SM No. CSTP006401024

PROPOSAL AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

(EXEMPT)

9
Overlaying Mississippi Highway 53 from 5.4 miles north of Hancock County Line, north 9.5 miles,known as Federal Aid Project No. STP-0064-01(024)MP / 104763, in the County of Pearl River, State of Mississippi.
Project Completion: 54 Time Units

NOTICE

BIDDERS MUST PURCHASE A BOUND PROPOSAL
FROM MDOT CONTRACT ADMINISTRATION DIVISION
TO BID ON THIS PROJECT.

Electronic addendum updates will be posted on www.goMDOT.com

SECTION 900

OF THE CURRENT
(2004) STANDARD SPECIFICATIONS
FOR ROAD AND BRIDGE CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

JACKSON, MISSISSIPPI

BIDDER CHECK LIST
(FOR INFORMATION ONLY)

_____ All unit prices and item totals have been entered in accordance with Subsection 102.06 of the Mississippi Standard Specifications for Road and Bridge Construction.

_____ If the bid sheets were prepared using MDOT's Electronic Bid System, proposal sheets have been stapled and inserted into the proposal package.

_____ First sheet of SECTION 905--PROPOSAL has been completed.

_____ Second sheet of SECTION 905--PROPOSAL has been completed and signed.

_____ Addenda, if any, have been acknowledged. Second sheet of Section 905 listing the addendum number has been substituted for the original second sheet of Section 905. Substituted second sheet of Section 905 has been properly completed, signed, and added to the proposal.

_____ DBE/WBE percentage, when required by contract, has been entered on last sheet of the bid sheets of SECTION 905 - PROPOSAL.

_____ Form OCR-485, when required by contract, has been completed and signed.

_____ The last sheet of the bid sheets of SECTION 905--PROPOSAL has been signed.

_____ Combination Bid Proposal of SECTION 905--PROPOSAL has been completed for each project which is to be considered in combination (See Subsection 102.11).

_____ Equal Opportunity Clause Certification, when included in contract, has been completed and signed.

_____ Subcontract Certificate, when included in contract, has been completed and signed.

_____ The Certification regarding Non-Collusion, Debarment and Suspension, etc. has been executed in duplicate.

_____ A certified check, cashier's check or bid bond payable to the State of Mississippi in the principal amount of 5% of the bid has been included with project number identified on same. Bid bond has been signed by the bidder and has also been signed or countersigned by a Mississippi Resident Agent for the Surety with Power of Attorney attached or on file with the Department's Contract Administration Engineer.

_____ Non-resident Bidders: ON STATE FUNDED PROJECTS ONLY, a copy of the current laws regarding any preference for local Contractors from State wherein domiciled has been included. See Subsection 103.01, Mississippi Standard Specifications for Road and Bridge Construction, and Section 31-7-47, MCA, 1972 regarding this matter.

Return the proposal and contract documents in its entirety in a sealed envelope. DO NOT remove any part of the contract documents; exception - an addendum requires substitution of second sheet of Section 905. A stripped proposal is considered as an irregular bid and will be rejected.

Failure to complete any or all of the applicable requirements will be cause for the proposal to be considered irregular.

(09/2004)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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PROJECT: STP-0064-01(024)MP / 104763 -- Pearl River County

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SECTION 905 - PROPOSAL,
PROPOSAL SHEET NOS. 2-1 THRU 2-7,
COMBINATION BID PROPOSAL,
CERTIFICATE OF PERFORMANCE - PRIOR FEDERAL-AID CONTRACTS,
NON-COLLUSION CERTIFICATE,
SECTION 902 - CONTRACT FORM, AND SECTION 903 - CONTRACT BOND FORM,
OCR-485,
PROGRESS SCHEDULE
HAUL PERMIT FOR BRIDGES WITH POSTED WEIGHT LIMITS.

(REVISIONS TO THE ABOVE WILL BE INDICATED ON THE SECOND SHEET OF SECTION 905 AS ADDENDA)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 901 - ADVERTISEMENT

Sealed bids will be received by the Mississippi Transportation Commission in the Office of the Contract Administration Engineer, Room 1013, Mississippi Department of Transportation Administration Building, 401 North West Street, Jackson, Mississippi, until 9:30 o'clock A.M., Tuesday, July 25, 2006; thereafter, bids will be received in the First Floor Auditorium of the Mississippi Department of Transportation Adminstration Building, Jackson, Mississippi, until 10:00 o'clock A.M., Tuesday, July 25, 2006, and shortly thereafter publicly opened for

Overlaying Mississippi Highway 53 from 5.4 miles north of Hancock County Line, north 9.5 miles, known as Federal-Aid Project No. STP-0064-01(024)MP / 104763, in the County of Pearl River, State of Mississippi.

The attention of bidders is directed to the Contract Provisions governing selection and employment of labor. Minimum wage rates have been predetermined by the Secretary of Labor and are subject to Public Law 87-58 1, Work Hours Act of 1962, as set forth in the Contract Provisions.

The Mississippi Department of Transportation hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, religion or national origin in consideration for an award.

The award of this contract will be contingent upon the Contractor satisfying the DBE requirements.

Bid proposals must be acquired from the MDOT Contract Administration Division, Room 1013, MDOT Administration Building, 401 North West Street, Jackson, Mississippi, 39201, Telephone (601) 359-7744 or FAX (601) 359-7940. These proposals are available at a cost of Ten Dollars ($10.00) per proposal. Specimen proposals are also available at the MDOT Contract Administration Division at a cost of Ten Dollars ($10.00) per proposal, or can be viewed or downloaded at no cost at www.gomdot.com.

Plans may be acquired on a cost per sheet basis from MDOT Plans Print Shop, Room 1100, MDOT Administration Building, 401 North West Street, Jackson, Mississippi, 39201, Telephone (601) 359-7460 or e-mail at plans@mdot.state.ms.us or FAX (601) 359-7461.

Plans will be shipped upon receipt of payment.

Bid bond, signed or countersigned by a Mississippi Resident Agent, with Power of Attorney attached or on file with the Contract Administration Engineer of the Department, a Cashier's check or Certified Check for five (5%) percent of bid, payable to STATE OF MISSISSIPPI, must accompany each proposal.

The attention of bidders is directed to the provisions of Subsection 102.07 pertaining to irregular proposals and rejection of bids.

LARRY L. "BUTCH" BROWN
EXECUTIVE DIRECTOR

(FAP)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1 **CODE: (IS)**

DATE: 05/03/2004

SUBJECT: Governing Specifications

The current (2004) Edition of the Standard Specifications for Road and Bridge Construction adopted by the Mississippi Transportation Commission is made a part hereof fully and completely as if it were attached hereto, except where superseded by special provisions, or amended by revisions of the Specifications contained herein. Copies of the specification book may be purchased from the MDOT Construction Division.

A reference in any contract document to controlling requirements in another portion of the contract documents shall be understood to apply equally to any revision or amendment thereof included in the contract.

In the event the plans or proposal contain references to the 1990 Edition of the Standard Specifications for Road and Bridge Construction, it is to be understood that such references shall mean the comparable provisions of the 2004 Edition of the Standard Specifications.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 2 **CODE: (IS)**

DATE: 05/03/2004

SUBJECT: Status of Right-of-Way, Utility Adjustments and Potentially Contaminated Sites

Although it is desirable to have acquired all rights-of-way and completed all utility adjustments and work to be performed by others prior to receipt of bids, it is not considered to be in the public interest to wait until each and every such clearance has been obtained. The bidder is hereby advised of unacquired rights-of-way, relocatees and utilities which have not been completed.

The status of right-of-way and utility adjustments and potentially contaminated sites are set forth in attachments entitled "Status of Right-of-Way", "Status of Utility Adjustments" and "Status of Potentially Contaminated Sites."

In the event right of entry is not available to ALL parcels of right-of-way and all work complete that is to be accomplished by others on the date set forth in the contract for the Notice to Proceed, the Department will issue a restricted Notice to Proceed upon written request of the Contractor.

STATUS OF RIGHT-OF-WAY
STP-0064-01(024)MP
104763/301000
PEARL RIVER COUNTY
May 4, 2006

All rights of way and legal rights of entry have been acquired, **except:**

NONE.

ASBESTOS CONTAMINATION STATUS OF BUILDINGS
TO BE REMOVED
STP-0064-01(024)MP
104763/301000
PEARL RIVER COUNTY
May 4, 2006

Reference is made to notices to bidders entitled "Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP)" and "Removal of Obstructions".

The following pertinent information is furnished concerning asbestos containing materials (ACMs), if any, found in buildings to be removed by the Contractor.

This project is for overlay within existing Right of Way. There are no buildings in the contract to be removed.

STATUS OF POTENTIALLY CONTAMINATED SITES
STP-0064-01(024)MP
104763/301000
PEARL RIVER COUNTY
May 4, 2006

THIS PROJECT IS FOR OVERLAY WITHIN EXISTING RIGHT OF WAY AND NO INITIAL SITE ASSESSMENT WILL BE PERFORMED. ANY CONTAMINATION DISCOVERED ON EXISTING RIGHT OF WAY WILL BE HANDLED BY THE DEPARTMENT.

STATUS OF UTILITIES
PROJECT NO. STP-0064-01(024 – 104763/301000
PEARL RIVER COUNTY

All work associated with this project is to be done within the existing right of way. No conflict with contractor's operations is anticipated.

Forty-eight hours prior to commencing any excavation operations the contractor is advised to call MS One-Call at 1-800-227-6477.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 3 **CODE: (SP)**

DATE: 05/03/2004

SUBJECT: Final Clean-Up

Immediately prior to final inspection for release of maintenance, the Contractor shall pick up, load, transport and properly dispose of all litter from the entire highway right-of-way that is within the termini of the project.

Litter shall include, but not be limited to, solid wastes such a glass, paper products, tires, wood products, metal, synthetic materials and other miscellaneous debris.

Litter removal is considered incidental to other items of work and will not be measured for separate payment.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 – NOTICE TO BIDDERS NO. 11 **CODE: (SP)**

DATE: **05/30/2004**

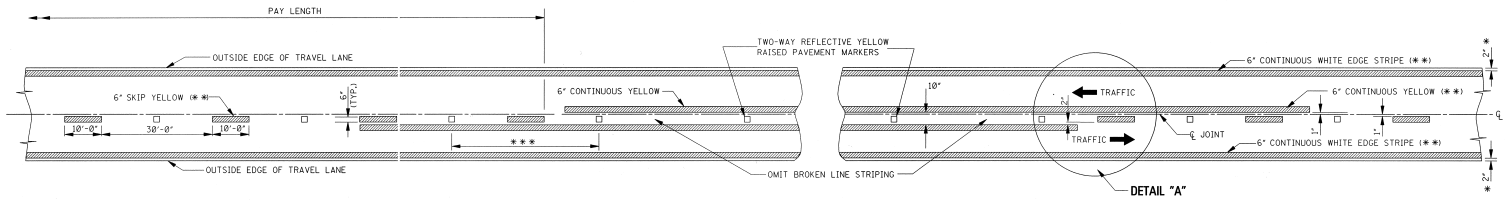
SUBJECT: **Standard Drawings**

Standard Drawings attached hereto shall govern appropriate items of required work.

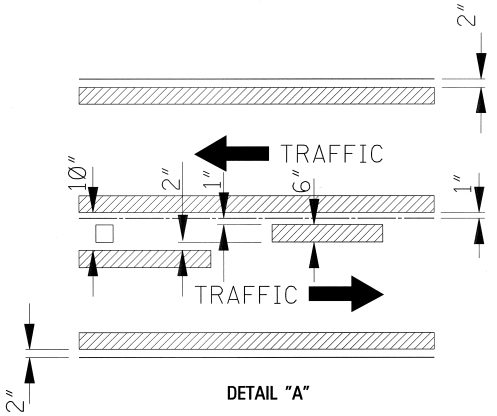
Larger copies of Standard Drawings may be purchased from:

MDOT Plans Print Shop
MDOT Administration Building
401 North West Street, Room 1100
P.O. Box 1850
Jackson, MS 39215-1850
Telephone: (601) 359-7460
or FAX: (601) 359-7461
or e-mail: plans@mdot.state.ms.us

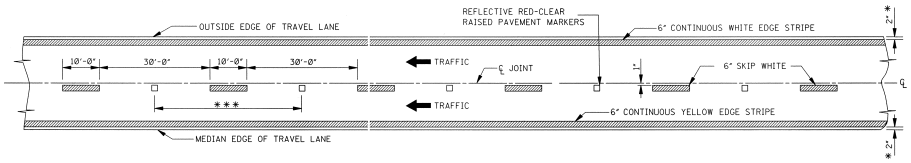
STATE	PROJECT NO.
MISS.	



TWO–WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)



DETAIL "A"



4–LANE WITH ONE–WAY TRAFFIC

DIRECTION OF TRAFFIC

GENERAL NOTES:

* 1. 2" UNLESS SHOWN ELSEWHERE ON THE PLANS.

** 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR PLASTIC AS INDICATED IN PAY ITEMS).

*** 3. SPACING OF REFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:

	URBAN AREA (ft-in)	RURAL AREA (ft-in)
TANGENT SECTIONS	40'-0"	80'-0"
HORIZONTAL CURVES	40'-0"	40'-0"
INTERCHANGE LIMITS	40'-0"	† 40'-0"

† NOTE: ON THE MAIN FACILITY, REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.

4. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED SOURCES OF MATERIALS."

DATE	REVISE STRIPE WIDTH REVISION	BY
12-1-99		S.W.K.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

PAVEMENT MARKING DETAILS FOR 2–LANE AND 4–LANE DIVIDED HIGHWAYS

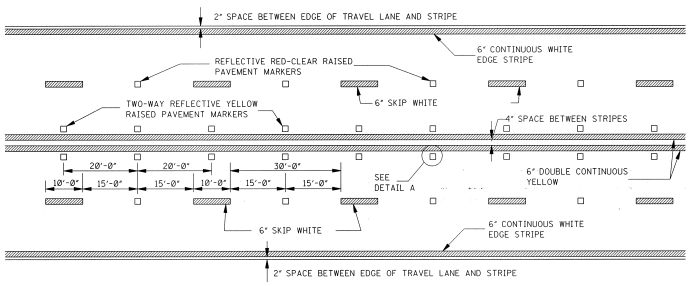
ENGLISH

WORKING NUMBER PM-1

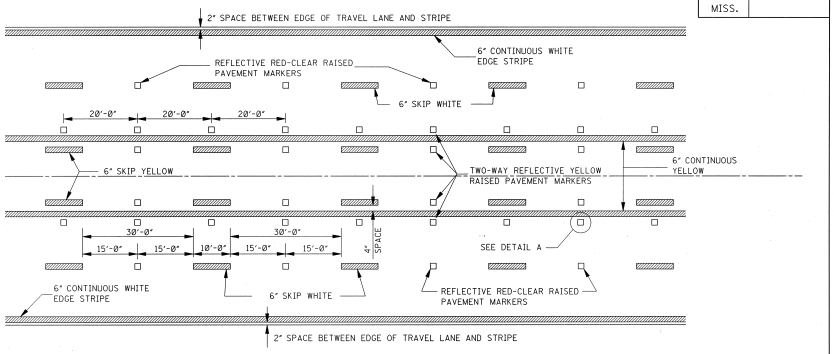
ISSUE DATE: OCTOBER 1, 1998

SHEET NUMBER 120

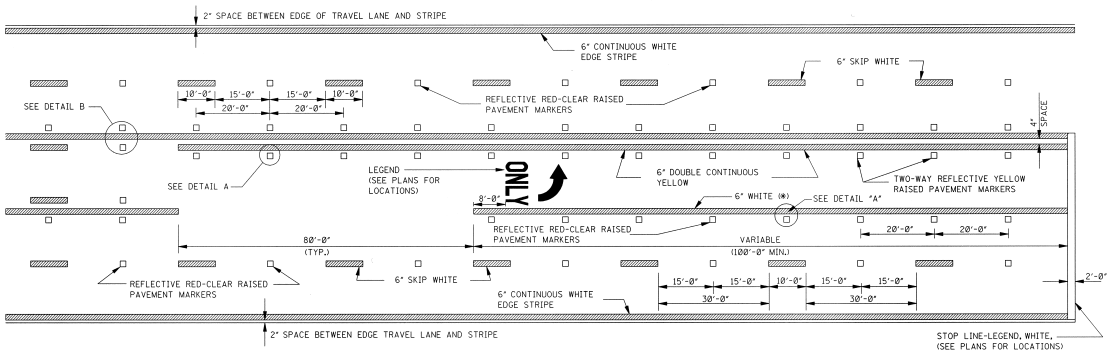
STATE	PROJECT NO.
MISS.	



TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 4–LANE SECTION

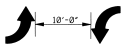


TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 5–LANE SECTION



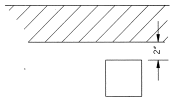
TYPICAL STRIPING AND RAISED PAVEMENT MARKERS AT LEFT TURN LANES

*NOTE: USE DETAIL STRIPING IF LENGTH ≤ 150' AT THIS LOCATION. OTHERWISE USE CONTINUOUS STRIPING.

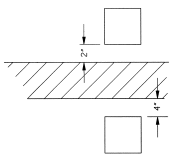


TYPICAL TWO–WAY ARROW INSTALLATION

NOTES: 1. CONSIDER EACH SEGMENT OF CONTINUOUS TWO-WAY LEFT TURN LANE SEPARATELY.
2. IF SEGMENT IS LESS THAN 350', PLACE ONE SET OF ARROWS IN CENTER OF SEGMENT.
3. IF SEGMENT IS GREATER THAN 350', PLACE FIRST SET OF ARROWS 50' TO 100' FROM BEGINNING AND/OR END OF SEGMENT AND SPACE ADDITIONAL SETS OF ARROWS (250' O.C.).



DETAIL A LATERAL PLACEMENT OF PAVEMENT MARKERS



DETAIL B LATERAL PLACEMENT OF PAVEMENT MARKERS

GENERAL NOTE:

1. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED SOURCES OF MATERIALS".

DATE	REVISION	BY
12-1-99	REVISE STRIPE WIDTH	S.W.R.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

