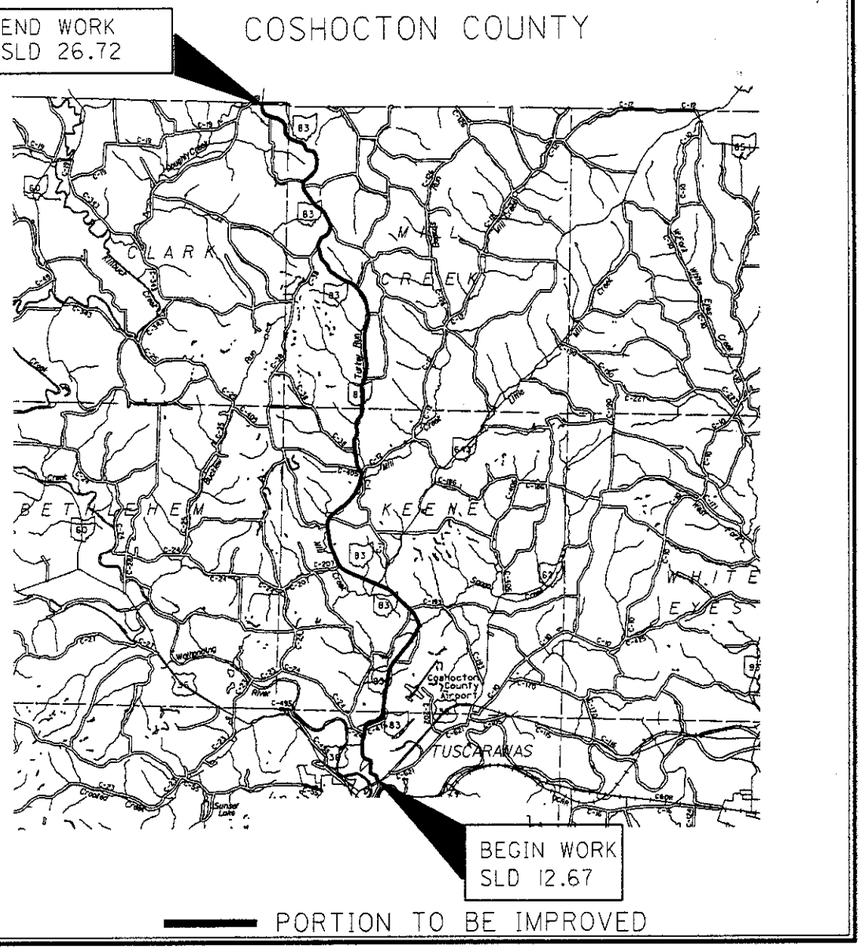
COS - 83 - (12.67-19.18)
90434
DIST 05

PID# 19429
06-02-99

OHIO DEPARTMENT OF TRANSPORTATION

LOCATION MAP



PROJECT DESCRIPTION
2-LANE RESURFACING AND RELATED WORK

LOCATION	COUNTY	ROUTE	SECTIONS	PROJECT TERMINI		NET LENGTH MILES	CITY
				BEGIN	END		
1	COS.	SR 83	(12.67-19.18)	12.67	26.72	14.05	

INDEX OF SHEETS:

1997 SPECIFICATIONS

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

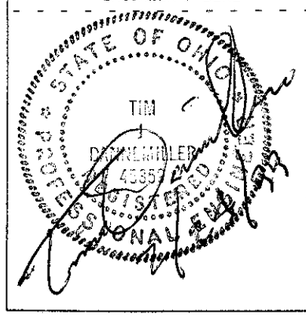
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY AND PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS INDICATED IN THE PROPOSAL.

APPROVED Michael D. Copperfield
DATE 2/25/99 DISTRICT DEPUTY DIRECTOR

APPROVED Gordon Proctor/for
DATE 3-5-99 DIRECTOR, DEPARTMENT OF TRANSPORTATION

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

ENGINEER'S SEAL



DESIGN DESIGNATION	
Current ADT (1999)	3700
Design Year ADT (2011)	4400
Design Hourly Volume (2011)	10%
Directional Distribution	55%
Trucks (24 Hour B&C)	7%
Design Speed	55 mph
Legal Speed	55 mph

STANDARD DRAWINGS	
BP-3.1	10-28-94
BP-4.1	10-28-94
MT-95.30	4-25-94
MT-95.31	4-25-94
MT-95.32	4-25-94
MT-97.11	1-30-95
MT-99.20	1-30-95
TC-65.10	11-1-95

STANDARD DRAWINGS	
TC-65.11	11-1-95
TC-65.12	11-1-95
TC-71.10	9-1-93

SUPPLEMENTAL SPECIFICATIONS	
806	9-9-97

PLAN PREPARED BY:
District 5 Production

FEDERAL PROJECT NO. TZ21.699O(461)
PID NO. 19429
CONSTRUCTION PROJECT NO.
TITLE SHEET
COS-83-12.67
1 20

C0830001.MTS 2-1-99 DESIGNER-LARRY EBY JR.

PLAN NO.

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

AMERITECH OF OHIO
160 NORTH 6th STREET
ZANESVILLE, OHIO 43701
ATTN: BECKY DICK
740-454-3513

AEP (OHIO POWER COMPANY)
301 CLEVELAND AVENUE, SW
CANTON, OH 44701
ATTN: MIKE BUSH
330-438-7823

NATIONAL GAS AND OIL
1500 GRANVILLE ROAD
P.O. BOX 4970
NEWARK, OHIO 43058
ATTN: DAVE DETTY
740-344-2102

BUCKEYE OIL PRODUCING
P. O. BOX 129
WOOSTER, OH 44691
ATTN: STEVE SIGLAR
JIM SHOOTS
330-264-8847

FRONTIER POWER COMPANY
770 S. SECOND STREET
P. O. BOX 270
COSHOCTON, OH 43812
ATTN: DAVE ENDLICH, LINE SUPRV.
740-622-6755

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
JACKSONTOWN, OH. 43030
PHONE: (740) 323-4400 EXT. 5241

FEATHERING

FEATHERING OF THE ASPHALT CONCRETE WHERE REQUIRED SHALL BE ACCORDING TO DRAWING BP-3.1, 2-21-92.

PAVEMENT MARKING

STOP LINES, CROSSWALK LINES, CHANNELIZING LINES, TURN ARROWS, ETC., SHOWN ON THE PLAN ARE TAKEN FROM EXISTING MARKINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PLACE NEW PAVEMENT MARKINGS AS NEAR AS POSSIBLE TO THE EXISTING LOCATIONS UNLESS OTHERWISE DESIGNATED BY THE ENGINEER.

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

ALL AGGREGATE SHALL BE 100% CRUSHED LIMESTONE. ALL QUALITY REQUIREMENTS EXCEPT SHALE SHALL BE WAIVED. OTHER GRADATION REQUIREMENTS SHALL BE AS SPECIFIED EXCEPT THE PLASTICITY INDEX SHALL BE WAIVED. IF SO DESIRED, THE CONTRACTOR MAY USE RECYCLED ASPHALT CONCRETE PAVEMENT (RACP MEETING REQUIREMENTS OF 617.03) 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.

CALCULATED LME CHECKED TJD

GENERAL NOTES

COS-83-12.67

2/20

C0830004.MGN 2-16-99

ITEM 254 PAVEMENT PLANING, BITUMINOUS, AS PER PLAN

PLANING SHALL BE PERFORMED SUCH THAT THE PAVEMENT SURFACE IS SLOPED AT A RATE OF 0.0156 FROM CENTERLINE TO RESTORE THE CROWN TO THE ROADWAY. A BUTT JOINT SHALL BE CREATED AT BEGINNING AND END OF PROJECT. AFTER PLANING, THE ROADWAY SHALL BE RESURFACED WITH 1.75" ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 AND 1.25" ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22. THE ENGINEER MAY ADJUST PLANING DEPTHS AT ANY TIME TO MEET EXISTING CONDITIONS AT THE TIME OF CONSTRUCTION.

ITEM 254 PAVEMENT PLANING BITUMINOUS, AS PER PLAN
QUANTITIES SHOWN ON SHEET 9.

