	PLACE 10' FROM EL US 40		
			4 LANE TO 2 LANE TRANSITION ON US 40 BEFORE FIFTH ST	9.10±	CL		318	26	108										PLACE AS DIRECTED		
			FIFTH ST		LT			12	68										PLACE AS DIRECTED		
			OUTVILLE RD.		RT			13	76										PLACE AS DIRECTED		
			FOURTH ST		LT			9	80										PLACE AS DIRECTED		
			THIRD ST		LT			18	78										PLACE AS DIRECTED		
			THIRD ST		RT			12	56										PLACE AS DIRECTED		
			ON US 40 AFTER THIRD ST ALLEY		CL				112												
			SECOND ST		LT			12	48										PLACE AS DIRECTED		
			ALLEY		LT			7	28										PLACE AS DIRECTED		
			FIRST ST.		RT			14	88										PLACE 10' FROM EL US 40		
			CEMENTARY RD		RT			20											PLACE 10' FROM EL US 40		
			GALE RD		LT			28											PLACE 24' FROM CL US 40		
			SWAMP RD		RT			24											PLACE 22' FROM CL US 40		
			2 LANE TO 3 LANE TRANSITION CROSS WALK	12.08±	CL		86		60												
			ON US 40 BETWEEN SLM 12.12± AND SLM 12.92±	12.45±	CL						10				19				4100		
			3 LANE TO 2 LANE TRANSITION ON US 40 @ SR 37	12.93±	CL		86	12											PLACE AS DIRECTED		
			TOTALS LOCATION 1			60	1079	415	826	11				27		7	32	4543			

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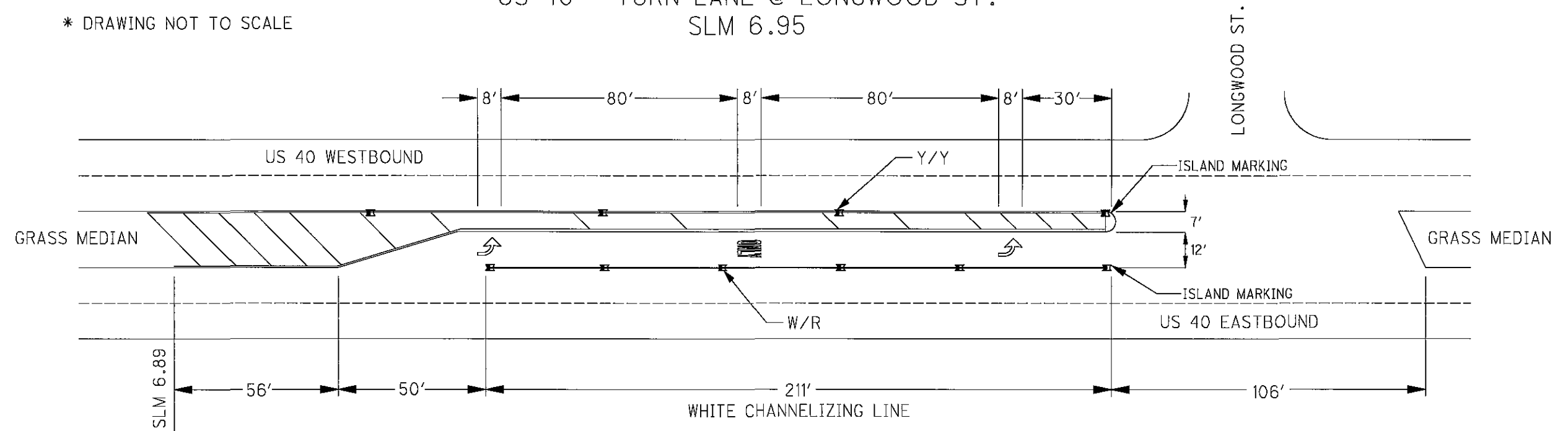
US 40 - TURN LANES @ SMOKE RD.
SLM 6.14