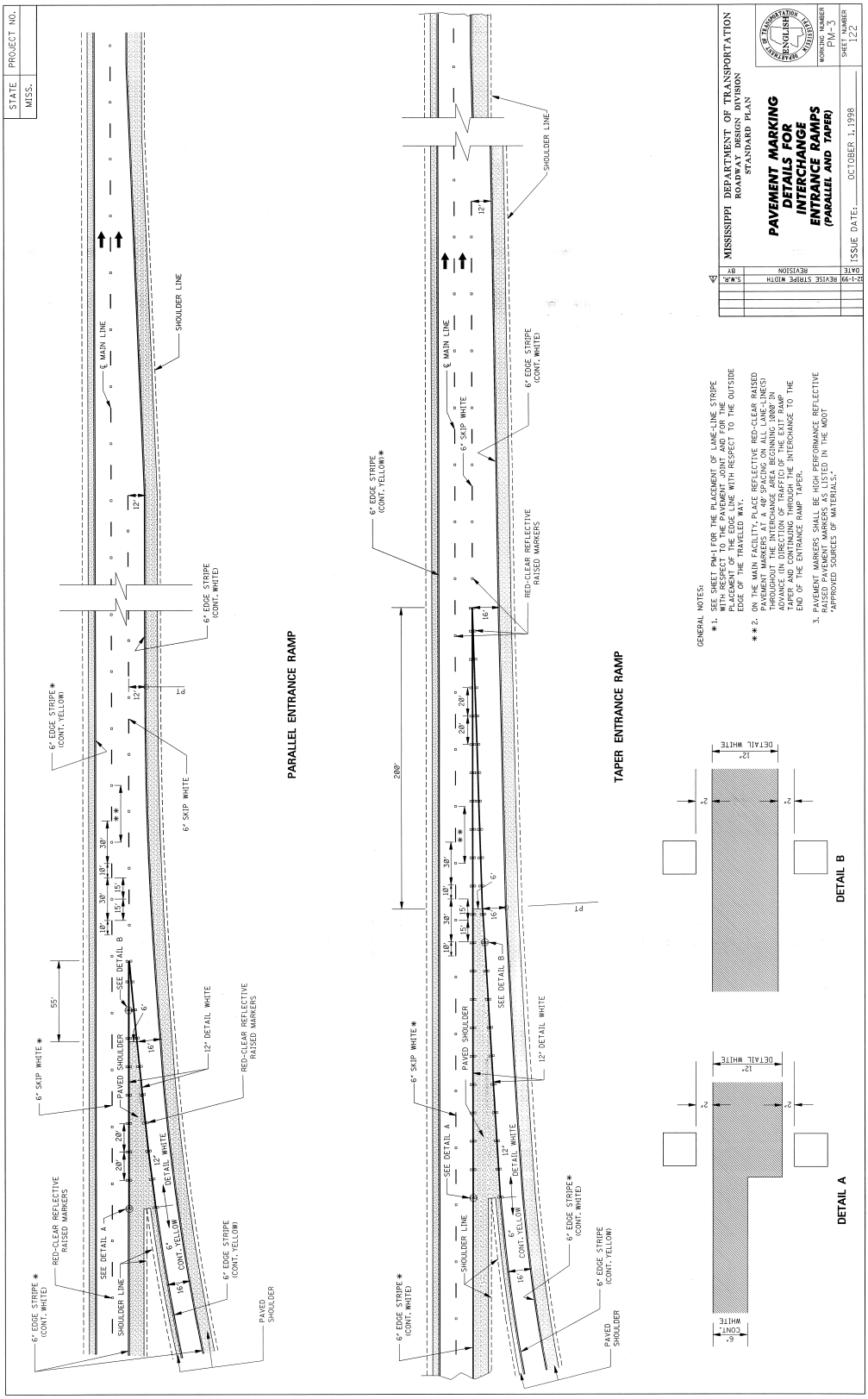
PAVEMENT MARKING DETAILS FOR 4–LANE AND 5–LANE UNDIVIDED ROADWAYS

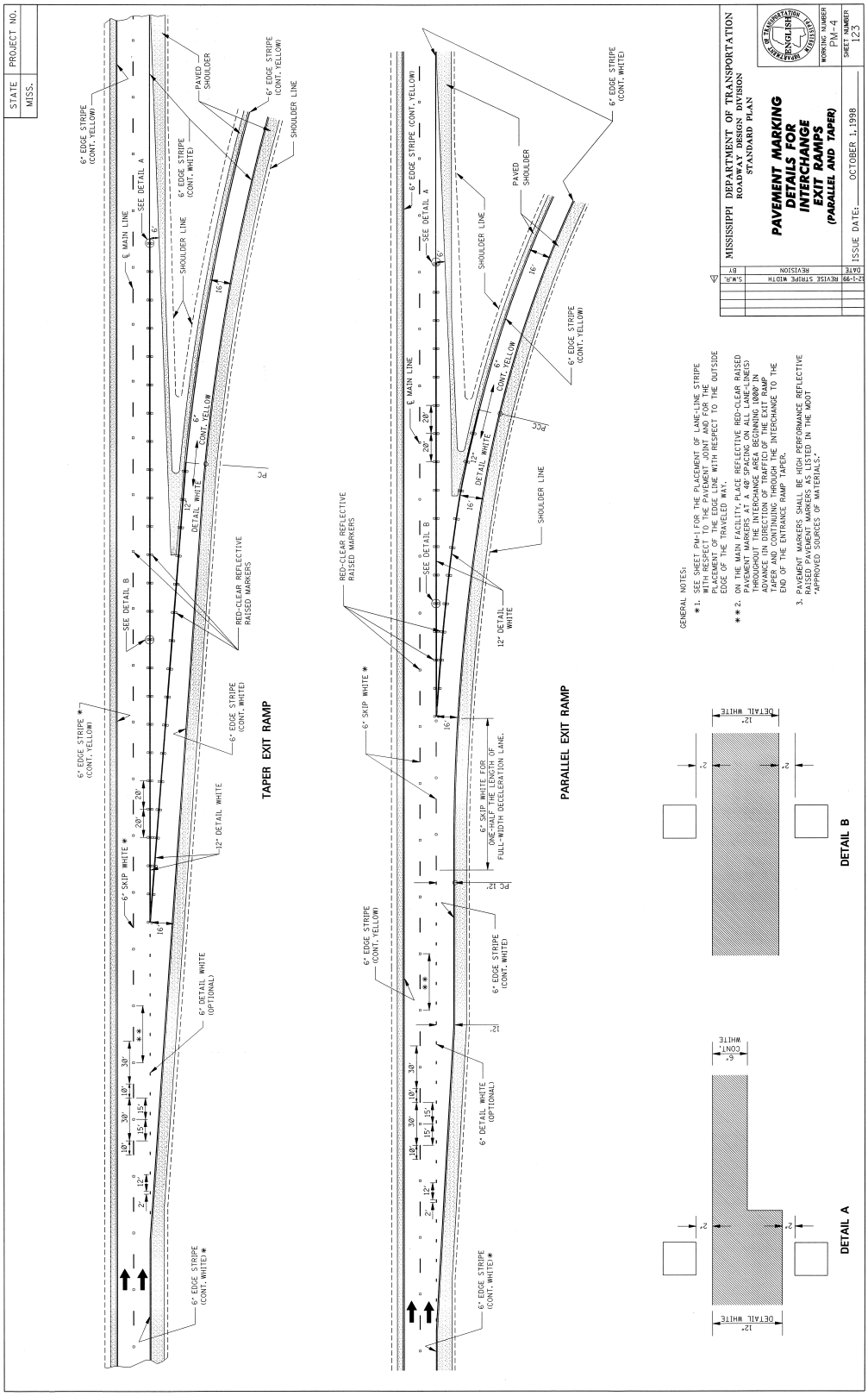
ENGLISH

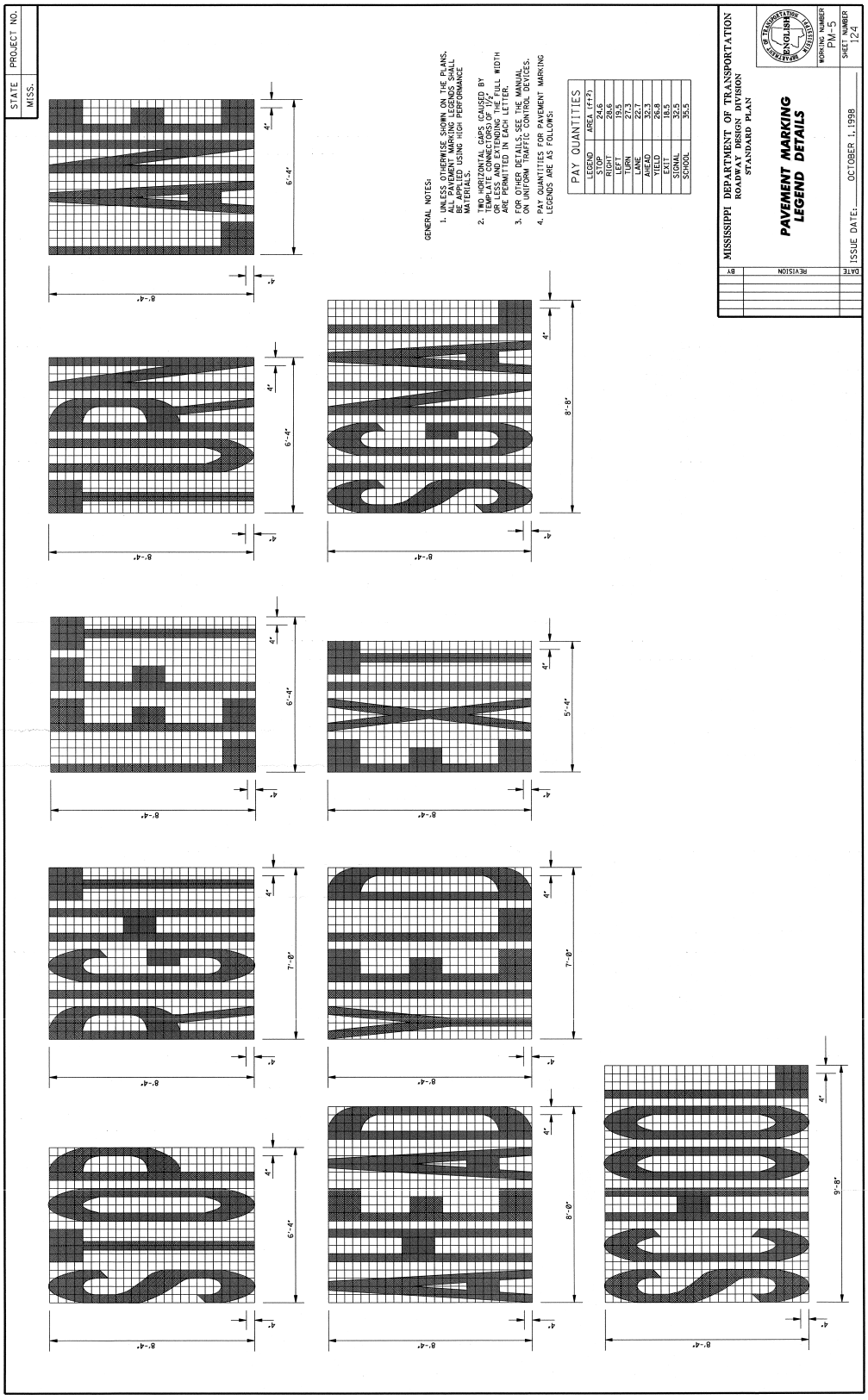
WORKING NUMBER PM-2

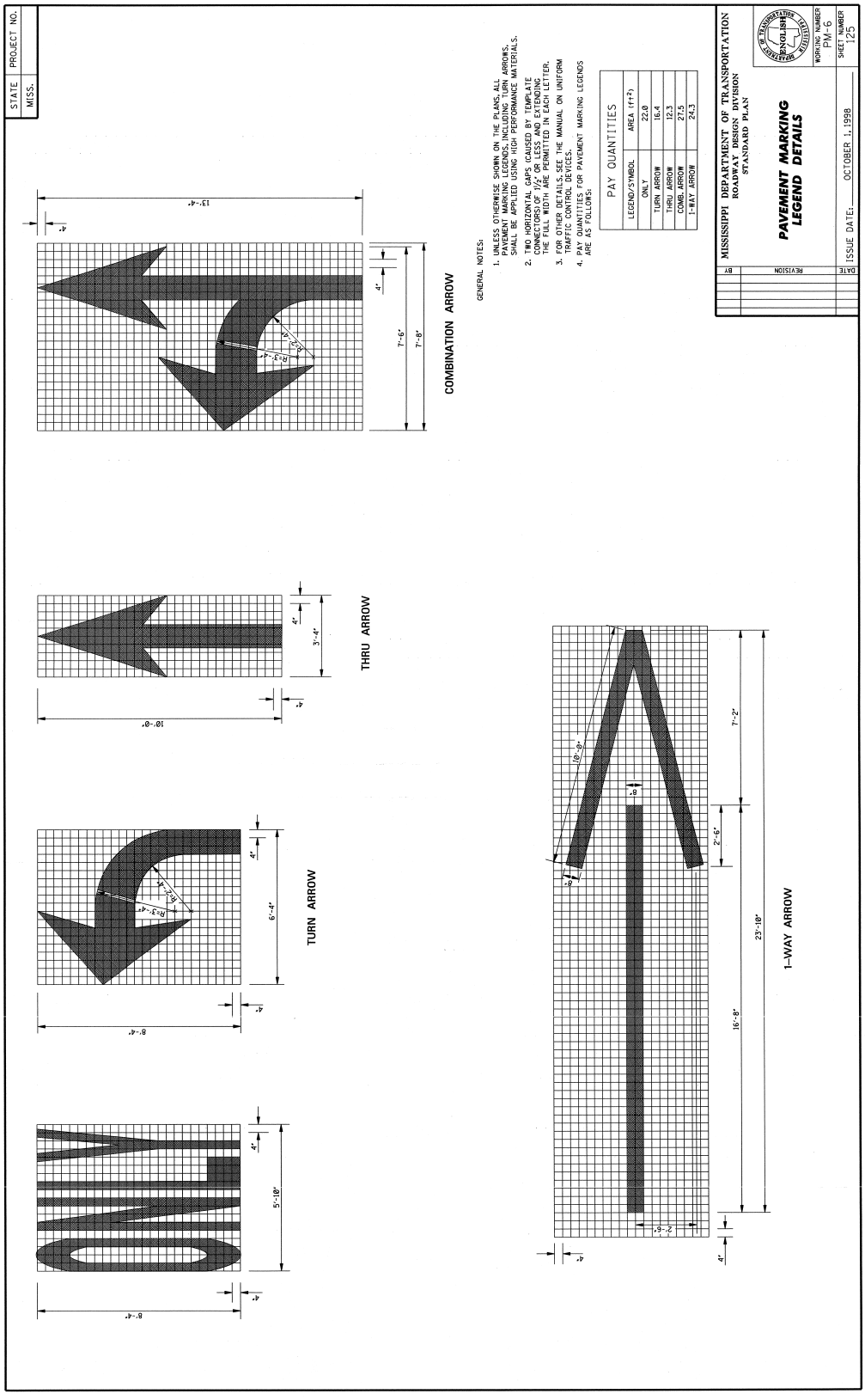
SHEET NUMBER 121

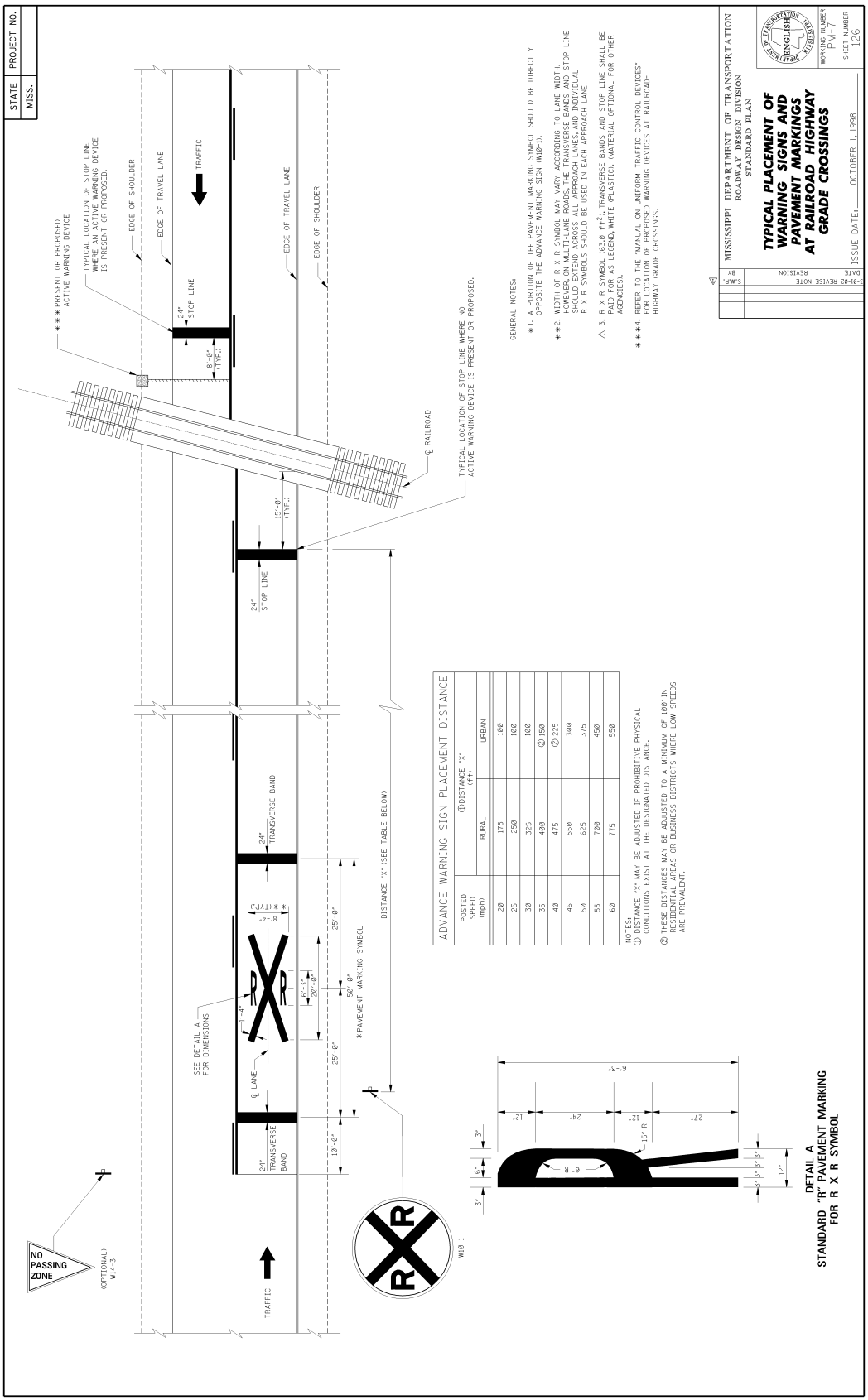
ISSUE DATE: OCTOBER 1, 1998

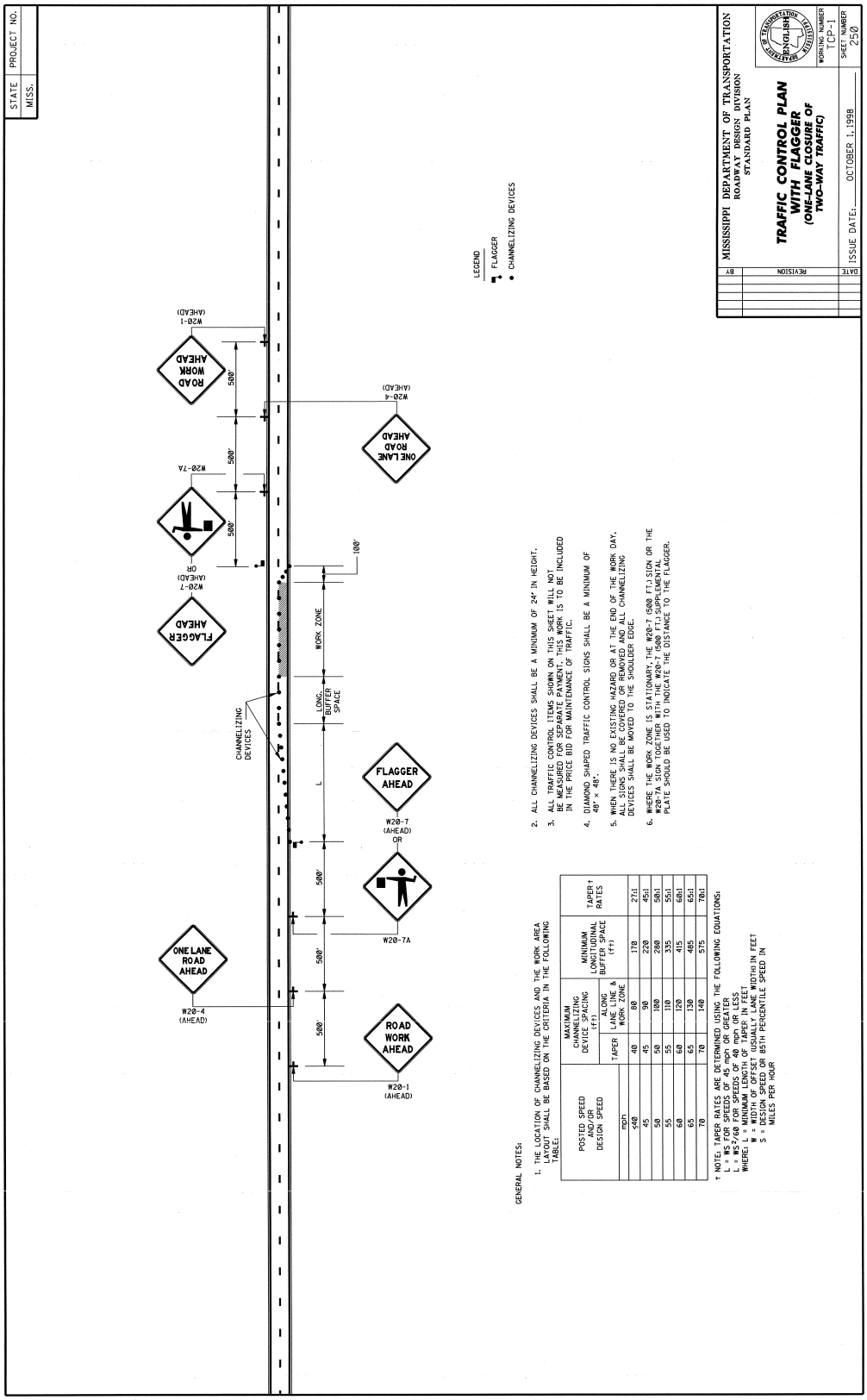

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING DETAILS FOR INTERCHANGE ENTRANCE RAMPS (PARALLEL AND TAPER)
WORKING NUMBER PM-3
SHEET NUMBER 122
ISSUE DATE: OCTOBER 1, 1998
DATE BY REVISION
02-1-99 S.M.R. REVISE STRIPE WIDTH
PARALLEL ENTRANCE RAMP
TAPER ENTRANCE RAMP
DETAIL A
DETAIL B
GENERAL NOTES:
* 1. SEE SHEET PM-1 FOR THE PLACEMENT OF LANE-LINE STRIPE WITH RESPECT TO THE PAVEMENT JOINT AND FOR THE PLACEMENT OF THE EDGE LINE WITH RESPECT TO THE OUTSIDE EDGE OF THE TRAVELED WAY.
** 2. ON THE MAIN FACILITY, PLACE REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS AT 40' CENTERS ON ALL TANGENTS THROUGHOUT THE INTERCHANGE AREA BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.
3. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT APPROVED SOURCES OF MATERIALS.


STATE
PROJECT NO.
MISS.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING
DETAILS FOR
INTERCHANGE
EXIT RAMPS
(PARALLEL AND TAPER)
WORKING NUMBER
PM-4
SHEET NUMBER
123
ISSUE DATE: OCTOBER 1, 1998
DATE
REVISION
BY
98-1-28
REVISE STRIPE WIDTH
S.M.R.
TAPER EXIT RAMP
PARALLEL EXIT RAMP
DETAIL A
DETAIL B
GENERAL NOTES:
*1. SEE SHEET PM-1 FOR THE PLACEMENT OF LANE-LINE STRIPE WITH RESPECT TO THE PAVEMENT JOINT AND FOR THE PLACEMENT OF THE EDGE LINE WITH RESPECT TO THE OUTSIDE EDGE OF THE TRAVELED WAY.
**2. ON THE MAIN FACILITY, PLACE REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS AT A 40' SPACING ON ALL LANE-LINE(S) THROUGHOUT THE INTERCHANGE AREA BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP GORE AND CONTINUING THROUGHOUT THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.
3. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED SOURCES OF MATERIALS."


STATE
MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING
LEGEND DETAILS
WORKING NUMBER
PM-5
SHEET NUMBER
124
ISSUE DATE: OCTOBER 1, 1998
BY
REVISION
DATE
GENERAL NOTES:
1. UNLESS OTHERWISE SHOWN ON THE PLANS, ALL PAVEMENT MARKING LEGENDS SHALL BE APPLIED USING HIGH PERFORMANCE MATERIALS.
2. TWO HORIZONTAL GAPS (CAUSED BY TEMPLATE CONNECTORS) OF 1½" OR LESS AND TWO VERTICAL GAPS OF FULL WIDTH ARE PERMITTED IN EACH LETTER.
3. FOR OTHER DETAILS, SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:
PAY QUANTITIES
LEGEND
AREA (ft²)
STOP 24.6
RIGHT 28.6
LEFT 19.5
TURN 27.3
LANE 22.7
AHEAD 32.3
YIELD 26.8
ONLY 16.5
SCHOOL 32.5
SCHOOL 35.5


STATE MISS.
PROJECT NO.
GENERAL NOTES:
1. UNLESS OTHERWISE SHOWN ON THE PLANS, ALL PAVEMENT MARKING LEGENDS, INCLUDING TURN ARROWS, SHALL BE APPLIED USING HIGH PERFORMANCE MATERIALS.
2. TWO HORIZONTAL GAPS (CAUSED BY TEMPLATE CONNECTORS) OF 1½" OR LESS AND EXTENDING THE FULL WIDTH ARE PERMITTED IN EACH LETTER.
3. FOR OTHER DETAILS, SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:
PAY QUANTITIES
LEGEND/SYMBOL | AREA (ft²)
ONLY 22.0
TURN ARROW 16.4
THRU ARROW 12.3
COMB. ARROW 27.5
1-WAY ARROW 24.3
COMBINATION ARROW
THRU ARROW
TURN ARROW
1-WAY ARROW
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING LEGEND DETAILS
BY REVISION DATE
WORKING NUMBER PM-6
SHEET NUMBER 125
ISSUE DATE: OCTOBER 1, 1998


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TYPICAL PLACEMENT OF WARNING SIGNS AND PAVEMENT MARKINGS AT RAILROAD HIGHWAY GRADE CROSSINGS
MARKING NUMBER PM-7
SHEET NUMBER 126
ISSUE DATE: OCTOBER 1, 1998
DATE
REVISION
BY
S.M.R.
REVISE NOTE
GENERAL NOTES:
* 1. A PORTION OF THE PAVEMENT MARKING SYMBOL SHOULD BE DIRECTLY OPPOSITE THE ADVANCE WARNING SIGN (W10-1).
** 2. WIDTH OF R X R SYMBOL MAY VARY ACCORDING TO LANE WIDTH. HOWEVER, ON MULTI-LANE ROADS, THE TRANSVERSE BANDS AND STOP LINE SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.
△ 3. R X R SYMBOL (63.0 ft²), TRANSVERSE BANDS AND STOP LINE SHALL BE PAID FOR AS LEGEND, WHITE (PLASTIC), (MATERIAL OPTIONAL FOR OTHER AGENCIES).
*** 4. REFER TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" FOR LOCATION OF PROPOSED WARNING DEVICES AT RAILROAD-HIGHWAY GRADE CROSSINGS.
*** PRESENT OR PROPOSED ACTIVE WARNING DEVICE
TYPICAL LOCATION OF STOP LINE WHERE NO ACTIVE WARNING DEVICE IS PRESENT OR PROPOSED.
EDGE OF SHOULDER
EDGE OF TRAVEL LANE
TRAFFIC
24" STOP LINE
8'-0" (TYP.)
℄ RAILROAD
TYPICAL LOCATION OF STOP LINE WHERE NO ACTIVE WARNING DEVICE IS PRESENT OR PROPOSED.
15'-0" (TYP.)
24" TRANSVERSE BAND
SEE DETAIL A FOR DIMENSIONS
℄ LANE
*PAVEMENT MARKING SYMBOL
DISTANCE "X" (SEE TABLE BELOW)
NO PASSING ZONE
(OPTIONAL) W14-3
W10-1
ADVANCE WARNING SIGN PLACEMENT DISTANCE
POSTED SPEED (mph)
①DISTANCE "X" (ft)
RURAL
URBAN
20 175 100
25 250 100
30 325 100
35 400 ②150
40 475 ②225
45 550 300
50 625 375
55 700 450
60 775 550
NOTES:
① DISTANCE "X" MAY BE ADJUSTED IF PROHIBITIVE PHYSICAL CONDITIONS EXIST AT THE DESIGNATED DISTANCE.
② THESE DISTANCES MAY BE ADJUSTED TO A MINIMUM OF 100' IN RESIDENTIAL AREAS OR BUSINESS DISTRICTS WHERE LOW SPEEDS ARE PREVALENT.
DETAIL A
STANDARD "R" PAVEMENT MARKING FOR R X R SYMBOL



GENERAL NOTES:

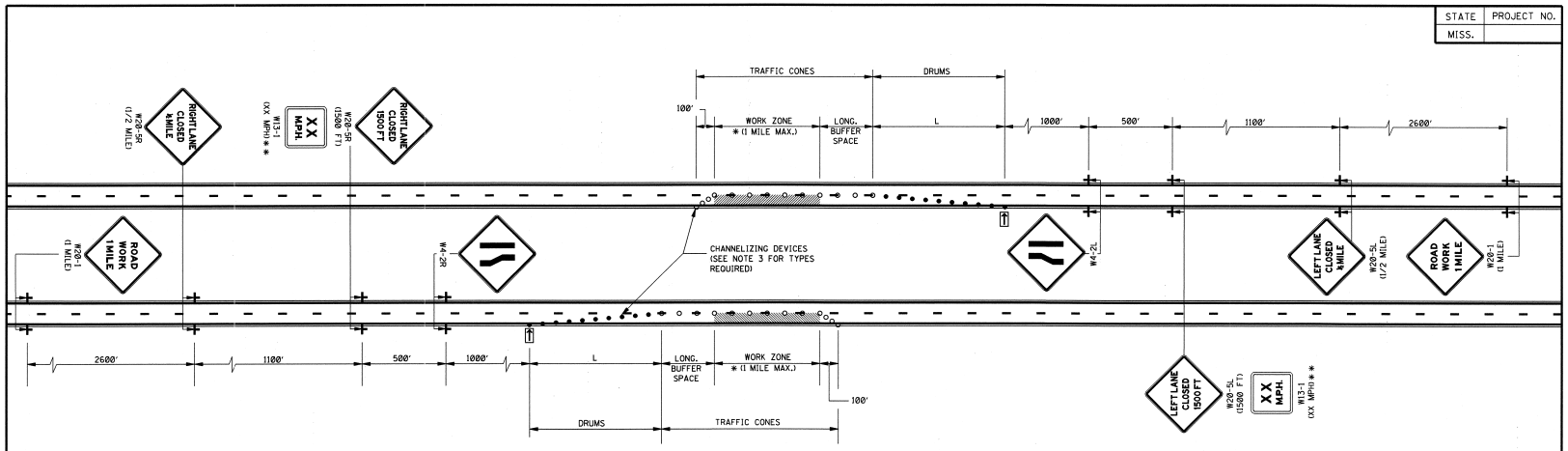
1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:

POSTED SPEED OR ANTICIPATED DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (ft)		MINIMUM LONGITUDINAL BUFFER SPACE (ft)	TAPER† RATES
	TAPER	ALONG LANE, LANE & WORK ZONE		
mph				
≤40	40	80	170	2*1
45	45	90	220	45:1
50	50	100	280	50:1
55	55	110	335	55:1
60	60	120	415	60:1
65	65	130	485	65:1
70	70	140	575	70:1

† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = WS² / 60 FOR SPEEDS OF 40 mph OR LESS
WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

2. ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 24" IN HEIGHT.
3. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
4. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" x 48".
5. WHEN THERE IS NO EXISTING HAZARD OR AT THE END OF THE WORK DAY, ALL SIGNS SHALL BE COVERED OR REMOVED AND ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.
6. WHERE THE WORK ZONE IS STATIONARY, THE W20-7 (500 FT.) SIGN OR THE W20-7A SIGN TOGETHER WITH THE W20-7 (500 FT.) SUPPLEMENTAL PLATE SHOULD BE USED TO INDICATE THE DISTANCE TO THE FLAGGER.

STATE	PROJECT NO.
MISS.	



GENERAL NOTES:

1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (ft)		MINIMUM LONGITUDINAL BUFFER SPACE (ft)	TAPER † RATES
	TAPER	ALONG LANE LINE & WORK ZONE		
mph				
≤40	40	80	170	2?:1
45	45	90	220	45:1
50	50	100	280	50:1
55	55	110	335	55:1
60	60	120	415	60:1
65	65	130	485	65:1
70	70	140	575	70:1

† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = WS²/60 FOR SPEEDS OF 40 mph OR LESS
WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

2. FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.

3. CHANNELIZING DEVICE TYPES FOR:
A. APPROACH TAPER- REFLECTORIZED PLASTIC DRUMS
B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT)
C. EXIT TAPER- TRAFFIC CONES (28" HEIGHT)

4. WHEN THERE IS NO EXISTING HAZARD, ALL SIGNS SHALL BE COVERED OR REMOVED AND THE DRUMS SHALL BE MOVED TO THE SHOULDER EDGE AT THE END OF THE WORK DAY.

5. FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING SIGNS, PLASTIC DRUMS, AND ARROW BOARD. WHEN THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS AND ARROW BOARD SHALL BE IN PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.

6. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

7. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" X 48".

LEGEND

* OR AS SHOWN ELSEWHERE OF THE PLANS.

** THE LEGEND ON W13-1 (XX MPH) SUPPLEMENTAL PLATE SHALL BE 10 MPH LESS THAN THE POSTED SPEED LIMIT.

⇨ FLASHING ARROW PANEL (TYPE "C")

• REFLECTORIZED FREE-STANDING PLASTIC DRUMS

○ TRAFFIC CONES (28" HEIGHT)

BY | REVISION | DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

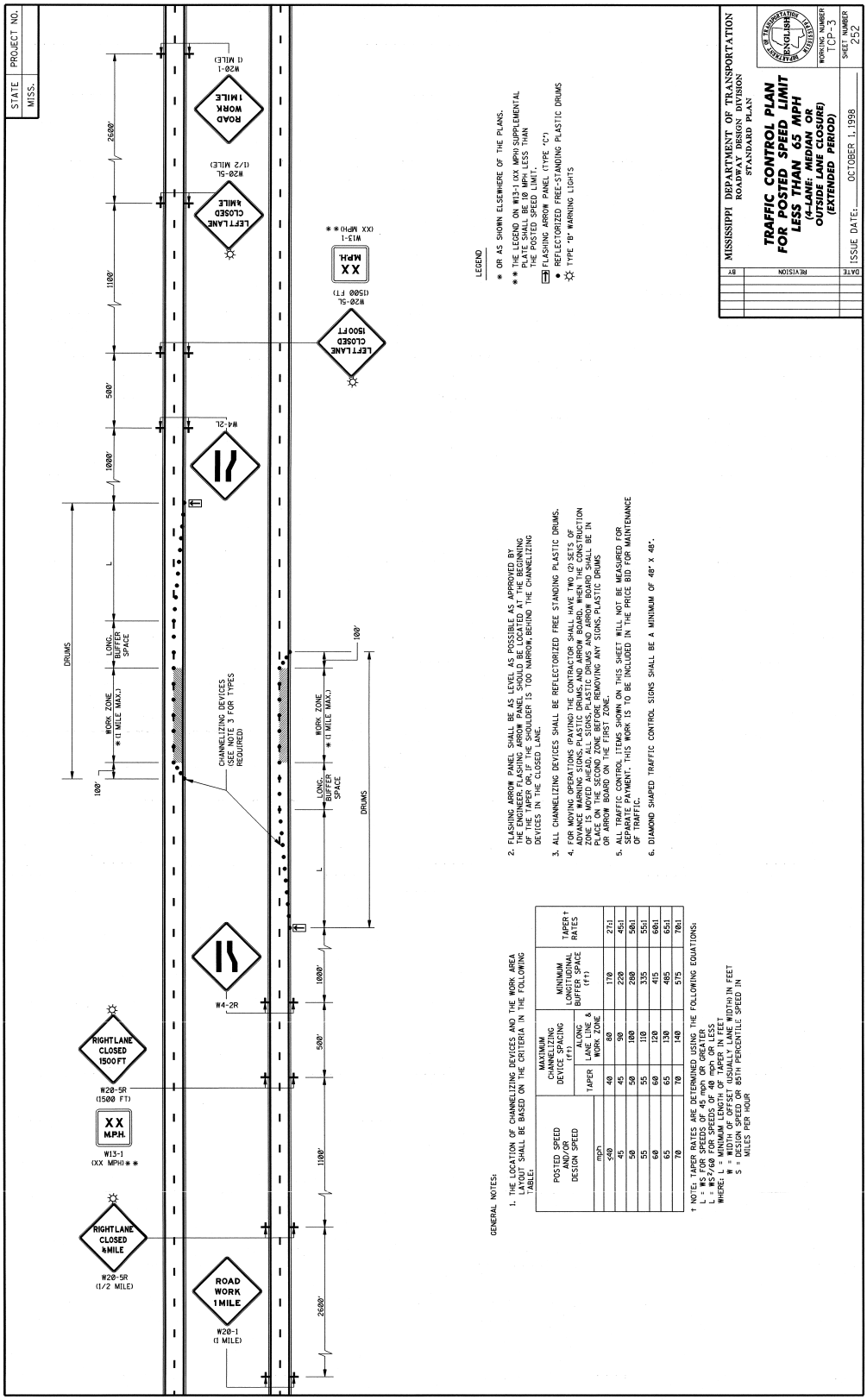
TRAFFIC CONTROL PLAN FOR POSTED SPEED LIMIT LESS THAN 65 MPH
(4-LANE: MEDIAN LANE OR OUTSIDE LANE CLOSURE) (WORK DAY ONLY)

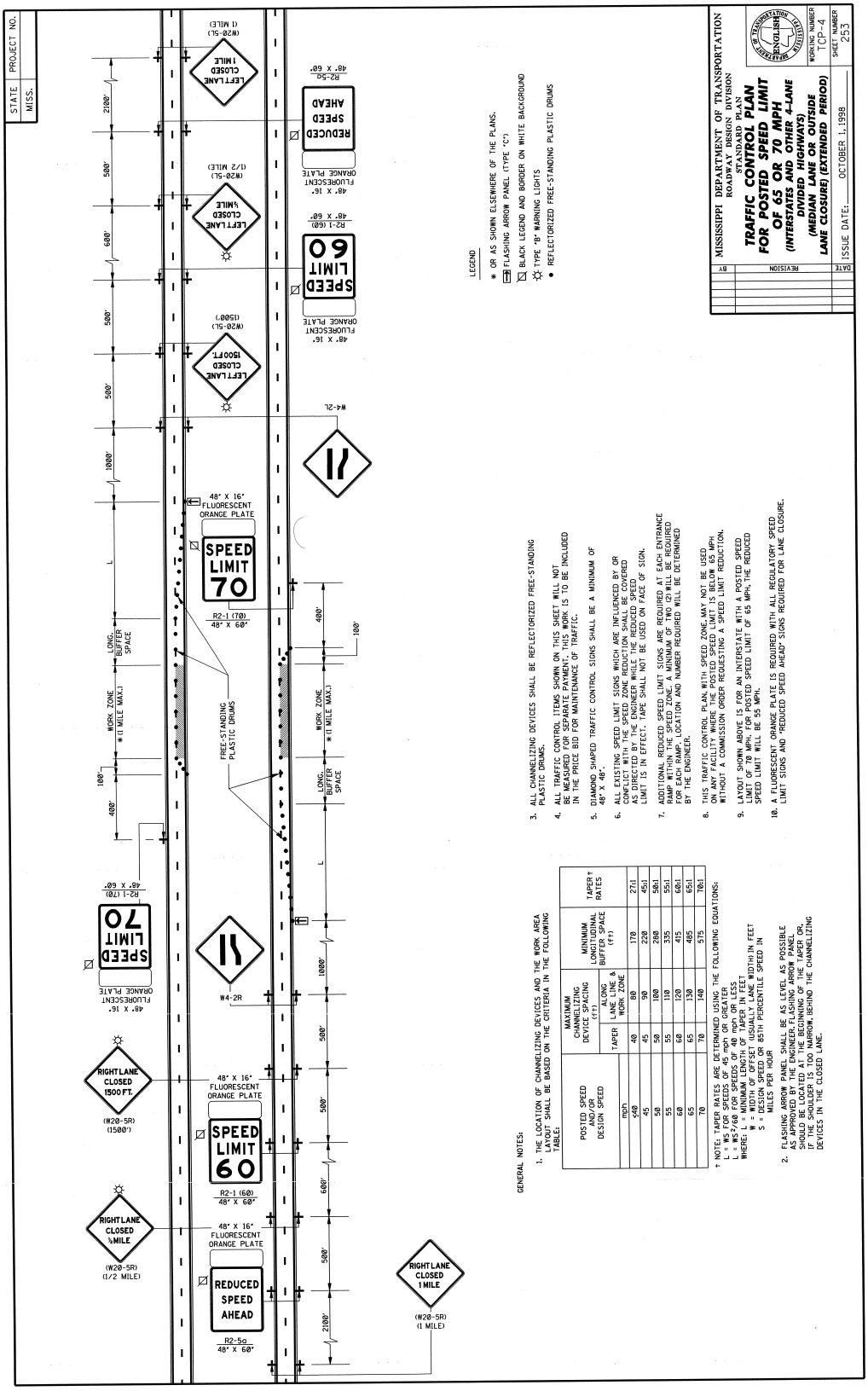
ENGLISH

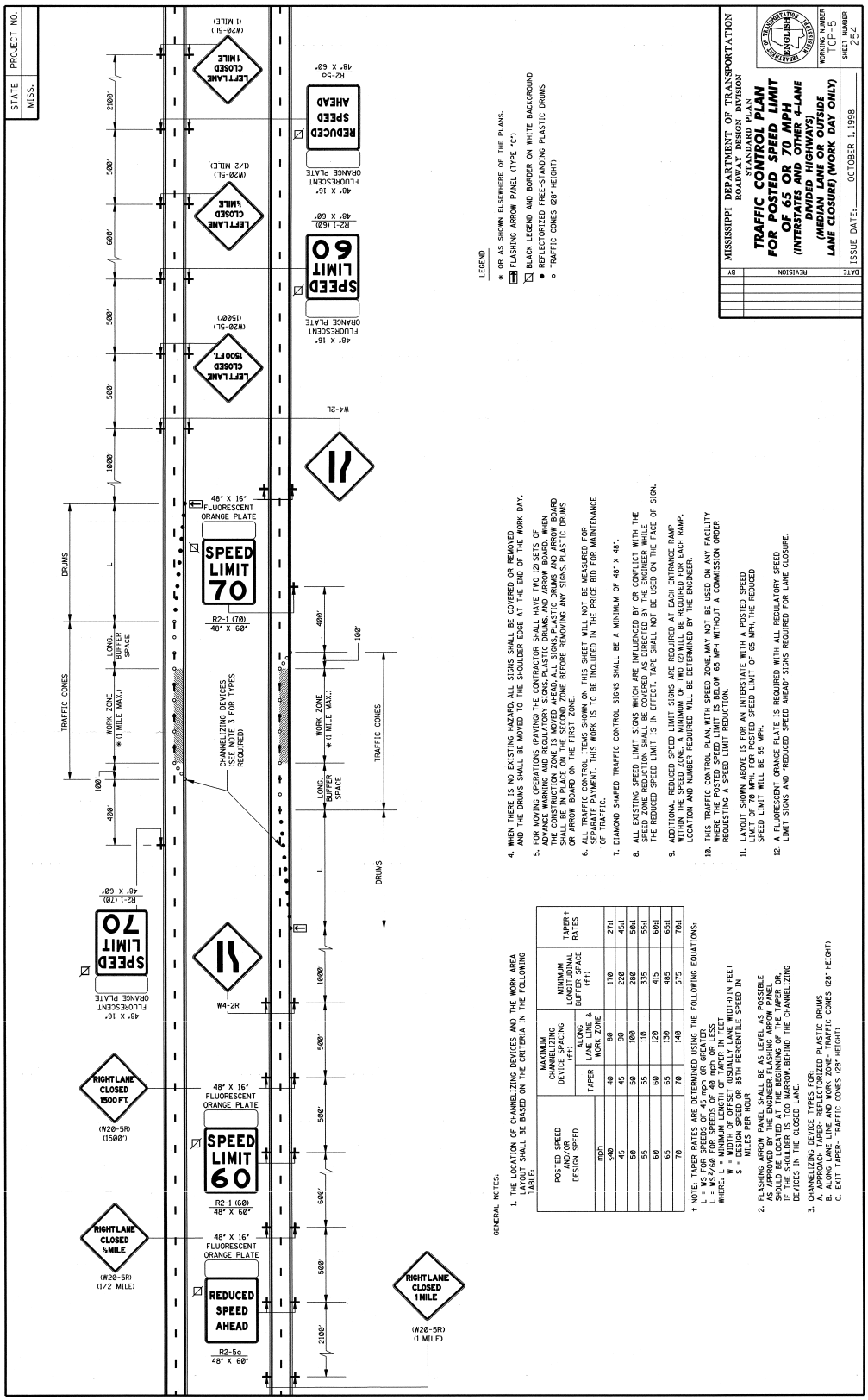
WORKING NUMBER TCP-2

ISSUE DATE: OCTOBER 1, 1998

SHEET NUMBER 251


STATE MISS.
PROJECT NO.
RIGHT LANE CLOSED 1500 FT
W20-5R (1500 FT)
XX M.P.H.
W13-1 (XX MPH)**
RIGHT LANE CLOSED ½ MILE
W20-5R (1/2 MILE)
ROAD WORK 1 MILE
W20-1 (1 MILE)
W4-2R
W4-2L
LEFT LANE CLOSED 1500 FT
W20-5L (1500 FT)
LEFT LANE CLOSED ½ MILE
W20-5L (1/2 MILE)
ROAD WORK 1 MILE
W20-1 (1 MILE)
DRUMS
WORK ZONE * (1 MILE MAX.)
LONG. BUFFER SPACE
CHANNELIZING DEVICES AS SHOWN IN TABLE 3 FOR TYPES REQUIRED
100'
1000'
500'
1100'
2600'
L
LEGEND
* OR AS SHOWN ELSEWHERE OF THE PLANS.
** THE LEGEND ON W13-1 XX MPH SUPPLEMENTAL PLATE SHALL BE 10 MPH LESS THAN THE POSTED SPEED LIMIT.
FLASHING ARROW PANEL (TYPE "C")
REFLECTORIZED FREE-STANDING PLASTIC DRUMS
TYPE "B" WARNING LIGHTS
GENERAL NOTES:
1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:
POSTED SPEED AND/OR DESIGN SPEED
MAXIMUM CHANNELIZING DEVICE SPACING (FT)
MINIMUM LONGITUDINAL BUFFER SPACE (ft)
TAPER† RATES
TAPER
ALONG LANE LINE & WORK ZONE
mph
≤40 40 80 170 2†1
45 45 90 220 45†1
50 50 100 280 50†1
55 55 110 335 55†1
60 60 120 415 60†1
65 65 130 485 65†1
70 70 140 575 70†1
† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 40 MPH OR GREATER
L = WS²/60 FOR SPEEDS OF 45 MPH OR LESS
WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR
2. FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
3. ALL CHANNELIZING DEVICES SHALL BE REFLECTORIZED FREE STANDING PLASTIC DRUMS.
4. FOR MOVING OPERATIONS (PAVING), THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING SIGNS, PLASTIC DRUMS, AND ARROW BOARD. AS THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS AND ARROW BOARD SHALL BE IN PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.
5. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
6. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" X 48".
BY
REVISION
DATE
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL PLAN
FOR POSTED SPEED LIMIT
LESS THAN 65 MPH
(4-LANE: MEDIAN OR
OUTSIDE LANE CLOSURE)
(EXTENDED PERIOD)
WORKING NUMBER
TCP-3
SHEET NUMBER
252
ISSUE DATE: OCTOBER 1, 1998