ITEM 254 PATCHING PLANED SURFACE

A QUANTITY OF SURFACE PATCHING HAS BEEN INCLUDED IN THE PLAN TO REPLACE UNSOUND PAVEMENT RESULTING FROM PLANING. THE ENGINEER WILL DETERMINE WHERE THIS WORK WILL BE PERFORMED.
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 254 - PATCHING PLANED SURFACE
PART 1. 9765 SQ. YD
QUANTITY CARRIED TO GENERAL SUMMARY

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	
OW-167 (NO EDGE LINES)	14
R-33 (DO NOT PASS)	40
R-34 (PASS WITH CARE)	18
OW-128 (BEGIN ROAD CONSTRUCTION AHEAD)	26
OC-8 (END ROAD CONSTRUCTION)	26
TOTAL	124

RAISED PAVEMENT MARKER REMOVED FOR STORAGE, AS PER PLAN

REMOVAL OF RAISED PAVEMENT MARKERS SHALL CONFORM WITH SECTION NO. 202.07 IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS MANUAL EXCEPT FOR THE FOLLOWING:
ONCE PAVEMENT MARKERS HAVE BEEN REMOVED THE OPENING THAT REMAINS IN THE ROADWAY SHALL BE CLEANED FREE OF ALL DEBRIS, TACKED AND FILLED WITH ASPHALT CONCRETE BY THE END OF THE SAME CONSTRUCTION DAY.
AFTER PAVEMENT MARKERS HAVE BEEN REMOVED BY THE CONTRACTOR, HE WILL THEN BE RESPONSIBLE TO TAKE THE REMOVED MARKERS TO A STATE GARAGE THAT WILL BE DESIGNATED BY THE ENGINEER. THE PROJECT ENGINEER SHALL GIVE THE DISTRICT MAINTENANCE ENGINEER 24 HOUR NOTICE PRIOR TO DELIVERY AND THE PROJECT ENGINEER SHALL BE RESPONSIBLE FOR FURNISHING ALL NECESSARY TRANSFER DOCUMENTATION WITH ALL DELIVERIES. PAYMENT FOR ALL WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 202 RAISED PAVEMENT MARKERS REMOVED FOR STORAGE, AS PER PLAN.

ITEM 202 - RAISED PAVEMENT MARKER REMOVED FOR STORAGE, AS PER PLAN

LOCATION 1 - 1555 ESTIMATED QUANTITIES CARRIED TO GENERAL SUMMARY

LIQUIDATED DAMAGES FOR EXCESSIVE TIME BETWEEN PLANING AND PAVING

NO MORE THAN 21 CALENDAR DAYS SHALL ELAPSE BETWEEN THE TIME THE PAVEMENT PLANING OPERATION COMMENCES AND THE APPLICATION OF THE ITEM 448, ASPHALT CONCRETE-LIQUIDATED DAMAGES, AS DESCRIBED IN SECTION 108.07 OF THE STATE OF OHIO, CONSTRUCTION AND MATERIAL SPECIFICATIONS WILL BE DEDUCTED FROM ANY MONEY DUE THE CONTRACTOR FOR ALL DAYS IN EXCESS OF THE TIME LIMITS DESCRIBED ABOVE.

CALCULATED LME CHECKED TJD

GENERAL NOTES

COS-83-12.67

3 20

C083000I.MGN 2-8-99

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 EXTEND 10 FEET INTO THE DRIVEWAY, MEASURED FROM THE EDGE OF THE PAVEMENT, OR PAVED BERM. FIELD DRIVES AND OIL WELL DRIVES WILL NOT BE PAVED.
ANY GRADING OF EXISTING DRIVES, TACK OR PRIME COAT, ALL MATERIAL, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE WORK ON DRIVES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE ASPHALT ITEM SHOWN BELOW. BECAUSE OF PAVEMENT PLANING, AN ESTIMATED QUANTITY OF SURFACE COURSE ONLY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR FEATHERING AT DRIVES.
PAVING OF THE MAINLINE SHALL BE COMPLETED BEFORE THE WORK DESCRIBED ABOVE SHALL BEGIN ON DRIVES.
THE QUANTITIES SHOWN IN THE BELOW HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE PURPOSE DESCRIBED ABOVE.

ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22 (1.75" THICK) [DRIVEWAYS], 91.4 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, 2-21-92.
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 1, PG 64-22 AND ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22

QUANTITIES CARRIED TO GENERAL SUMMARY

ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22, (1.75" THICKNESS) 104.8 CU.YD.

PAVED SHOULDERS

THE PAVED SHOULDER SHALL BE APPLIED IN TWO COURSES. THE FIRST BEING 1.75" OF ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 AND IT SHALL BE APPLIED AT THE TIME AS THE FIRST COURSE ON THE ROADWAY. THE SECOND COURSE SHALL BE 1.25" OF ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22 TO BE APPLIED AT THE SAME TIME AS THE FINAL COURSE ON THE ROADWAY AS DIRECTED BY THE ENGINEER.

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 ENGINEEER WHERE THE EXISTING PAVEMENT HAS DETERIORATED. FINAL LOCATIONS OF PAVEMENT REPAIR SHALL BE DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. DEPTH OF EXCAVATION SHALL BE APPROXIMATELY 5". AFTER PLANING HAS BEEN COMPLETED, THE FACE OF THE REPAIR SHALL BE COATED WITH ITEM 407 TACK COAT. REPLACEMENT MATERIAL WILL BE 5" OF ITEM 301 BITUMINOUS AGGREGATE BASE, PG 64-22 (PLACED AND COMPACTED AS DIRECTED BY THE ENGINEER). ALL EXCAVATION NEEDED TO ACHIEVE THE PROPER SLOPES FOR DRAINAGE ON BERMS AND ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 253 PAVEMENT REPAIR, AS PER PLAN. AFTER ALL PAVEMENT REPAIR HAS BEEN ACCOMPLISHED, THE ENTIRE SURFACE WILL BE OVERLAID WITH 1.75" OF ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 AND 1.25" OF ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1.

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

ITEM 253 PAVEMENT REPAIR, AS PER PLAN 500 SQ.YD.

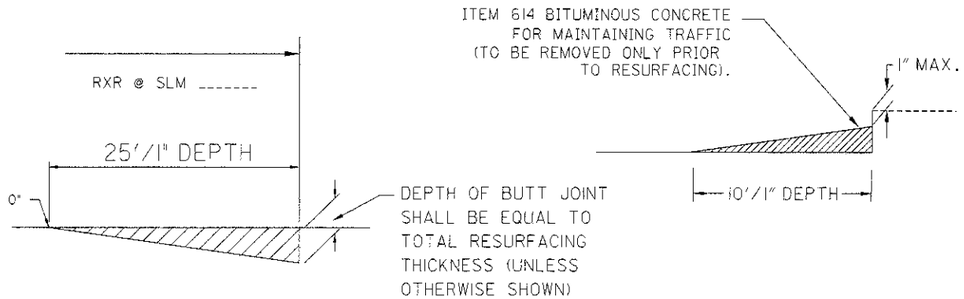
ITEM 606 RAISING TYPE 5 GUARDRAIL

TYPE 5 GUARDRAIL AT THE LOCATIONS LISTED BELOW SHALL BE RAISED AS PER STANDARD CONSTRUCTION DRAWING GR-2.1, 5-6-91. ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 606 RAISING TYPE 5 GUARDRAIL. THE LOCATIONS AND QUANTITIES LISTED BELOW ARE FIELD ESTIMATES AND SHALL BE VERIFIED BY THE ENGINEER BEFORE ANY WORK IS TO BE DONE.

ITEM 606 RAISING TYPE 5 GUARDRAIL 1500 LIN. FT.

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 TEMPORARILY FILLING THE VOID TO WITHIN AT LEAST 1" OF THE EXISTING ROADWAY SURFACE (SEE DETAIL BELOW). PLACEMENT AND REMOVAL OF TEMPORARY WEDGE SHALL BE INCLUDED FOR PAYMENT IN THE UNIT BID PRICE FOR THE APPROPRIATE ASPHALT REMOVAL ITEM (PAVEMENT PLANING OR WEARING REMOVED).



	ITEM 202 WEARING COURSE REMOVED SQ. YD.	ITEM 407 TACK COAT GAL.	ITEM 614 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC CU. YD.	LOCATION
	200	4	1.5	@ SLM 12.75
		5	2.3	BRIDGE @ 15.69
		5	2.3	BRIDGE @ 18.37
	200	4	1.5	HOLMES CO. LINE
TOTAL	400	18	7.6	

TOTALS CARRIED TO GENERAL SUMMARY

C0830002.MGN 1-30-99

CALCULATED LME CHECKED TJD

GENERAL NOTES

COS-83-12.67

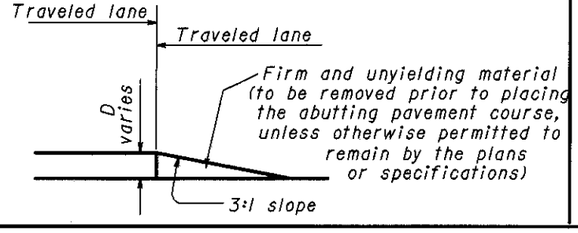
5/20

GENERAL NOTES

1. It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified hereon, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.
2. While the need for certain advisory signing is noted 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.
3. In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown hereon may be required.
4. The drop-off treatment selected for use at any given location shall be as appropriate for the prevailing conditions at the site.
5. Where concrete barrier is specified, it shall be in accordance with Standard Construction Drawing MC-9.2 and Item 622.
6. 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.
7. When OW-15l (Low Shoulder) signs or OW-17l (Uneven Lanes) and OWP-17l 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.
8. 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.
9. Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10′, drums may be placed on the opposite level from that of traffic provided the dropoff depth does not exceed 5″ and approval is granted by the Project Engineer.
10. Pavement Repairs (or similar work):
    a. Lengths greater than 60 feet - utilize appropriate treatment from Condition I.
    b. Lengths of 60 feet or less - repairs shall be effected in accordance with 255.08. Drums may be used as a separator adjacent to the traveled lane.

