LENGTH DATA

EXCEPTIONS

STA. 267+90 – STA. 269+50 = 160 FT.

EQUATIONS

NONE

STATE OF MISSISSIPPI

OFFICE OF STATE AID ROAD CONSTRUCTION

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED

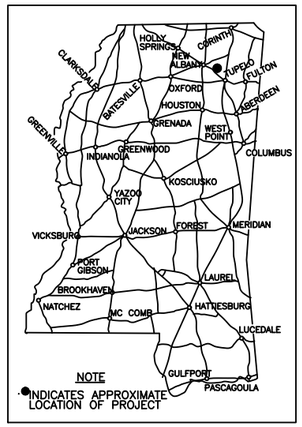
COUNTY HIGHWAY

SURFACE TRANSPORTATION PROGRAM PROJECT NO. STP-1234(1)B

COUNTY ROAD
MISSISSIPPI COUNTY

INDEX

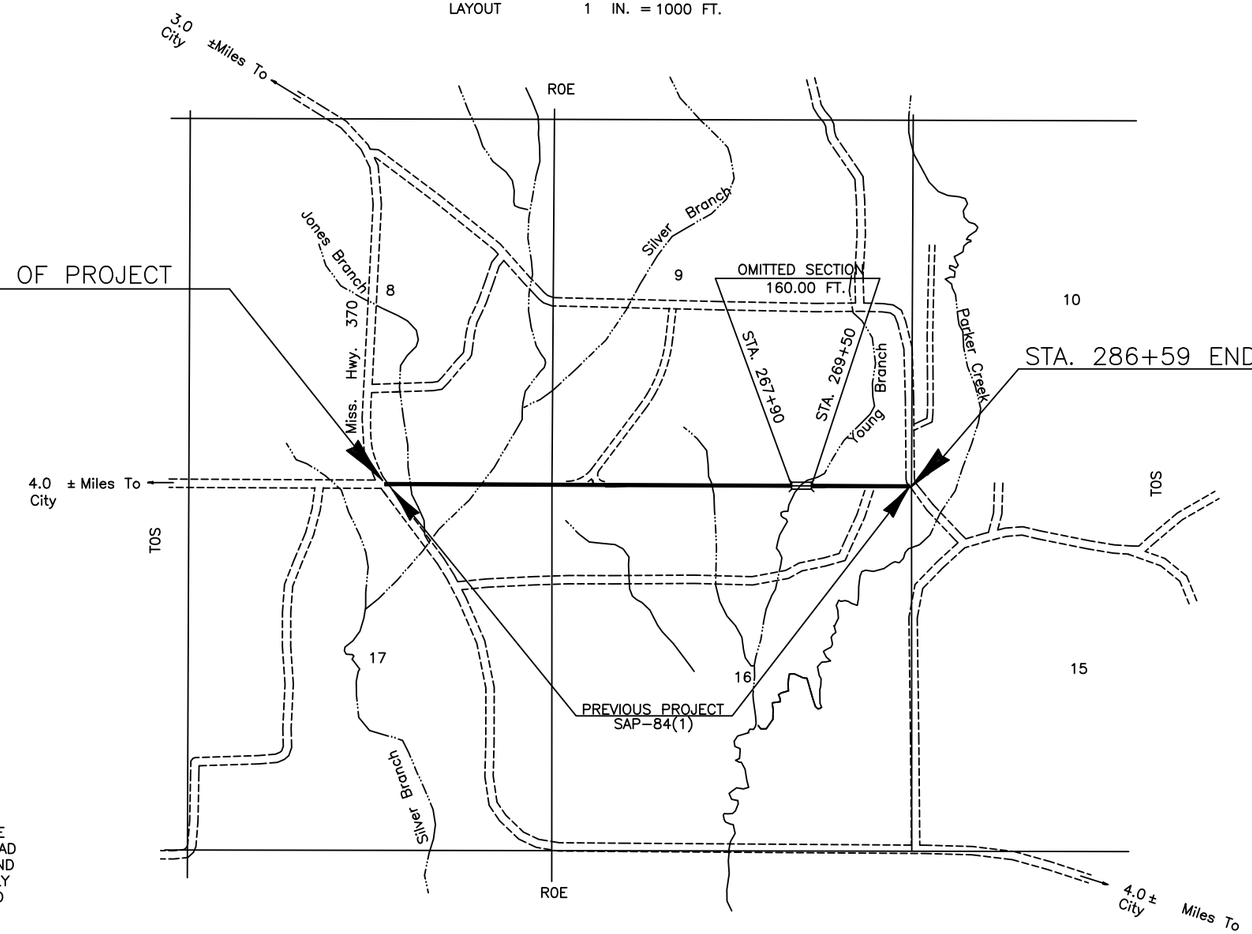
FOR INDEX SEE SHEET NO. 2



LENGTH OF ROADWAY	7666.00	FT	1.451 MI
LENGTH OF BRIDGES	0.00	FT	0.000 MI
LENGTH OF PROJECT (NET)			1.451 MI
LENGTH OF EXCEPTIONS	160.00	FT	0.030 MI
LENGTH OF PROJECT (GROSS)			1.481 MI

SCALE

LAYOUT 1 IN. = 1000 FT.