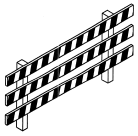

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL PLAN
FOR POSTED SPEED LIMIT
OF 65 OR 70 MPH
(INTERSTATES AND OTHER 4-LANE
DIVIDED HIGHWAYS)
(MEDIAN LANE OR OUTSIDE
LANE CLOSURE) (EXTENDED PERIOD)
WORKING NUMBER TCP-4
SHEET NUMBER 253
ISSUE DATE: OCTOBER 1, 1998
DATE REVISION BY
LEGEND
* OR AS SHOWN ELSEWHERE OF THE PLANS.
FLASHING ARROW PANEL (TYPE "C")
BLACK LEGEND AND BORDER ON WHITE BACKGROUND
TYPE "B" WARNING LIGHTS
REFLECTORIZED FREE-STANDING PLASTIC DRUMS
GENERAL NOTES:
1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:
POSTED SPEED AND/OR DESIGN SPEED
MAXIMUM CHANNELIZING DEVICE SPACING (ft)
TAPER
ALONG LANE & WORK ZONE
MINIMUM LONGITUDINAL BUFFER SPACE (ft)
TAPER † RATES
mph
40 80 170 2:1
45 90 220 4.5:1
50 100 280 5.0:1
55 110 335 5.5:1
60 120 415 6.0:1
65 130 485 6.5:1
70 140 575 7.0:1
† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS²/60 FOR SPEEDS OF 45 mph OR GREATER
L = WS²/60 FOR SPEEDS OF 40 mph OR LESS
WHERE: L = MINIMUM LENGTH OF TAPER (ft)
W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR
2. FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED ON THE SHOULDER OPPOSITE THE WORK AREA IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
3. ALL CHANNELIZING DEVICES SHALL BE REFLECTORIZED FREE-STANDING PLASTIC DRUMS.
4. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
5. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" X 48".
6. ALL EXISTING SPEED LIMIT SIGNS WHICH ARE INFLUENCED BY OR CONFLICT WITH THE SPEED ZONE REDUCTION SHALL BE COVERED AS DIRECTED BY THE ENGINEER. ALL REDUCED SPEED LIMIT SIGNS SHALL NOT BE USED ON FACE OF SIGN. LIMIT IS IN EFFECT. TAPE SHALL NOT BE USED ON FACE OF SIGN.
7. ADDITIONAL REDUCED SPEED LIMIT SIGNS ARE REQUIRED AT EACH ENTRANCE RAMP WITHIN THE SPEED ZONE. A MINIMUM OF TWO (2) WILL BE REQUIRED FOR EACH RAMP. LOCATION AND NUMBER REQUIRED WILL BE DETERMINED BY THE ENGINEER.
8. THIS TRAFFIC CONTROL PLAN, WITH SPEED ZONE, MAY NOT BE USED ON ANY FACILITY WHERE THE POSTED SPEED LIMIT IS BELOW 65 MPH, WITHOUT A COMMISSION ORDER REQUESTING A SPEED LIMIT REDUCTION.
9. LAYOUT SHOWN ABOVE IS FOR AN INTERSTATE WITH A POSTED SPEED LIMIT OF 70 MPH. FOR POSTED SPEED LIMIT OF 65 MPH, THE REDUCED SPEED LIMIT WILL BE 55 MPH.
10. A FLUORESCENT ORANGE PLATE IS REQUIRED WITH ALL REGULATORY SPEED LIMIT SIGNS AND "REDUCED SPEED AHEAD" SIGNS REQUIRED FOR LANE CLOSURE.
LEFT LANE CLOSED 1 MILE
(W20-5L) (1 MILE)
REDUCED SPEED AHEAD
R2-5a 48" X 60"
48" X 16" FLUORESCENT ORANGE PLATE
LEFT LANE CLOSED ½ MILE
(W20-5L) (1/2 MILE)
SPEED LIMIT 60
R2-1 (60) 48" X 60"
LEFT LANE CLOSED 1500 FT.
(W20-5L) (1500')
W4-2L
SPEED LIMIT 70
R2-1 (70) 48" X 60"
FREE-STANDING PLASTIC DRUMS
WORK ZONE *(1 MILE MAX.)
LONG. BUFFER SPACE
RIGHT LANE CLOSED 1500 FT.
(W20-5R) (1500')
RIGHT LANE CLOSED ½ MILE
(W20-5R) (1/2 MILE)
RIGHT LANE CLOSED 1 MILE
(W20-5R) (1 MILE)
W4-2R
100'
400'
500'
600'
1000'
2100'
L


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLATE
TRAFFIC CONTROL PLAN
FOR POSTED SPEED LIMIT
OF 65 OR 70 MPH
(INTERSTATES AND OTHER 4-LANE DIVIDED HIGHWAYS)
(MEDIAN LANE OR OUTSIDE LANE CLOSURE) (WORK DAY ONLY)
BY
REVISION
DATE
ISSUE DATE: OCTOBER 1, 1998
WORKING NUMBER TCP-5
SHEET NUMBER 254
LEGEND
* OR AS SHOWN ELSEWHERE OF THE PLANS.
FLASHING ARROW PANEL (TYPE "C")
BLACK LEGEND AND BORDER ON WHITE BACKGROUND
REFLECTORIZED FREE-STANDING PLASTIC DRUMS
TRAFFIC CONES (28" HEIGHT)
GENERAL NOTES:
1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLES:
POSTED SPEED AND/OR DESIGN SPEED
MAXIMUM CHANNELIZING DEVICE SPACING (FT) ALONG TAPER
ALONG LANE LINE & WORK ZONE
MINIMUM LONGITUDINAL BUFFER SPACE (ft)
TAPER† RATES
mph
≤40 80 170 2?:1
45 90 220 45:1
50 100 280 50:1
55 110 335 55:1
60 120 415 60:1
65 130 495 65:1
70 140 575 70:1
† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS²/60 FOR SPEEDS OF 40 MPH OR LESS
L = WS/60 FOR SPEEDS OF 45 MPH OR GREATER
WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
S = POSTED OR DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR
2. FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF USE AHEAD OF TAPER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
3. CHANNELIZING DEVICE TYPES FOR:
A. APPROACH TAPER- REFLECTORIZED PLASTIC DRUMS
B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT)
C. EXIT TAPER- TRAFFIC CONES (28" HEIGHT)
4. WHEN THERE IS NO EXISTING HAZARD, ALL SIGNS SHALL BE COVERED OR REMOVED AND THE DRUMS SHALL BE MOVED TO THE SHOULDER EDGE AT THE END OF THE WORK DAY.
5. FOR MOVING OPERATIONS (PAVING THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING SIGNS, PLASTIC DRUMS AND ARROW BOARD. WHEN THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS AND ARROW BOARD SHALL BE IN PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.
6. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT; THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
7. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" X 48".
8. ALL EXISTING SPEED LIMIT SIGNS WHICH ARE INFLUENCED BY OR CONFLICT WITH THE SPEED ZONE REDUCTION SHALL BE COVERED AS DIRECTED BY THE ENGINEER WHILE THE REDUCED SPEED LIMIT IS IN EFFECT; TAPE SHALL NOT BE USED ON THE FACE OF SIGN.
9. ADDITIONAL REDUCED SPEED LIMIT SIGNS ARE REQUIRED AT EACH ENTRANCE RAMP WITHIN THE SPEED ZONE. A MINIMUM OF TWO (2) WILL BE REQUIRED FOR EACH RAMP. LOCATION AND NUMBER REQUIRED WILL BE DETERMINED BY THE ENGINEER.
10. THIS TRAFFIC CONTROL PLAN, WITH SPEED ZONE, MAY NOT BE USED ON ANY FACILITY WHERE THE POSTED SPEED LIMIT IS BELOW 65 MPH WITHOUT A COMMISSION ORDER REQUESTING A SPEED LIMIT REDUCTION.
11. LAYOUT SHOWN ABOVE IS FOR AN INTERSTATE WITH A POSTED SPEED LIMIT OF 70 MPH. FOR POSTED SPEED LIMIT OF 65 MPH, THE REDUCED SPEED LIMIT WILL BE 55 MPH.
12. A FLUORESCENT ORANGE PLATE IS REQUIRED WITH ALL REGULATORY SPEED LIMIT SIGNS AND REDUCED SPEED AHEAD SIGNS REQUIRED FOR LANE CLOSURE.
TRAFFIC CONES
WORK ZONE * (1 MILE MAX.)
LONG. BUFFER SPACE
DRUMS
L
CHANNELIZING DEVICES USE TABLE 3 FOR TYPES REQUIRED
100'
400'
500'
600'
1000'
2100'
48" X 16" FLUORESCENT ORANGE PLATE
SPEED LIMIT 70
R2-1 (70) 48" X 60"
SPEED LIMIT 60
R2-1 (60) 48" X 60"
REDUCED SPEED AHEAD
R2-5a 48" X 60"
W4-2R
W4-2L
RIGHT LANE CLOSED 1500 FT.
(W20-5R) (1500')
RIGHT LANE CLOSED ½ MILE
(W20-5R) (1/2 MILE)
RIGHT LANE CLOSED 1 MILE
(W20-5R) (1 MILE)
LEFT LANE CLOSED 1500FT.
(W20-5L) (1500')
LEFT LANE CLOSED ½ MILE
(W20-5L) (1/2 MILE)
LEFT LANE CLOSED 1 MILE
(W20-5L) (1 MILE)
48" X 16" FLUORESCENT ORANGE PLATE

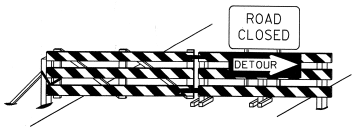
STATE	PROJECT NO.
MISS.	

TYPE I

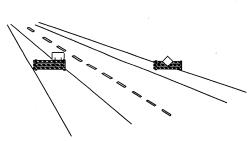
TYPE II

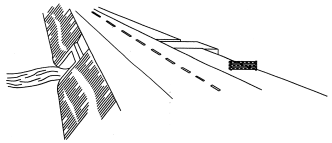


TYPE III



BARRICADE CLOSING A ROAD





STANDARD BARRICADES

1. A TYPE I BARRICADE CONSISTS OF ONE (1) HORIZONTAL RAIL SUPPORTED BY A DEMOUNTABLE FRAME OR A LIGHT "A" FRAME. A TYPE I BARRICADE NORMALLY WOULD BE USED ON CONVENTIONAL ROADS OR URBAN STREETS AND ARTERIALS.
2. A TYPE II BARRICADE CONSISTS OF TWO (2) HORIZONTAL RAILS ON A LIGHT "A" FRAME. TYPE II BARRICADES ARE INTENDED FOR USE ON EXPRESSWAYS AND FREEWAYS AND OTHER HIGH-SPEED ROADWAYS.
3. TYPE I AND TYPE II BARRICADES ARE INTENDED FOR USE WHERE THE HAZARD IS RELATIVELY SMALL AS, FOR EXAMPLE, ON CITY STREETS, OR FOR THE MORE OR LESS CONTINUOUS DELIMITING OF A RESTRICTED ROADWAY, OR FOR TEMPORARY DAYTIME USE.
4. A TYPE III BARRICADE CONSISTS OF THREE (3) HORIZONTAL RAILS SUPPORTED BY FIXED POSTS, A RIGID SKID, A HEAVY DEMOUNTABLE FRAME OR A HEAVY, HINGED "A" FRAME.
5. TYPE III BARRICADES ARE INTENDED FOR USE ON CONSTRUCTION AND MAINTENANCE PROJECTS AS WING BARRICADES AND AT ROAD CLOSURES, WHERE THEY MUST REMAIN IN PLACE FOR EXTENDED PERIODS.
6. THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).
7. DO NOT PLACE SANDBAGS OR OTHER DEVICES TO PROVIDE MASS ON THE BOTTOM RAIL THAT WILL BLOCK VIEW OR RAIL FACE.
8. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.

BARRICADE CHARACTERISTICS

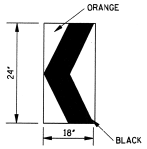
	I	II	III
WIDTH OF RAIL **	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.
LENGTH OF RAIL **	24" MIN.	24" MIN.	48" MIN.
WIDTH OF STRIPE *	6"	6"	6"
HEIGHT	36" MIN.	36" MIN.	60" MIN.
NUMBER OF REFLECTORIZED RAIL FACES	2 (ONE EACH DIRECTION)	4 (TWO EACH DIRECTION)	3 IF FACING TRAFFIC IN ONE DIRECTION 6 IF FACING TRAFFIC IN TWO DIRECTIONS
TYPE OF FRAME	LIGHT	LIGHT "A" FRAME	POST OR SKID

* 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.

** 2. BARRICADES INTENDED FOR USE ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH SPEED ROADWAYS, SHALL HAVE A MINIMUM OF 270 in^2 OF REFLECTIVE AREA FACING TRAFFIC.

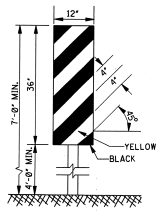
WING BARRICADES

1. WING BARRICADES ARE TYPE III BARRICADES ERECTED ON THE SHOULDER ON ONE OR BOTH SIDES OF THE PAVEMENT TO GIVE THE SENSATION OF A NARROWING OR RESTRICTED ROADWAY. WING BARRICADES MAY BE USED AS A MOUNTING FOR THE ADVANCE WARNING SIGNS OR FLASHERS.
2. WING BARRICADES SHOULD BE USED:
   A. IN ADVANCE OF A CONSTRUCTION PROJECT EVEN WHEN NO PART OF THE ROADWAY IS ACTUALLY CLOSED.
   B. IN ADVANCE OF ALL BRIDGE OR CULVERT WIDENING OPERATIONS.



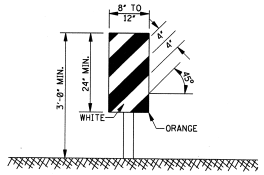
CHEVRON SIGN DETAIL

1. A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
2. THE CHEVRON SIGN SHALL BE MOUNTED ON FIXED POST OR RIGID SKID.
3. CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHALL BE PLACED APPROXIMATELY 2'-0" BEHIND THE LANE TRANSITION STRIPE.



TYPE 3 OBJECT MARKER (OM-3R)

1. TYPE 3 OBJECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DEEMED NECESSARY BY THE ENGINEER.
2. THE OM-3R IS SHOWN. THE OM-3L IS SIMILAR EXCEPT THE STRIPES SLOPE DOWNWARD FROM THE UPPER LEFT SIDE TO THE LOWER RIGHT SIDE AND SHALL BE PLACED ON THE LEFT SIDE OF THE OBJECT.
3. THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.

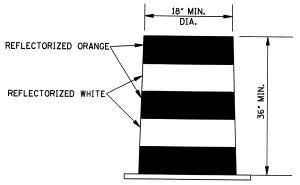


VERTICAL PANEL

1. VERTICAL PANELS CONSIST OF AT LEAST ONE PANEL 8" TO 12" IN WIDTH AND A MINIMUM OF 24" IN HEIGHT.
2. THE DIAGONAL STRIPES SHALL SLOPE DOWNWARD IN THE DIRECTION THAT TRAFFIC IS TO PASS THE PANEL. THE PANELS SHALL BE MOUNTED WITH THE TOP A MINIMUM OF 36" ABOVE THE ROADWAY ON A SINGLE LIGHTMASS POST.
3. VERTICAL PANELS USED ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH-SPEED ROADWAYS SHALL HAVE A MINIMUM OF 270 in^2 OF RETROREFLECTIVE AREA FACING TRAFFIC.
4. FOR TWO-WAY TRAFFIC OPERATIONS, BACK-TO-BACK PANELS SHALL BE USED.

GENERAL NOTES:

1. MARKINGS ON ALL DEVICES SHOWN ON THIS SHEET SHALL BE HIGH INTENSITY REFLECTIVE SHEETING.
2. THE TRAFFIC CONTROL PLAN WILL LIST THE VARIOUS TRAFFIC CONTROL DEVICES REQUIRED FOR EACH PROJECT.



PLASTIC DRUM STRIPING DETAIL

1. PLASTIC DRUMS SHALL BE ON END AND USED AS AN EXPEDIENT METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF DRUMS SHALL BE CONSISTENT WITH MARKING STANDARDS FOR BARRICADE. THE PREDOMINANT COLOR ON DRUMS SHALL BE ORANGE WITH FOUR (4) REFLECTORIZED, HORIZONTAL, CIRCUMFERENTIAL STRIPES (2 ORANGE & 2 WHITE) 6" WIDE.
2. DRUMS SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
3. WHERE PRACTICAL PLASTIC DRUMS SHALL BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS

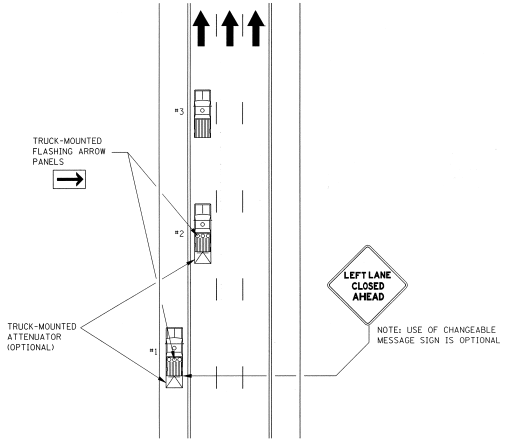
ENGLISH

ISSUE DATE: OCTOBER 1, 1998

WORKING NUMBER TCP-10

SHEET NUMBER 259

MOBILE OPERATIONS ON MULTILANE ROAD ⚠



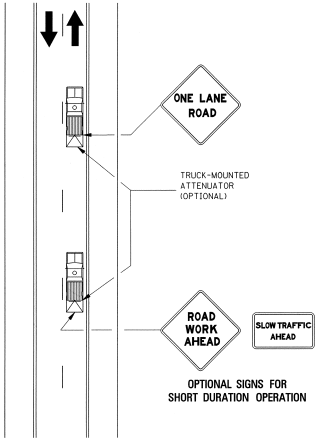
MOBILE OPERATIONS ON MULTILANE ROAD

NOTES:

1. VEHICLES USED FOR THESE OPERATIONS SHOULD BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT, SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, OR ARROW PANELS.
2. PROTECTION VEHICLE #1 SHOULD BE EQUIPPED WITH AN ARROW PANEL. AN APPROPRIATE LANE CLOSURE SIGN SHOULD BE PLACED ON PROTECTION VEHICLE #1 SO AS NOT TO OBSCURE THE ARROW PANEL.
3. PROTECTION VEHICLE #2 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK-MOUNTED ATTENUATOR (TMA).
4. PROTECTION VEHICLE #1 SHOULD TRAVEL AT A VARYING DISTANCE FROM THE WORK OPERATION SO AS TO PROVIDE ADEQUATE SIGHT DISTANCE FOR TRAFFIC APPROACHING FROM THE REAR.
5. WHEN ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, PROTECTION VEHICLE #1 SHOULD BE ELIMINATED.
6. ON HIGH-SPEED ROADWAYS, A THIRD PROTECTION VEHICLE SHOULD BE USED (I.e., VEHICLE #1 ON THE SHOULDER (IF PRACTICAL), VEHICLE #2 IN THE CLOSED LANE, AND VEHICLE #3 IN THE CLOSED LANE).
7. ARROW PANELS SHALL BE AS A MINIMUM TYPE B, 60" X 30" IN ACCORDANCE WITH THE CRITERIA PRESENTED IN THE MUTCD.
8. WORK SHOULD NORMALLY BE DONE DURING OFF-PEAK HOURS.
9. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

STATE	PROJECT NO.
MISS.	

MOBILE OPERATIONS ON TWO–LANE ROAD



OPTIONAL SIGNS FOR
SHORT DURATION OPERATION

MOBILE OPERATIONS ON TWO–LANE ROAD

NOTES:

1. WHERE PRACTICAL AND WHEN NEEDED, THE WORK AND PROTECTION VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS. IF THIS CAN NOT BE DONE FREQUENTLY, AS AN ALTERNATIVE, A "DO NOT PASS" SIGN MAY BE PLACED ON THE REAR OF THE VEHICLE BLOCKING THE LANE.
2. THE DISTANCE BETWEEN THE WORK AND PROTECTION VEHICLES MAY VARY ACCORDING TO TERRAIN, PAINT DRYING TIME, AND OTHER FACTORS. PROTECTION VEHICLES ARE USED TO WARN TRAFFIC OF THE OPERATION AHEAD. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, THE PROTECTION VEHICLE SHOULD MAINTAIN THE MINIMUM DISTANCE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. THE PROTECTION VEHICLE SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
3. ADDITIONAL PROTECTION VEHICLES TO WARN AND REDUCE THE SPEED OF ONCOMING OR OPPOSING TRAFFIC MAY BE USED. POLICE PATROL CARS MAY BE USED FOR THIS PURPOSE.
4. A TRUCK-MOUNTED ATTENUATOR (TMA) SHOULD BE USED ON THE PROTECTION VEHICLE AND MAY BE USED ON THE WORK VEHICLE.
5. THE WORK VEHICLE SHALL BE EQUIPPED WITH BEACONS, AND THE PROTECTION VEHICLES SHALL BE EQUIPPED WITH TWO HIGH-INTENSITY FLASHING LIGHTS MOUNTED ON THE REAR, ADJACENT TO THE SIGN. PROTECTION AND WORK VEHICLES SHOULD DISPLAY FLASHING OR ROTATING BEACONS BOTH FORWARD AND TO THE REAR.
6. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
7. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

DATE	REVISION	BY
12-1-99	REVISED CAPTION	S.W.K.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

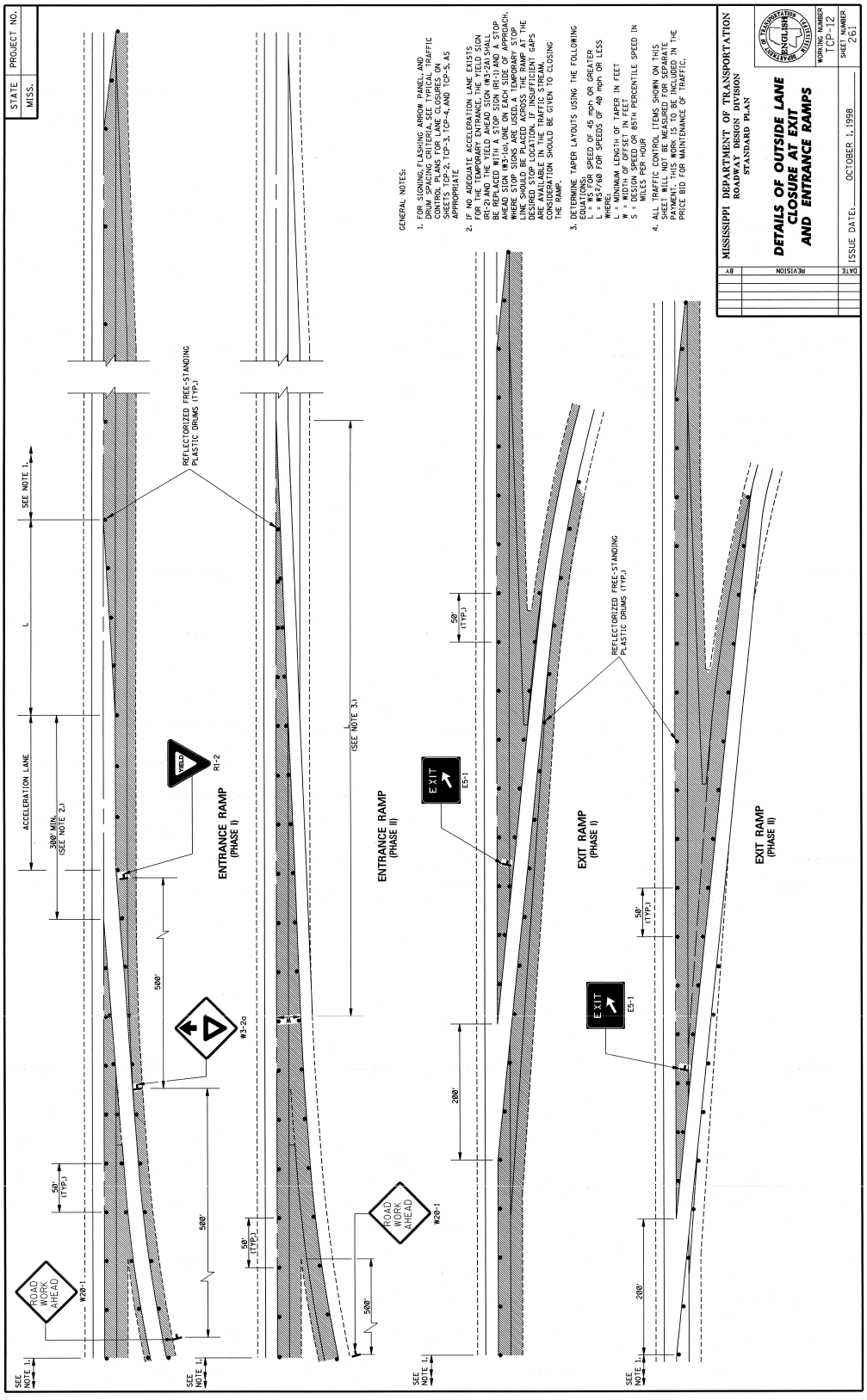
TRAFFIC CONTROL PLAN
MOBILE OPERATIONS
MULTILANE ROADS
AND
TWO–LANE ROADS

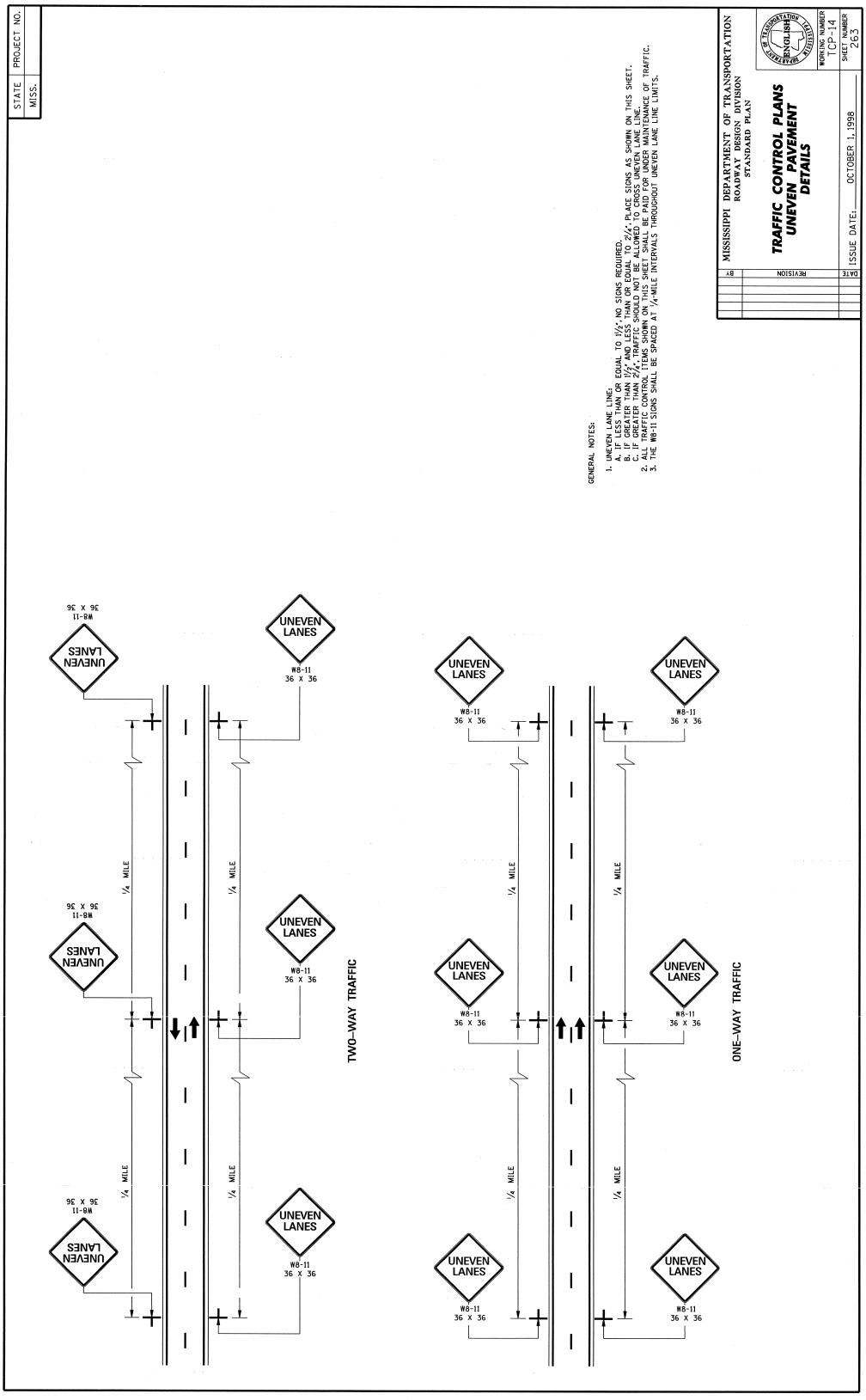
ENGLISH

WORKING NUMBER
TCP-11

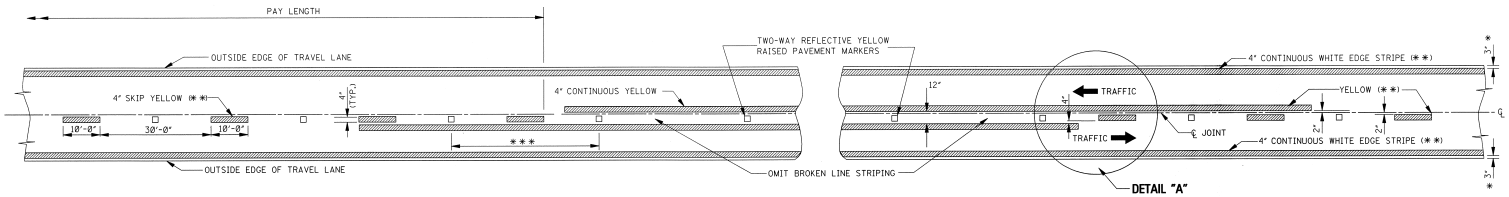
ISSUE DATE: OCTOBER 1, 1998

SHEET NUMBER
260

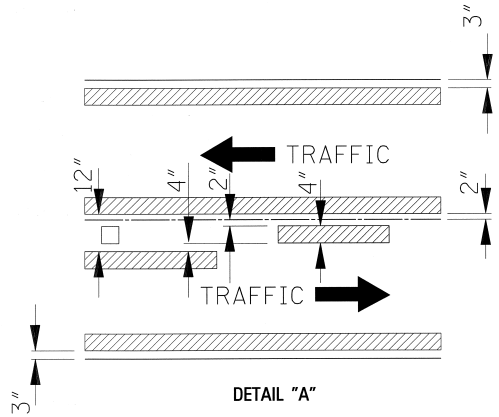

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
DETAILS OF OUTSIDE LANE CLOSURE AT EXIT AND ENTRANCE RAMPS
WORKING NUMBER TCP-12
SHEET NUMBER 261
ISSUE DATE: OCTOBER 1, 1998
DATE
REVISION
BY
GENERAL NOTES:
1. FOR SIGNING, FLASHING ARROW PANEL AND DRUM SPACING CRITERIA, SEE TYPICAL TRAFFIC CONTROL PLANS FOR FREEWAYS ON STANDARD SHEETS TCP-2, TCP-3, TCP-4, AND TCP-5, AS APPROPRIATE.
2. IF NO ADEQUATE ACCELERATION LANE EXISTS FOR THE TEMPORARY ENTRANCE, THE YIELD SIGN (R1-2) AND THE ADVANCE WARNING SIGN (W3-1a) SHALL BE REPLACED WITH A STOP SIGN (R1-1) AND A STOP AHEAD SIGN (W3-1a), ONE ON EACH SIDE OF APPROACH. WHERE STOP SIGNS ARE USED, A TEMPORARY STOP LINE SHOULD BE PLACED ACROSS THE RAMP AT THE DESIRED STOP LOCATION, IF INSUFFICIENT GAPS ARE AVAILABLE IN THE TRAFFIC STREAM, CONSIDERATION SHOULD BE GIVEN TO CLOSING THE RAMP.
3. DETERMINE TAPER LAYOUTS USING THE FOLLOWING CRITERIA:
L = WS FOR SPEED OF 45 mph OR GREATER
L = WS²/60 FOR SPEEDS OF 40 mph OR LESS
WHERE:
L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR.
4. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
ROAD WORK AHEAD W20-1
50' (TYP.)
500'
SEE NOTE 1.
ACCELERATION LANE
L
300' MIN. (SEE NOTE 2.)
REFLECTORIZED FREE-STANDING PLASTIC DRUMS (TYP.)
YIELD R1-2
ENTRANCE RAMP (PHASE I)
W3-2a
(SEE NOTE 3.)
ENTRANCE RAMP (PHASE II)
EXIT E5-1
EXIT RAMP (PHASE I)
200'
EXIT RAMP (PHASE II)
SEE NOTE 1.