OPTIONAL WEDGE TREATMENT
(MILLING OR RESURFACING)

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

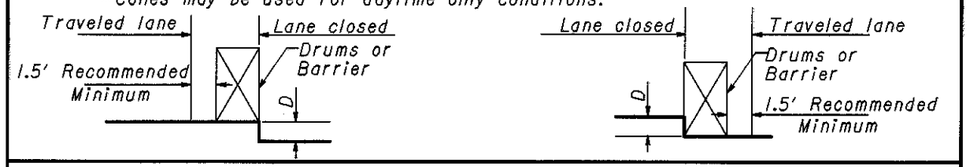


CONDITION I
DROPOFFS BETWEEN TRAVELED LANES

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

D (In.)	Treatment
≤1½	Erect OW-17l and OWP-17l signs.
>1½-3	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.

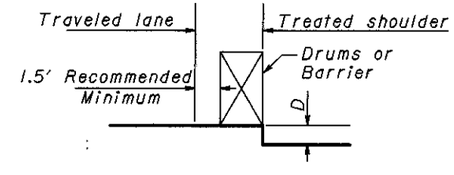


CONDITION II
DROPOFFS WITHIN GRADED SHOULDER AREA

1. The treatments indicated below are for use in conjunction with resurfacing, planing, or excavations within the graded shoulder area.
2. 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.

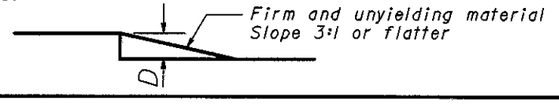
D (In.)	Treatment
≤1½	1) If edgelines are present, no treatment necessary OR 2) Erect OW-17l and OWP-17l signs.
>1½-5	1) If min. lane width* requirements can be met, maintain lanes utilizing drums as shown below OR 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums 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

1. This treatment may not be used within a bituminous shoulder where a hot longitudinal joint per 401.15 is required.
2. OW-15l signs required.

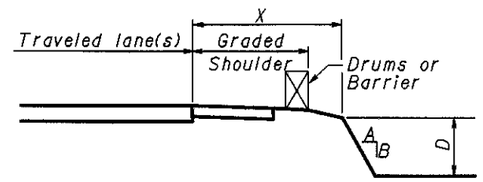


CONDITION III
DROPOFFS BEYOND GRADED SHOULDER OR BACK OF CURB

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

CHART A

USE FOR: 1. Uncurbed Facilities.
2. Curbed Facilities, where:
   a. Curbs are less than 6″ in height.
   b. Curbs are 6″ or greater in height and the legal speed is greater than 40 mph.

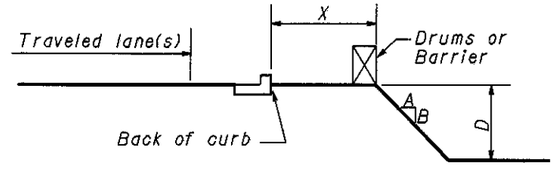


X (Ft.)	D (In.)	A/B	Treatment Required	
			Day	Night
0-4	Any	Any	(a)	(a)
4-30	Any	3:1 or Flatter	None	None
4-12	≤3	Steeper than 3:1	None	None
4-12	>3-≤12	Steeper than 3:1	Drums	Drums
4-12	>12	Steeper than 3:1	Drums	Barrier
>12-20	≤12	Steeper than 3:1	None	None
>12-20	>12-≤24	Steeper than 3:1	Drums	Drums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

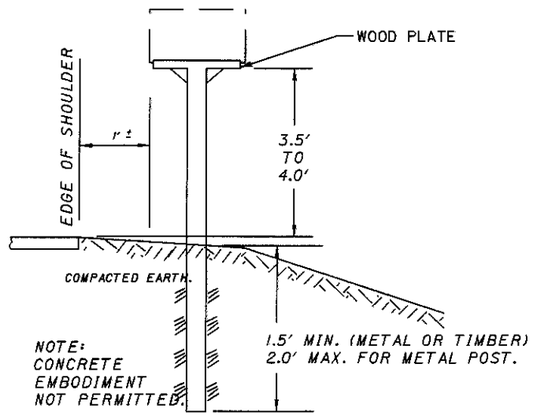
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
BUREAU OF LOCATION AND DESIGN

DROPOFFS IN WORK ZONES

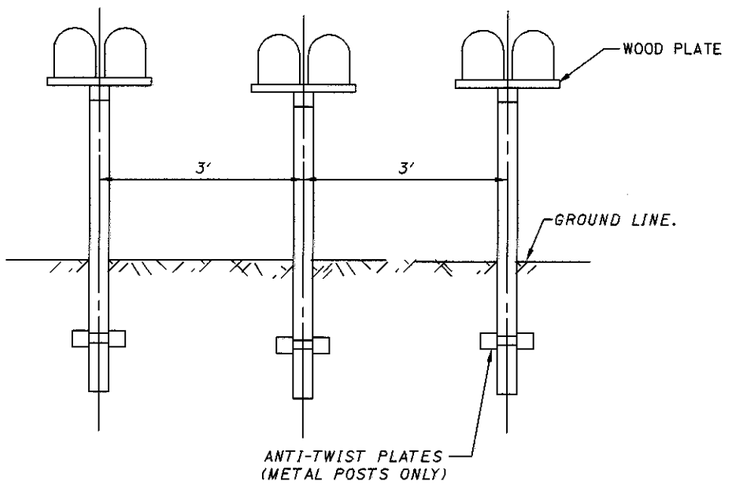
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED

C083DROP.MGN 1-30-99

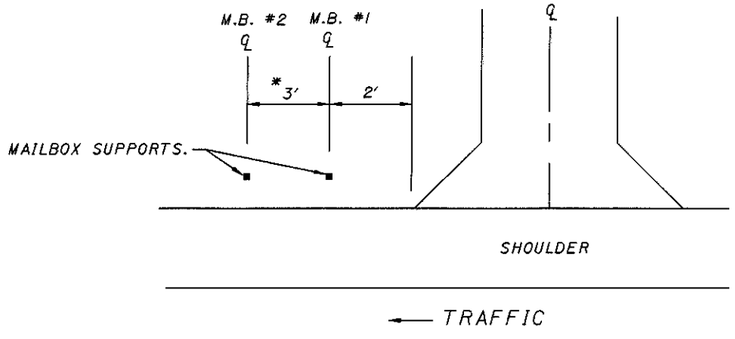
MAILBOX DETAILS



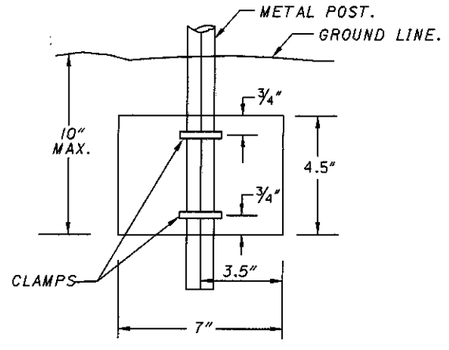
TYPICAL MAILBOX LOCATION AND MOUNTING HEIGHT



GROUP MAILBOX INSTALLATION



* ADD 3' FOR EACH ADDITIONAL MAILBOX.



ANTI-TWIST PLATE

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 QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE PURPOSE

SPECIAL	MAILBOX SUPPORT SYSTEM SINGLE	1 EACH
SPECIAL	MAILBOX SUPPORT SYSTEM DOUBLE	1 EACH

CALCULATED LME
CHECKED TJD

MAILBOX DETAILS AND QUANTITIES

COS-83-12.67

MAILBOX.DGN 1-30-99

RPM General Notes

Materials Supplied by The Department

All materials are to be Contractor furnished, except that the Department shall supply RPM materials in the quantities shown herein to the Contractor. Pay items for the Department supplied materials shall be indicated as "Installation Only". The quantity and type of Department supplied materials are shown on sheet 15 of this plan.

The Contractor shall pick up the department supplied RPM materials at the direction of the Project Engineer.
For some projects having quantities of less than 20 RPMs, the contractor may pick up RPM materials at the District Offices. Quantities over 20 RPMs will be picked up at the Recycler's Warehouse or as arranged with the District. The Contractor shall pick up Department supplied RPM materials at the specified location(s) for transport to the work site or to the Contractor's storage facility. The Recycled Raised Pavement Marker (RPM) Authorization Form is to be signed by the District Construction Engineer prior to pick up of the RPMs. The Contractor shall notify the District and / or the parties listed on the authorization form in writing at least five (5) calendar days prior to pick up of the department supplied materials. The contractor shall store the RPMs without damage or contamination with foreign matter. A deduction in the amount of the actual cost to the Department shall be made for materials damaged by the Contractor or for castings received by the Contractor which were not installed and were not returned to the Department.