NOTE TO DESIGNER:

SAMPLE PLAN DATA
Type of Project: WIDEN AND OVERLAY
Date: AUGUST 2011

IF MULTIPLE SITES (COUNTY WIDE) ARE REQUIRED, USE THE SAME FORMAT AT RESEAL PROJECT.

Notes to Designer are in italics throughout these sample plans and should not be included in project plans.

MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION CURRENTLY APPROVED BY THE OFFICE OF STATE AID ROAD CONSTRUCTION OF THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION AND THE FEDERAL HIGHWAY ADMINISTRATION ARE MADE A PART HEREOF FULLY AND COMPLETELY AS IF ATTACHED HERETO, EXCEPT WHERE SUPERSEDED BY THE SPECIAL PROVISIONS, OR AMENDED BY REVISIONS.

SEAL

PREPARED BY _____ _____
COUNTY ENGINEER DATE

OFFICE OF STATE AID ROAD CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
APPROVED

_____ _____
STATE AID ENGINEER DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
APPROVED

_____ _____
EXECUTIVE DIRECTOR DATE

SUMMARY OF QUANTITIES

PAY ITEM NO.	PAY ITEM	TOTAL QUANTITY		UNIT
	ROADWAY ITEMS	PLAN	FINAL	
S–200–A	Mobilization	Lump Sum		Lump Sum
(1) S–203–A	Unclassified Excavation (FM)	190		Cu. Yd.
S–208–C	Linear Grading Special	700		Lin. Ft.
S–304–A	Granular Material (LVM) (Cl. 5, Gp C)	230		Cu. Yd.
S–403–A	Hot Mix Asphalt, ST, 12.5 mm	1,910		Ton
S–403–A	Hot Mix Asphalt, ST, 25 mm	376		Ton
S–403–B	Hot Mix Asphalt, ST, 9.5 mm, Leveling	92		Ton
S–403–C	Hot Mix Asphalt, ST, 25 mm, Trench Widening	562		Ton
901–S–423–A	Rumble Strips, Ground–In	2.964		Mile
S–618–A	Maintenance Of Traffic	Lump Sum		Lump Sum
S–618–B	Additional Construction Signs	0.0		Sq. Ft.
S–621–C	4" Wide Thermoplastic Edge Stripe (Continuous White) (60 Mil)	2.964		Mile
S–621–D	4" Wide Thermoplastic Traffic Stripe (Skip Yellow) (90 Mil)	1.326		Mile
S–621–E–1	4" Wide Thermoplastic Traffic Stripe (Continuous Yellow) (90 Mil)	3,888		Lin. Ft.
S–621–H–1	Thermoplastic Legend (White) (120 Mil)	138		Lin. Ft.
S–627–L	Two–Way Yellow Reflective High Performance Raised Markers	98		Each
S–630–A	Reflectorized Traffic Warning Sign (Encapsulated Lens)	10		Each
S–630–B	Reflectorized Traffic Regulatory Sign (Encapsulated Lens)	3		Each
S–630–C	Reflectorized Traffic Object Marker (Encapsulated Lens) (Type 3)	4		Each
	EROSION CONTROL ITEMS			
901–S–212–A	Agricultural Limestone	0.4		Ton
S–212–B	Commercial Fertilizer (13–13–13)	0.2		Ton
S–212–F	Ammonium Nitrate	0.02		Ton
S–214–A	Seeding	0.2		Acre
S–215–A	Vegetative Materials For Mulch	0.4		Ton

(1) Required For Base Repair Excavation

SEAL

PREPARED BY_____ _____
COUNTY ENGINEER DATE

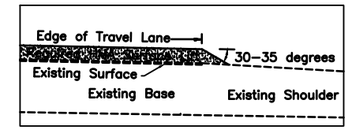
INDEX

SHEET NO.	TITLE
1	Title Sheet
2	Quantity & Index Sheet
2–A	Typical Section Sheet
2–B	Detail And Schedule Sheet
2–C	Striping Detail & Traffic Sign Sheet
2–D	Traffic Control Plan
SA–PSM–1	Pavement Striping & Marking Details
SA–TSP–1	Traffic Sign Placement
140	Erosion Control
259	Highway Sign and Barricade Details for Construction Projects
271	Rural Driveways