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL PLANS
UNEVEN PAVEMENT
DETAILS
WORKING NUMBER TCP-14
SHEET NUMBER 263
ISSUE DATE: OCTOBER 1, 1998
DATE REVISION BY
GENERAL NOTES:
1. UNEVEN LANE LINE:
A. IF LESS THAN OR EQUAL TO 1½", NO SIGNS REQUIRED.
B. IF GREATER THAN 1½" AND LESS THAN OR EQUAL TO 2½", PLACE SIGNS AS SHOWN ON THIS SHEET.
C. IF GREATER THAN 2½", TRAFFIC SHOULD NOT BE ALLOWED TO PASS UNTIL LANES ARE LEVELED.
2. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.
3. THE W8-11 SIGNS SHALL BE SPACED AT ¼-MILE INTERVALS THROUGHOUT UNEVEN LANE LINE LIMITS.
TWO-WAY TRAFFIC
ONE-WAY TRAFFIC
UNEVEN LANES
W8-11
36 X 36
¼ MILE

STATE	PROJECT NO.
MISS.	



TWO–WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)



DETAIL "A"

DIRECTION OF TRAFFIC

GENERAL NOTES:

* 1. 3" UNLESS SHOWN ELSEWHERE ON THE PLANS.

** 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR TAPE AS INDICATED IN PAY ITEMS).

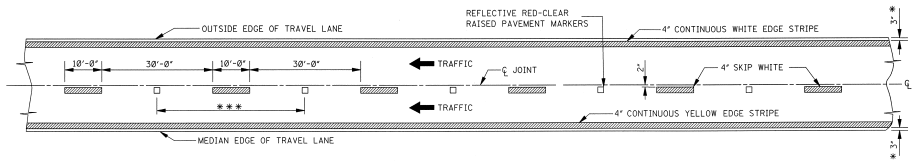
*** 3. SPACING OF REFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:

	URBAN AREA (ft-in)	RURAL AREA (ft-in)
TANGENT SECTIONS	40'-0"	80'-0"
HORIZONTAL CURVES	40'-0"	40'-0"
INTERCHANGE LIMITS	40'-0"	† 40'-0"

† NOTE: ON THE MAIN FACILITY, REFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.

4. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE REFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED SOURCES OF MATERIALS."

5. REFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS



4–LANE WITH ONE–WAY TRAFFIC

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TEMPORARY STRIPING FOR TRAFFIC CONTROL 2–LANE AND 4–LANE DIVIDED HIGHWAYS

ENGLISH

REVISION BY

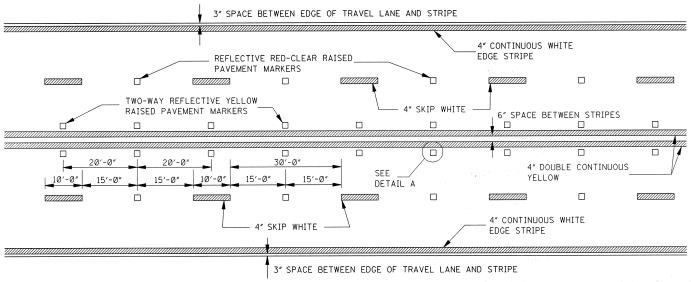
DATE

ISSUE DATE: DECEMBER 1, 1999

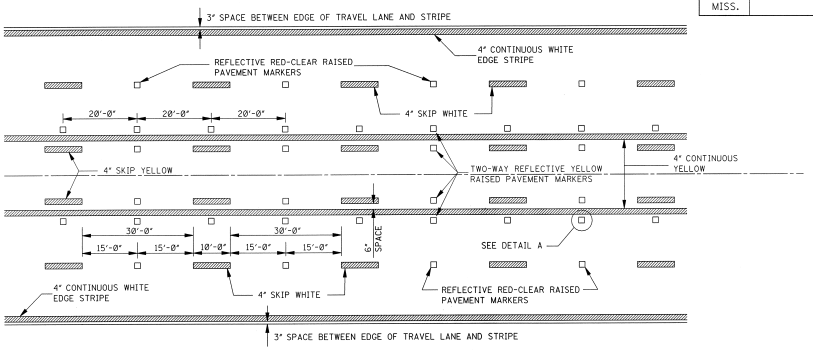
WORKING NUMBER TCP-15

SHEET NUMBER 264

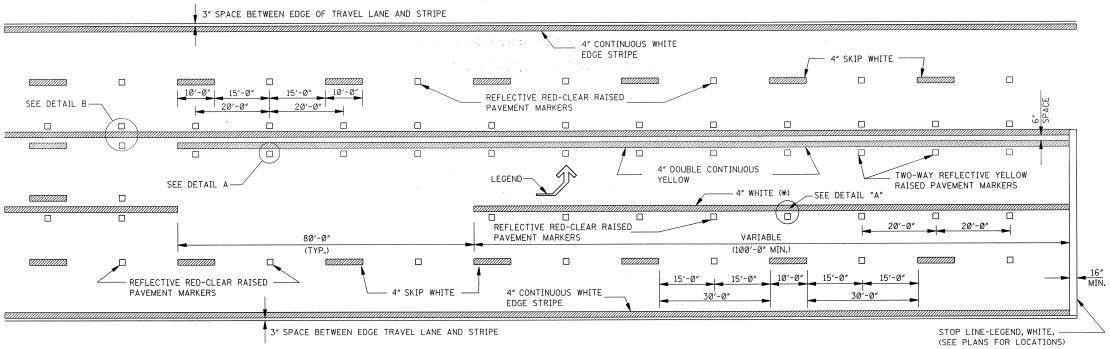
STATE	PROJECT NO.
MISS.	



TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 4–LANE SECTION

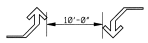


TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 5–LANE SECTION



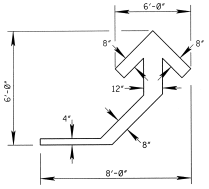
TYPICAL STRIPING AND RAISED PAVEMENT MARKERS AT LEFT TURN LANES

*NOTE: USE DETAIL STRIPING IF LENGTH ≤ 150' AT THIS LOCATION, OTHERWISE USE CONTINUOUS STRIPING.

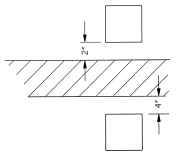


TYPICAL TWO–WAY ARROW INSTALLATION

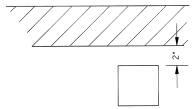
NOTES: 1. CONSIDER EACH SEGMENT OF CONTINUOUS TWO-WAY LEFT TURN LANE SEPARATELY.
2. IF SEGMENT IS LESS THAN 350', PLACE ONE SET OF ARROWS IN CENTER OF SEGMENT.
3. IF SEGMENT IS GREATER THAN 350', PLACE FIRST SET OF ARROWS 50' TO 100', FROM BEGINNING AND/OR END OF SEGMENT AND SPACE ADDITIONAL SETS OF ARROWS 1250' O.C.).



DETAIL OF TEMPORARY TURN ARROW



DETAIL B LATERAL PLACEMENT OF PAVEMENT MARKERS



DETAIL A LATERAL PLACEMENT OF PAVEMENT MARKERS

GENERAL NOTE:

1. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED SOURCES OF MATERIALS".
2. REFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS
3. TEMPORARY TURN ARROW TO BE PAID FOR AS TEMPORARY TRAFFIC STRIPE (LEGEND), ESTIMATED AT 10.9 SQ. FT. PER ARROW

BY	REVISION	DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TEMPORARY STRIPING FOR TRAFFIC CONTROL 4–LANE AND 5–LANE UNDIVIDED ROADWAYS

ENGLISH

WORKING NUMBER TCP-16

ISSUE DATE: DECEMBER 1, 1999

SHEET NUMBER 265

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 12 **CODE: (IS)**

DATE: **05/03/2004**

SUBJECT: **Federal Bridge Formula**

Bidders are hereby advised that Federal Highway Administration Publication No. FHWA-MC-94-007, **BRIDGE FORMULA WEIGHTS**, dated January 1994, is made a part of this contract when applicable.

Prior to the preconstruction conference, the Contractor shall advise the Engineer, in writing, what materials, if any, will be delivered to the jobsite via Interstate route(s).

Copies of the **BRIDGE FORMULA WEIGHTS** publication may be obtained by contacting:

Federal Highway Administration
400 7th Street, SW
Washington, DC 20590
(202) 366-2212

or

http://ops.fhwa.dot.gov/freight/regulate/sw/

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 13 **CODE: (IS)**

DATE: 05/03/2004

SUBJECT: Submission of Form OCR-485

Bidders are hereby advised that Form OCR-485 will be completed by **ALL BIDDERS** submitting a bid proposal and **must be included in the bid proposal package**. Failure to include Form OCR-485 in the bid proposal package will cause the Contractor's bid to be considered **irregular**.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 151 **CODE: (IS)**

DATE: 06/18/2004

SUBJECT: Gopher Tortoises

Bidders are hereby advised that the Contractor will be required to make special considerations regarding gopher tortoises on this project. In addition to the normal required documentation associated with borrow pits, the Contractor shall, for each site used to obtain or dispose of materials associated with this project, provide the Engineer with a letter from a qualified biologist certifying that the site was inspected prior to any clearing of vegetation or disposal of project materials and that the site is not inhabited by gopher tortoises, or appropriate avoidance measures have been installed. No individual lacking the proper State or Federal license shall touch or otherwise harass a gopher tortoise.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 204 **CODE: (IS)**

DATE: 09/01/2004

SUBJECT: ERRATA AND MODIFICATIONS TO THE 2004 STANDARD SPECIFICATIONS

Page	Subsection	Change
236	401.01	Change the header from "Section 403" to "Section 401".
242	401.02.3.2	In the first sentence of the third full paragraph, add "1/8" in the blank before the inch mark.
253	401.02.6.4.2	In the paragraph preceding the table, change "91.0" to "89.0".
259	401.03.1.4	In the first paragraph, change "92.0 percent" to "the specified percentage (92.0 or 93.0)".
278	404.04	In the second sentence, change the subsection from "401.04" to "403.04".
283	409.02.2	Change "PG 64-22" to "PG 67-22".
294	413.02	In the first sentence of the second paragraph, change "707.02.1.3" to "Subsection 707.02.1.3".
340	511.04	In the second sentence of the second paragraph, change "412" to "512".
349	601.03.3	In the first sentence, change "804.03.2" to "804.03.5".
355	603.02	Change the subsection reference for Joint mortar from "707.03" to "714.11".
369	604.04	In the first sentence, change "601.04" to "Subsection 601.04".
427	619.04	Delete the second paragraph.
442	625.04	In the third paragraph, change "626.04" to "Subsection 626.04".
444	626.03.1.2	Delete the third sentence of the first paragraph.

464	631.02	Change the subsection reference for Water from "714.01.0" to "714.01.1".
575	683.10.4	Change the subsection number from "683.10.4" to "683.04".
575	683.10.5	Change the subsection number from "683.10.5" to "683.05".
596	701.02	In the table under the column titled "Cementations material required", change Class F, FA" to "Class F FA,".
603	702.11	In the first sentence, change "702.12" to "Subsection 702.12".
612	703.04.2	In the fifth paragraph, delete "Subsection 703.11 and".
616	703.07.2	In the Percentage By Weight Passing Square Mesh Sieves table, change the No. 10 requirement for Class 7 material from "30 - 10" to "30 - 100".
618	703.13.1	In the first sentence of the first paragraph, change "703.09" to "703.06".
618	703.13.2	In the first sentence, change "703.09" to "703.06".
671	712.06.2.2	In the first sentence, change "712.05.1" to "Subsection 712.05.1".
689	714.11.2	In the first sentence, change "412" to "512".
741	720.05.2.2	In the last sentence of this subsection, change "720.05.2.1" to "Subsection 720.05.2.1".
827	803.03.2.3.7.5.2	In the first sentence of the second paragraph, change "803.03.5.4" to "803.03.2.3.4".
833	803.03.2.6	In the first sentence, change "803.03.7" to "803.03.2.5".
854	804.02.11	In the last sentence of the first paragraph, change "automatically" to "automatic".
859	804.02.13.1.3	In the last sentence, change Subsection "804.02.12.1" to "804.02.12".
879	804.03.19.3.2	In the first sentence of the third paragraph, change "listed on of Approved" to "listed on the Approved".

879	804.03.19.3.2	In the last sentence of the last paragraph, change "804.03.19.3.1" to "Subsection 804.03.19.3.1".
962	814.02.3	In the first sentence, change "710.03" to "Subsection 710.03".
976	820.03.2.1	In the first sentence, change "803.02.6" to "803.03.1.7".
976	820.03.2.2	In the first sentence, change "803.03.9.6" to "803.03.1.9.2".
985	Index	Change the subsection reference for Petroleum Asphalt Cement from "702.5" to "702.05".
985	Index	Change the subsection reference for the Definition of Asphaltic Cement or Petroleum Asphalt from "700.2" to "700.02".
985	Index	Change the subsection reference for Automatic Batchers from "501.03.2.4" to "804.02.10.4".
986	Index	Delete "501.03.2" as a subsection reference for Batching Plant & Equipment.
988	Index	Change the subsection reference for the Central Mixed Concrete from "501.03.3.2" to "804.02.11".
988	Index	Change the subsection reference for the Concrete Batching Plant & Equipment from "501.03.2" to "804.02.11".
999	Index	Delete "501.03.3.3" as a subsection reference for Truck Mixers.
1001	Index	Change the subsection reference for Edge Drain Pipes from "605.3.5" to "605.03.5".
1002	Index	Change the subsection reference for Metal Posts from "713.05.2" to "712.05.2".
1007	Index	Change the subsection reference for Coarse Aggregate of Cement Concrete Table from "703.3" to "703.03".
1007	Index	Change the subsection reference for Composite Gradation for Mechanically Stabilized Courses Table from "703.8" to "703.08".
1009	Index	Delete "501.03.3.3" as a subsection reference for Truck Mixers and Truck Agitators.
1010	Index	Delete reference to "Working Day, Definition of".

SUPPLEMENT TO NOTICE TO BIDDERS NO. 696

DATE: 04/06/2006

The goal is 2 percent for the Disadvantaged Business Enterprise. The low bidder is required to submit Form OCR-481 for all DBEs. Bidders are advised to check the bid tabulation link for this project on the MDOT website (http://www.gomdot.com/bidsystem/) for results. Bid tabulations are usually posted by 3:00 pm on Letting Day.

Form OCR-481 is available at http://www.gomdot.com/business/dbe/pdf/OCR_481.pdf or by calling 601-359-7466.

All OCR-481s must be returned within 10 days following the bid letting to the MDOT Office of Civil Rights, P.O. Box 1850, Jackson, MS 39215-1850.

For answers to questions, contact the MDOT Office of Civil Rights at (601) 359-7466.

The bidder's execution of the signature portion of the proposal shall constitute execution of the following assurance:

> The bidder hereby gives assurance pursuant to the applicable requirements of "Safe, Accountable, Flexible, Efficient Transportation Equity Act, A Legacy For Users (SAFETEA-LU)" and "Part 26, Title 49, Code of Federal Regulation" that the bidder has made a good faith effort to meet the contract goal for DBE participation for which this proposal is submitted.

A pre-bid meeting will be held in the first floor auditorium of the Mississippi Department of Transportation Administration Building, 401 North West Street, Jackson, Mississippi at 2:00 P.M. on the day preceding the date of the bid opening.

This meeting is to inform DBE firms of subcontracting and material supply opportunities. Attendance at this meeting is considered of prime importance in demonstrating good faith effort to meet the contract goal.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 696 **CODE: (IS)**

DATE: 12/20/2005

SUBJECT: DISADVANTAGED BUSINESS ENTERPRISES IN FEDERAL-AID HIGHWAY CONSTRUCTION

This contract is subject to the "Safe, Accountable, Flexible, Efficient Transportation Equity Act, A Legacy For Users (SAFETEA-LU)" and applicable requirements of "Part 26, Title 49, Code of Federal Regulations." Portions of the Act are set forth in this Notice as applicable to compliance by the Contractor and all of the Act, and the MDOT DBE Program, is incorporated by reference herein.

The Department has developed a Disadvantaged Business Enterprise Program that is applicable to this contract and is made a part thereof by reference.

Copies of the program may be obtained from:

Office of Civil Rights
Mississippi Department of Transportation
P. O. Box 1850
Jackson, Mississippi 39215-1850

POLICY

It is the policy of the Mississippi Department of Transportation to provide a level playing field, to foster equal opportunity in all federally assisted contracts, to improve the flexibility of the DBE Program, to reduce the burdens on small businesses, and to achieve that amount of participation that would be obtained in a non-discriminatory market place. In doing so, it is the policy of MDOT that there will be no discrimination in the award and performance of federally assisted contracts on the basis of race, color, sex, age, religion, national origin, or any handicap.

ASSURANCES THAT CONTRACTORS MUST TAKE:

MDOT will require that each contract which MDOT signs with a subrecipient or a Contractor, and each subcontract the Prime Contractor signs with a Subcontractor, includes the following assurances:

"The Contractor, subrecipient or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of federally assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as MDOT deems appropriate."

DEFINITIONS

For purposes of this provision the following definitions will apply:

"Disadvantaged Business" means a small business concern: (a) which is at least 51 percent owned by one or more socially and economically disadvantaged individual(s) or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more socially and economically disadvantaged individual(s); and (b) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individual(s) who own it. It is important to note that the business owners themselves must control the operations of the business. Absentee ownership or title ownership by an individual who does not take an active role in controlling the business is not consistent with eligibility as a DBE under CFR 49 Part 26.71.

CONTRACTOR'S OBLIGATION

The Contractor and all Subcontractors shall take all necessary and reasonable steps to ensure that DBE firms can compete for and participate in the performance of a portion of the work in this contract and shall not discriminate on the basis of race, color, national origin, religion or sex. Failure on the part of the Contractor to carry out the DBE requirements of this contract constitutes a breach of contract and after proper notification the Department may terminate the contract or take other appropriate action as determined by the Department.

When a contract requires a zero percent (0%) DBE goal, the Contractor still has the responsibility to take all necessary and reasonable steps to ensure that DBE firms can compete for and participate in the performance of the work in the contract. In this case, all work performed by a certified DBE firm is considered to be a "race neutral" measure and the Department will receive DBE credit towards the overall State goals when the DBE firm is paid for their work. If the Prime Contractor is a certified DBE firm, the Department can receive DBE credit only for the work performed by the Prime Contractor's work force or any work subcontracted to another DBE firm. Work performance by a non-DBE Subcontractor is not eligible for DBE credit.

CONTRACT GOAL

The goal for participation by DBEs is established for this contract in the attached Supplement. The Contractor shall exercise all necessary and reasonable steps to ensure that participation is equal to or exceeds the contract goal.

The percentage of the contract that is proposed for DBEs shall be so stated on the last bid sheet of the proposal.

The apparent lowest responsive bidder shall submit to the Contract Administration Division Form OCR-481, signed by the Prime Contractor and the DBE Subcontractors, no later than the 10th day after opening of the bids.

FORMS ARE AVAILABLE FROM THE CONTRACT ADMINISTRATION DIVISION

The OCR-481 Form must contain the following information:

The name and address of each certified DBE Contractor / Supplier;

The Reference Number, percent of work and the dollar amount of each item. If a portion of an item is subcontracted, a breakdown of that item including quantities and unit price must be attached, detailing what part of the item the DBE firm is to perform and who will perform the remainder of the item.

If the DBE Commitment shown on the last bid sheet of the proposal, does not equal or exceed the contract goal, the bidder must submit, with the proposal, information to satisfy the Department that adequate good faith efforts have been made to meet the contract goal.

Failure of the lowest bidder to furnish acceptable proof of good faith efforts, submitted with the bid proposal, shall be just cause for rejection of the proposal. Award may then be made to the next lowest responsive bidder or the work may be readvertised.

The following factors are illustrative of matters the Department will consider in judging whether or not the bidder has made adequate good faith effort to satisfy the contract goal.

(1) Whether the bidder attended the pre-bid meeting that was scheduled by the Department to inform DBEs of subcontracting opportunities;

(2) whether the bidder advertised in general circulation, trade association, and minority-focus media concerning the subcontracting opportunities;

(3) whether the bidder provided written notice to a reasonable number of specific DBEs that their interest in the contract is being solicited;

(4) whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with certainty whether they were interested;

(5) whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goal;

(6) whether the bidder provided interested DBEs with adequate information about the plans, specifications and requirements of the contract;

(7) whether the bidder negotiated in good faith with interested DBEs and did not reject them as unqualified without sound reasons based on a thorough investigation of their capabilities; and

(8) whether the bidder made efforts to assist interested DBEs in obtaining any required bonding or insurance.

DIRECTORY

Included with this Bid Proposal is a list of "Certified DBE Contractors" which have been certified as such by the Mississippi Department of Transportation and other Unified Certification Partners (UCP).

The DBE firm must be on the Department's list of "Certified DBE Contractors" that is attached to this proposal and approved by MDOT to count towards meeting the DBE goal.

REPLACEMENT

If a DBE Subcontractor cannot perform satisfactorily, and this causes the OCR-481 commitment to fall below the contract goal, the Contractor shall take all necessary reasonable steps to replace the DBE with another certified DBE Subcontractor or submit information to satisfy the Mississippi Department of Transportation that adequate good faith efforts have been made to replace the DBE. The replacement DBE must be a DBE who was on the Department's list of "Certified DBE Contractors" when the job was awarded, and who is still active. All DBE replacements must be approved by the Department.

Under no circumstances shall the Prime or any Subcontractor perform the DBE's work (as shown on the OCR-481) without prior written approval from the Department. See "Sanctions" at the end of this document for penalties for performing DBE's work.

When a Contractor proposes to substitute/replace/terminate a DBE that was originally named on the OCR-481, the Contractor must obtain a release, in writing, from the named DBE explaining why the DBE Subcontractor cannot perform the work. A copy of the original DBE's release must be attached to the Contractor's written request to substitute/replace/terminate along with appropriate Subcontract Forms for the substitute/replacement/terminated Subcontractor, all of which must be submitted to the DBE Coordinator and approved, in advance, by MDOT.

GOOD FAITH EFFORTS

To demonstrate good faith efforts to replace any DBE that is unable to perform successfully, the Contractor must document steps taken to subcontract with another certified DBE Contractor. Such documentation shall include no less than the following:

(a) Proof of written notification to certified DBE Contractors by certified mail that their interest is solicited in subcontracting the work defaulted by the previous DBE or in subcontracting other items of work in the contract.

(b) Efforts to negotiate with certified DBE Contractors for specific items shall include as a minimum:

(1) The name, address, and telephone number of each DBE contacted;

(2) A description of the information provided about the plans and specifications for those portions of the work to be subcontracted; and

(3) A statement of why agreements were not reached.

(c) For each DBE contacted that was rejected as unqualified, the reasons for such conclusion.

(d) Efforts made to assist each DBE that needed assistance in obtaining bonding or insurance required by the Contractor.

Failure of the Contractor to demonstrate good faith efforts to replace a DBE Subcontractor that cannot perform as intended with another DBE Subcontractor, when required, shall be a breach of contract and may be just cause to be disqualified from further bidding for a period of up to 12 months after notification by certified mail.

PARTICIPATION / DBE CREDIT

Participation shall be counted toward meeting the goal in this contract as follows:

(1) If the Prime Contractor is a certified DBE firm, only the value of the work actually performed by the DBE Prime can be counted towards the project goal, along with any work subcontracted to a certified DBE firm.

(2) If the Contractor is not a DBE, the work subcontracted to a certified DBE Contractor will be counted toward the goal.

(3) The Contractor may count toward the goal a portion of the total dollar value of a contract with a joint venture eligible under the standards of this provision equal to the percentage of the DBE partner in the joint venture.

(4) Expenditures to DBEs that perform a commercially useful function may be counted toward the goal. A business is considered to perform a commercially useful function when it is responsible for the execution of a distinct element of the work and carries out its responsibilities by actually performing, managing, and supervising the work involved.

(5) The Contractor may count 100% of the expenditures for materials and supplies obtained from certified DBE suppliers and manufacturers that produce goods from raw materials or substantially alters them for resale provided the suppliers and manufacturers assume the actual and contractual responsibility for the provision of the materials and supplies. The Contractor may count 60 percent of the expenditures to suppliers that are not manufacturers, provided the supplier performs a commercially useful function in the supply process. Within 30 days after receipt of the materials, the Contractor shall furnish to the DBE Coordinator invoices from the certified supplier to verify the DBE goal.

(6) Any work that a certified DBE firm subcontracts or sub-subcontracts to a non-DBE firm will not count towards the DBE goal.

(7) Only the dollars actually paid to the DBE firm may be counted towards the DBE goal.

AWARD

Award of this contract to the low bidder will be contingent upon the following conditions:

(1) Concurrence from Federal Highway Administration, when applicable.

(2) Bidder must submit to the Contract Administration Division for approval, Form OCR-481 (DBE Commitment) no later than the 10th day after opening of the bids, or submit information with the bid proposal to satisfy the Department and that adequate good faith efforts have been made to meet the contract goal.

(3) Bidder must submit **with the bid proposal** a list of all firms that submitted quotes for material supplies or items to be subcontracted. This information must be submitted on form OCR-485 in the back of the contract proposal.

Prior to the start of any work, the bidder must notify the Project Engineer, in writing, of the name of the designated "DBE Liaison Officer" for this project. This notification must be posted on the bulletin board at the project site.

DEFAULT

The contract goal established by MDOT in this proposal must be met to fulfill the terms of the contract. The Contractor may list DBE Subcontractors and items that exceed MDOT's contract goal, but should unforeseen problems arise that would prevent a DBE from completing its total commitment percentage, the Contractor will meet the terms of the contract as long as it meets or exceeds MDOT's Contract Goal. For additional information, refer to "Replacement" section of this Notice.

DBE REPORTS

(1) OCR-481: Refer to "CONTRACT GOAL" section of this Notice to Bidders for information regarding this form.

(2) OCR-482: At the conclusion of the project the Contractor will submit to the Project Engineer for verification of quantities and further handling Form OCR-482 whereby the Contractor certifies to the amounts of payments made to each Contractor / Supplier. The Project Engineer shall submit the completed Form OCR-482 to the DBE Coordinator (Office of Civil Rights). Final acceptance of the project is dependent upon Contract Administration Division's receipt of completed Form OCR-482 which they will receive from the Office of Civil Rights.

(3) OCR-483: The Project Engineer/Inspector will complete Form OCR-483, the Commercially Useful Function (CUF) Performance Report, in accordance with MDOT S.O.P. No. OCR-03-09-01-483. Evaluations reported on this form are used to determine whether or not the DBE firm is performing a CUF. The Prime Contractor should take corrective action when the report contains any negative evaluations. DBE credit may be disallowed and/or other sanctions imposed if it is determined the DBE firm is not performing a CUF. This form should also be completed and returned to the DBE Coordinator (Office of Civil Rights).

(4) OCR-484: Each month, the Contractor will submit to the Project Engineer OCR-484 certifying payments to all Subcontractors.

(5) OCR-485: The bidder must submit **with the bid proposal** a list of all firms that submitted quotes for material supplies or items to be subcontracted.

(6) OCR-487: Only used by Prime Contractors that are certified DBE firms. This form is used in determining the exact percentage of DBE credit for the specified project. It should be returned to MDOT with the OCR-481 form, or can also be returned with the Permission to Subcontract Forms (CAD-720 or CAD-725).

SANCTIONS

The Department has the option to enforce any of the following penalties for failure of the Prime Contractor to fulfill the DBE goal as stated on the OCR-481 form or any violations of the DBE program guidelines:

(1) Disallow credit towards the DBE goal

(2) Withhold progress estimate payments

(3) Deduct from the final estimate an amount equal to the unmet portion of the DBE goal

(4) Recover an amount equal to the unmet contract goal

(5) Debar the Contractor involved from bidding on Mississippi Department of Transportation projects.