Return of Non-performed Raised Pavement Marker Materials Supplied by the Department

Raised Pavement Marker Materials Supplied by the Department, that are non-performed shall be carefully repacked or packed in the boxes in the same style and quantity as originally received from the Department. Casting styles shall not be mixed within any one container. The Contractor shall clearly mark on the outside of each container, the color of the prismatic retro-reflector, the style of casting. Boxes shall be placed on skids or pallets in the same style (Low Profile or Conventional, reflectorised or non reflectorised) and no more than 420 RPMs (or 21 Boxes) on one skid.

Only use the boxes supplied by the Raised Pavement Marker Recycler. Boxes must be marked with the recycler's part or catalog number and the project number. The recycler's catalog or part numbers may be obtained from the Office of Traffic Engineering in Columbus, Ohio or from the recycler. Boxes not marked with the proper recycler's catalog or part numbers, and the department's project number will not be accepted at the recycler's warehouse

Non Performed Materials will be returned to the location as specified by the District Construction Engineer within 30 Days of the completion of the project.

The above work including all labor, equipment and material needed to perform the work, shall be considered incidental to the respective pay item.

If the department has to repackage the RPMs correctly, the Contractor will be assessed the actual cost for repackaging the Materials by the Department's Forces.

Loading of Materials Supplied by the Department at the Recycler's Warehouse

Trucks shall have a loading height of 48 inches and be able to back up flush to the loading dock.

Trucks shall not have any obstructions or protrusions that prevent the loading by a standard forklift or lift truck.

Semi trucks or 20 foot commercial trucks are the most appropriate trucks for loads in excess of 4 pallets (one pallet = 21 boxes = 2000 LBS).

Stake body trucks are appropriate to load less than 4 pallets, provided the truck is rated for the load and the load can be safely secured for transport by chaining or strapping down as needed.

Pickup trucks are appropriate for loads of approximately one pallet, provided the pickup truck is rated for the load and the load can be safely secured for transport.

Dump trucks, tilt bed trucks, and non commercial moving vans will not be loaded by the recyclers warehouse.

The warehouse supervisor will refuse to load any truck that is unsafe to load or unsuitable for the load being placed on the truck.

CALCULATED LME CHECKED TJD

GENERAL NOTES

COS-83-12.63

8/20

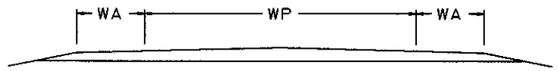
C083RPM.MGN 2-2-99

DEPARTMENT OF TRANSPORTATION
M&R707 REV. 9-1-83

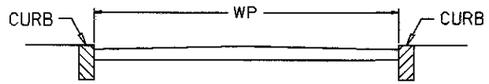
PLAN NO.

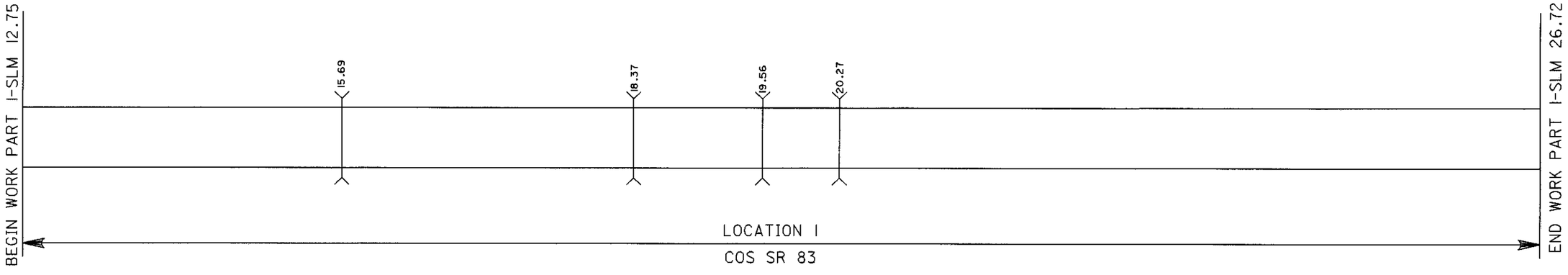
ASPHALT CONCRETE

TYPICAL 1



TYPICAL 2





TACK COAT @ 0.25 GAL/SQ.YD.

(1) BRIDGE LENGTH X PAVEMENT WIDTH (1) AVERAGE PAVEMENT WIDTH PAVEMENT DATA

LOCATION	ROUTE	CO.	LOG POINT TO LOG POINT	LENGTH MILES	LENGTH LIN. FT.	WP FEET	TYPICAL	EXISTING TYPE PAVEMENT	PAVEMENT AREA SQ. YDS.	PROPOSED PAVEMENT 407 TACK COAT @ 0.075 gal./s.y. GALS.	407 TACK COAT FOR INTERMEDIATE COURSE @ 0.05 gal./s.y. GALS.	448 ASPHALT CONCRETE THICK INCHES	448 INTERMEDIATE COURSE, TYPE 2, PG 64-22 CU.YDS.	448 THICK INCHES	448 SURFACE COURSE, TYPE 1, PG 64-22 CU.YDS.	254 PAVEMENT PLANING, BITUMINOUS, AS PER PLAN SQ.YDS.	614 TEMPORARY CENTER LINE, CLASS II MILE
1	SR 83	COS	12.75-26.72	13.97	73762	24	1	406	196699	14752	9834	1.75	9561.7	1.25	6829.8	196699	27.94
	EXTRA TACK COAT FOR LONGITUDINAL JOINT									#512							
	BRIDGE DEDUCTIONS									85	69		67.6		39.1	1391	
	TOTALS TO GENERAL SUMMARY									15179	9765		9494.1		6790.7	195308	27.94

C0830001.MAC 2-3-99

DOT 1920

CALCULATED LME CHECKED TJD

ASPHALT CONCRETE

COS-83-12.67

9
20

DEPARTMENT OF TRANSPORTATION
M & R 684 REV.9-1-79

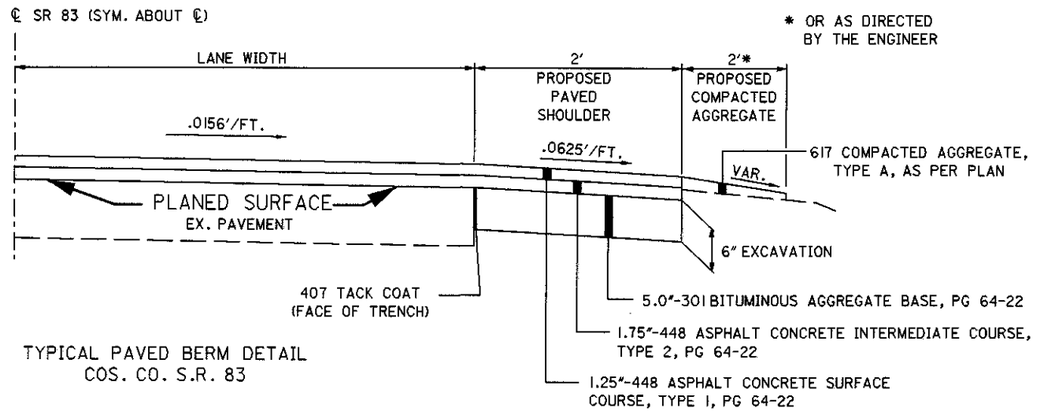
PAVED SHOULDERS

PLAN NO.

CALCULATED LME CHECKED MLN

PAVED BERM INSTALLATION SHALL BE AS FOLLOWS:
THE SHOULDER SHALL BE EXCAVATED AS PER THE NOTE ON SHEET 4 AND THE DETAIL ON THIS SHEET. 5" OF ITEM 301 BITUMINOUS AGGREGATE BASE SHALL BE PLACED AND COMPACTED AS DIRECTED BY ENGINEER, FOLLOWED BY 1.75" 448 A. C. INTERMEDIATE COURSE TYPE 2, PG 64-22 AND 1.25" OF ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22. THERE MAY BE AREAS WHERE IT IS NOT POSSIBLE TO INSTALL 2' SHOULDERS, THE PROJECT ENGINEER MAY SUSPEND BERM INSTALLATION AT ANY TIME DUE TO FIELD CONDITIONS. A TRENCH ROLLER, CMS 401.11, IS REQUIRED.