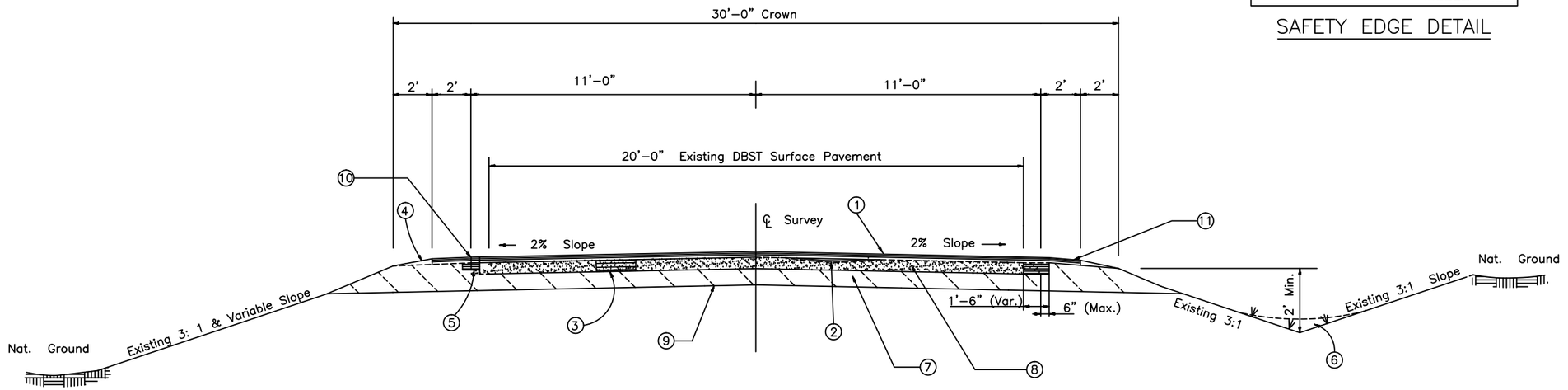
Plan profile sheets are to be included only if necessary to convey to the contractor the items of work required or to otherwise document the project.

RATES OF APPLICATION USED FOR ESTIMATING QUANTITIES

ITEM	RATE
Hot Mix Asphalt (HMA)	110 Lbs. Per Sq. Yd./In.
Agricultural Limestone	2.0 Tons/Acre
Commercial Fertilizer (13–13–13)	1.0 Ton/Acre
Ammonium Nitrate	200 Lbs./Acre
Vegetative Materials For Mulch	2.0 Tons/Acre
Granular Material (Cl. 5, Gp. C)	5.0 Cu. Yd./Ramp Or Turnout
Granular Material For Shoulders (Cl. 5, Gp. C)	3.0 Cu. Yd./Sta.



SAFETY EDGE DETAIL



TYPICAL WIDENING & OVERLAY SECTION

Sta. 208+33 – Sta. 286+59
N.T.S.

FLEXIBLE PAVEMENT DESIGN

DATA FOR PAVEMENT DETERMINATION

(2007) ADT = 800 Current
(2012) ADT = 854 n Year
(2027) ADT = 1040 Design
DHV = 156
D = 50 % of DHV
T = 10 % of DHV
T (Total) = 10 % of DHV
18k (Flex) = 675/1000
18k (Rigid) = 0/1000
CBR = 11

REQUIRED STRUCTURE NUMBER

2027		2012	
ADL	31	ADL	28
CBR	11	CBR	11
SSV	4.85	SSV	4.85
PT	2.5	PT	2.5
SN	2.67	SN	2.08

SCHEDULE OF STRUCTURE THICKNESS

STATION TO STATION	SUBGRADE CBR	SOIL SUPPORT VALUE	AVERAGE DAILY LANE LOADING	STRUCTURE NUMBER REQUIRED	EXISTING SUBBASE THICKNESS		EXISTING BASE COURSE THICKNESS		REQUIRED SURFACE COURSE THICKNESS		TOTAL PROVIDED	
					in	SN	in	SN	in	SN	in	SN
208+33 – 286+59	11	4.85	4	2.08	3.0	0.30	6.0	1.20	1.5	0.66	10.5	2.16

NOTE: SUBGRADE CBR HAS BEEN DETERMINED FROM SUBGRADE SOIL PROFILE ON PREVIOUS PROJECT NO. SAP–84(1).