(6) Deduct from the Contractor's final estimate all or any combination of the following.

Offense	Percentage of the monetary amount disallowed from (1) above	Lump Sum
# 1	10%	$ 5,000 or both
# 2	20%	$ 10,000 or both
# 3	40%	$ 20,000 & debarment

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 777 **CODE: (IS)**

DATE: 04/13/2006

SUBJECT: On-The-Job Training Program

Payment for training hours will be handled as outlined in Special Provision 906-6. A pay item for trainees will not be included in individual construction projects. Payment for training individuals will be processed in accordance with the conditions in MDOT's ON-THE-JOB TRAINING PROGRAM (Special Provision 906-6).

On Federal-Aid projects, failure on the part of the Contractor to carryout the terms of the Alternate Training Special Provision (Special Provision 906-6) will be considered grounds to preclude the Contractor from participating in the Alternate On-The-Job Training Program. In the event the Department is required to preclude the Contractor from participating in the program, the Contractor will be required to adhere to the requirements of the Training Special Provision (Special Provision 906-3), for which purpose the special provision is also made a part of this proposal.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 872 **CODE: (SP)**

DATE: 03/27/2006

SUBJECT: Non-QC/QA Concrete

Bidders are advised that the QC/QA requirements for concrete will not apply to this project. Concrete on this project shall meet the requirements of Special Provision No. 907-804-4.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 882 **CODE: (IS)**

DATE: 04/06/2006

SUBJECT: DBE Participation and Payment

Bidders are hereby advised that the participation of a DBE Firm can not be counted towards the Prime Contractor's DBE goal until the amount being counted towards the goal has been paid to the DBE.

Form OCR-482 has been developed to comply with this requirement. Bidders are hereby advised that at the end of the job, the Prime Contractor will submit this form to the Project Engineer before the final estimate is paid and the project is closed out. This form certifies payments to all DBE Subcontractors over the life of the contract.

Form OCR-484 has also been developed to comply with this requirement. Bidders are hereby advised that each month, the Prime Contractors will submit this form to the Project Engineer no later than the 20th of each month. This form certifies payments to all Subcontractors and shows all firms even if the Prime Contractor has paid no monies to the firm during that estimate period (negative report). The Project Engineer will attach this form to the monthly estimate before forwarding the estimate to the Contract Administration Division for processing.

Forms OCR-482 and OCR-484 can be obtained from the Office of Civil Rights Division, MDOT Administration Building, 401 North West Street, Jackson, MS, or at www.gomdot.com under the *Business Section, DBE Information, Applications and Forms for the DBE Program, Monthly Certification Of Payment To Subcontractors (OCR-484)(MDOT).*

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 883 **CODE: (IS)**

DATE: 04/28/2006

SUBJECT: Payroll Requirements

Bidders are hereby advised that the Contractor and Subcontractor(s) are required to submit payroll information to the Project Engineers on a weekly basis.

On Federal-Aid Projects, CAD-880, CAD-881 and certified payroll submissions are required each week the Contractor or a Subcontractor performs work on the project. This is addressed in Section V, page 6 of Form FHWA-1273.

On State-Funded Projects, CAD-880 is required each week the Contractor or a Subcontractor performs work on the project.

When no work is performed on either Federal-Aid and State-Funded Projects, the Contractor should only submit CAD-880 showing no work activities.

The Contractor shall make all efforts necessary to submit this information to the Project Engineer in a timely manner. The Engineer will have the authority to suspend the work wholly or in part and to withhold payments because of the Contractor's failure to submit the required information. Submission of forms and payrolls shall be current through the first full week of the month for the estimate period in order for the Project Engineer to process an estimate.

Bidders are advised to review the requirements regarding payroll submissions in Section 110 of the Standard Specifications.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 – NOTICE TO BIDDERS NO. 1007 **CODE: (SP)**

DATE: **6/9/2006**

SUBJECT: **Petroleum Products Base Prices For Contracts Let in July, 2006**

REFERENCE: **Subsection 109.07**

The following base prices are to be used for adjustment in compensation due to changes in costs of petroleum products:

FUELS

	Per Gallon	Per Liter
Gasoline	$2.5403	$0.6711
Diesel	$2.5964	$0.6859

MATERIALS OF CONSTRUCTION

ASPHALT CEMENT	Per Gallon	Per Ton	Per Liter	Per Metric Ton
Viscosity Grade AC-5	$1.5420	$365.83	$0.4073	$403.25
Viscosity Grade AC-10	$1.5535	$368.57	$0.4104	$406.27
Viscosity Grade AC-20	$1.5746	$373.57	$0.4160	$411.78
Viscosity Grade AC-30	$1.5656	$371.43	$0.4136	$409.42
Grade PG 64-22	$1.5771	$374.17	$0.4166	$412.44
Grade PG 67-22	$1.5490	$367.50	$0.4092	$405.09
Grade PG 76-22	$1.9287	$457.57	$0.5095	$504.38
Grade PG 82-22	$2.1349	$506.50	$0.5640	$558.31

EMULSIFIED ASPHALTS

Grade EA-4 (SS-1)	$1.4049	$0.3711
Grade RS-2C (CRS-2)	$1.3821	$0.3651
Grade CRS-2P	$1.6483	$0.4354

PRIMES

Grade EA-1 & MC-70	$1.9436	$0.5134

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1008 **CODE: (SP)**

DATE: 05/23/2006

SUBJECT: Adhesive for Raised Pavement Markers

Bidders are hereby advised that only Flexible Adhesive meeting the requitements of 720.03.7.7 of the 2004 Mississippi Standard Specifications for Road and Bridge Construction will be allowed on this project.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1038 **CODE: (SP)**

DATE: 03/31/2006

SUBJECT: Scope Of Work

PROJECT: STP-0064-01(024)MP / 104763 -- Pearl River County

The contract documents do not include an official set of construction plans but may, by reference, include some Standard Drawings when so specified in a Notice to Bidders entitled, "Standard Drawings." All other references to plans in the contract documents and Standard Specifications for Road and Bridge Construction are to be disregarded.

Work on the project shall consist of the following:

OVERLAY APPROXIMATELY 9.5 MILES OF SR 53 FROM 5.4 MILES NORTH OF THE HANCOCK COUNTY LINE, NORTH 9.5 MILES TO JUST SOUTH OF THE JUNCTION OF SR 26

(A) Prior to the overlay, centerline alignment shall be determined by the contractor by measuring the existing roadway at 500 feet intervals in tangent sections, and 100 feet intervals in horizontal curves. The existing pavement edge shall be cut to a smooth and near vertical face with an approved cutting device (Not to be measured for separate pay).

(B) Cold mill the roadway at the B.O.P., E.O.P., curb and gutter sections, and bridge approaches as designated by the Project Engineer to ensure smooth transition of new overlay with existing grade (See Typical Drawings).

(C) Overlay SR 53 with 1 1/2" and variable (ST) asphalt 9.5-mm asphalt from 5.4 miles North of the Hancock/ Pearl River Co. line, North 9.5 miles to approximately 300' South of the Jct. of SR 26 and SR 53. Remove any failed areas on the main facility and repair by backfilling with 19.0mm ST asphalt as directed by the Project Engineer. Approximately 290 tons of 19.0mm ST asphalt will be used for Base Repair. Publicly maintained roads or streets shall be surfaced to the existing R.O.W.; Privately owned entrances shall be surfaced a distance of 10 feet & var. from edge of pavement. Any site grading at local roads or drives will not be measured for separate payment but will be considered an absorbed item. A paved apron shall be placed around each guardrail location as directed by the Project Engineer. Cross slopes shall be increased where practical with contract quantities in an effort to achieve a uniform cross slope of 2%. The existing superelevation in horizontal curves is to be maintained as a minimum. Any work to determine the existing superelevation rate as well as any work to control the laydown equipment for proper placement of the asphalt in the superelevated curves shall be absorbed by the contractor at no additional cost to the state. Approximately 10 tons of 19mm asphalt will be used for basing in the paved islands. Any saw cutting needed during the removal of pavement

for the islands will not be measured for separate pay. The 19 mm asphalt will be paid for under pay item number 403-A. Removal of pavement to construct header curbs in paved islands shall be paid for under pay item 202-B as directed by the Project Engineer. The Contractor will mill a 12" rumble strip along the shoulders. The Contractor will place the traffic stripe on the inside 6" of the rumble strip.

(D) Terminal end sections shall be installed at each bridge. The installation of terminal end sections, installed as per manufactures recommendations, shall be National Cooperative Highway Research Program (NCHRP) Report 350 Test Level 3 (TL-3) approved. The following is a list of the current devices that have met NCHRP Report 350. (1. BEST, 2. ET-2000, 3. FLEAT-350, 4. SKT-350, 5. SRT-350. Terminal end sections shall be one listed or an approved equal. The Contractor shall furnish the Project Engineer two (2) copies of the manufacture's installation instructions prior to beginning guardrail operations. Any site grading and all fill material necessary at the guardrail location will not be measured for separate payment but will be absorbed in other guardrail pay items. Seeding, fertilizer and vegetative mulch are required on all disturbed areas at the guardrail site and will be considered an absorbed item. Application rate for bermuda grass seed will be 25 pounds per acre. Application rate for combination fertilizer (13-13-13) will be 1,000 pounds per acre. Application rate for mulch shall be 2 tons per acre.

(E) Raise the existing shoulders to match the new pavement elevation by placing 1 1/2" inches and variable depth borrow material on the shoulders. Placement of the borrow material on the finished surface course shall not be permitted. The material shall be bladed, rolled and compacted to a finished slope of 4%. Shoulders with existing adequate shoulder material in place shall be bladed to a slope of 4%, the cost of which shall be included in the prices of other items bid.

(F) Temporary and permanent striping shall conform to finished stripe specifications for alignment, neatness, reflectivity, and straightness. All permanent pavement markings are to be hot thermoplastic. Edge lines will be placed so as to maintain the original lane width. Glass beads applied to thermoplastic shall conform to Section Number - 720.01(Beads shall be double dropped Class B, High-Visibility first, and then Class A High-Visibility). On all concrete bridges, old traffic stripe shall be removed and replaced with High Performance Cold Plastic.

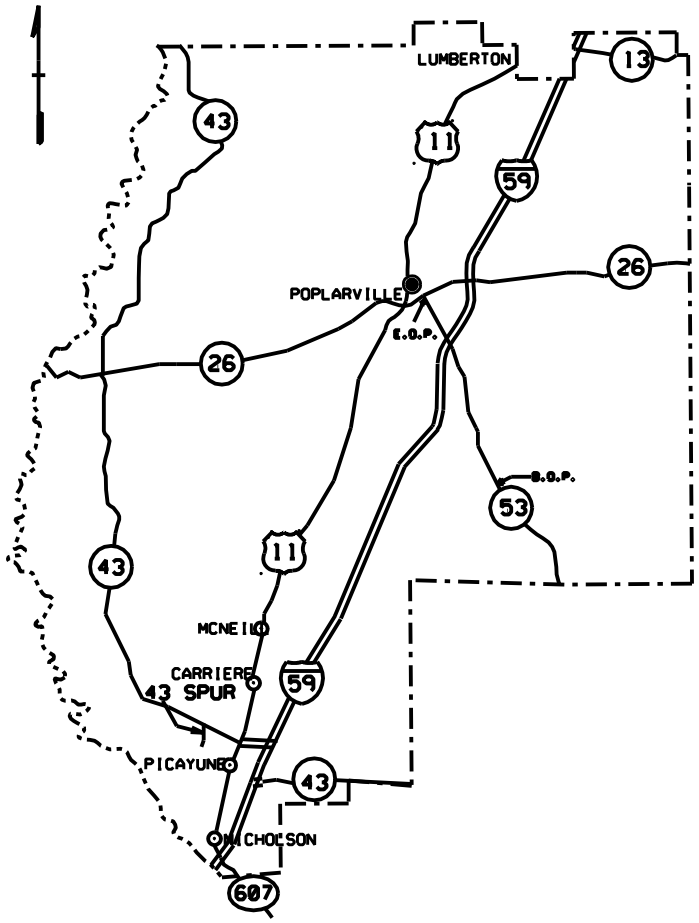
(G) Raised pavement markers will be placed at 80 feet intervals in tangents and 40 feet intervals in curves, and in urban limits along the centerline of roadway. Any removals of existing raised pavement markers or rumble bars shall be considered an absorbed item.

The contractor shall erect and maintain construction signing, and provide all signs and traffic handling devices in accordance with Traffic Control Plan (the cost is to be included in the price bid for pay item No. 618-A, Maintenance of Traffic).

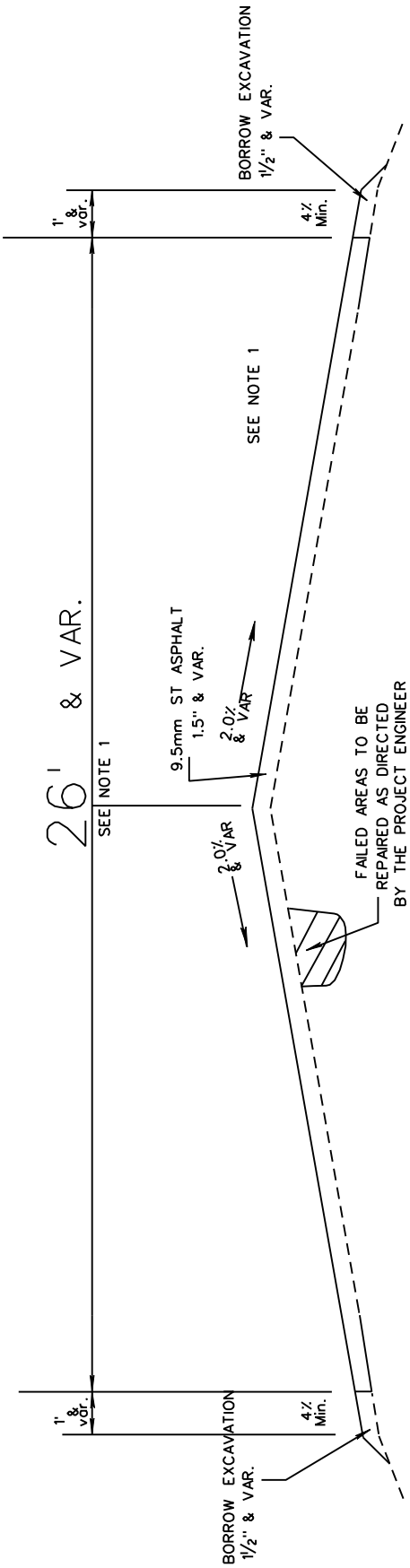
Incidental work such as removing vegetation, shaping and compaction of shoulder, removing excess asphalt material, project clean-up, and other incidental work necessary to complete the project will not be measured for separate payment, but will be included in other bid items.

STP-0064-01(024)MP / 104763

PEARL RIVER COUNTY

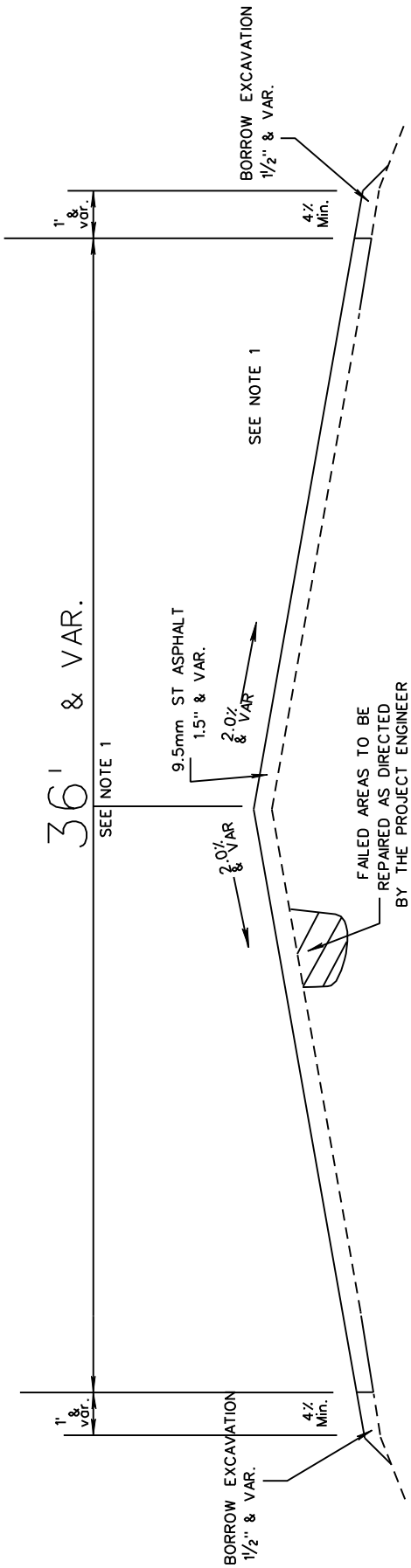


THE ABOVE REFERENCED PROJECT IS FOR OVERLAYING SR 53 FROM 5.4 MILES NORTH OF THE PEARL RIVER / HANCOCK CO. LINE, NORTH 9.5 MILES TO APPROXIMATELY 300' SOUTH OF THE JCT. OF SR 26 AND SR 53.



NOTES:

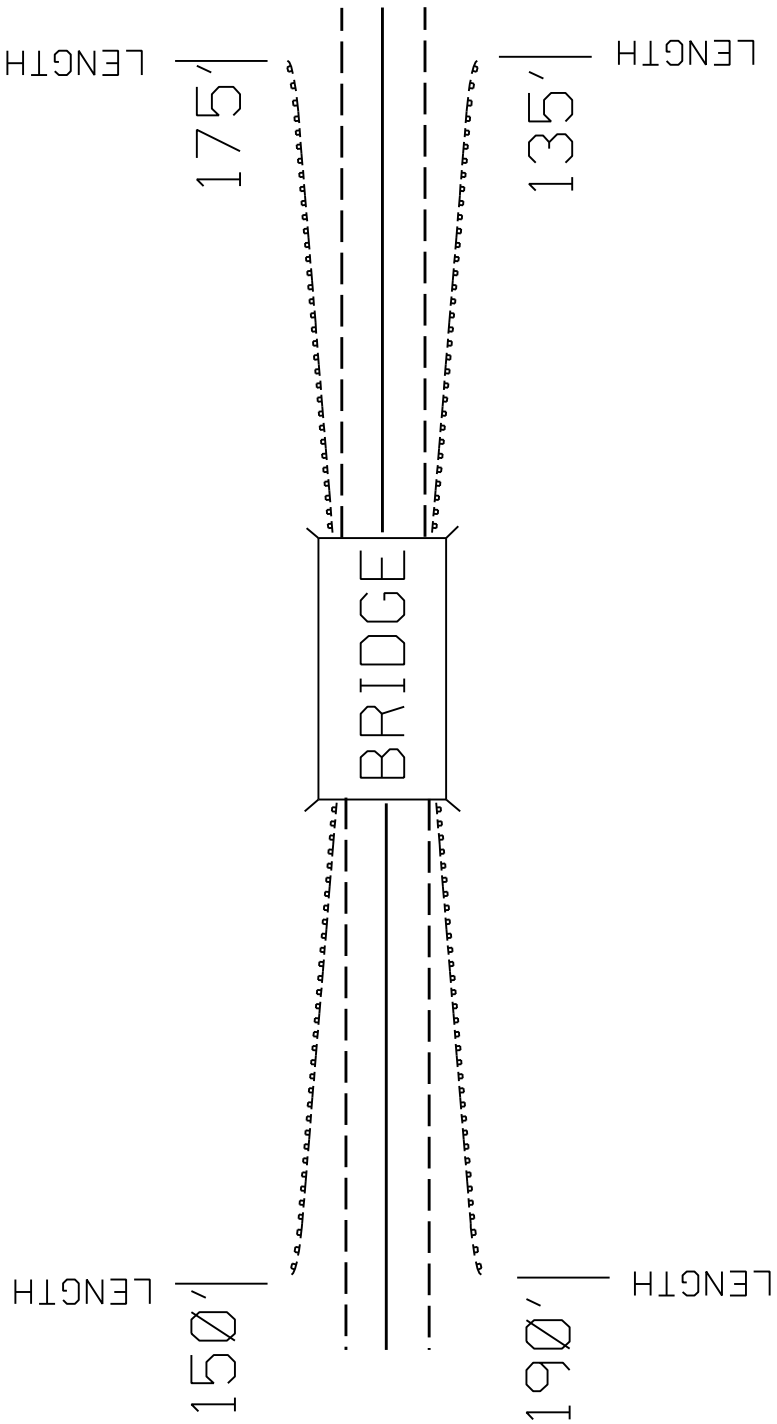
(1) TRUE CENTERLINE PAVEMENT ALIGNMENTSHALL BE DETERMINED BY THE CONTRACTOR BY MEASURING THE EXISTING ROADWAY AT 500ft. INTERVALS IN TANGENT SECTIONS, AND 100ft. INTERVALS IN HORIZONTAL CURVES.



NOTES:

(1) TRUE CENTERLINE PAVEMENT ALIGNMENTSHALL BE DETERMINED BY THE CONTRACTOR BY MEASURING THE EXISTING ROADWAY AT 500ft. INTERVALS IN TANGENT SECTIONS, AND 100ft. INTERVALS IN HORIZONTAL CURVES.

ROUTE # 53
BRIDGE I-59 OVERPASS
BRIDGE END SECTION TYPE: TYPE A MODIFIED
REPLACE OR INSTALL GUARDRAIL : ☒
REPLACE GUARDRAIL END SECTIONS : ☒

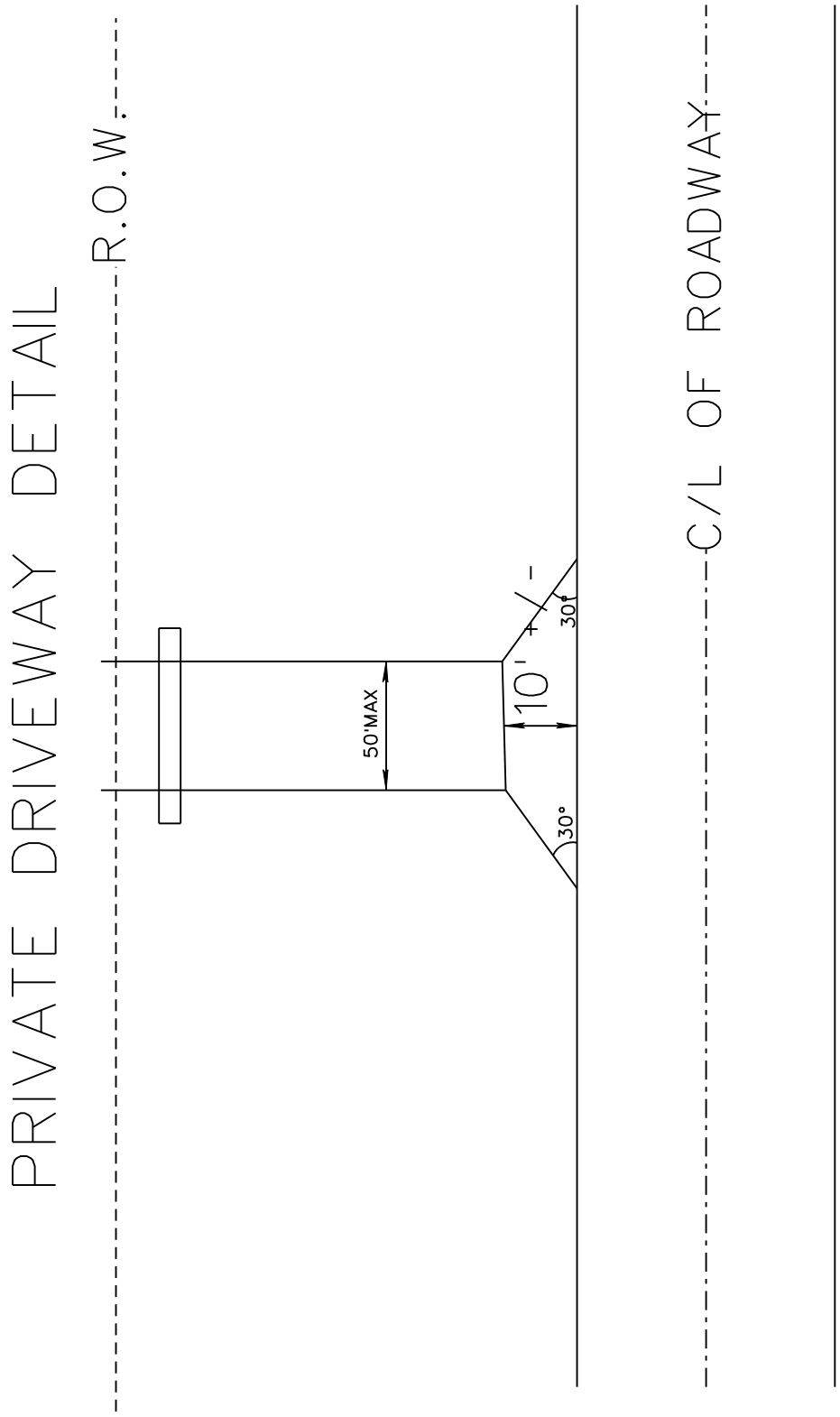


DETAIL OF INSTALLATION OF EXTRA WIDTH
PAVED SHOULDERS AT BRIDGES

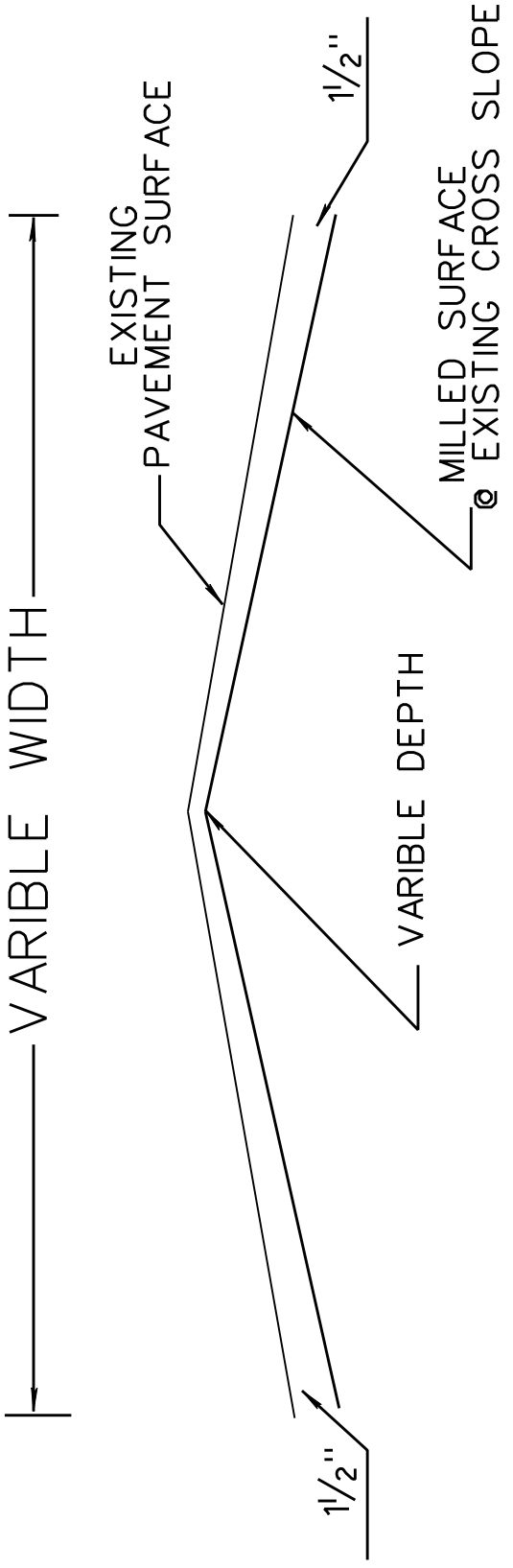
1. 3" AND VAR. DEPTH 9.5MM HOT BITUMINOUS PAVEMENT REQ'D