TYPICAL 1



TYPICAL PAVED BERM DETAIL
COS. CO. S.R. 83

* DEDUCTIONS FOR BRIDGES

PAVED SHOULDER DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH MILES	LENGTH LIN.FT.	TYPICAL	"W" PROPOSED WIDTH (FT.) A	B	C	D	SHOULDER AREA SQ.YDS.	448 ASPHALT CONCRETE THICK INCHES	448 INTERMEDIATE COURSE, TYPE 1, PG 64-22 CU.YD.	448 THICK INCHES	448 SURFACE COURSE TYPE 1, PG 64-22 CU.YD.	301 BITUMINOUS AGGREGATE BASE AVG. THICK INCHES	301 BITUMINOUS AGGREGATE BASE CU.YDS.	407 TACK COAT FOR INTERMEDIATE COURSE @ 0.05 gal./s.y. GALS.	407 TACK COAT FOR FACE OF TRENCH @ 0.25 gal./s.y. GALS.	407 TACK COAT @ 0.075 gal./s.y. GALS.	617 COMPACTED AGGREGATE TYPE A, AS PER PLAN 2' X 3.5" AVER. THICKNESS TO BACK UP PAVED BERM CU.YDS.	617 SHOULDER PREPARATION SQ.YDS.	617 WATER M GALS.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION, AS PER PLAN CU.YD.	203 AVG. DEPTH IN INCHES	*NOTES
1	SR 83	12.75-26.72	13.97	73762	1	2	2			32783	1.75	1593.61	1.25	1138.30	5.0	4553.21	1640	1707	2459	3187	32783.0		4553.21	5.0	
	* DEDUCTIONS FOR BRIDGES											7.52		5.37		21.48	8	8	12	15	154.7		21.7		
	TOTALS CARRIED TO GENERAL SUMMARY											1586.09		1132.93		4531.73	1632	1699	2447	3172	32628.3		4531.5		

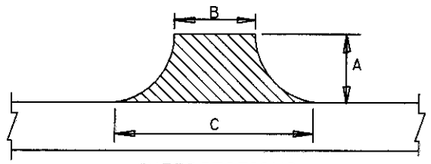
PAVED SHOULDERS

COS-83-12.67

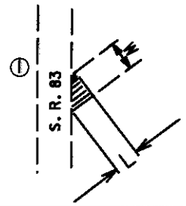
10/20

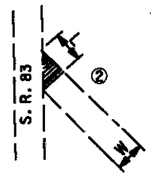
C0830001.MPS 2-4-99

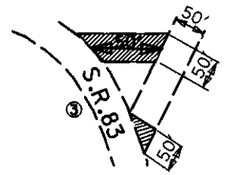
EXTRA AREAS



INTERSECTIONS







LOCATION	ROUTE	LOG POINT TO LOG POINT	SIDE	DESCRIPTION	INTERSECTIONS A IN FEET	INTERSECTIONS B IN FEET	INTERSECTIONS C IN FEET	AREA IN SQ.YD.	407 TACK COAT @ 0.075 gal./s.y. GAL.	407 TACK COAT FOR INTERMEDIATE COURSE @ 0.05 gal./s.y. GAL.	448 ASPHALT CONCRETE THICK INCH	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22 CU.YD.	448 ASPHALT CONCRETE THICK INCH	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22 (DRIVEWAYS) CU.YD.	EXISTING SURFACE	202 WEARING COURSE REMOVED SQ.YD.
1	SR 83		LT	CO. RD. 24 ①	16	22		51	4				1.75	2.5		
			RT	CO. RD. 476 ②	110	34		208	16				1.75	10.1		
			RT	CO. RD. 476	60	42		140	11				1.75	6.8		
			RT	TWP. RD. 1142	20	20	38	64	5				1.75	3.1		
			RT	TWP. RD. 202	35	17	48	125	9				1.75	6.1		
			RT	TWP. RD. 201	50	14	57	197	15				1.75	9.6		
			LT	TWP. RD. 322	35	17	48	125	9				1.75	6.1		
			RT	CO.RD. 193	70	20	80	389	29				1.75	18.9		
			RT	S.R. 643 ③	150	50		417	31				1.75	20.3		
			RT	S.R. 643 ③	50	50		278	21				1.75	13.5		
			LT	CO.RD. 207	35	20	50	136	10				1.75	6.6		
			LT	TWP. RD. 47	35	14	44	113	8				1.75	5.5		
			RT	TWP. RD. 204	35	12	42	105	8				1.75	5.1		
			RT	CO.RD. 1	120	70		467	35				1.75	22.7		
			LT	CO.RD. 405	65	26	82	389	29				1.75	18.9		
			RT	CO.RD. 12 ①	105	44		257	19				1.75	12.5		
			RT	CONNECTOR TO C.R. 12 ②	40	22		49	4				1.75	2.4		
			LT	CO. RD. 38	30	23	41	107	8				1.75	5.2		
			RT	TWP. RD. 209	20	18	48	73	5				1.75	3.5		
			RT	TWP. RD. 210 ②	135	26		195	15				1.75	9.5		
			RT	TWP. RD. 21	83	19	85	480	36				1.75	23.2		
			LT	CO. RD. 38	85	20	150	803	60				1.75	39.0		
			RT	TWP. RD. 212	90	18	150	840	63				1.75	40.8		
			LT	TWP. RD. 222	35	16	47	123	9				1.75	6.0		
			RT	TWP. RD. 221	28	18	56	115	9				1.75	5.6		
			LT	TWP. RD. 222	25	10	50	83	6				1.75	4.0		
		TOTALS PART 1		(CARRIED TO SHEET 9)					474					307.5		

CALCULATED LME CHECKED TJD

EXTRA AREAS & DEDUCTIONS

COS-83-12.67

C0830001.MEA 2-8-99

COS-83-15.69: REMOVE AND REPLACE 1.25" ASPHALT CONCRETE (APPROACH SLABS ONLY)
COS-83-18.37: REMOVE AND REPLACE 1.25" ASPHALT CONCRETE (APPROACH SLABS ONLY)
COS-83-19.56: REMOVE AND REPLACE 1.25" ASPHALT CONCRETE
COS-83-20.27: REMOVE AND REPLACE 1.25" ASPHALT CONCRETE

BRIDGE DECK DATA

LOCATION	COUNTY, ROUTE, BRIDGE NO.	LENGTH (BRIDGE LIMITS) LIN.FT.	WIDTH LIN.FT.	BRIDGE DECK AREA SQ.YDS.	202 WEARING COURSE REMOVED DEPTH VAR." SQ.YDS.	BRIDGE DECK REPAIR ☐ SS-845 LATEX MODIFIED CONCRETE ☐ SS-850 DENSE CONCRETE ----" THICK OVERLAY SQ.YDS.	VARIABLE THICKNESS OVERLAY CU.YDS.	FULL-DEPTH REPAIR CU.YDS.	407 TACK COAT @ 0.075 GAL./S.Y. GAL.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y. GAL.	448 ASPHALT CONCRETE THICK INCH	INTERMEDIATE COURSE, TYPE 2, PG 64-22 CU.YDS.	THICK INCH	SURFACE COURSE, TYPE 1, PG 64-22 CU.YDS.	512 254 GRINDING PORTLAND CEMENT CONCRETE PAVEMENT SQ.YD.	STEEL DRIP STRIP SQ.FT.	DECK WATERPROOFING MEMBRANE WATERPROOFING SHEET TYPE 3 SQ.YDS.	MEMBRANE WATERPROOFING SQ.YDS.
SR83	COS-83-15.69	80	42.6	378.6	133.0				10					4.6				
SR83	COS-83-18.37	139	42.6	657.9	133.0				10					4.6				
SR83	COS-83-19.56	48	44	234.7	368.0				28					12.8				
SR83	COS-83-20.27	55	44	268.9	402.0				30					14.0				
	TOTALS TO GENERAL SUMMARY				1036.0				78					36.0				

CALCULATED LME CHECKED BCT

BRIDGE DECK TREATMENT

COS-83-12.67

12/20

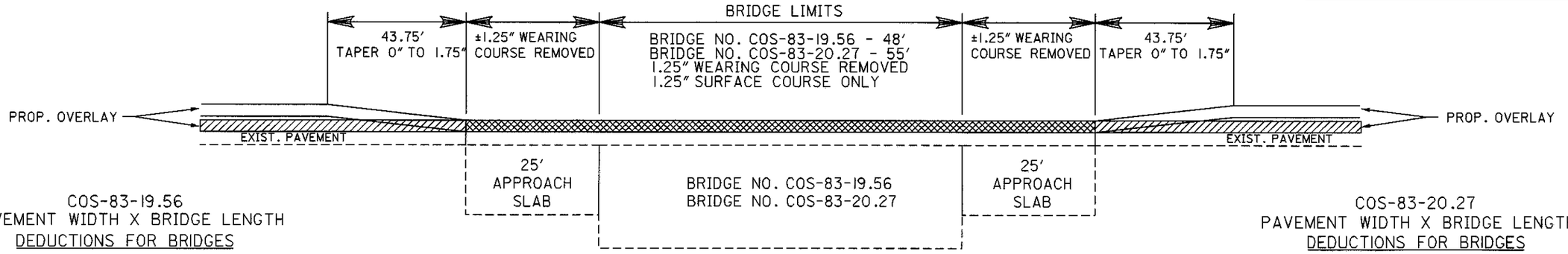
C0830001.MBT 2-4-99

PLAN NO.