GENERAL NOTES

EXCAVATED MATERIAL FROM FAILED AREAS SHALL BE DISPOSED OF OUTSIDE THE PROJECT LIMITS. THE COST OF EXCAVATION AND DISPOSAL TO BE PAID FOR AS UNCLASSIFIED EXCAVATION (FM), PAY ITEM NO S-203-A.

EROSION CONTROL MEASURES TO BE APPLIED ON INDICATED AREAS BY ⩛⩛⩛ AS PER SEASONAL LIMITATIONS.

GRADE HIGH SHOULDERS, PULL GRASS FROM PAVEMENT EDGES AND SWEEP EXISTING SURFACE BEFORE PLACING HOT MIX ASPHALT.

MATERIAL FROM TRENCHING SHALL BE SPREAD ONTO ADJACENT SHOULDERS AND DRESSED BACK TO PAVEMENT EDGE UPON COMPLETION OF OVERLAY.

ANY EXCESS MATERIAL FROM TRENCHING TO BE LOADED, HAULED AND DISPOSED OF WITHIN THE PROJECT LIMITS AS DIRECTED BY THE ENGINEER. COST FOR TRENCHING EXCAVATION AND DISPOSAL TO BE INCLUDED IN PAY ITEM NO. S-403-C.

TACK COAT REQ'D BEFORE PLACING HOT MIX ASPHALT ON EDGE REPAIRS, BASE FAILURES, LEVELING, OR OVERLAY, NOT A PAY ITEM. COST TO BE INCLUDED IN OTHER BID ITEMS.

1. 26'x 1.5" HMA, ST, 12.5mm, SURFACE LIFT REQUIRED.
2. HMA, ST, 9.5mm LEVELING LIFT REQUIRED (SEE SCHEDULE).
3. FAILED AREAS DESIGNATED BY THE ENGINEER SHALL BE UNDERCUT TO A 6" MINIMUM DEPTH AND REPAIRED WITH HMA, ST, 25mm (SEE SCHEDULE SHEET).
4. GRANULAR MATERIAL (CL 5, GP C) REQUIRED FOR SHOULDER.
5. 1'-6" (VARIABLE) X 4" DEPTH HMA, ST, 25mm, TRENCH WIDENING (NO SEPARATE PAY ITEM FOR TRENCHING).
6. LINEAR GRADING SPECIAL REQUIRED (SEE SCHEDULE SHEET).
7. EXISTING SUBBASE (CL 5, GP B).
8. EXISTING 6" CEMENT TREATED BASE.
9. EXISTING SUBGRADE.
10. RUMBLE STRIPE REQ'D. PER SA-PSM-1
11. PAVEMENT SAFETY EDGE REQ'D. PER NOTICE TO BIDDERS NO. 15

RAMP SCHEDULE

Station	Side	Width (feet)	Paved Apron Area
209+15	LT.	50.00	11.88
211+30	RT.	20.0	5.21
214+50	RT.	20.0	5.21
220+80	RT.	20.0	5.21
221+60	LT.	20.0	5.21
223+43	RT.	20.0	5.21
224+40	LT.	20.0	5.21
228+88	RT.	20.0	5.21
232+90	RT.	20.0	5.21
233+35	RT.	20.0	5.21
244+70	LT.	20.0	5.21
250+65	LT.	20.0	5.21
260+10	RT.	20.0	5.21
261+60	LT.	20.0	5.21
272+40	RT.	20.0	5.21
276+50	LT.	20.0	5.21
277+80	RT.	20.0	5.21
279+08	RT.	20.0	5.21
284+85	RT.	20.0	5.21
286+13	RT.	20.0	5.21
TOTALS			110.87
UNITS			square yards

GRANULAR MATERIAL SCHEDULE

Area	Granular Material (Cl. 5, Gp. C) (LVM)
Roadway	230
Intersections and Turnouts	38
Project Total	268
Units	Cubic Yards

ESTIMATED ASPHALT SCHEDULE

Area	Hot Mix Asphalt	
	OVERLAY	TRENCH WIDENING
Roadway	1827.06	
Intersections and Turnouts	62.07	
Ramps (20)	20.84	
Trench Widening		562.17
Project Total	1909.97	562.17
Units	Tons	Tons