BOTH SIDES

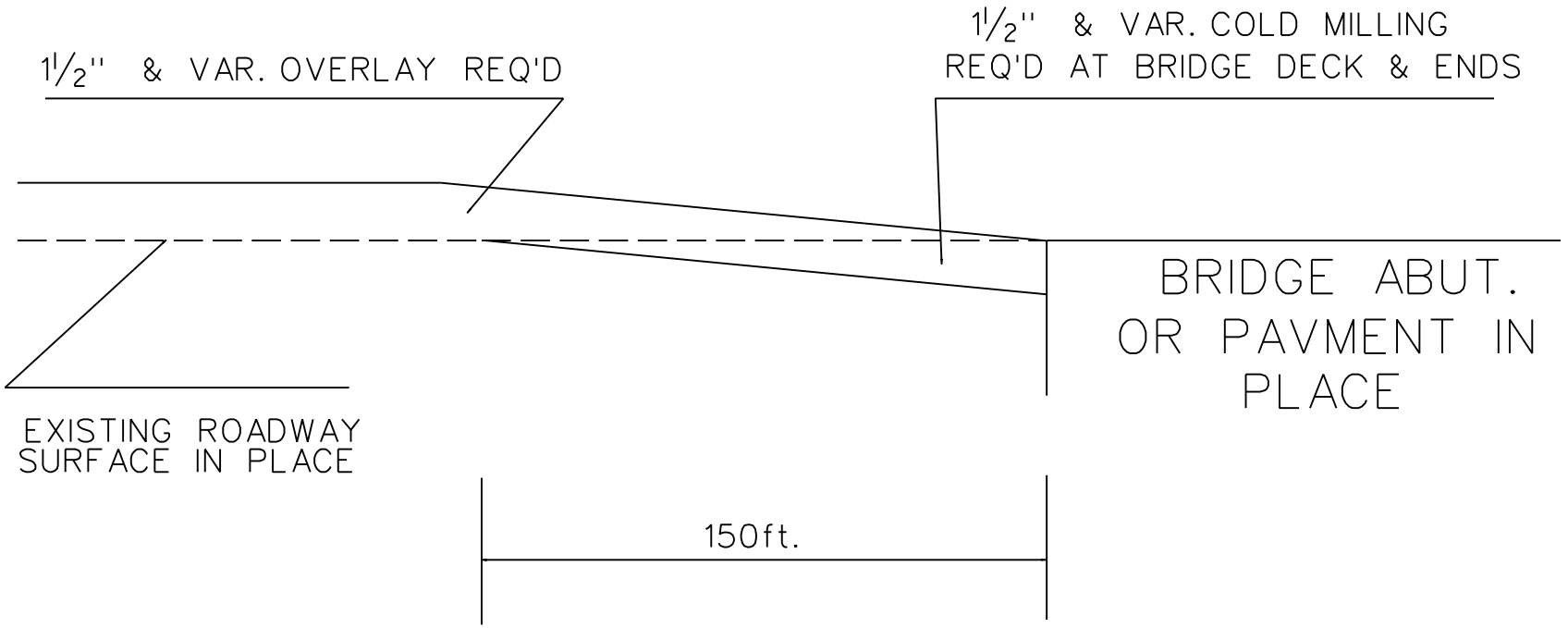
TYPICAL SECTION
DETAILS OF PAVED SHOULDERS AT
BRIDGE GUARD RAIL INSTALLATIONS


PRIVATE DRIVEWAY DETAIL
R.O.W.
C/L OF ROADWAY
50'MAX
10' +/-
30°
30°

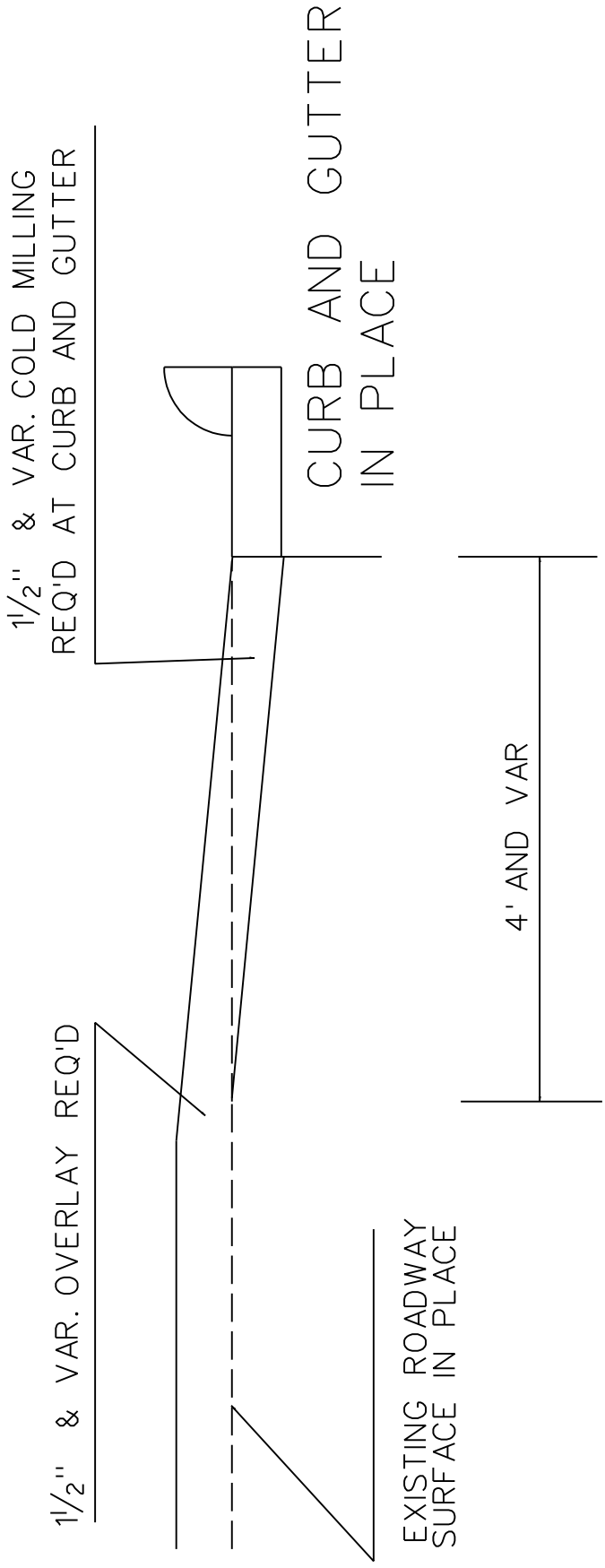
TYPICAL MILLING DIAGRAM



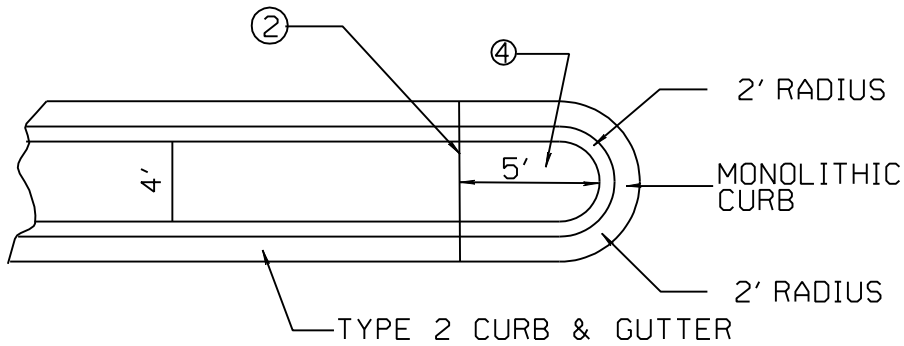
TYPICAL MILLED TRANSITION AT BRIDGE ABUT. OR PAVEMENT IN PLACE

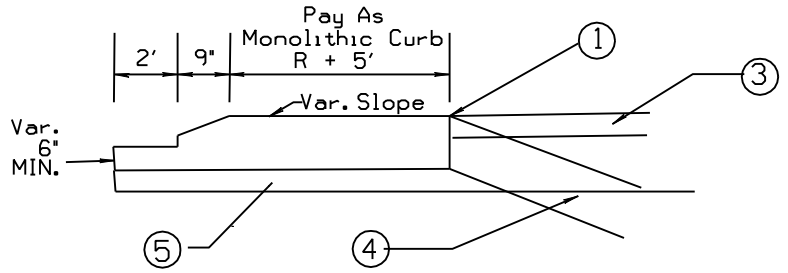


TYPICAL MILLED TRANSITION AT CURB AND GUTTER JOINING PAVEMENT



TYPICAL DETAIL OF MONOLITHIC CURB & GUTTER AT ISLAND





①- ½" PREMOULDED EXPANSION JOIT (NOT A PAY ITEM)

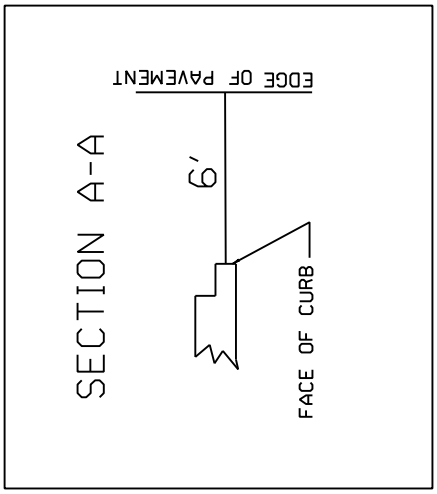
②- ½" TOOLED CONTRACTION JOINT (NOT A PAY ITEM)

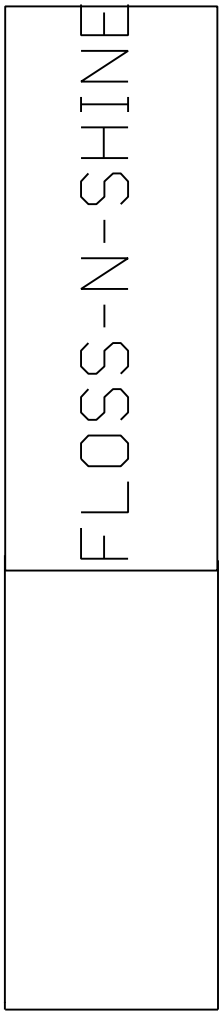
③- 4" CLASS "C" STRUCTURAL CONCRETE (FOR MEDIAN & ISLAND PAV'T.) PAY ITEM NO. 616-A

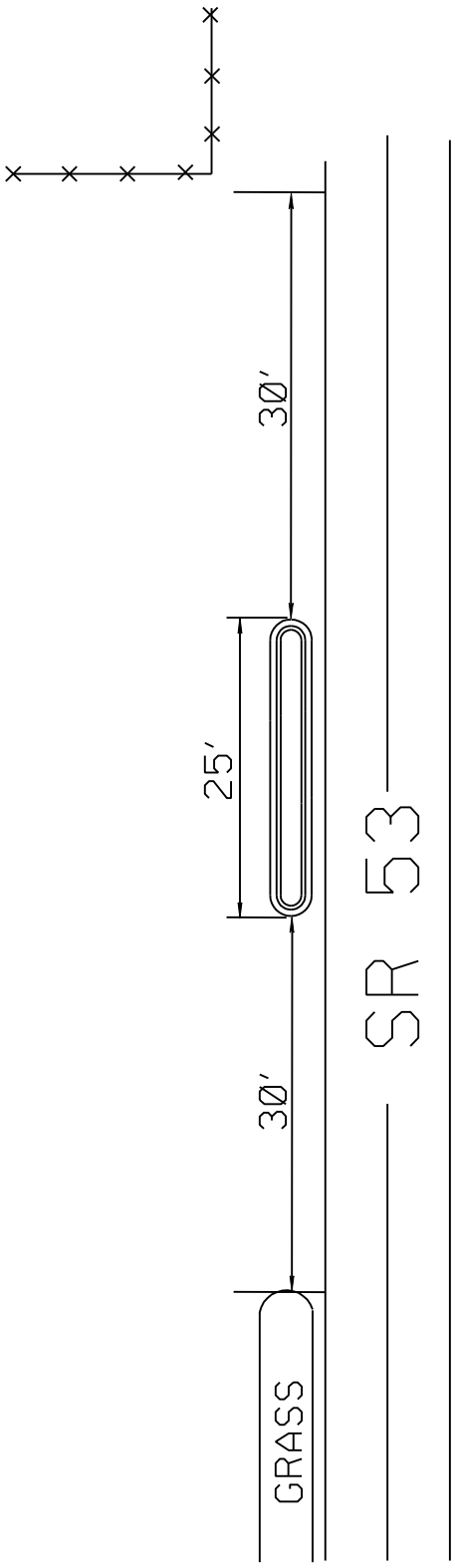
④- 10" & VAR. DEPTH CLASS "C" STRUCTURAL CONCRETE (FOR MEDIAN & ISLAND PAV'T.)

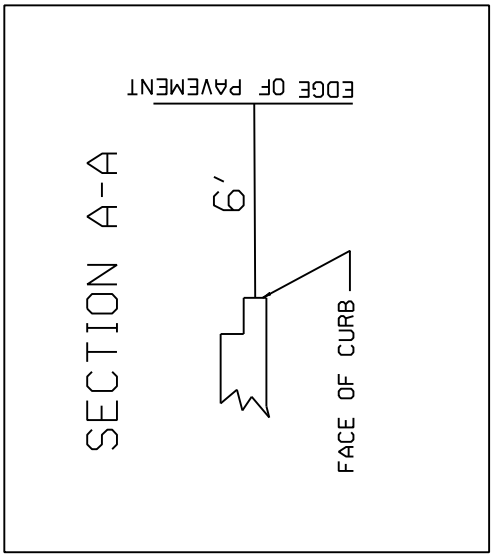
⑤- 2" MIN. ASPHALT BASE SHALL BE REQUIRED BEFORE PLACING ISLANDS

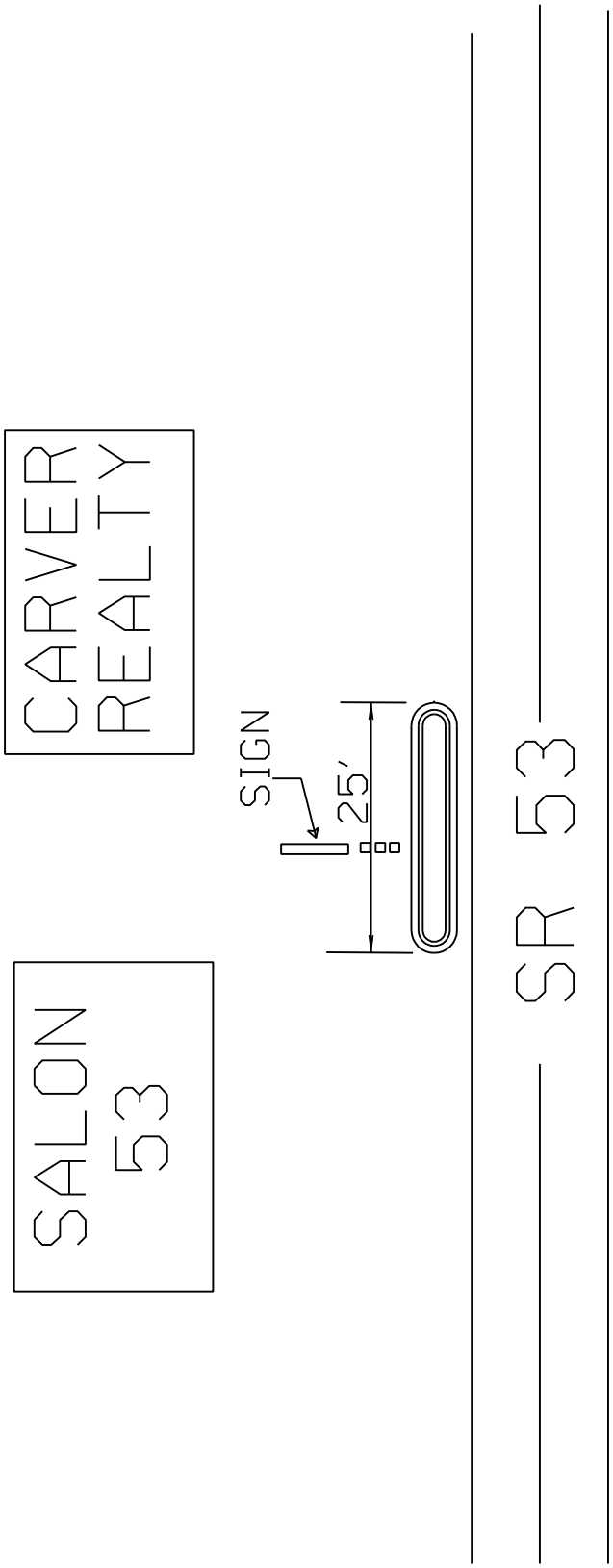
KUBOTA
TRACTOR
DEALER

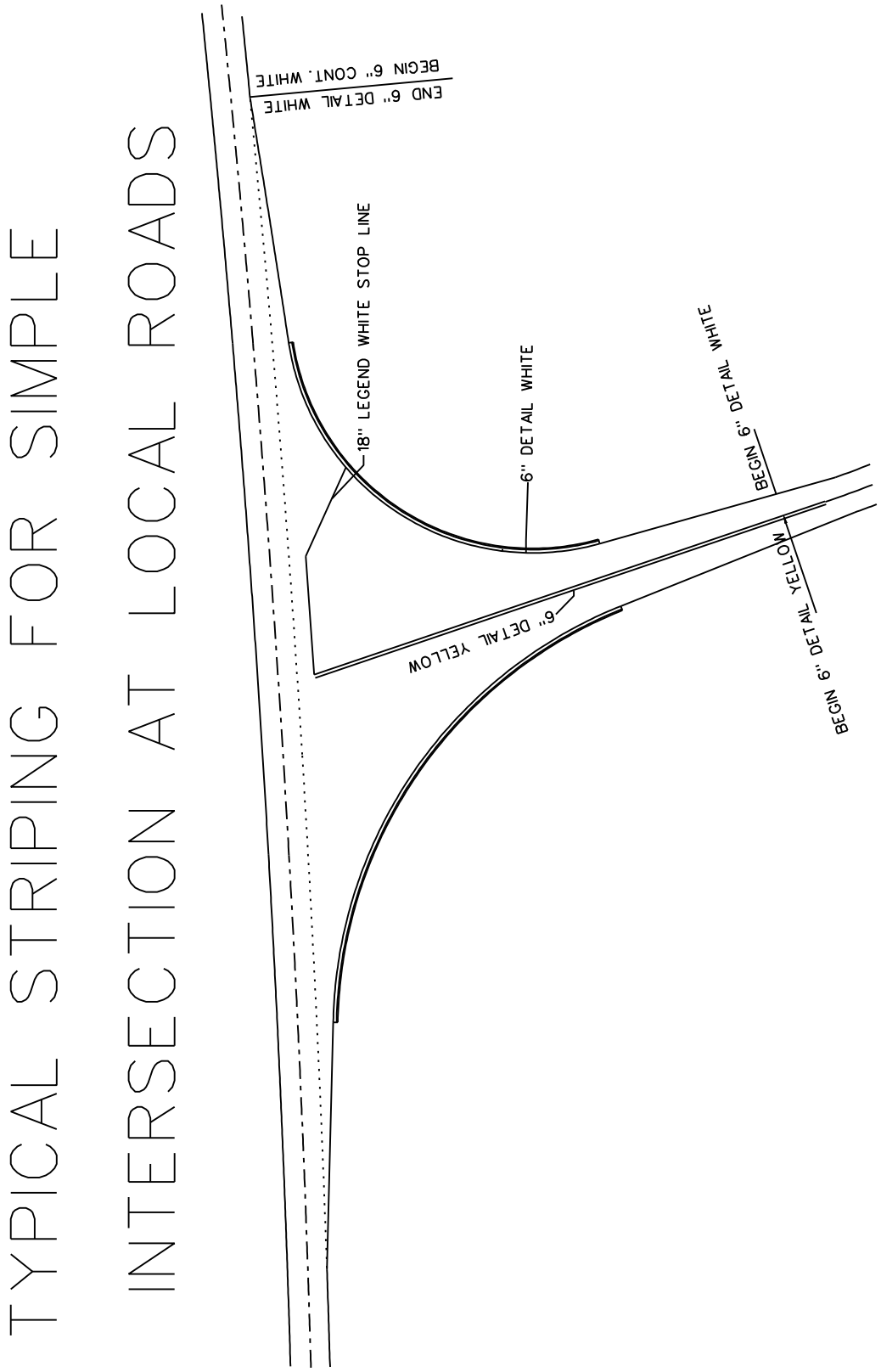

SECTION A-A
EDGE OF PAVEMENT
6'
FACE OF CURB


FLOSS-N-SHINE

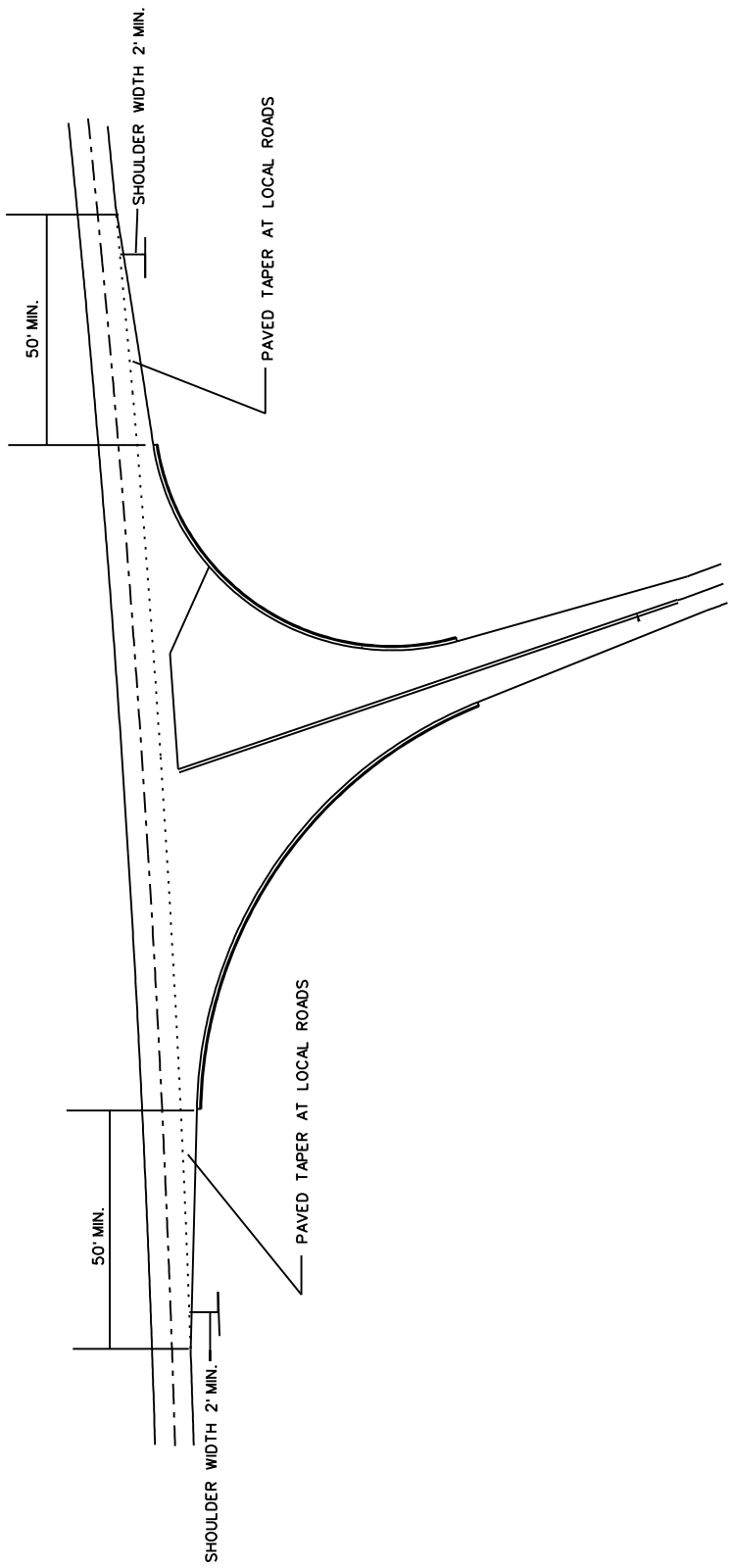

30'
25'
30'
SR 53
GRASS

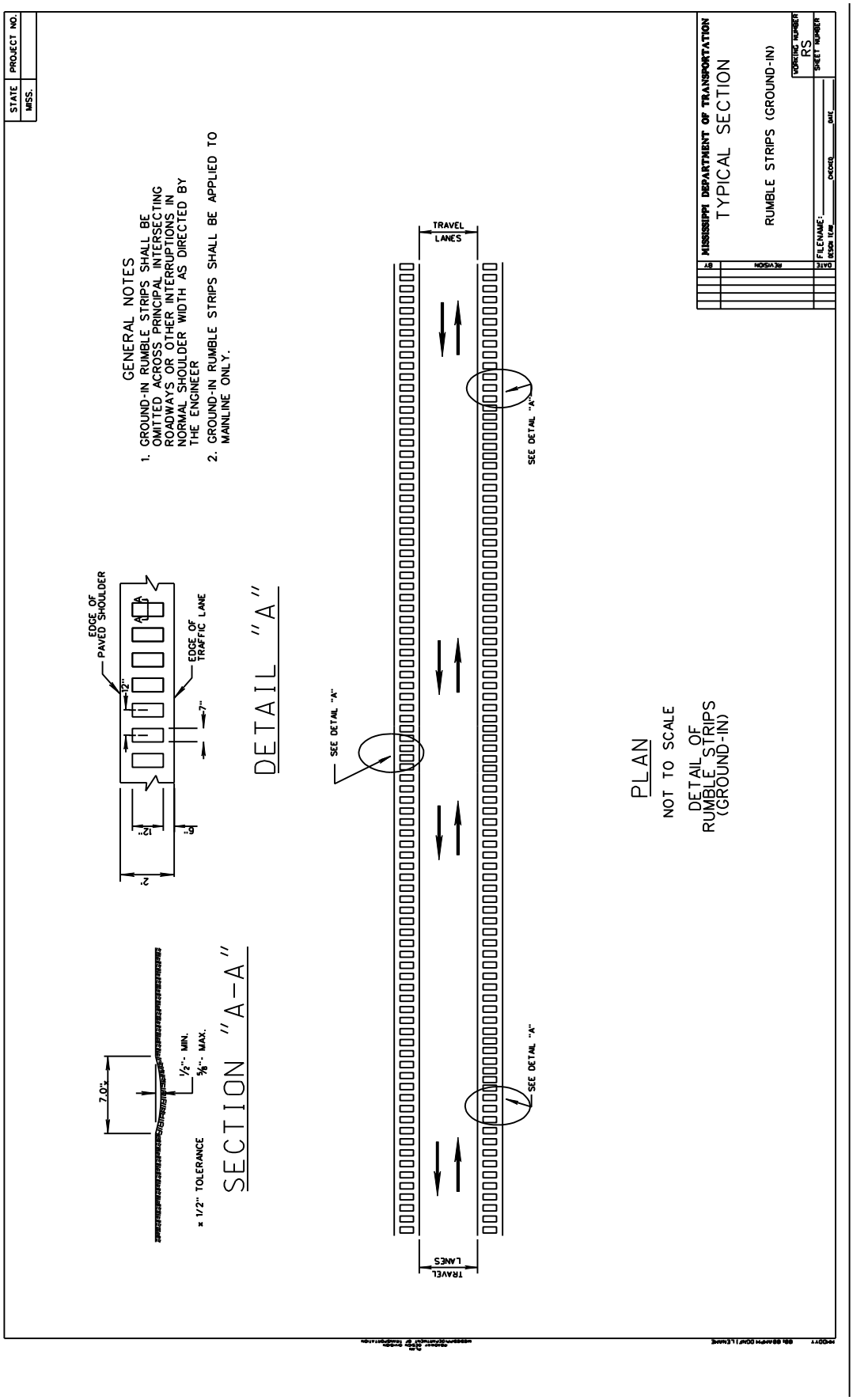

SECTION A-A
EDGE OF PAVEMENT
6'
FACE OF CURB

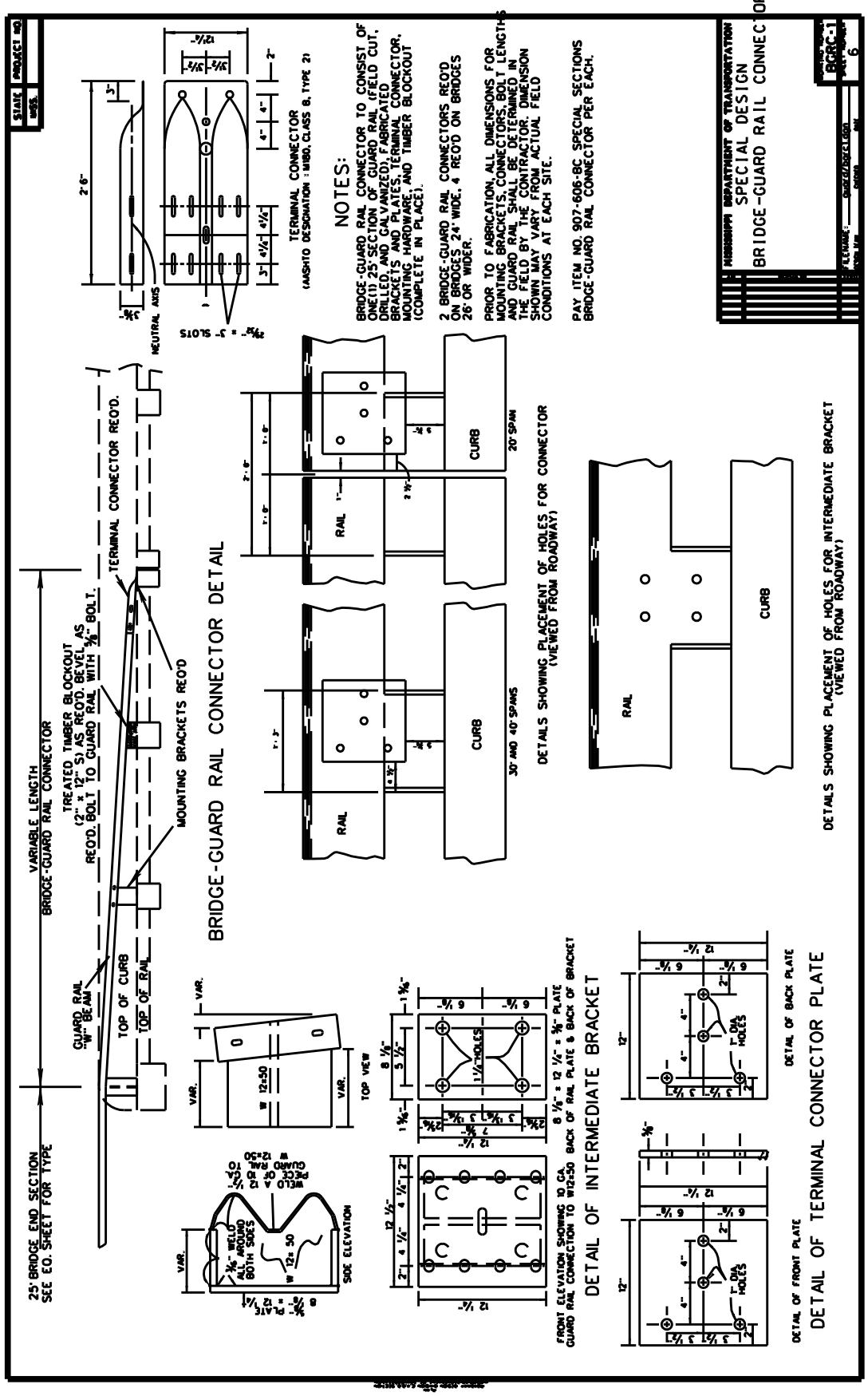

CARVER REALTY
SALON 53
SIGN
25'
SR 53


TYPICAL STRIPING FOR SIMPLE
INTERSECTION AT LOCAL ROADS
END 6" DETAIL WHITE
BEGIN 6" CONT. WHITE
18" LEGEND WHITE STOP LINE
6" DETAIL WHITE
BEGIN 6" DETAIL WHITE
6" DETAIL YELLOW
BEGIN 6" DETAIL YELLOW

TYPICAL FOR PAVED TAPER AT LOCAL ROADS




STATE
MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
TYPICAL SECTION
RUMBLE STRIPS (GROUND-IN)
WORKING NUMBER
RS
SHEET NUMBER
BY
REVISION
DATE
DESN'D
CHKD'D
FILENAME:
GENERAL NOTES
1. GROUND-IN RUMBLE STRIPS SHALL BE OMITTED ACROSS PRINCIPAL INTERSECTING ROADWAYS OR OTHER INTERRUPTIONS IN NORMAL SHOULDER WIDTH AS DIRECTED BY THE ENGINEER
2. GROUND-IN RUMBLE STRIPS SHALL BE APPLIED TO MAINLINE ONLY.
EDGE OF PAVED SHOULDER
EDGE OF TRAFFIC LANE
12"
7"
2'
12"
6"
DETAIL "A"
SECTION "A-A"
7.0"
½"- MIN.
⅝"- MAX.
± 1/2" TOLERANCE
SEE DETAIL "A"
TRAVEL LANES
PLAN
NOT TO SCALE
DETAIL OF RUMBLE STRIPS (GROUND-IN)


BRIDGE-GUARD RAIL CONNECTOR DETAIL
NOTES:
BRIDGE-GUARD RAIL CONNECTOR TO CONSIST OF ONE(1) 25' SECTION OF GUARD RAIL (FIELD CUT, DRILLED, AND GALVANIZED), FABRICATED BRACKETS AND PLATES, TERMINAL CONNECTOR, MOUNTING HARDWARE, AND TIMBER BLOCKOUT (COMPLETE IN PLACE).
2 BRIDGE-GUARD RAIL CONNECTORS REQ'D. ON BRIDGES 24' WIDE, 4 REQ'D ON BRIDGES 26' OR WIDER.
PRIOR TO FABRICATION, ALL DIMENSIONS FOR MOUNTING BRACKETS, CONNECTORS, BOLT LENGTHS AND GUARD RAIL SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR. DIMENSION SHOWN MAY VARY FROM ACTUAL FIELD CONDITIONS AT EACH SITE.
PAY ITEM NO. 907-606-BC SPECIAL SECTIONS BRIDGE-GUARD RAIL CONNECTOR PER EACH.
TERMINAL CONNECTOR (AASHTO DESIGNATION : M180, CLASS B, TYPE 2)
DEPARTMENT OF TRANSPORTATION
SPECIAL DESIGN
BRIDGE-GUARD RAIL CONNECTOR
BGRC-1
VARIABLE LENGTH
BRIDGE-GUARD RAIL CONNECTOR
25' BRIDGE END SECTION
SEE STD. SHEET FOR TYPE
GUARD RAIL "W" BEAM
TOP OF CURB
TOP OF RAIL
TREATED TIMBER BLOCKOUT (2" x 12" S) AS REQ'D. BEVEL AS REQ'D. BOLT TO GUARD RAIL WITH ⅝" BOLT.
TERMINAL CONNECTOR REQ'D.
MOUNTING BRACKETS REQ'D
NEUTRAL AXIS
SLOTS
DETAILS SHOWING PLACEMENT OF HOLES FOR CONNECTOR (VIEWED FROM ROADWAY)
RAIL
CURB
20' SPAN
30' AND 40' SPANS
DETAILS SHOWING PLACEMENT OF HOLES FOR INTERMEDIATE BRACKET (VIEWED FROM ROADWAY)
DETAIL OF INTERMEDIATE BRACKET
TOP VIEW
SIDE ELEVATION
FRONT ELEVATION SHOWING 10 GA. GUARD RAIL CONNECTION TO W12x50
8 ⅛" x 12 ½" x ⅜" PLATE BACK OF RAIL PLATE & BACK OF BRACKET
DETAIL OF BACK PLATE
DETAIL OF FRONT PLATE
DETAIL OF TERMINAL CONNECTOR PLATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1039 **CODE: (SP)**

DATE: 06/26/2006

SUBJECT: Contract Time

PROJECT: STP-0064-01(024)MP / 104763 -- Pearl River County

The completion of work to be performed by the Contractor for this project will not be a specified date but shall be when all allowable time units are assessed, or any extension thereto as provided in Subsection 108.06. It is anticipated that the Notice of Award will be issued by not later than **August 8, 2006** and the date for issuing the Notice to Proceed / Beginning of Contract Time will be no later than **November 9, 2006**.