* DRAWING NOT TO SCALE



US 40 - TURN LANE @ LONGWOOD ST.
SLM 6.95

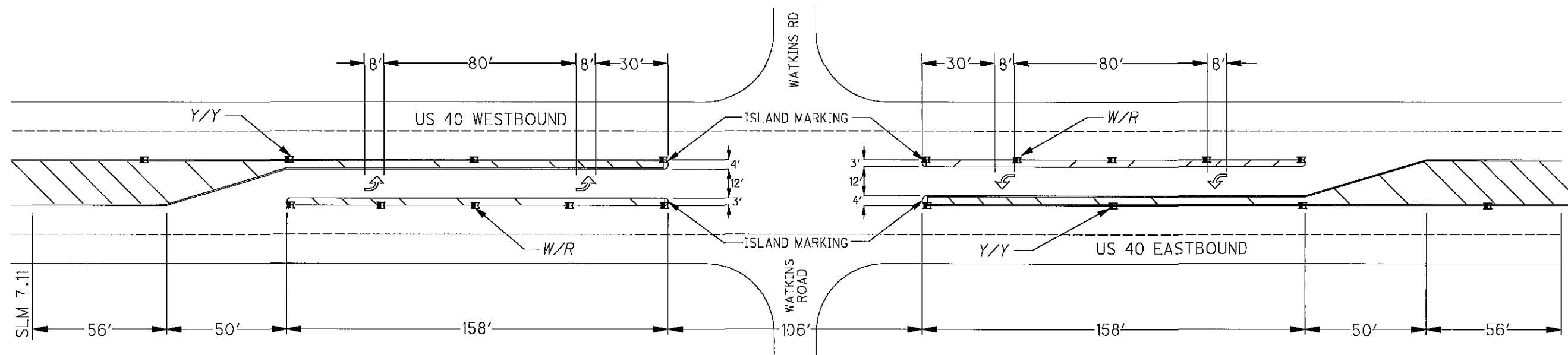
* DRAWING NOT TO SCALE



■ 2 WAY RPM
Y/Y = YELLOW/YELLOW
W/R = WHITE/RED

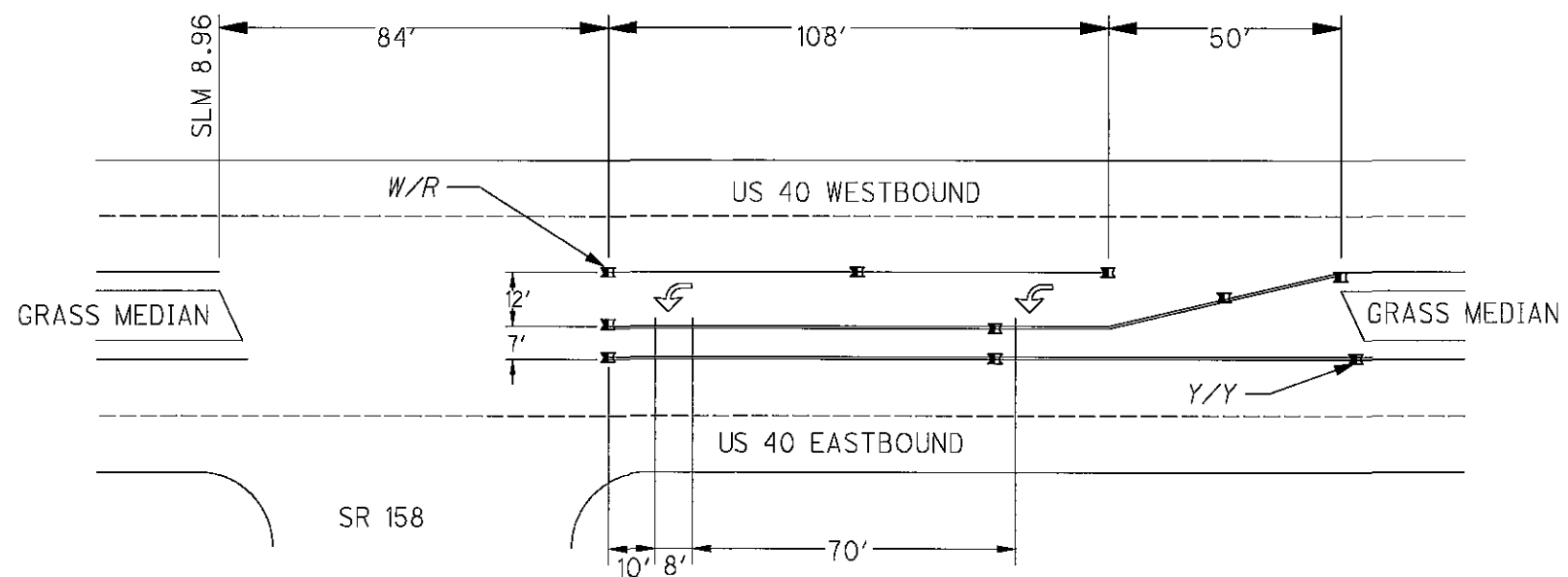
* DRAWING NOT TO SCALE

US 40 - TURN LANES @ WATKINS RD. SLM 7.17



* DRAWING NOT TO SCALE