BASE REPAIR SCHEDULE

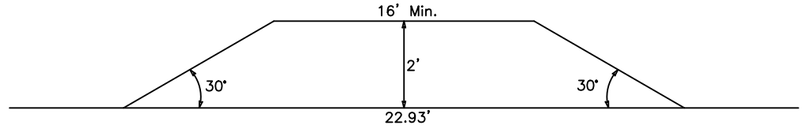
Station – Station	Side	Length	Width	Area	Depth	Uncl. Excav.	Hot Mix Asphalt
225+00 – 225+75	Rt.	75.0	10.0	750.0	6.0	13.9	27.5
236+00 – 237+50	Rt.	150.0	10.0	1500.0	6.0	27.8	55.0
245+00 – 248+00	Lt.	300.0	10.0	3000.0	6.0	55.6	110.0
261+00 – 263+00	Rt.	200.0	10.0	2000.0	6.0	37.0	73.3
282+00 – 285+00	Lt.	300.0	10.0	3000.0	6.0	55.6	110.0
TOTALS						189.9	375.8
UNITS		Ft.	Ft.	$Ft.^2$	In.	$Yd.^3$	Tons

LEVELING SCHEDULE

Station – Station	Length	Width	Area	Thickness	Hot Mix Asphalt
218+00 – 219+50	150.0	10.0	166.67	2.0	18.33
228+00 – 231+00	300.0	10.0	333.33	2.0	36.67
243+00 – 246+00	300.0	10.0	333.33	2.0	36.67
TOTALS	750.0		833.33		91.67
UNITS	Ft.	Ft.	Yd^2	In.	Tons

LINEAR GRADING SCHEDULE

Station – Station	Side	Length
247+00 – 254+00	LT	700.0
TOTALS		700.0
UNITS		Ft.



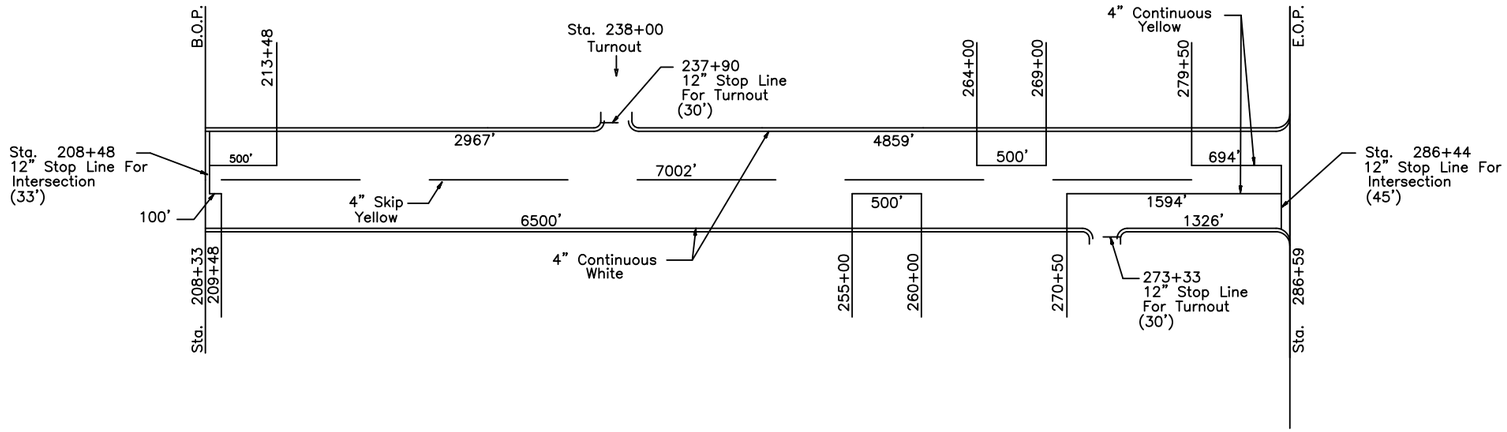
TYPICAL PAVED APRON DETAIL
4.3 SQ. YD. SURFACING AREA PER 16' RAMP

TRAFFIC SIGNS REQ'D

Station	Type	Remarks	Side
208+53	R1-1	Stop Sign	Lt.
213+28	W3-1	Stop Ahead Sign	Lt.
235+00	W2-2	Side Road Lt.	Rt.
238+00	W1-7	Large Arrow (Two Directions)	Rt.
241+00	W2-2	Side Road Rt.	Lt.
267+89	OM-3L	Object Marker	Lt.
267+89	OM-3R	Object Marker	Rt.
269+51	OM-3R	Object Marker	Lt.
269+51	OM-3L	Object Marker	Rt.
270+90	W2-2	Side Road Rt.	Rt.
273+23	W1-7	Large Arrow (Two Directions)	Lt.
273+33	W3-1	Stop Ahead Sign	Rt. 450'
273+33	R1-1	Stop Sign	Rt.
276+25	W2-2	Side Road Lt.	Lt.
281+96	W3-1	Stop Ahead Sign	Rt.
286+46	R1-1	Stop Sign	Rt.
286+85	W1-7	Large Arrow (Two Directions)	CL