Should the Contractor request a Notice to Proceed earlier than **November 9, 2006**, the date the Notice to Proceed is issued will also be the Beginning of Contract Time date.

Allowable Time Units will be **54**.

The contract time has been based on Column **"D"** of the Table of Time Units, in Subsection 108.06.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1040 **CODE: (SP)**

DATE: 06/26/2006

SUBJECT: Specialty Items

PROJECT: STP-0064-01(024)MP / 104763--PEARL RIVER COUNTY(IES)

Pursuant to the provisions of Section 108, the following work items are hereby designated as "Specialty Items" for this contract. Bidders are reminded that these items must be subcontracted in order to be considered as specialty items.

CATEGORY: CURB

Ref No	Pay Item	Description
130	609-D	Combination Concrete Curb and Gutter Type 2

CATEGORY: GUARDRAIL

Ref No	Pay Item	Description
100	606-B	Guard Rail, Class A, Type 1, 'W' Beam, Metal Post
110	606-D	Guard Rail, Bridge End Section, Type A Modified
120	606-E	Guard Rail, Terminal End Section
320	630-F	Delineators, Guard Rail, White

CATEGORY: PAVEMENT MARKING

Ref No	Pay Item	Description
210	907-626-C	6" Thermoplastic Double Drop Edge Stripe, Continuous White
220	626-D	6" Thermoplastic Traffic Stripe, Skip Yellow
230	626-E	6" Thermoplastic Traffic Stripe, Continuous Yellow
240	626-G	Thermoplastic Detail Stripe, White
250	626-G	Thermoplastic Detail Stripe, Yellow
260	626-H	Thermoplastic Legend, White
270	626-H	Thermoplastic Legend, White
280	627-L	Two-Way Yellow Reflective High Performance Raised Markers
290	628-J	6" High Performance Cold Plastic Traffic Stripe, Continuous White
300	628-L	6" High Performance Cold Plastic Traffic Stripe, Skip Yellow
310	628-M	6" High Performance Cold Plastic Traffic Stripe, Continuous Yellow

CATEGORY: TRAFFIC CONTROL

Ref No	Pay Item	Description
170	619-A1	Temporary Traffic Stripe, Continuous White
180	619-A2	Temporary Traffic Stripe, Continuous Yellow
190	619-A4	Temporary Traffic Stripe, Skip Yellow
200	619-A6	Temporary Traffic Stripe, Legend

SUPPLEMENT TO FORM FHWA-1273

The following MINIMUM HOURLY WAGE RATES have been predetermined by the Secretary of Labor in Wage Determination Decision No. MS20030024 dated June 13, 2003.

AREA 6 COUNTIES:

GEORGE, PEARL RIVER, AND STONE

PAYROLL CODE	CLASSIFICATION	MIN. HOURLY
100	Air Tool Operator (Jack Hammer/Air Comp.)	$5.50
105	Asphalt Raker	5.91
108	Mason Tender (Cement Mason Helper)	7.07
110	Carpenter	9.93
120	Cement Mason (Finisher)	8.05
130	Electrician	12.00
131	Mechanic (Heavy Equipment)	7.48
135	Oiler-Greaser	6.78
140	Form Setter	8.30
145	Grade Checker (Asphalt Crew)	6.50
150	Ironworker, Reinforcing (Tie Steel)	11.29
155	Ironworker, Structural	7.64
160	Laborer, Unskilled	5.72
165	Pipelayer	7.50
175	Painter (Structural Steel)	8.63
180	Piledriverman	8.00
185	Truck Driver (All Types)	6.11
190	Joint Filler	5.15
195	Joint Setter	5.15
197	Welder	8.75
	POWER EQUIPMENT OPERATORS	
205	Aggregate Spreader Operator	6.26
212	Asphalt Broom (Sweeper) Operator	6.51
214	Asphalt Paving Machine/Spreader Operator	7.75
215	Asphalt Distributor Operator	5.75
216	Asphalt Plant Operator	6.31
220	Backhoe (Shovel) Operator	8.30
225	Bulldozer Operator	7.99
235	Concrete Finishing/Curing Machine Operator	7.85
240	Concrete Paving Machine Operator (Spreader)	8.97
250	Concrete Saw Operator	9.38
255	Concrete Breaker & Hydro-Hammer Operator	8.24
270	Loader (All Types)	8.00
275	Milling Machine Operator	7.26
280	Mixer Operator (All Types)	8.12
285	Motor Patrol (Grader) Operator	8.71
290	Mulcher Machine Operator	5.15
295	Earth Auger Operator	8.00
300	Piledriver Machine Operator	8.13
305	Roller Operator (Self-Propelled)	5.66
310	Scraper Operator (All Types)	6.53
315	Striping Machine Operator	8.50
320	Tractor Operator (Track Type)	10.00
325	Tractor Operator (Wheel Type)	5.63
330	Trenching Machine Operator	8.88
350	Crusher Feeder Machine Operator	5.50
360	Crane (Dragline) Operator	8.95
365	Guardrail Post Driver	8.57

Authorized Payroll Code may be used in lieu of classification titles on weekly payrolls submitted to this Department. Codes or classification titles not conforming to those listed will not be acceptable.

SUPPLEMENT TO FORM FHWA-1273

DATE: 6/15/94

SUBJECT: Final Certificate and Contract Provisions for Subcontracts

All subcontracts shall be in writing and contain all pertinent provisions and requirements of the prime contract.

Each "Request for Permission to Subcontract" (Mississippi Department of Transportation Form CAD-720) shall include a copy of subcontract for review by the Mississippi Department of Transportation. The federal contract provisions may be omitted from the subcontract copy submitted for review provided the Contractor certifies that the provisions will be physically incorporated into the agreement furnished to the Subcontractor.

In lieu of submitting a copy of the subcontract for review, the Contractor may certify that the subcontract agreement is in writing and that it contains all the requirements and pertinent provisions of the prime contract.

Each Subcontractor will be required to provide a copy of the subcontract agreement for contract compliance reviews, along with physical evidence (copy of FHWA-1273) that requirements and pertinent provisions have been provided for review and adherence.

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4, and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant

of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly takecorrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. **Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward

qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within thetime limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. **Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. **Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of $10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. **General:**

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. **Classification:**

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. **Payment of Fringe Benefits:**

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. **Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:**

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level ofprogress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wagedetermination for the classification of work actually performed.

5. **Apprentices and Trainees (Programs of the U.S. DOT):**

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. **Withholding:**

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the

same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. **Overtime Requirements:**

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. **Violation:**

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. **Withholding for Unpaid Wages and Liquidated Damages:**

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. **Compliance with Copeland Regulations (29 CFR 3):**

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. **Payrolls and Payroll Records:**

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned,

without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less that the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than $1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provideall safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary,

hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false represen-tation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended andsupplemented;

Shall be fined not more that $10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such require-ments.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. **Instructions for Certification - Primary Covered Transactions:**

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowinglyrendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

2. **Instructions for Certification - Lower Tier Covered Transactions:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions of $25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive

Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

NOTICE OF REQUIREMENTS FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables	Goals for female participation in each trade (percent)
From April 1, 1978 until March 31, 1979	3.1
From April 1, 1979 until March 31, 1980	5.1
From April 1, 1980 until March 31, 1981	6.9

Until further notice	Goals for minority participation for each trade (percent)
SHSA Cities:	
Pascagoula - Moss Point	16.9
Biloxi - Gulfport	19.2
Jackson	30.3
SMSA Counties:	
Desoto	32.3
Hancock, Harrison, Stone	19.2
Hinds, Rankin	30.3
Jackson	16.9
Non-SMSA Counties:	
George, Greene	26.4
Alcorn, Benton, Bolivar, Calhoun, Carroll, Chickasaw, Clay, Coahoma,Grenada, Itawamba, Lafayette, Lee, Leflore, Marshall, Monroe,Montgomery, Panola, Pontotoc, Prentiss, Quitman, Sunflower,Tallahatchie, Tate, Tippah, Tishomingo, Tunica, Union, Washington, Webster, Yalobusha	26.5
Attala, Choctaw, Claiborne, Clarke, Copiah, Covington, Franklin, Holmes, Humphreys, Issaquena, Jasper, Jefferson, Jefferson Davis, Jones Kemper, Lauderdale, Lawrence, Leake, Lincoln, Lowndes, Madison, Neshoba, Newton, Noxubee, Oktibbeha, Scott, Sharkey, Simpson, Smith, Warren, Wayne, Winston, Yazoo	32.0
Forrest, Lamar, Marion, Pearl River, Perry, Pike, Walthall	27.7
Adams, Amite, Wilkinson	30.4

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor, estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is to the county and city (if any), stated in the advertisement.

5. The notification required in Paragraph 3 shall be addressed to the following:

Contract Compliance Officer
Mississippi Department of Transportation
P.O. Box 1850
Jackson, Mississippi 39215-1850

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-105-3 **CODE: (IS)**

DATE: 02/14/2006

SUBJECT: **Cooperation By Contractor**

Section 105, Control of Work, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is modified as follows:

907-105.05--Cooperation by Contractor. In the third sentence of the second paragraph of Subsection 105.05 on page 35, change "Notice to Proceed" to "Notice of Award".

Delete the fourth paragraph of Subsection 105.05 on page 35, and substitute the following.

The Contractor shall also designate a responsible person whose primary duty shall be to monitor and maintain the effectiveness of the erosion control plan, including NPDES permit requirements. This responsible person must be a Certified Erosion Control Person certified by an organization approved by the Department. Prior to or at the pre-construction conference, the Contractor shall designate in writing the Certified Erosion Control Person to the Project Engineer. The designated Certified Erosion Control Person shall be assigned to only one (1) project. When special conditions exist, such as two (2) adjoining projects or two (2) projects in close proximity, the Contractor may request in writing that the State Construction Engineer approve the use of one (1) Certified Erosion Control Person for both projects. The Contractor may request in writing that the Engineer authorize a substitute Certified Erosion Control Person to act in the absence of the Certified Erosion Control Person. The substitute Certified Erosion Control Person must also be certified by an organization approved by the Department. A copy of the Certified Erosion Control Person's certification must be included in the Contractor's Protection Plan as outlined in Subsection 907-107.22.1. This in no way modifies the requirements regarding the assignment and availability of the superintendent.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO SPECIAL PROVISION NO. 907-107-1

DATE: 03/21/2006

SUBJECT: Liability Insurance

In the first sentence of the first paragraph of Subsection 907-107.14.2.1 on page 1, change "$300,000 each occurrence" to "$500,000 each occurrence".

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-107-1 **CODE: (IS)**

DATE: 05/03/2004

SUBJECT: **Liability Insurance**

Section 107, Legal Relations and Responsibility to Public, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-107.14.2--Liability Insurance. Delete in toto Subsection 107.14.2 beginning on page 60 and substitute:

907-107.14.2.1--General. The Contractor shall carry Contractor's liability, including subcontractors and contractual, with limits not less than: $300,000 each occurrence; $1,000,000 aggregate; automobile liability - $500,000 combined single limit - each accident; Workers' Compensation and Employers' Liability - Statutory & $100,000 each accident; $100,000 each employee; $500,000 policy limit. Each policy shall be signed or countersigned by a Mississippi Resident Agent of the insurance company.

The Contractor shall have certificates furnished to the Department from the insurance companies providing the required coverage. The certificates shall be on the form furnished by the Department and will show the types and limits of coverage.

907-107.14.2.2--Railroad Protective. The following provisions are applicable to all work performed under a contract on, over or under the rights-of-way of each railroad shown on the plans.

The Contractor shall assume all liability for any and all damages to work, employees, servants, equipment and materials caused by railroad traffic.

Prior to starting any work on railroad property, the Contractor shall furnish satisfactory evidence to the Department that insurance of the forms and amounts set out herein in paragraphs (a) and (b) has been obtained. Also, the Contractor shall furnish similar evidence to the Railroad Company that insurance has been obtained in accordance with the Standard Provisions for General Liability Policies and the Railroad Protective Liability Form as published in the Code of Federal Regulations, 23 CFR 646, Subpart A. Evidence to the Railroad Company shall be in the form of a Certificate of Insurance for coverages required in paragraph (b), and the original policy of the Railroad Protective Liability Insurance for coverage required in paragraph (a).

All insurance herein specified shall be carried until the contract is satisfactorily complete as evidenced by a release of maintenance from the Department.

The Railroad Company shall be given at least 30 days notice prior to cancellation of the Railroad Protective Liability Insurance policy.

For work within the limits set out in Subsection 107.18 and this subsection, the Contractor shall provide insurance for bodily injury liability, property damage liability and physical damage to property with coverages and limits no less than shown in paragraphs (a) and (b). Bodily injury shall mean bodily injury, sickness, or disease, including death at anytime resulting therefrom. Property damage shall mean damages because of physical injury to or destruction of property, including loss of use of any property due to such injury or destruction. Physical damage shall mean direct and accidental loss of or damage to rolling stock and their contents, mechanical construction equipment or motive power equipment.

(a) **Railroad Protective Liability Insurance** shall be purchased on behalf of the Railroad Company with limits of $2,000,000 each occurrence; $6,000,000 aggregate applying separately to each annual period for lines without passenger trains. If the line carries passenger train(s), railroad protective liability insurance shall be purchased on behalf of the Railroad Company with limits of $5,000,000 each occurrence; $10,000,000 aggregate applying separately to each annual period.

Coverage shall be limited to damage suffered by the railroad on account of occurrences arising out of the work of the Contractor on or about the railroad right-of-way, independent of the railroad's general supervision or control, except as noted in paragraph 4 below.

Coverage shall include:

(1) death of or bodily injury to passengers of the railroad and employees of the railroad not covered by State workmen's compensation laws,

(2) personal property owned by or in the care, custody or control of the railroads,

(3) the Contractor, or any of the Contractor's agents or employees who suffer bodily injury or death as a result of acts of the railroad or its agents, regardless of the negligence of the railroads, and

(4) negligence of only the following classes of railroad employees:

(i) any supervisory employee of the railroad at the job site

(ii) any employee of the railroad while operating, attached to, or engaged on, work trains or other railroad equipment at the job site which are assigned exclusively to the Contractor, or

(iii) any employee of the railroad not within (i) or (ii) above who is specifically loaned or assigned to the work of the Contractor for prevention of accidents or protection or property, the cost of whose services is borne specifically by the Contractor or Governmental authority.

(b) **Regular Contractor's Liability**, including subcontractors, XCU and railroad contractual with limits of $1,000,000 each occurrence; $2,000,000 aggregate. **Automobile** with limits of $1,000,000 combined single limit any one accident; **Workers' Compensation and Employer's Liability** - statutory and $100,000 each accident; $100,000 each employee; $500,000 policy limit. **Excess/Umbrella Liability** $5,000,000 each occurrence; $5,000,000 aggregate. All coverage to be issued in the name of the Contractor shall be so written as to furnish protection to the Contractor respecting the Contractor's operations in performing work covered by the contract. Coverage shall include protection from damages arising out of bodily injury or death and damage or destruction of property which may be suffered by persons other than the Contractor's own employees.

In addition, the Contractor shall provide for and on behalf of each subcontractor by means of a separate and individual liability and property damage policy to cover like liability imposed upon the subcontractor as a result of the subcontractor's operations in the same amounts as contained above; or, in the alternative each subcontractor shall provide same.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-107-2 **CODE: (IS)**

DATE: 08/12/2005

SUBJECT: **Permits, Licenses and Taxes**

Section 107, Legal Relations and Responsibility to Public, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-107.02--Permits, Licenses and Taxes. Delete in toto Subsection 107.02 on page 49 and substitute the following:

The Contractor or any Subcontractor shall have the duty to determine any and all permits and licenses required and to procure all permits and licenses, pay all charges, fees and taxes and issue all notices necessary and incidental to the due and lawful prosecution of the work. At any time during the life of this contract, the Department may audit the Contractor's or Subcontractor's compliance with the requirements of this section.

The Contractor or any Subcontractor is advised that the "Mississippi Special Fuel Tax Law", Section 27-55-501, et seq. and the Mississippi Use Tax Law, Section 27-67-1, et seq., and their requirements and penalties, apply to any contract or subcontract for construction, reconstruction, maintenance or repairs, for contracts or subcontracts entered into with the State of Mississippi, any political subdivision of the State of Mississippi, or any Department, Agency, Institute of the State of Mississippi or any political subdivision thereof.

The Contractor or any Subcontractor will be subject to one or more audits by the Department during the life of this contract to make certain that all applicable fuel taxes, as outlined in Section 27-55-501, et seq., and any sales and/or use taxes, as outlined in Section 27-67-1, et seq. are being paid in compliance with the law. The Department will notify the Mississippi State Tax Commission of the names and addresses of any Contractors or Subcontractors.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-107-3 **CODE: (IS)**

DATE: 02/14/2006

SUBJECT: Contractor's Protection Plan

Section 107, Legal Relations and Responsibility to Public, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-107.22.1--Contractor's Protection Plan. After item number 3 in Subsection 107.22.1 on page 65, add the following:

4. A copy of the certification for the Contractor's Certified Erosion Control Person for monitoring and maintaining the effectiveness of the erosion control plan, including NPDES permit requirements.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-108-11 **CODE: (IS)**

DATE: **04/21/2006**

SUBJECT: **Prosecution and Progress**

Section 108, Prosecution and Progress, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-108.01--Subletting of Contract.

907-108.01.1--General. At the end of the last paragraph of Subsection 108.01.1 on page 73, add the following:

The Engineer will have the authority to suspend the work wholly or in part and to withhold payments because of the Contractor's failure to make prompt payment within 15 calendar days as required above, or failure to submit the required OCR-484 Form, Certification of Payments to Subcontractors, which is also designed to comply with prompt payment requirements.

907-108.02--Notice To Proceed. Delete the fourth paragraph of Subsection 108.02 on page 75 and substitute the following:

Upon written request from the Contractor and if circumstances permit, the Notice to Proceed may be issued at an earlier date subject to the conditions stated therein. The Contractor shall not be entitled to any monetary damages or extension of contract time for any delay claim or claim of inefficiency occurring between the early issuance Notice To Proceed date and the Notice to Proceed date stated in the contract.

907-108.06.1.2--Contract Time Assessment. At the end of the eighth paragraph of Subsection 108.06.1.2 on page 81, add the following:

When the approved progress schedule indicates that a controlling phase(s) is to be completed prior to December 1 and the physical features of the phase(s) have not been satisfactorily completed, beginning on December 1 the miscellaneous phase will be shown as the only active phase during the months of December, January, and February. Under this condition, time units, monthly time units divided by monthly calendar days, will be assessed in accordance with the applicable column in the TABLE OF TIME UNITS. If the physical features of the phase(s) have not been completed by March 1, the phase will resume as a controlling phase and time assessment will be made accordingly.

Delete the fourth and fifth sentence of the thirteenth paragraph of Subsection 108.06.1.2 on page 82, and substitute the following:

In the event mutual agreement cannot be reached, the Contractor will be allowed a maximum of 25 calendar days following the Contractor's receipt of the monthly report in question to file a protest Notice of Claim in accordance with the provisions of Subsection 105.17. Otherwise, the Engineer's assessment shall be final unless mathematical errors of assessment are subsequently found to exist.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-109-3 **CODE: (IS)**

DATE: 04/06/2006

SUBJECT: Partial Payment

Section 109, Measurement and Payment, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-109.04--Extra and Force Account Work. Delete the first sentence of the second paragraph of Subsection 109.04 under (d) on page 92 and substitute the following:

In the event an agreement cannot be reached for a particular piece of equipment, the book entitled "Rental Rate Blue Book For Construction Equipment" as published by EquipmentWatch® and is current at the time the force account work is authorized will be used to determine equipment ownership and operating expense rates.

907-109.06--Partial Payment.

907-109.06.1--General. In the fourth sentence of the third paragraph of Subsection 109.06.1 on page 94, change “15 calendar days” to “25 calendar Days”.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-401-2 **CODE: (IS)**

DATE: 11/04/2005

SUBJECT: Hot Mix Asphalt (HMA)

Section 401, Hot Mix Asphalt (HMA) - General, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

Delete in toto Subsection 401.02.6.2 on pages 248 and 249, and substitute:

907-401.02.6.2--Assurance Program for Mixture Quality. The Engineer will conduct a quality assurance program. The quality assurance program will be accomplished as follows:

1) Conducting verification tests.
2) Validate Contractor test results.
3) Periodically observing Contractor quality control sampling and testing.
4) Monitoring required quality control charts and test results.
5) Sampling and testing materials at any time and at any point in the production or laydown process.

The rounding of all test results will be in accordance with Subsection 700.04.

The Engineer will conduct verification tests on samples taken by the Contractor under the direct supervision of the Engineer at a time specified by the Engineer. The frequency will be equal to or greater than ten percent (10%) of the tests required for Contractor quality control and the data will be provided to the Contractor within two asphalt mixture production days after the sample has been obtained by the Engineer. At least one sample shall be tested from the first two days of production. All testing and data analysis shall be performed by a Certified Asphalt Technician-I (CAT-I) or by an assistant under the direct supervision of the CAT-I. Certification shall be in accordance with the *MDOT HMA Technician Certification Program* chapter in the Materials Division Inspection, Testing, and Certification Manual. The Department shall post a chart giving the names and telephone numbers for the personnel responsible for the assurance program.

The Engineer shall be allowed to inspect Contractor testing equipment and equipment calibration records to confirm both calibration and condition. The Contractor shall calibrate and correlate all testing equipment in accordance with the latest versions of the Department's Test Methods and AASHTO Designation: R 18.

Random differences between the Engineer's verification tests and the current running average of four quality control tests at the time of obtaining the verification sample will be considered acceptable if within the following limits:

Item	Allowable Differences
Sieve - % Passing	
3/8-inch and above	6.0
No. 4	5.0
No. 8	4.0
No. 16, for 4.75 mm mixtures ONLY	3.5
No. 30	3.5
No. 200	2.0
AC Content	0.4
Specimen Bulk SG, Gmb @ N_{Design}	0.030
Maximum SG, Gmm	0.020

If four quality control tests have not been tested prior to the time of the first verification test, the verification test results will be compared to the average of the preceding quality control tests. If the verification test is the first material tested on the project or if a significant process adjustment was made just prior to the verification test, the verification test results will be compared to the average of four subsequent quality control test results. For all other cases after a significant process adjustment, the verification test results will be compared to the average of the preceding quality control tests (taken after the adjustment) as in the case of a new project start-up when four quality control tests are not available.

In the event that; 1) the comparison of the Contractor's running average quality control data and Engineer's quality assurance verification test results are outside the allowable differences in the above table, or 2) if a bias exists between the results, such that one of the results is predominately higher or lower than the other, and the Engineer's results fail to meet the JMF control limits, the Engineer will investigate the reason immediately. As soon as the need for an investigation becomes known, the Engineer will increase the quality assurance sampling rate to the same frequency required for Contractor testing. The additional samples obtained by the Engineer may be used as part of the investigation process or for routine quality assurance verification tests. The Engineer's investigation may include testing of the remaining quality control split samples, review and observation of the Contractor's testing procedures and equipment, and a comparison of split sample test results by the Contractor quality control laboratory, Department quality assurance laboratory and the Materials Division laboratory. The procedures outlined in the latest edition of MDOT's Field Manual for HMA may be used as a guide for the investigation. In the event that the Contractor's results are determined to be incorrect, the Engineer's results will be used for the quality control data and the appropriate payment for the mixture will be based on the procedures specified in Subsection 401.02.5.8(j).

The Engineer will periodically witness the sampling and testing being performed by the Contractor. The Engineer, both verbally and in writing, will promptly notify the Contractor of any observed deficiencies. When differences exist between the Contractor and the Engineer which cannot be resolved, a decision will be made by the State Materials Engineer, acting as the referee. The Contractor will be promptly notified in writing of the decision. If the deficiencies are not corrected, the Engineer will stop production until corrective action is taken.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-403-4 **CODE: (IS)**

DATE: 11/04/2005

SUBJECT: Hot Mix Asphalt (HMA)

Section 403, Hot Bituminous Pavement, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-403.05.2--Pay Items. Add the "907" prefix to the pay items listed on page 275 & 276.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

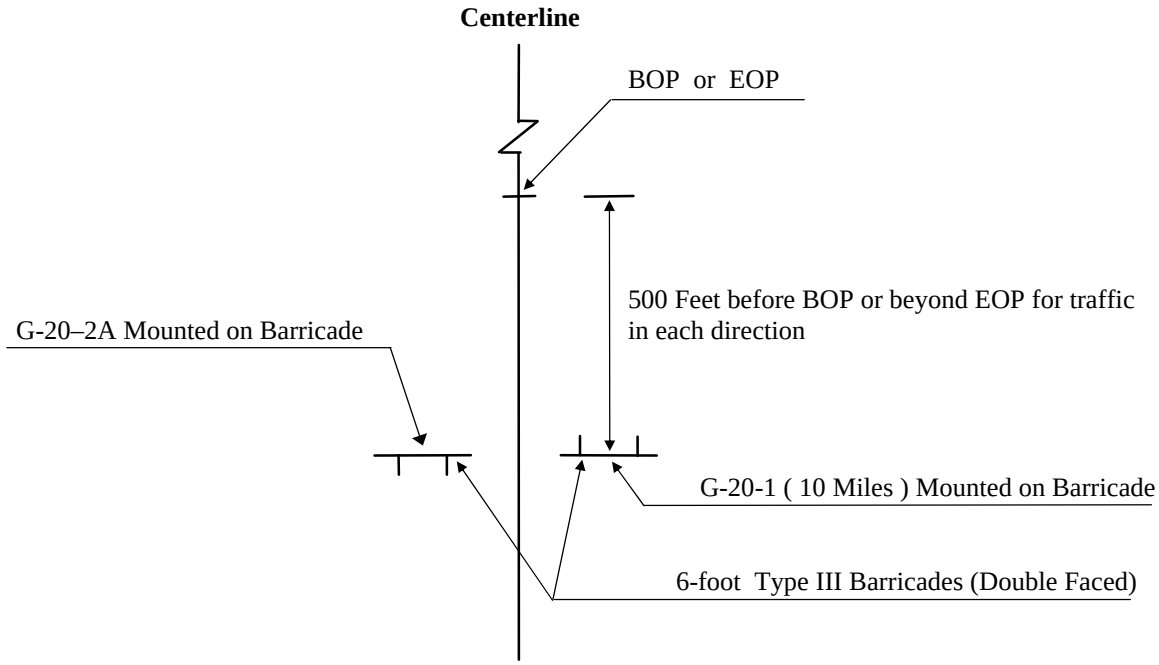
SUPPLEMENT TO SPECIAL PROVISION NO. 907-618-1

DATE: 06/26/2006

PROJECT: STP-0064-01(024)MP / 104763 -- Pearl River County

After the first paragraph of Subsection 907-618.01.2 on page 1, add the following:

Additional signs will be required as follows:



ADDITIONAL TRAFFIC CONTROL SIGNS REQUIRED:

- 36 - W20-1 (AHEAD) signs required. One (1) W20-1 (AHEAD) sign is required at each local road or street entering the project.
- 35 - R4 -1 “DO NOT PASS” signs required.
- 35 - R4 -2 “PASS WITH CARE” signs required.
- 35 - W14 -3 “NO PASSING ZONE” signs required.

R4 -1 “ DO NOT PASS ”, R4 -2 “ PASS WITH CARE” , and W14 -3 “NO PASSING ZONE” signs are required in accordance with Subsection 618.03.3 and as specified in the Manual on Uniform Traffic Control Devices. If no passing zones are 1,000 feet or more, install additional “DO NOT PASS” signs on maximum spacing of 750 feet.

All Construction signing is included in the bid for Pay Item 618-A, Maintenance of Traffic. Fluorescent orange sheeting shall be used on all construction and traffic control signs except for R4-1 and R4-2 signs which shall be black legend and border on white background.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-618-1 **CODE: (SP)**

DATE: 04/29/2004

SUBJECT: Additional Signing Requirements

Section 618, Maintenance of Traffic and Traffic Control Plan, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-618.01.2--Traffic Control Plan. At the end of Subsection 618.01.2 on page 413, add the following:

For compliance with the traffic control plan, the Contractor will be required to install and maintain construction signs at various location throughout the project. Payment for these signs will be included in the price bid for pay item no. 618-A, Maintenance of Traffic per lump sum.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-626-7 **CODE: (SP)**

DATE: 02/04/2005

SUBJECT: Double Drop Thermoplastic Markings

PROJECT: STP-0341-00(005)MP / 104767 &
STP-2902-00(012)MP / 104768 -- Clarke County

Section 626, Thermoplastic Traffic Markings, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-626.03.1.2--Construction Details. After the third full paragraph of Subsection 626.03.1.2 on page 445 and substitute the following:

When double drop thermoplastic stripe is called for in the contract, additional beads by the drop-on method shall be applied as follows:

Class A glass beads at a rate of not less than three pounds of beads per 100 feet of six-inch stripe. Class B glass beads at a rate of not less than three pounds of beads per 100 feet of six-inch stripe.

The Class B glass beads shall be applied to the newly placed stripe first, followed by the application of the Class A glass beads.

907-626.05--Basis of Payment. Delete pay item nos. 626-C and 626-F listed on page 446, and substitute the following.

907-626-C: 6" Thermoplastic Double Drop Edge Stripe, Continuous White - per linear foot or mile

907-626-F: 6" Thermoplastic Double Drop Edge Stripe, Continuous Yellow - per linear foot or mile

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-804-4 **CODE: (SP)**

DATE: **03/16/2006**

SUBJECT: **Concrete Bridges And Structures**

Section 804, Concrete Bridges And Structures, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby deleted in toto and replaced as follows:

SECTION 907-804--CONCRETE BRIDGES AND STRUCTURES

907-804.01--Description. This work consists of constructing concrete bridges and structures in accordance with these specifications and in reasonably close conformity with the dimensions, designs, lines, and grades indicated on the plans or established.

Construction of box bridges shall be in accordance with Sections 601 and 602.

907-804.02--Materials.

907-804.02.1--General. The materials used in this construction, when sampled and tested in accordance with 700.03, shall meet the requirements of the following subsections:

Portland Cement	701.01 and 701.02
Admixtures	713.02
Fly Ash	714.05
Water	714.01.1 and 714.01.2
Fine Aggregate	703.02
Coarse Aggregate	703.03
Curing Materials	713.01
Joint Materials	707.01, 707.02, and 707.07
Structural Steel Joints and Bearing Devices	717.01
Sheet Copper	716.07.2
Bronze Bearing Devices	716.06
Copper-Alloy Bearing Devices	716.07.1
Self-Lubricating Bearing Plates	716.08
Bearing Pads	714.10
Wire Rope or Wire Cable for Prestressed Concrete	700.01 and 711.03
Sprayed Finish for Concrete Surface	714.12
Reinforcing Steel	711.02

The Engineer's approval of sources of lightweight aggregates will be based on early establishment by the Contractor of the proven ability of the supplier to produce satisfactory aggregate. (Reference is made to Subsection 102.14)

907-804.02.2--Use, Care and Handling. The use, care and handling of materials shall conform to the applicable requirements of Subsection 501.03.10 and the specific requirements of 907-804.02.4 and 907-804.02.5. Unless otherwise authorized, only fine aggregate or coarse aggregate of one type and from the same source shall be used in the construction of any one unit of a structure. Should the Contractor, with written permission of the Engineer, elect to substitute high early strength cement for cement of the type specified, he will not receive additional compensation for the substitution.