CALCULATED LME CHECKED TJD

DETAIL (1)

NOTE: ALL PLANING AND PAVEMENT TAPERS SHALL BE AT A RATE OF 25'/1"



ITEM 202 WEARING COURSE REMOVED
ITEM 254 PAVEMENT PLANING (1 1/4")

COS-83-19.56
PAVEMENT WIDTH X BRIDGE LENGTH
DEDUCTIONS FOR BRIDGES
(24' X 98')/9 = 261 SQ.YD.

ITEM 254 PAVEMENT PLANING
(24' X 98')/9 = 261 SQ. YDS.

ITEM 407 TACK COAT
261 S.Y. X 0.75 GAL/S.Y. = 20 GAL.

ITEM 407 TACK COAT FOR INTERM.
261 S.Y. X 0.05 GAL/S.Y. = 13 GAL.

ITEM 448 INTERMEDIATE COURSE.
261 S.Y. X 0.049 YD. = 12.7 CU.YD.

ITEM 448 SURFACE COURSE.
261 S.Y. X 0.035 YD. = 9.1 CU.YD.

QUANTITIES CARRIED TO SHEET 9.

202 WEARING COURSE REMOVED:

COS-83-19.56
[(24' X 50') + (48' X 44')]/9 = 368 SQ. YDS.

COS-83-20.27
[(24' X 50') + (55' X 44')]/9 = 402 SQ. YDS.

QUANTITIES CARRIED TO SHEET 12.

COS-83-20.27
PAVEMENT WIDTH X BRIDGE LENGTH
DEDUCTIONS FOR BRIDGES
(24' X 105')/9 = 280 SQ.YD.

ITEM 254 PAVEMENT PLANING
(24' X 105')/9 = 280 SQ. YDS.

ITEM 407 TACK COAT
280 S.Y. X 0.75 GAL/S.Y. = 21 GAL.

ITEM 407 TACK COAT FOR INTERM.
280 S.Y. X 0.05 GAL/S.Y. = 14 GAL.

ITEM 448 INTERMEDIATE COURSE.
280 S.Y. X 0.049 YD. = 13.6 CU.YD.

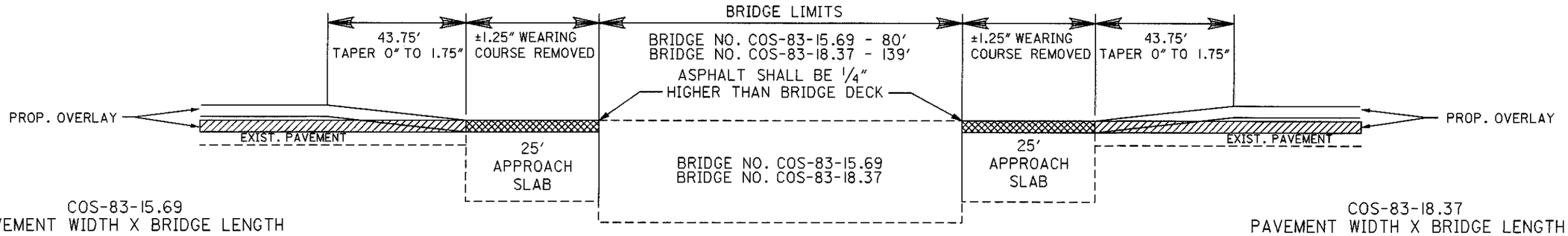
ITEM 448 SURFACE COURSE.
280 S.Y. X 0.035 YD. = 9.7 CU.YD.

QUANTITIES CARRIED TO SHEET 9.

REMOVE AND REPLACE 1.25" ASPHALT CONCRETE

DETAIL (2)

NOTE: ALL PLANING AND PAVEMENT TAPERS SHALL BE AT A RATE OF 25'/1"



ITEM 202 WEARING COURSE REMOVED
ITEM 254 PAVEMENT PLANING (1 1/4")

COS-83-15.69
PAVEMENT WIDTH X BRIDGE LENGTH
DEDUCTIONS FOR BRIDGES
*ITEM 254 PAVEMENT PLANING
(130' X 24')/9 = 346 SQ. YDS.

ITEM 407 TACK COAT
213 S.Y. X 0.75 GAL/S.Y. = 16 GAL.

*ITEM 407 TACK COAT FOR INTERM.
346 S.Y. X 0.05 GAL/S.Y. = 17 GAL.

*ITEM 448 INTERMEDIATE COURSE.
346 S.Y. X 0.049 YD. = 16.8 CU.YD.

ITEM 448 SURFACE COURSE.
213 S.Y. X 0.035 YD. = 7.4 CU.YD.

* QUANTITIES INCLUDE ADDITIONAL DEDUCTION FOR APPROACH SLABS

QUANTITIES CARRIED TO SHEET 9.

202 WEARING COURSE REMOVED:

COS-83-15.69
(24' X 50')/9 = 133 SQ. YDS.

COS-83-20.27
(24' X 50')/9 = 133 SQ. YDS.

QUANTITIES CARRIED TO SHEET 12.

COS-83-18.37
PAVEMENT WIDTH X BRIDGE LENGTH
DEDUCTIONS FOR BRIDGES
*ITEM 254 PAVEMENT PLANING
(189' X 24')/9 = 504 SQ. YDS.

ITEM 407 TACK COAT
371 S.Y. X 0.75 GAL/S.Y. = 28 GAL.

*ITEM 407 TACK COAT FOR INTERM.
504 S.Y. X 0.05 GAL/S.Y. = 25 GAL.

*ITEM 448 INTERMEDIATE COURSE.
504 S.Y. X 0.049 YD. = 24.5 CU.YD.

ITEM 448 SURFACE COURSE.
371 S.Y. X 0.035 YD. = 12.9 CU.YD.

QUANTITIES CARRIED TO SHEET 9.

REMOVE AND REPLACE 1.25" ASPHALT CONCRETE (APPROACH SLABS ONLY)

P6690003.MBT 1-23-99

BRIDGE DECK DETAILS

COS-83-12.67

13 / 20

CALC. BY SAB
DATE 2-15-99

CHKD. BY
DATE

LOCATION SUB-SUMMARY

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 12m (NOTE 2)
12	HORIZONTAL CURVE ALT. (NOTE 3)
GAP	CENTERLINE AT 24m TYP.

LOCATION NUMBER	LOCATION				DETAIL	RPM	ITEM QUANTITIES INSTALLATION ONLY			PRISMATIC RETRO-REFLECTOR	PRISMATIC RETRO-REFLECTOR COLORS					REMARKS
	COUNTY	ROUTE	S.L.M. MILES FROM	S.L.M. MILES TO			RPM	RPM CASTING	PRISMATIC RETRO-REFLECTOR		ONE-WAY WHITE	ONE-WAY YELLOW	TWO-WAY YELLOW/YELLOW	TWO-WAY WHITE/RED	TWO-WAY YELLOW/RED	
1	COS	SR83	12.75	12.83	7		11				6		5			FINISH STOP AT US 36
																EL 1@ 40' & 5 @ 80': CL 5 @ 80"
1	COS	SR83	12.83	13.58	GAP		50						50			
1	COS	SR83	13.58	13.74	11		21						21			PC 13.58 PT 13.74 L=845' DEG 9
1	COS	SR83	13.74	13.97	11		33						33			PC 13.74 PT 13.97 L=1320' DEG 6
1	COS	SR83	13.97	18.08	GAP		271						271			
1	COS	SR83	18.08	18.22	11		18						18			PC 18.08 PT 18.22 L=739' DEG 6
1	COS	SR83	18.22	19.07	GAP		56						56			
1	COS	SR83	19.07	19.29	12		39						39			PC 19.16 PT 19.23 L=370' DEG 14
1	COS	SR83	19.29	19.42	12		23						23			PC 19.29 PT 19.33 L=211' DEG 13
1	COS	SR83	19.42	19.69	GAP		18						18			
1	COS	SR83	19.69	19.86	12		29						29			PC 19.78 PT 19.83 L=264' DEG 11
1	COS	SR83	19.86	19.98	12		26						26			PC 19.86 PT 19.94 L=422' DEG 11
1	COS	SR83	19.98	20.09	11		14						14			PC 19.98 PT 20.09 L=581' DEG 8
1	COS	SR83	20.09	20.31	GAP		15						15			
1	COS	SR83	20.31	20.36	11		6						6			PC 20.31PT 20.36 L=264' DEG 8
1	COS	SR83	20.36	20.69	GAP		22						22			
1	COS	SR83	20.69	20.72	11		4						4			PC 20.69 PT 20.72 L=158' DEG 9
1	COS	SR83	20.72	20.87	12		28						28			PC 20.72 PT 20.78 L=317' DEG 13
1	COS	SR83	20.87	22.48	GAP		106						106			
1	COS	SR83	22.48	22.58	11		13						13			PC 22.48 PT 22.58 L=528' DEG 6
1	COS	SR83	22.58	22.89	GAP		20						20			
1	COS	SR83	22.89	23.06	12		31						31			PC 22.98 PT 23.04 L=317' DEG 14
1	COS	SR83	23.06	23.11	11		6						6			PC 23.06 PT 23.11L=264' DEG 9
		TOTAL	THIS SHEET				860				6		854			

CALCULATED SAB
CHECKED LME

RPM LOCATION SUB-SUMMARY

COS-83-12.75

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C083000I.TRM 2-15-99

CALC. BY SAB
DATE 02-15-99

CHKD. BY____
DATE ____

LOCATION SUB-SUMMARY

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 12m (NOTE 2)
12	HORIZONTAL CURVE ALT. (NOTE 3)
GAP	CENTERLINE AT 24m TYP.