Total Signs

10	Warning Signs Req'd.
3	Regulatory Signs Req'd.
4	Object Markers Req'd.

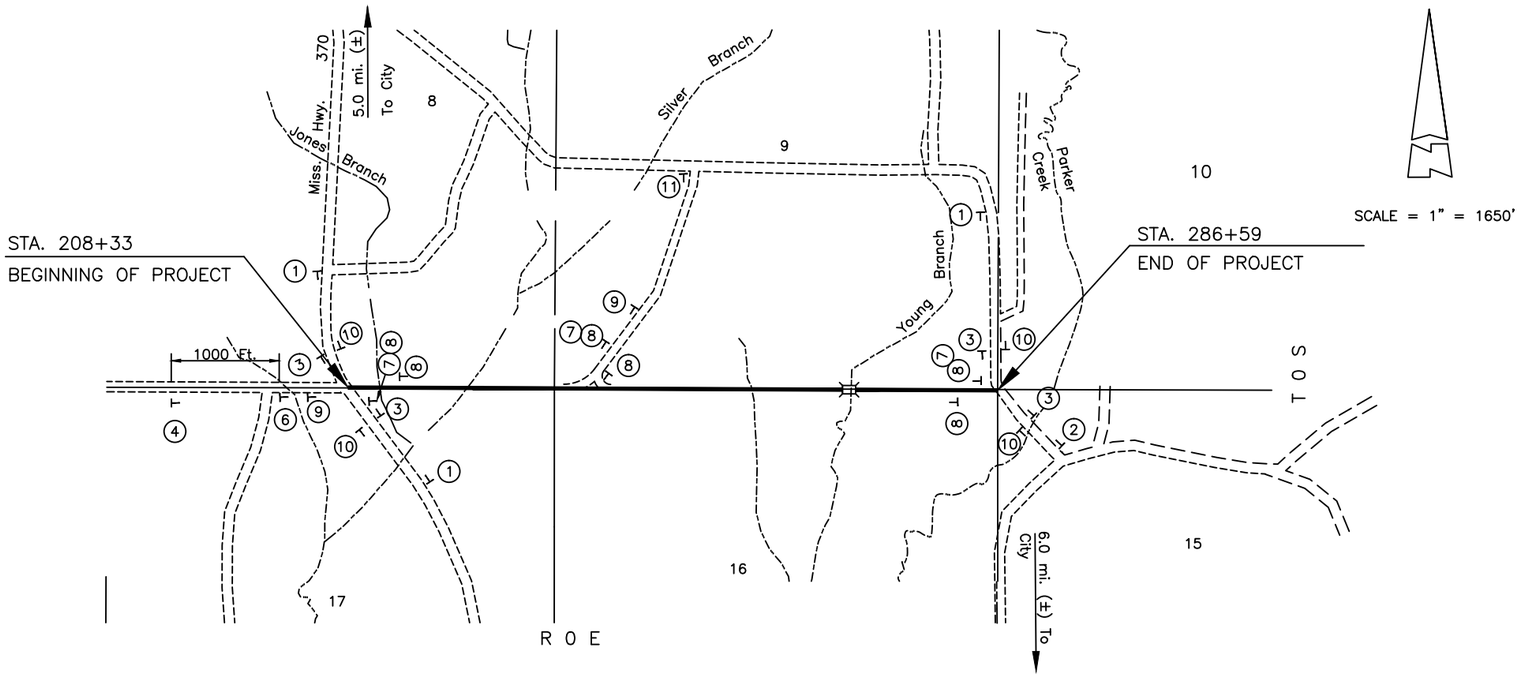


STRIPING DETAIL

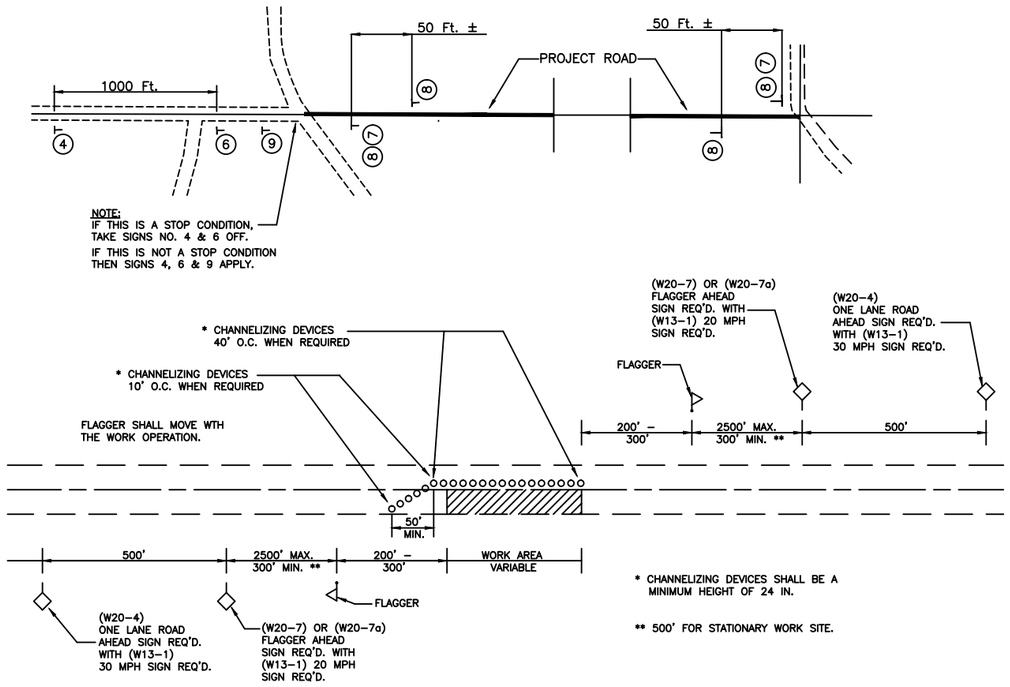
85 Percentile Speed = 55 MPH
Minimum Passing Sight Distance = 900 Ft.

THERMOPLASTIC TRAFFIC STRIPE AND EDGE RUMBLE STRIPE PER SA-PSM-1 REQUIRED.

Rumble Strips, Ground-In = 2.964 Mi.
Continuous White Edge Stripe = 2.964 Mi.
Skip Yellow = 1.326 Mi.
Continuous Yellow = 3888 Lin. Ft.
Legend = 138.0 Lin. Ft.
Reflective Markers = 98 Ea.



SCALE = 1" = 1650'



ONE LANE ROAD CLOSURE WHEN REQUIRED AND AS DIRECTED BY THE ENGINEER

N.T.S.

SIGN SCHEDULE	
SIGN	DESCRIPTION
①	W20-1 ROAD WORK 1500 FT.
②	W20-1 ROAD WORK 1000 FT.
③	W20-1 ROAD WORK 500 FT.
④	W20-3 ROAD CLOSED AHEAD
⑤	R11-2a ROAD CLOSED
⑥	R11-3a (MODIFIED) ROAD CLOSED 1000 FT.
	AHEAD LOCAL TRAFFIC ONLY
⑦	R11-4 ROAD CLOSED TO THRU TRAFFIC
⑧	TYPE III BARRICADE
⑨	W20-3 ROAD CLOSED 500 FT.
⑩	G20-2 END ROAD WORK (Optional)
⑪	R11-3a ROAD CLOSED 3/4 MILES AHEAD
	LOCAL TRAFFIC ONLY