US 40 - TURN LANE @ SR 158 SLM 8.96



2 WAY RPM

Y/Y = YELLOW/YELLOW
W/R = WHITE/RED

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CALCULATED
CPS
CHECKED
LINE

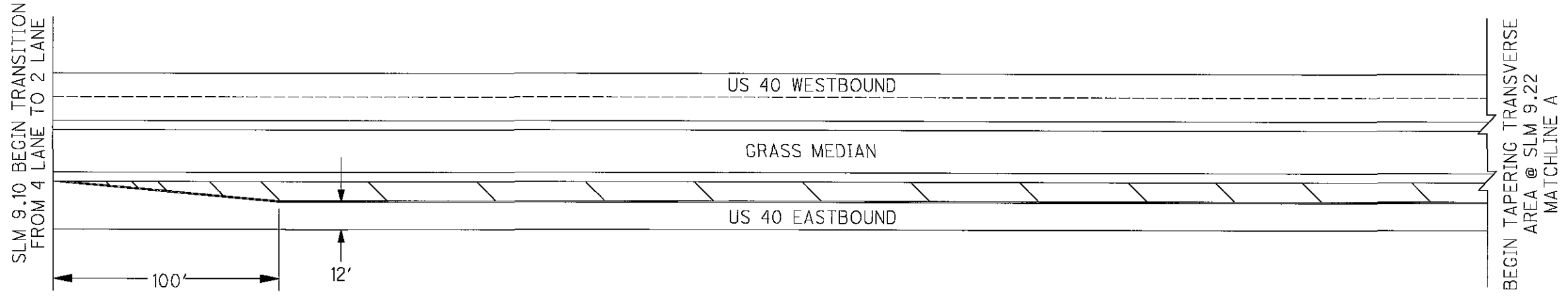
AUXILIARY PAVEMENT MARKING

LIC-40-5.27

16
20

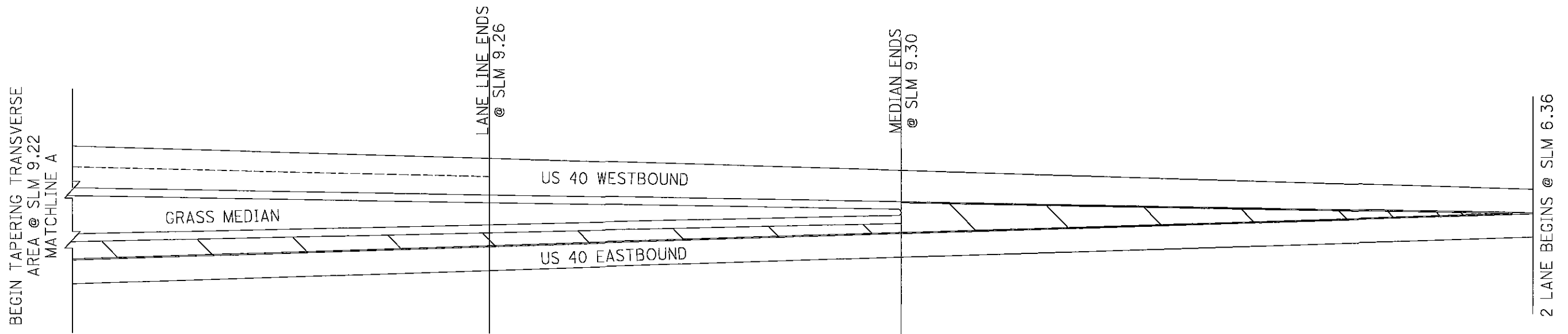
US 40 - 4 LANE TO 2 TRANSITION FROM SLM 9.10 TO SLM 9.22