LOCATION NUMBER	LOCATION				DETAIL	RPM	ITEM QUANTITIES INSTALLATION ONLY			PRISMATIC RETRO-REFLECTOR	PRISMATIC RETRO-REFLECTOR COLORS					REMARKS
	COUNTY	ROUTE	S.L.M. MILES FROM	S.L.M. MILES TO			RPM	RPM CASTING	PRISMATIC RETRO-REFLECTOR		ONE-WAY WHITE	ONE-WAY YELLOW	TWO-WAY YELLOW/YELLOW	TWO-WAY WHITE/RED	TWO-WAY YELLOW/RED	
1	COS	SR83	23.11	23.22	GAP		7						7			
1	COS	SR83	23.22	23.30	11		11						11			PC 23.22 PT 23.30 L=422' DEG 8
1	COS	SR83	23.30	23.37	GAP		4						4			
1	COS	SR83	23.37	23.41	11		5						5			PC 23.37 PT 23.41 L=211' DEG 7
1	COS	SR83	23.41	23.58	12		33						33			PC 23.42 PT 23.50 L=422' DEG 11
1	COS	SR83	23.58	23.68	12		21						21			PC 23.58 PT 23.64 L=317' DEG 13
1	COS	SR83	23.68	23.82	12		28						28			PC 23.68 PT 23.75 L=370' DEG 11
1	COS	SR83	23.82	23.87	11		13						13			PC 23.82 PT 23.87 L=528' DEG 9
1	COS	SR83	23.87	24.52	GAP		43						43			
1	COS	SR83	24.52	24.74	11		29						29			PC 24.52 PT 24.74 L=1164' DEG 9
1	COS	SR83	24.74	25.18	GAP		29						29			
1	COS	SR83	25.18	25.46	12		54						54			PC 25.27 PT 25.40 L=686' DEG 13
1	COS	SR83	25.46	25.59	12		25						25			PC 25.46 PT 25.52 L=317' DEG 22
1	COS	SR83	25.59	25.76	12		33						33			PC 25.59 PT 25.67 L=422' DEG 12
1	COS	SR83	25.76	25.84	GAP		5						5			
1	COS	SR83	25.84	26.06	12		41						41			PC 25.93 PT 26.02 L=475' DEG 12
1	COS	SR83	26.06	26.17	12		24						24			PC 26.06 PT 26.13 L=370' DEG 12
1	COS	SR83	26.17	26.34	12		33						33			PC 26.17 PT 26.25 L=422' DEG 10
1	COS	SR83	26.34	26.65	12		57						57			PC 26.44 PT 26.56 L=634' DEG 10
1	COS	SR83	26.65	26.72	GAP		5						5			END HOLMES COUNTY
TOTAL THIS SHEET							500						500			
TOTAL PREVIOUS SHEET							860				6		854			
TOTAL CARRIED TO GENERAL SUMMARY							1360				6		1354			

CALCULATED SAB
CHECKED LME

RPM LOCATION SUB-SUMMARY

COS-83-12.67

15/20

C0830002.TRM 2-15-99

PLAN NO.

CENTER LINE SUB-SUMMARY

QUANTITIES INCLUDE CL AROUND OUTSIDE OF PAINTED ISLAND

LOCATION	CO.	ROUTE	S.L.M. FROM	S.L.M. TO	CENTER LINES QUANTITIES TOTAL MILES	CENTER LINES QUANTITIES EQUIVALENT SOLID LINE	PARTICIPATION TYPE IRG	FG	RSG	NON FED STATE	TOTAL CENTER LINE MILES	REMARKS
	COS	SR 83	12.750	26.728	13.978	24.076					13.978	US 36 TO HOLMES CO. LINE
							TOTAL TO GENERAL SUMMARY				13.978	

EDGE LINE SUB-SUMMARY

LOCATION	CO.	ROUTE	S.L.M. FROM	S.L.M. TO	WHITE EDGE LINE QU. TOTAL MILES	WHITE EDGE LINE QU. HIGHWAY	WHITE EDGE LINE QU. RAMP	YELLOW EDGE LINE QU. TOTAL MILES	YELLOW EDGE LINE QU. HIGHWAY	YELLOW EDGE LINE QU. RAMP	PARTICIPATION TYPE IRG	FG	RSG	NON FED STATE	EDGE LINE TOTAL MILES	REMARKS
	COS	SR 83	12.75	26.72	27.94	27.94									27.94	US 36 TO HOLMES CO. LINE
										TOTAL	TO GENERAL SUMMARY				27.94	

CALCULATED LME CHECKED TJD

CENTER/EDGE LINE SUB-SUMMARY

COS-83-12.67

16/20

C0830001.TCL 1-30-99

DEPARTMENT OF TRANSPORTATION
M&R707 REV. 9-1-83

PAVEMENT MARKING SUB-SUMMARY

* MARKINGS ON SR 83

LOCATION	LOCATION	SIDE OR S.L.M.	644 THERMOPLASTIC															REMARKS
			24" TRANSVERSE LINES		STOP LINE	12" CROSSWALK LINES	8" CROSSWALK LINES	WORD ON PAVEMENT				LANE ARROWS			DOTTED LINES		8" CHANNEL LINE	
								ONLY		SCHOOL		TURN		THRU				
			WHITE	YELLOW	24"	WHITE	WHITE	72"	96"	72"	96"	LEFT	RIGHT		WHITE	YELLOW		
			LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LIN.FT.	LIN.FT.	LIN.FT.	
SR 83	CANEL BOAT																	
SR 83	CO.RD. 24	LEFT			16													PLACE AS DIRECTED
SR 83	CO.RD. 476 (1)	RIGHT			30													PLACE AS DIRECTED
SR 83	CO.RD. 476 (2)	RIGHT			24													PLACE AS DIRECTED
SR 83	TWP. 1142	RIGHT			16													PLACE AS DIRECTED
SR 83	TWP. 202	RIGHT			18													PLACE AS DIRECTED
SR 83	TWP. 201	RIGHT			22													PLACE AS DIRECTED
SR 83	TWP. 322	LEFT			22													PLACE AS DIRECTED
SR 83	CO. RD. 193	RIGHT			30													PLACE AS DIRECTED
SR 83	SR 643	RIGHT			18													PLACE AS DIRECTED
SR 83	CO. RD. 207	LEFT			18													PLACE AS DIRECTED
SR 83	TWP. 47	LEFT			16													PLACE AS DIRECTED
SR 83	TWP. 204	RIGHT			18													PLACE AS DIRECTED
SR 83	CO. RD. 1	RIGHT			36													PLACE AS DIRECTED
SR 83	CO.RD. 405	LEFT			30													PLACE AS DIRECTED
SR 83	CO.RD. 12	RIGHT			25													PLACE AS DIRECTED
SR 83	CONNECTOR TO RD.12	RIGHT			12													PLACE AS DIRECTED
SR 83	CO.RD. 38	LEFT			20													PLACE 19' FROM SR 13 ℄
SR 83	TWP. RD. 209	RIGHT			15													PLACE 21' FROM SR 83 ℄
SR 83	TWP. RD. 210	RIGHT			30													PLACE 18' FROM SR 83 ℄
SR 83	TWP. RD. 21	RIGHT			24													PLACE 16' FROM SR 83 ℄
SR 83	CO.RD. 38	LEFT			48													PLACE 25' FROM SR 83 ℄
SR 83	TWP. RD. 212	RIGHT			40													PLACE 22' FROM SR 83 ℄
SR 83	TWP. RD. 222	LEFT			16													PLACE 19' FROM SR 83 ℄
SR 83	TWP. RD. 221	RIGHT			24													PLACE 18' FROM SR 83 ℄
SR 83	TWP. RD. 222	LEFT			12													PLACE 18' FROM SR 83 ℄
	TOTALS CARRIED TO GENERAL SUMMARY				580													