The narrative needs to include "the contractor may choose either Alternate No. 1 or Alternate No. 2 Temporary Pavement Markers as indicated on the Traffic Control Plan."

To prevent delays that may be caused by a cursory review, please provide a narrative (SP 901-S-618-1) with each set of review plans.

CONSTRUCTION NOTES:

1. AFTER ALL CONSTRUCTION IS COMPLETE, BUT PRIOR TO STRIPING, THE ENTIRE PROJECT SHALL BE OPENED TO ALL TRAFFIC.

2. TEMPORARY PAVEMENT MARKINGS. WHENEVER PAVEMENT CONSTRUCTION HAS PROGRESSED SUFFICIENTLY TO PERMIT TRAFFIC MOVEMENT THAT IS UNRESTRICTED BY CHANNELIZING OR OTHER TRAFFIC CONTROL METHODS TEMPORARY PAVEMENT MARKINGS SHALL BE INSTALLED UNDER PAY ITEM NO. S-618-A, "MAINTENANCE OF TRAFFIC." MARKINGS SHALL BE INSTALLED AND MAINTAINED IN A LIKE MANNER AFTER EACH LIFT AND PRIOR TO NIGHTFALL. MARKERS SHALL BE:
ALTERNATE 1 – TEMPORARY RAISED PAVEMENT MARKERS AS PER S-619.08 OF THE STANDARD SPECIFICATIONS; OR
ALTERNATE 2 – TEMPORARY CENTERLINE PAVEMENT MARKINGS, 4 FT. STRIPE ON 40 FT. CENTERS. IF PRESSURE SENSITIVE ADHESIVE TAPE IS USED ON THE FINAL WEARING SURFACE, IT SHALL BE TYPE 1.