* DRAWING NOT TO SCALE



US 40 - 4 LANE TO 2 TRANSITION FROM SLM 9.22 TO SLM 9.36

* DRAWING NOT TO SCALE



DETAIL	
1	TAPERED ACCELERATION LANE
2	DECELERATION LANE
3	MULTILANE DIVIDED
4	4-LANE DIVIDED TO 2-LANE TRANSITION

DETAIL	
5	4-LANE UNDIVIDED TO 2-LANE TRANSITION
6	ONE LANE BRIDGE
7	STOP APPROACH
8	THRU APPROACH

DETAIL	
9	TWO WAY LEFT TURN LANE
10	APPROACH W/LEFT 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 T A I L	621 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	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	
1	LIC	US 40 EB	5.38	9.10	3.72	19642	3	269		16		8	245		STOP APPROACH @ WATKINS RD
1	LIC	US 40 EB	9.10	9.22	0.12	634	4	16				8	8		
1	LIC	US 40 WB	5.38	9.22	3.84	20275	3	270		16			254		STOP APPROACH @ WATKINS RD
1	LIC	US 40	10.25	12.10	1.85	9768	GAP	122				122			
1	LIC	US 40	12.10	13.02	0.92	4858	10	166				61	105		LEFT TURN AT SPEEDWAY 40' SPACE ON CHANNEL
1	LIC	US 40	13.02	13.29	0.27	1426	GAP	34		16		18			STOP APPROACH @ SR 37
1	LIC	US 40	6.14	TURN LANES @ SMOKE RD			10	6					6		SEE DETAIL SHEET 15
1	LIC	US 40	6.95	TURN LANE @ LONGWOOD ST			10	10				4	6		SEE DETAIL SHEET 15
1	LIC	US 40	7.17	TURN LANES @ WATKINS RD.			10	18				8	10		SEE DETAIL SHEET 16
1	LIC	US 40	8.96	TURN LANE @ SR 158			10	10				7	3		SEE DETAIL SHEET 16
LOCATION 1 TOTALS								921		48		236	637		

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RPM LOCATION SUB-SUMMARY

LIC-40-5.27

L040001.mgs 3-17-06

SHEET TOTALS												ITEM	ITEM EXT. NO.	GRAND TOTALS	UNIT	DESCRIPTION
3	4	5	6	7	8	9	10	11	13	18						
						1035						202	23500	1035	SQ.YD	WEARING COURSE REMOVED
		3667										202	23501	3667	SQ.YD.	WEARING COURSE REMOVED, AS PER PLAN (SHEET 5)
		1070										202	23801	1070	SQ.YD.	BASE REMOVED, AS PER PLAN (SHEET 5)
								972				202	30000	972	SQ FT	WALK REMOVED
								14				202	32000	14	FT	CURB REMOVED
			250									202	38000	250	FT.	GUARDRAIL REMOVED
	940											202	54000	940	EACH	RAISED PAVEMENT MARKER REMOVED
			100									203	20001	100	CU.YD.	EMBANKMENT, AS PER PLAN (SHEET 6)
	3 0											209	60500	3 0	MILE	LINEAR GRADING
163				171845	5503		1300					254	01001	178811	SQ YD.	PAVEMENT PLANNING, ASPHALT CONCRETE, AS PER PLAN (SHEET 5)
				12888	3110	530						407	10000	16528	GALLON	TACK COAT
				8592								407	14000	8592	GALLON	TACK COAT FOR INTERMEDIATE COURSE
	68693											407	98000	68693	FT	TACK COAT, MISC FOR LONGITUDINAL JOINT
	10697											408	10001	10697	GALLON	PRIME COAT, AS PER PLAN (SHEET 4)
	94			7161	1728							442	10001	8983	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, TYPE A (446), AS PER PLAN (SHEET 6)
				7161								448	46040	7161	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 PG 64-28
						295						448	46904	295	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M
		18										604	09000	18	EACH	CATCH BASIN ADJUSTED TO GRADE
		8										604	34500	8	EACH	MANHOLE ADJUSTED TO GRADE
			200 0									606	13000	200 0	FT	GUARDRAIL, TYPE 5
			2									606	22010	2	EACH	ANCHOR ASSEMBLY, TYPE E-98
								1026				608	52001	1026	SQ.FT.	CURB RAMP, AS PER PLAN (SHEET 11)
		357.0										613	41200	357	CU.YD.	LOW STRENGTH MORTAR BACKFILL
75												614	12460	75	EACH	WORK ZONE MARKING SIGN
11												614	13000	11	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
7 44												614	20400	7 44	MILE	WORK ZONE LANE LINE, CLASS II
				7 91								614	21000	7 91	MILE	WORK ZONE CENTER LINE, CLASS I
					1486							617	10101	1486	CU YD	COMPACTED AGGREGATE, AS PER PLAN (SHEET 2)
		12 0										632	26501	12 0	EACH	DETECTOR LOOP, AS PER PLAN (SHEET 5)
								921				621	00100	921	EACH	RPM
		4										638	10800	4	EACH	VALVE BOX ADJUSTED TO GRADE

GENERAL SUMMARY

LIC-40-5.27