CALCULATED LME
CHECKED TJD

PAVEMENT MARKING

COS-83-12.67

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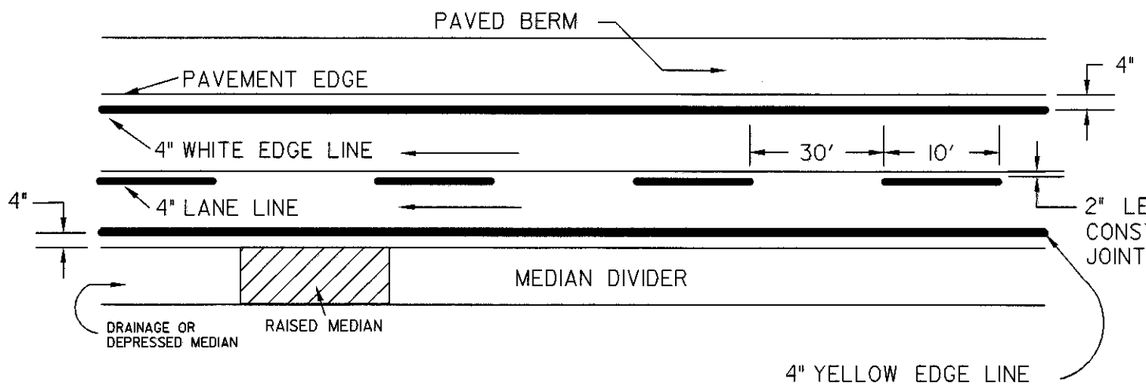
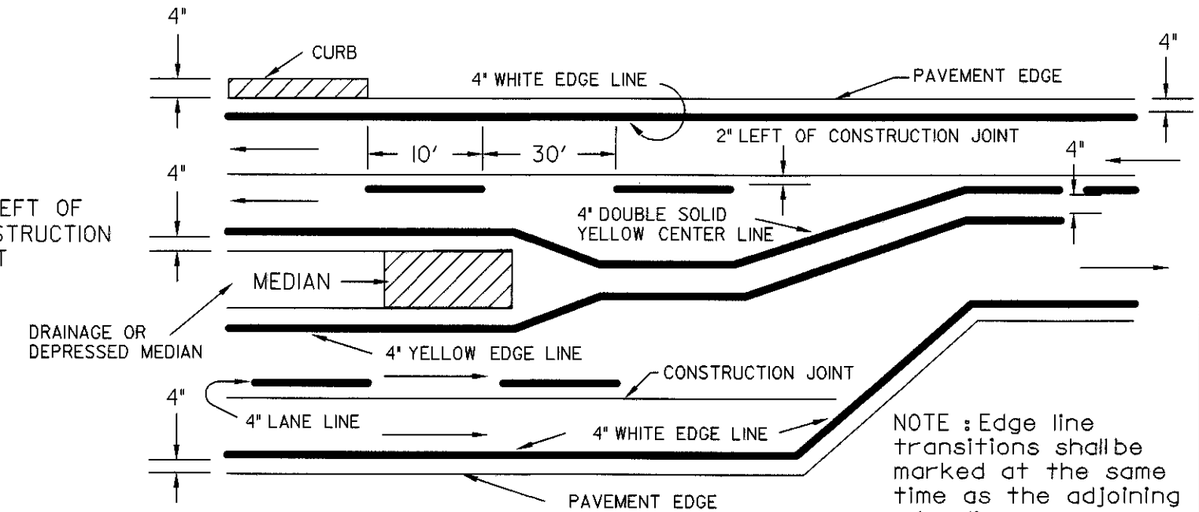
C083000I.TAS 2-4-99

PLAN NO.

FREEWAY & EXPRESSWAY MAINLINE MARKINGS

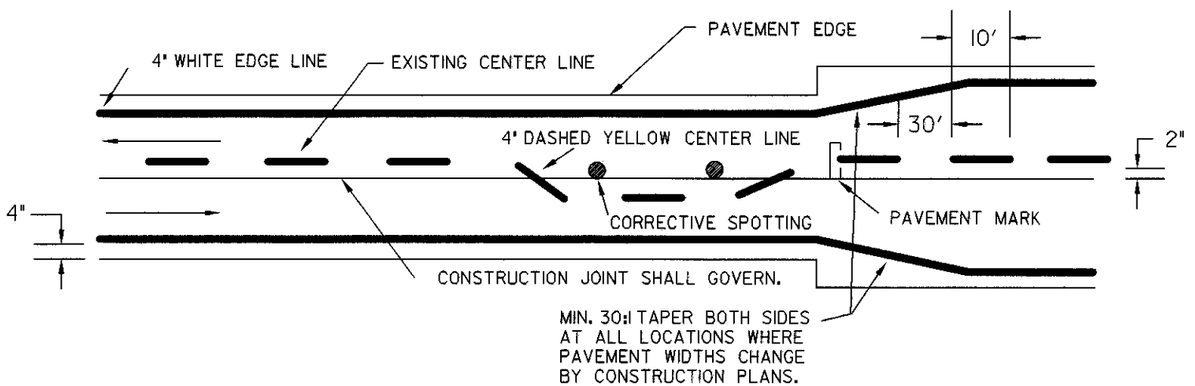


MULTILANE DIVIDED & UNDIVIDED HIGHWAY MARKINGS



NOTE : Edge line transitions shall be marked at the same time as the adjoining edge lines.

TWO LANE MARKINGS



NOTES:

1. The distance from the pavement edge to the nearside edge of the edgeline may be increased with the approval of the engineer in order to maintain uniform lane width.

2. See TC-72.20 for entrance and exit ramp markings.

3. The cycle length for dashed lines shall be 40 feet plus or minus 6 inches. The minimum length of dash shall be sufficiently long to maintain a 3:1 ratio between length of gap and length of dash.

Ohio Department of Transportation

Pavement Marking Typical Details

DATE 11-80 9-86 9-91

CALCULATED CHECKED

PAVEMENT MARKING TYPICALS

COS-83-12.67

18 20

C0830001.PMT 1-30-99

GENERAL SUMMARY

3	4	5	9	10	11	12	15	16	17			ITEM	ITEM EXT. NO.	GRAND TOTAL	UNIT	DESCRIPTION
		400.0				1036.0						202	23500	1436.0	SQ.YARD	WEARING COURSE REMOVED
1555												202	54101	1555	EACH	RAISED PAVEMENT MARKER REMOVED FOR STORAGE, AS PER PLAN
				4531.5								203	12001	4531.5	CU. YARD	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION, AS PER PLAN
	500											253	01001	500	SQ.YARD	PAVEMENT REPAIR, AS PER PLAN
			195308									254	01001	195308	SQ.YARD	PAVEMENT PLANING, BITUMINOUS, AS PER PLAN
9765												254	01600	9765	SQ.YARD	PATCHING PLANED SURFACE
				4531.3								301	46000	4531.3	CU. YARD	BITUMINOUS AGGREGATE BASE, PG 64-22
		18	15197	4146	474	78						407	10000	19913	GALLON	TACK COAT
			9765	1632								407	14000	11397	GALLON	TACK COAT FOR INTERMEDIATE COURSE
			9494.1	1586.1								448	46050	11080.2	CU.YARD	ASPHALT CONCRETE INTERMEDATE COURSE, TYPE 2, PG 64-22
	104.8		6790.7	1132.9	307.5	36.0						448	47020	8371.9	CU.YARD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22
	91.4											448	48020	91.4	CU.YARD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22
																(DRIVEWAYS)
	1500											606	17000	1500	LIN.FT.	RAISING TYPE 5 GUARDRAIL
124												614	12460	124	EACH	WORK ZONE MARKING SIGN
			27.94									614	21400	27.94	MILE	TEMPORARY CENTER LINE, CLASS II
		7.6										614	13000	7.6	CU. YARD	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC
				3172								617	10101	3172	CU.YARD	COMPACTED AGGREGATE, TYPE A, AS PER PLAN
				32628.3								617	20000	32628.3	SQ.YARD	SHOULDER PREPARATION
							1360					621	00200	1360	EACH	RAISED PAVEMENT MARKER, INSTALLATION ONLY
								27.94				642	00100	27.94	MILE	EDGE LINE, TYPE 1
								13.978				642	00300	13.978	MILE	CENTER LINE, TYPE 1
									580			644	00500	580	LIN.FT.	STOP LINE

CALCULATED LME CHECKED TJD

GENERAL SUMMARY

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19/20

C083000I.MGS 1-30-99

GENERAL SUMMARY

PLAN NO.

7	ITEM	ITEM EXT. NO.	GRAND TOTAL	UNIT	DESCRIPTION
1	SPECIAL	69050100	1	EACH	MAILBOX SUPPORT SYSTEM, SINGLE
1	SPECIAL	69050200	1	EACH	MAILBOX SUPPORT SYSTEM, DOUBLE
	614	11000		LUMP	MAINTAINING TRAFFIC
	623	10000		LUMP	CONSTRUCTION LAYOUT STAKES
	624	10000		LUMP	MOBILIZATION
	806	16010	3	MONTH	FIELD OFFICE, TYPE B

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SUMMARY

GENERAL

COS-83-12.67

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