3. PRIOR TO OPENING THE PROJECT TO TRAFFIC, R4-1 "DO NOT PASS" OR R4-2 "PASS WITH CARE" SIGNS SHALL BE INSTALLED ON THE RIGHT HAND SIDE OF THE ROAD AT THE B.O.P. AND THE E.O.P. AND THE BEGINNING AND THE END OF THE NO-PASSING ZONES AND W14-3 SIGNS ON THE LEFT HAND SIDE OF THE ROADWAY IN ACCORDANCE WITH THE PERMANENT STRIPING SCHEDULE IN THE PLANS. INSTALLATION, MAINTENANCE, AND REMOVAL SHALL BE INCLUDED UNDER PAY ITEM NO. S-618-A, "MAINTENANCE OF TRAFFIC."

4. IF ADJACENT LANES OPEN TO TRAVEL HAVE AN ELEVATION DIFFERENCE IN EXCESS OF 1.5 INCHES, UNEVEN LANES SIGNS (W8-11) SHALL BE PLACED ON THE RIGHT-HAND SIDE OF THE ROAD AT THE BEGINNING OF THE UNEVEN LANES AND AFTER EACH SIDE ROAD ENTRANCE. THESE SIGNS MAY BE MOUNTED ON PORTABLE STANDS AND ARE TO REMAIN IN PLACE UNTIL THE UNEVEN LANE CONDITION CEASES TO EXIST.

5. WHEN DIRECTED BY THE ENGINEER, LOW SHOULDER SIGNS (W8-9) SHALL BE INSTALLED FOR LESS THAN A 3 INCH DROP OFF (ELEVATION DIFFERENCE BETWEEN SHOULDER AND TRAVEL LANE), AND SHOULDER DROP OFF SIGNS (W8-17/17P) INSTALLED FOR MORE THAN A 3-INCH CONTINUOUS DROP-OFF.

DURING STRIPING OPERATIONS
1. A SHADOW VEHICLE SHALL BE POSITIONED APPROXIMATELY 300 FT. IN FRONT OF AND BEHIND PAINTING OPERATIONS.
2. THE SHADOW VEHICLE SHALL CARRY A SIGN "ROADWAY STRIPING AHEAD". BOTTOM OF SIGN SHALL BE A MINIMUM OF SIX (6) FT. ABOVE THE PAVMENT.
3. A FLASHING YELLOW LIGHT SHALL BE INSTALLED ABOVE THE TOP OF WARNING SIGNS.
4. A FLASHING YELLOW LIGHT SHALL BE INSTALLED ON ALL VEHICLES USED IN THE MARKING OPERATIONS.

GENERAL NOTES:
1. CONTRACTOR SHALL INSTALL TRAFFIC CONTROL DEVICES SUCH AS CONES, DRUMS, FLASHERS, BARRICADES, SIGHS, ETC., TO SAFELY CHANNEL OR DIRECT TRAFFIC. WHEN NECESSARY, FLAGGERS SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL DEVICES (FLAGGER AHEAD SIGN REQUIRED IN ADVANCE OF FLAGGERS EXCEPT DURING BRIEF PERIODS OR EMERGENCY SITUATIONS.)

2. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED WHENEVER NECESSARY, REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED, AND REMOVED IMMEDIATELY THEREAFTER.

3. PAY FOR INSTALLATION, MAINTENANCE AND REMOVAL OF TRAFFIC CONTROL DEVICES WILL BE MADE UNDER PAY ITEM NUMBERS S-618-A AND S-618-B.

4. TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.

5. THESE ARE MINIMUM REQUIREMENTS AND IN NO WAY RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO MAINTAIN TRAFFIC IN A SAFE MANNER.

6. SEE STANDARD DRAWINGS 259 AND SA-TSP-1 FOR CORRECT PLACEMENT AND INSTALLATION OF BARRICADES AND SIGNS.

7. CONTRACTOR SHALL INSTALL ADVANCE WARNING SIGNS SUCH AS WATCH FOR TRUCKS, TRUCKS TURNING, TRUCKS CROSSING, ETC., AND PLACE FLAGGERS AS DIRECTED BY THE COUNTY ENGINEER ALONG PUBLIC ROADS ON EACH SIDE OF BORROW PIT ENTRANCE OR CROSSING OF PUBLIC ROADS.

8. SEE SPECIAL PROVISION 901-S-618-1 FOR ADDITIONAL REQUIRMENTS.

TRAFFIC CONTROL PLAN