907-804.02.3--Sampling and Testing. Sampling and testing for acceptance and control purposes shall be in accordance with Subsection 700.03 and the other subsections of Division 700 as applicable.

The Contractor, without extra compensation, shall supply the Engineer with the necessary representative concrete mix for making test specimens of concrete in accordance with Department SOP.

907-804.02.4--Care and Storage of Concrete Aggregates. The handling and storage of aggregates shall be such as to prevent segregation or contamination with foreign materials. The Engineer may require that aggregates be stored on separate platforms at satisfactory locations.

Lightweight aggregates shall be stored in floored bins adjacent to the mixing plant. Methods of storing and handling shall be such that the materials will remain uniform within specification requirements. The Contractor shall maintain aggregates in a uniform moist condition for a period of at least 72 hours prior to use. The aggregates in this condition shall contain at least 50% of the water that they would absorb during 24 hours of complete immersion, but shall be less than completely saturated. Bins shall be covered to prevent excessive wetting of the aggregate, and bin floors shall be sloped to prevent puddling under the aggregate.

When specified, coarse aggregates shall be separated into two or more sizes in order to secure greater uniformity of the concrete mixture. Different sizes of aggregate shall be stored in separate stock piles sufficiently removed from each other to prevent the material at the edges of the piles from becoming intermixed.

907-804.02.5--Storage of Cement. All cement shall be stored in suitable weather-proof buildings or bins. These buildings or bins shall be placed in locations approved by the Engineer. Provision for storage shall be ample, and the shipments of cement as received shall be stored separately or other provisions made to the satisfaction of the Engineer for easy access for the identification, inspection, and sampling of each shipment as deemed desirable. Stored cement shall meet the test requirements at any time after storage when a retest is ordered by the Engineer.

On small jobs, open storage consisting of a raised platform and ample waterproof covering may be permitted by written authorization from the Engineer.

When specified, the Contractor shall keep accurate records of deliveries of cement and of its use in the work. Copies of these records shall be supplied to the Engineer in the form he requires.

907-804.02.6--Classification and Uses of Concrete. When a specific class of concrete is not specified on the plans or in the contract documents, the structure or parts thereof shall be constructed with the class of concrete as directed by the Engineer.

The classes and their uses are as follows:

(1) Class AA - Concrete for bridge construction and concrete exposed to seawater.
(2) Class A - Concrete for use where indicated.
(3) Class B - General use, heavily reinforced sections, cast-in-place concrete piles, and conventional concrete piles.
(4) Class C - Massive sections or lightly reinforced sections.
(5) Class D - Massive unreinforced sections and riprap.
(6) Class F - Concrete for prestressed members.
(7) Class FX - Extra strength concrete for prestressed members, as shown on plans.
(8) Class S - For all seal concrete deposited under water.
(9) Class DS - Drilled Shaft Concrete

907-804.02.7--Composition of Concrete.

907-804.02.7.1--General. In general, a mixture shall be used which contains the minimum quantity of water consistent with the required workability and shall be such that:

A. The mortar clings to the coarse aggregate;
B. The concrete is not sufficiently fluid to segregate when transported to the place of deposit;
C. The concrete shall settle into place when deposited in forms and vibrated;
D. The mortar shall show no free water when removed from the mixer; and
E. The upper layer of the set concrete shall show a cement film on the surface but shall be free from laitance.

907-804.02.8--Blank.

907-804.02.9--Blank.

907-804.02.10--Portland Cement Concrete Mix Design. At least 30 days prior to production of concrete, the Contractor shall submit to the Engineer proposed concrete mix designs complying with TMD 21-12-00-000. Materials shall be from approved sources meeting the requirements of the Standard Specifications. Proportions for the mix designs shall be for the class concrete required by the contract plans and shall meet the requirements of the "Master

Proportion Table for Structural Concrete Design" listed in Table 3. The concrete producer shall assign a permanent unique mix number to each mix design. Each mix design shall be field verified as required in Subsection 907-804.02.10.3. Acceptable field verification data shall be required for final approval of a mix design. All concrete mix designs will be reviewed by the Central Laboratory prior to use. Concrete mix designs disapproved will be returned to the Contractor with a statement explaining the disapproval.

Table 3
MASTER PROPORTION TABLE FOR STRUCTURAL CONCRETE DESIGN

Class	Coarse Aggregate Size No. *	Maximum Water/ Cementitious ** Ratio	Specified Compressive Strength (F'_c) psi	Maximum Slump *** inches	Total Air Content %
AA	57 or 67	0.45	4000	3	3.0 to 6.0
A	57 or 67	0.45	4000	3	3.0 to 6.0
B	57 or 67	0.50	3500	4	3.0 to 6.0
C	57 or 67	0.55	3000	4	3.0 to 6.0
D	57 or 67	0.70	2000	4	3.0 to 6.0
F	67	0.40	5000	3	****
FX	67	(As required by special provisions)		3	****
S	57 or 67	0.45	3000	8	3.0 to 6.0
DS	67	0.45	4000	*****	****

* Maximum size aggregate shall conform to the concrete mix design for the specified aggregate.

** Maximum replacement of Portland cement by weight is 25% for fly ash or 50% for ground granulated blast furnace slag. The addition of fly ash as a replacement for cement will not be permitted in Type IP blended hydraulic cement, portland cement combined with ground granulated blast furnace slag or Type III portland cement when specified in the contract.

*** The slump may be increased up to 6 inches with an approved mid-range water reducer or up to 8 inches with an approved type F or G high range water reducer. A mid-range water reducer is classified as a water reducer that reduces the mix water a minimum of 8% when compared to a control mix with no admixtures. Minus slump requirements shall meet those set forth in Table 3 of AASHTO Designation: M157 specifications.

**** No entrained air except for pilings exposed to seawater.

***** Class DS Concrete for drilled shafts shall have an 8 ±1-inch slump. In the event the free fall method of concrete placement is used, the slump shall be 6 ±1-inch. No fly ash, ground granulated blast furnace slag, or F or G high range water reducers allowed in drilled shaft concrete. A slump retention admixture is required.

Either Type A, D, F, G, or mid-range chemical admixture, shall be used in all classes of concrete, except as noted above for drilled shaft concrete. Any combinations of water reducing admixtures shall be approved by the Engineer before their use.

907-804.02.10.1--Proportioning of Portland Cement Concrete Mix Design. Proportioning of Portland cement concrete shall be based on an existing mix of which the producer has field experience and documentation or based on a recently batched laboratory mix tested according to the required specifications.

907-804.02.10.1.1--Proportioning on the Basis of Previous Field Experience of Trial Mixtures. Where a concrete production facility has a record, based on at least 10 consecutive strength tests within the past 12 months from a mixture not previously used on Department projects, the standard deviation shall be calculated. The record of tests from which the standard deviation is calculated shall:

a) Represent similar materials and conditions to those expected. Changes in materials and proportions within the test record shall not have been more closely restricted than those for the proposed work.

b) Represent concrete produced to meet a specified strength.

c) Consist of 10 consecutive tests, average of two cylinders per test, tested at 28 days.

The standard deviation, s , shall be calculated as:

$$s = \left[\sum \left(X_i - \overline{X}\right)^2 \div (N-1)\right]^{1/2}$$

where:

X_i = the strength result of an individual test
$\overline{X}$ = the average of individual tests in the series
N = number of tests in the series

When the concrete production facility does not have a record of tests for calculation of standard deviation, as required in the above formula, the requirements of Subsection 907-804.02.10.1.2 shall govern.

The required average compressive strength (f'_{cr}) used as the basis for selection of concrete proportions shall conform to the inequality listed below, while using a standard deviation, s, calculated as shown above.

$\overline{X} \geq f'_{cr}$

where:

$f'_{cr} = f'_c + 1.43s$

where:

f'_c = specified compressive strength of concrete, psi
f'_{cr} = required average compressive strength of concrete, psi
s = standard deviation, psi

1.43 represents the Lower Quality Index necessary to assure that 93% of compressive strength tests are above f'_c.

907-804.02.10.1.2--Proportioning on the Basis of Laboratory Trial Mixtures. When an acceptable record of field test results is not available, concrete proportions shall be established based on laboratory trial mixtures meeting the following restrictions:

a) The combination of materials shall be those intended for use in the proposed work.

b) Trial mixtures having proportions and consistencies suitable for the proposed work shall be made using the ACI 211.1 as a guide to proportion the mix design.

c) Trial mixtures shall be designed to produce a slump within ±3/4 in. of the maximum permitted, and for air-entrained concrete, 6.0 ±0.5 percent total air content. The temperature of freshly mixed concrete in trial mixtures shall be reported.

d) For each proposed mixture, at least three compressive test cylinders shall be made and cured in accordance with AASHTO Designation: T 126. Each change of water-cement ratio shall be considered a new mixture. The cylinders shall be tested for strength in accordance with AASHTO Designation: T 22 and shall meet the required 28 day strength.

e) The required average strength of laboratory trial mixes shall exceed f'_c by 1200 psi for concrete mix designs less than 5000 psi and by 1400 psi for concrete mix designs of 5000 psi or more.

f) The laboratory trial batch mixtures shall have been made within the previous 12 months before being submitted for approval and shall not have been previously used on Department projects.

907-804.02.10.2--Documentation of Average Strength. Documentation that the proposed concrete proportions will produce an average strength equal to or greater than the required average shall consist of the strength test records from field tests or results from laboratory trial mixtures.

907-804.02.10.3--Field Verification of Concrete Mix Design. Concrete mix designs will only be tentatively approved pending field verification. Mix designs may be transferred to other projects without additional field verification testing, once the mix design has passed the field verification process.

The Contractor's Certified Quality Control Technicians shall test each concrete mix design upon the first placement of the mix. Aggregates and concrete tests during the first placement shall be as follows:

Aggregates	Concrete
Bulk Specific Gravity	Water Content
Moisture	Slump
Gradation	Air Content
	Unit Weight
	Yield

The mix shall be verified to yield within 2.0% of the correct volume when all the mix water is added to the batch, producing a slump within a minus 1½ inches tolerance, or minus 2½ inches with Type F or G chemical admixture, of the maximum permitted and total air content within a minus 1½ percent tolerance of the maximum allowable air content listed in Table 3. The mix shall be adjusted and retested, if necessary, on subsequent placements until the above mentioned properties are met. If the requirements of yield, slump, or air are not met after three attempts, subsequent field verification testing shall not be permitted on Department projects, and the mix design shall not be used until the requirements listed above are met. Any mix design adjustments, changes in the mix proportions, are to be made by a Class III Certified Technician representing the Contractor. After the mix design has been verified and adjustments made, verification test results will be reviewed by the Engineer.

907-804.02.10.4--Adjustments of Mixtures Proportions. After ten compressive tests have been performed for which a standard deviation is calculated, the mix design may be adjusted provided the average strength ($\overline{X}$) complies with the inequality in Subsection 907-804.02.10.1.1 and the adjusted mix design satisfies the water/cementitious ratio requirement listed in Table 3. Any adjustments of the concrete mix design shall necessitate repeat of field verification procedure as described in Subsection 907-804.02.10.3 and approval by the Engineer.

907-804.03--Construction Requirements.

907-804.03.1--Measurement of Materials.

907-804.03.1.1--General. The accuracy for measuring materials shall be in accordance with AASHTO Designation: M 157.

907-804.03.1.2--Measurement by Weighing. Except when otherwise specified or authorized, materials shall be measured by weighing. The apparatus provided for weighing materials shall be suitably designed and constructed for this purpose. Cement and each size of aggregate shall be weighed separately. Cement in standard bags need not be weighed, but bulk cement shall be weighed. The mixing water shall be measured by volume or by weight. All measuring devices shall be subject to approval.

The batching plant and equipment shall conform to the requirements of Subsection 501.03.2.

907-804.03.1.3--Volumetric Measurement. When volumetric measurements are authorized by the Engineer for projects where the quantity of concrete is small, the weight proportions shall be converted to equivalent volumetric proportions. In such cases, suitable allowance shall be made for variations in the moisture condition of the aggregate, including the bulking effect in the fine aggregate.

When the aggregates contain more water than the quantity necessary to produce a saturated surface-dry condition, representative samples shall be taken and the moisture content determined for each kind of aggregate.

When bag cement is used, the quantities of aggregates for each batch shall be exactly sufficient for one or more full bags of cement, and no batch requiring fractional bags of cement will be permitted.

907-804.03.2--Mixing and Conveying Concrete.

907-804.03.2.1--General. Unless otherwise authorized, concrete shall be machine mixed.

When air-entraining or other admixtures are added at the mixer, the Contractor shall provide separate approved scales for each admixture to be proportioned by weight, and accurate measures for each admixture to be proportioned by volume. The quantities to be introduced will be approved by the Engineer.

Ready-mixed concrete shall be of the same design and meet the same requirements set out for concrete mixed at the site. Mixing and transporting shall be as set out in 907-804.03.3.

All equipment necessary for construction of the applicable component of a concrete structure shall be available when required, in first class working condition, and approved by the Engineer before construction of the component will be permitted to start.

907-804.03.2.2--Mixer Requirements. Except when hand-mixing is specifically authorized, all concrete shall be mixed in a mechanically operated batch mixer of approved size and type.

When concrete is to be mixed on the site or in a central mixing plant, all mixers, except one-bag capacity mixers, shall be equipped with an approved device for timing each batch, and preferably shall be equipped with an automatic locking device which will prevent the discharge of the mixer until the batch has been mixed the specified time. Each mixer shall have affixed to it a manufacturer's plate showing the rated capacity and mixing speed and shall have a regulator for controlling the mixing speed. Each mixer shall be equipped with a device to measure the water per batch within two percent, and it shall be so arranged that the accuracy of the measurements will not be affected by leakage or variations in pressure in the water supply line. Methods shall be provided for checking the accuracy of the measuring device by re-measuring the water in an independent calibrated tank. These appliances shall be in proper working condition at all times

when the mixer is in operation. Mixer drums shall be water-tight, and the blades in the drum shall not be less than 85 percent of their original size.

The mixing capacity required shall be as hereinafter specified, and shall be adequate to permit pouring and finishing of a unit during daylight hours. Should the operating condition of any equipment be questionable, the Engineer may require that an approved auxiliary unit be supplied on bridge projects.

Concrete Mixer Capacity

Continuous Pour Cu. Yds.	Minimum Capacity Bags
< 25	1
25 to < 50	2
50 to 75	3
> 75	4

No mixer having a rated capacity of less than one bag shall be used nor shall a mixer be charged in excess of its rated capacity.

907-804.03.2.3--Scales. Scales shall be provided for accurately weighing the aggregate, and shall be suitably designed and constructed for this purpose. Each size of aggregate shall be weighed separately, and scales shall be of sufficient capacity to weigh at least 1/2 the coarse aggregate required for one batch. Scales, including weighing hopper for bulk cement, shall conform to the requirements of 907-804.03.1.2.

907-804.03.2.4--Mixing. Concrete shall be mixed only in the quantity required for immediate use. Concrete which has developed initial set shall not be used. Concrete which has partially hardened shall not be retempered or remixed.

The first batch of materials placed in the mixer shall contain an excess of cement, sand, and water sufficient to coat the inside of the drum without reducing the required mortar content of the mix.

When completely mixed at the site of the work or in a central mixing plant, the mixing time shall be that which will provide a satisfactory homogeneous mixture and unless otherwise specified or authorized in writing by the Testing Engineer, the mixing time shall be not less than 50 seconds. When deemed necessary to insure a satisfactory mix, the Engineer may designate in writing a required mixing time. Four seconds shall be added to the specified mixing time if the timing starts the instant the skip reaches its raised position. Mixing time will end when the discharge chute opens. Transfer time in multiple drum mixers will be included in the mixing time. The batch shall be so charged into the mixer that some water will enter in advance of cement and aggregate, and all water shall be in the drum by the end of the first quarter of the specified mixing time.

The entire contents of an individual drum shall be emptied before materials for a succeeding batch are placed therein. Upon cessation of mixing for an extended period, the mixer shall be thoroughly cleaned.

907-804.03.2.5--Conveying Concrete. Ample and satisfactory equipment or means of conveying the concrete from the mixer to the forms shall be provided.

907-804.03.3--Ready-Mix Concrete.

907-804.03.3.1--General. Ready-mix concrete shall be understood to mean concrete manufactured for delivery to the site of the work in a plastic state and delivered as hereinafter specified.

Before ready-mix concrete may be used in the work or in the manufacture of products (except pipe and end sections) to be used in the work, the plant at which the concrete is to be proportioned and mixed and the units by which it is to be transported shall be approved by the Engineer in accordance with procedures determined by the Department. It shall be the Contractor's responsibility to make all parts of the plant and material storage facilities readily accessible to authorized Department personnel for inspection to determine such approval. The Contractor shall also provide for satisfactory quarters for the sole use of the Engineer's plant inspector in making tests during the work. No ready-mix concrete or products may be used on the work until the Engineer gives tentative approval of the faciliites for proportioning and mixing and the units by which it is to be transported.

Except for concrete produced at a plant set up and used only on work under contract, no payment will be made for furnishing quarters for the use of the Department's plant inspector.

The Contractor shall provide and use a ticket system for recording the transporting of batches from the proportioning plant to the site of the work. Batch ticket information shall conform to AASHTO Designation: M 157 to include the listed "additional" information. Tickets for each load shall be issued to truck operators at the proportioning plant. Tickets shall be signed by the plant inspector to signify that the concrete in the truck has been inspected prior to departure. The tickets shall be delivered to the inspector on the site of the work. Loads not accompanied by tickets and those which do not arrive in satisfactory condition shall not be used in the work.

907-804.03.3.2--Definitions. For the purpose of these specifications the types of ready-mix concrete are defined as follows:

A. **Central-Mixed Concrete** mixed completely in a stationary mixer and the mixed concrete transported to the destination.

B. **Shrink-Mixed Concrete** mixed partially in a stationary mixer with mixing completed in a truck mixer and the mixed concrete transported to the destination.

C. **Transit-Mixed or Truck Mixed Concrete** mixed completely in a truck mixer and transported to the destination.

907-804.03.3.3--Batching Plant and Equipment. The batching plant and equipment shall conform to the requirements of Subsection 501.03.2.

907-804.03.3.4--Handling, Measuring, Proportioning, and Batching of Materials. The handling, measuring, and batching of materials shall conform to the requirements of Subsection 501.03.10.

The proportioning of materials shall meet the requirements set forth in 907-804.02.7 for the particular class of concrete specified.

Wash water shall not be used as a portion of the mixing water for succeeding batches.

907-804.03.3.5--Mixing and Agitation.

907-804.03.3.5.1--General. Mixers may be either stationary mixers or truck mixers. Agitators may be either truck mixers or truck agitators.

Each mixer and agitator shall be examined daily for changes in condition such as accumulation of concrete or mortar, excessive wear, etc. which may impair its capability. When such condition develops, approval of the unit will be withdrawn until the condition is corrected.

Each stationary mixer, truck mixer, and truck agitator shall have attached in a prominent place a metal plate showing the manufacturer's rated capacity and the speeds for mixing and for agitating.

The maximum size of the batch, the mixing speed, and the agitating speed shall be those designated by the manufacturer of the equipment.

907-804.03.3.5.2--Stationary Mixers. Stationary mixers shall be equipped with an approved device for timing each batch and shall have a timing device which will not permit the batch to be discharged until the specified mixing time has elapsed. The mixer shall have a regulator to control the mixing speed. These appliances shall be in a proper working condition at all times when the mixer is in operation. Mixer drums shall be watertight, and the blades in the drum shall not be less than 85 percent of their designed size.

907-804.03.3.5.3--Truck Mixers and Truck Agitators. Truck mixers and agitators, unless otherwise authorized in writing by the Engineer, shall be of the revolving drum type and shall be watertight. Truck mixers shall be so constructed that the concrete can be mixed at the prescribed rate to insure a uniform distribution of the materials throughout the mass. Truck mixers and truck agitators shall be constructed so that the concrete can be agitated at the prescribed rate until delivered to the work. The mixing blades in the drum shall not be less than 85 percent of their designed size.

Except as subsequently provided, the truck mixer shall be equipped with a tank for carrying mixing water. Only the prescribed quantity of water shall be placed in the tank unless the tank is equipped with a device by which the quantity added can be readily verified. The prescribed quantity of water may be measured directly into the batch at the batching plant, in which case a tank will not be required on the truck. Truck mixers and truck agitators shall be equipped with approved automatic revolution counters which record either:

A. Revolutions of the drums or blades when revolved at the mixing speed recommended by the manufacturer, or

B. Revolutions of the drums or blades at any speed. In this case, the truck mixers shall remain at the batch plant until the required number of revolutions at mixing speed has been attained.

The counters shall be designed so as to prevent unauthorized resetting or tampering and located so as to provide safe and convenient inspection.

The capability of a truck mixer or truck agitator to produce or deliver uniformly mixed concrete shall be determined at the commencement of work and repeated as deemed necessary.

907-804.03.3.5.4--Non-Agitator Trucks. Bodies of non-agitating hauling equipment shall be smooth, watertight containers and shall be capable of discharging the concrete at a satisfactorily controlled rate without segregation. The unit shall be constructed so as to deliver the concrete to the work site in a thoroughly mixed and uniform mass and to discharge the concrete at or near the bottom of the container unless discharge is accomplished by tilting the body, in which case the surface of the load shall be retarded by a suitable baffle. Covers shall be provided when needed for protection.

907-804.03.3.5.5--Limits of Mixing and Agitating.

(A) Stationary Plants. The mixing time shall be that which will provide a satisfactory homogeneous mixture. Unless otherwise specified in writing by the Testing Engineer, the mixing time shall be not less than 50 seconds at the manufacturer's designated mixing speed. When deemed necessary to insure a satisfactory mix, the Engineer may designate in writing a required mixing time. Four seconds shall be added to the specified mixing time if the timing starts the instant the skip reaches its maximum raised position. Mixing time will end when the discharge chute opens. Transfer time in multiple drum mixers will be included in the mixing time. The contents of an individual mixer drum shall be emptied before a succeeding batch is placed therein.

(B) Truck Mixers. Each batch shall be mixed for not less than 70 nor more than 100 revolutions at the speed designated by the manufacturer. Additional mixing, if any, shall be at the speed designated by the manufacturer as agitating speed. All materials, including mixing water, shall be in the mixer drum before actuating or

documenting the revolution counter for determination of the number of revolutions of mixing. The mixing operation shall begin within 15 minutes after the cement has been added to the aggregate or prior to the truck leaving the batching plant, whichever occurs first.

When the prescribed water is added at the batching plant and it is found that the slump requirements at the delivery site are not met, the Engineer or his representative may authorize controlled small quantities of water to be added to the batch to increase the slump to the specified requirements, provided necessary additional mixing is performed and all of these operations are performed within 45 minutes after the initial mixing is begun. In such case the Engineer may authorize or require for subsequent batches that a minimum of 75 percent of the mixing water be introduced at the plant and the remaining water be added at the job site to reduce loss by evaporation and that additional mixing be performed to insure thorough incorporation of the added water into the mix. The additional mixing shall be as approved by the Engineer.

(C) Partial Mixing at the Central Plant. When a truck mixer is used for transportation, the mixing time at the stationary mixer may be reduced to 30 seconds provided the mixing is completed in the truck mixer. The mixing in the truck mixer shall be 50 to 80 revolutions at mixing speed.

(D) Truck Agitators. When a stationary mixer is used for complete mixing and truck agitators are used to transport the fully mixed concrete, the truck agitator shall be operated at the rate of rotation designated by the manufacturer from the time the mixed concrete is deposited into the agitator and until discharge at the site of the work.

(E) Time of Hauling and Placing Mixed Concrete. Concrete transported in a truck mixer or truck agitator shall be placed in its final position in the forms within 1 1/2 hours after introduction of the mixing water to the cement and aggregate or the cement to the aggregate, whichever occurs first; except that in abnormal weather or under other conditions contributing to the quick stiffening or unusually slow stiffening of the concrete, the Engineer may make a determination of a lesser or greater time for placement considering all factors affecting initial set of the concrete. When mixed concrete is transported in approved non-agitating trucks, the concrete shall be discharged at the work site within 30 minutes after the introduction of the mixing water to the cement and aggregate.

The maximum volume of mixed concrete transported in any transportation device shall not exceed the manufacturers designated maximum operating capacity for the device.

907-804.03.4--Hand Mixing. When hand mixing is authorized, it shall be done on a watertight platform and in such a manner as to insure a uniform distribution of the materials throughout the mass. Mixing shall be continued until a homogeneous mixture of the required consistency is obtained.

907-804.03.5--Delivery. The plant supplying concrete shall have sufficient capacity and transporting apparatus to insure continuous delivery at the rate required. The rate of delivery shall be such as to provide for the proper continuity in handling, placing, and furnishing of the concrete. The rate shall be such that the interval between batches shall not exceed 20 minutes. The methods of delivering and handling the concrete shall be that which will facilitate placing with minimum rehandling and without damage to the structure or the concrete.

907-804.03.6--Handling and Placing Concrete.

907-804.03.6.1--General. Prior to placing concrete, all reinforcement shall have been accurately placed in the position shown on the plans and fastened as set out in Section 805. All sawdust, chips, and other construction debris and extraneous matter shall have been removed from the interior of the forms. Temporary struts, braces, and stays holding the forms in correct shape and alignment shall be removed when the concrete placing has reached an elevation rendering their service unnecessary. These temporary members shall be entirely removed from the forms and shall not be buried in the concrete.

All concrete shall be placed and finished during daylight hours unless otherwise specifically authorized by the Engineer. No concrete shall be placed until the forms and reinforcement have been inspected and approved.

Except as provided for truck mixers and truck agitators, concrete shall be placed in the forms within 30 minutes after the time that the cement is first added to the mix.

Concrete shall be placed so as to avoid segregation of materials and displacement of reinforcement. The use of troughs, chutes, and pipes over 25 feet in length for gravity conveyance of concrete to the forms, will not be permitted except when authorized by the Engineer and subject to the production of quality concrete.

Only approved mechanical conveyors will be permitted.

Open troughs and chutes shall be metal or metal lined. The use of aluminum pipes, chutes or other devices made of aluminum that come into direct contact with the concrete shall not be used. Where steep slopes are required, the chutes shall be equipped with baffles or be in short sections that change the direction of movement.

All chutes, troughs, and pipes shall be kept clean and free from coatings of hardened concrete by thoroughly flushing with water after each run. Water used for flushing shall be discharged clear of the structure.

When placing operations involve dropping the concrete more than five feet, it shall be deposited through sheet metal or other approved pipes to prevent segregation and unnecessary splashing. The pipes shall be made in sections to permit discharging and raising as the placement progresses. A non-jointed pipe may be used if sufficient openings of the proper size are provided

to allow for the flow of the concrete into the shaft. As far as practicable, the pipes shall be kept full of concrete during placing, and their ends shall be kept buried in the newly placed concrete.

Except as hereinafter provided, concrete shall be placed in horizonal layers not more than 12 inches thick. When, with the Engineer's approval, less than the complete length of a layer is placed in one operation, it shall be terminated in a vertical bulkhead. Each layer shall be placed and compacted before the preceding layer has taken its initial set and shall be compacted so as to avoid the formation of a construction joint with the preceding layer.

907-804.03.6.2--Consolidation. Concrete, during and immediately after depositing, shall be thoroughly consolidated by the use of approved mechanical vibrators and suitable spading tools. Hand spading alone will be permitted on small structural members such as railing and small culvert headwalls. Mechanical vibration of concrete shall be subject to the following:

A. The vibration shall be internal unless special authorization of other methods is given by the Engineer or as provided herein.

B. In general, vibrators shall be a type and design approved by the Engineer. They shall be capable of vibration frequencies of at least 4500 impulses per minute.

For lightweight concrete, the vibrator shall be an internal type operated at 10,000 rpm, unless otherwise approved by the Engineer. Excessive vibration will not be permitted.

C. The intensity of vibration shall be such as to visibly affect a mass of concrete of one inch slump over a radius of at least 18 inches.

D. The Contractor shall provide sufficient vibrators to properly compact each batch immediately after it is placed in the forms.

E. Vibrators shall be manipulated so as to thoroughly work the concrete around the reinforcement and embedded fixtures and into the corners and angles of the forms.

Vibration shall be applied at the point of deposit and in the area of freshly deposited concrete. The vibrators shall be inserted into and withdrawn out of the concrete slowly. The vibration shall be of sufficient duration and intensity to thoroughly compact the concrete, but shall not be continued so as to cause segregation. Vibration shall not be continued at any one point to the extent that localized areas of grout are formed.

Application of vibrators shall be at points uniformly spaced and not farther apart than twice the radius over which the vibration is visibly effective.

F. Vibration shall not be applied directly or through the reinforcement to sections or layers of concrete which have taken initial set. It shall not be used to make concrete

flow in the forms over distances so great as to cause segregation, and vibrators shall not be used to transport concrete in the forms.

G. Vibration shall be supplemented by spading as necessary to insure smooth surfaces and dense concrete along form surfaces, in corners, and in locations impossible to reach with vibrators.

H. These provisions shall apply to the filler concrete for steel grid floors except that the vibrator shall be applied to the steel.

I. These provisions shall apply to precast piling, concrete cribbing, and other precast members except that, if approved by the Engineer, the manufacturer's methods of vibrations may be used.

When hand spading is used for consolidation, a sufficient number of workmen with spading tools shall be provided. They will be required to flush a thin layer of mortar to all the surfaces and thoroughly and satisfactorily consolidate the concrete.

The entire operation of depositing and consolidating the concrete shall be conducted so that the concrete shall be smooth and dense and free from honeycomb or pockets of segregated aggregate.

907-804.03.6.3--Discontinuance of Placing. When placing is temporarily discontinued, the concrete, after becoming firm enough to retain its form, shall be cleaned of laitance and other objectionable material to a sufficient depth to expose sound concrete. To avoid visible joints insofar as possible upon exposed faces, the top surface of the concrete adjacent to the forms shall be smoothed with a trowel. Where a "feather edge" might be produced at a construction joint, such as in the sloped top surface of a wing wall, an inset form work shall be used in the preceding layer to produce a blocked out portion that will provide an edge thickness of at least six inches in the succeeding layer. Work shall not be discontinued within 18 inches of the top of any face unless provision has been made for a coping less than 18 inches thick. In this case and if permitted by the Engineer, the construction joint may be made at the under side of the coping.

Immediately following the discontinuance of placing concrete, all accumulations of mortar splashed on the reinforcement and the surface of forms shall be removed. Dried mortar chips and dust shall not be puddled into the unset concrete. If the accumulations are not removed prior to the concrete becoming set, care shall be exercised not to break or injure the concrete-steel bond at and near the surface of the concrete while cleaning the reinforcement. After initial set the forms shall not be jarred, and no strain shall be placed on the ends of projecting reinforcement until the concrete has sufficiently set to insure against any damage by such jarring or strain.

907-804.03.6.4--Placing Bridge Concrete. The method and sequence of placing concrete shall conform to the provisions and requirements set forth for the particular type of construction.

907-804.03.6.4.1--Foundations and Substructures. Concrete seals shall be placed in accordance with 907-804.03.9. All other concrete for foundations shall be poured in the dry

unless otherwise stipulated or authorization is given in writing by the Engineer to do otherwise. Concrete shall not be placed in foundations until the foundation area has been inspected and approved.

Unless otherwise specified, the placement of concrete in the substructure shall be in accordance with the general requirements of 907-804.03.6.

Unless otherwise directed, concrete in columns shall be placed in one continuous operation, and shall be allowed to set at least 12 hours before the caps are placed.

907-804.03.6.4.2--Superstructure. For simple spans, concrete shall preferably be deposited by beginning at the center of the span and working toward the ends. For continuous spans, concrete shall be deposited as shown on the plans. Concrete in girders shall be uniformly deposited for the full length of the girder and brought up evenly in horizontal layers.

Unless otherwise permitted by the Engineer, concrete shall not be placed in the superstructure until the column forms have been stripped sufficiently to determine the character of the concrete in the columns. Unless otherwise permitted by the Engineer, the load of the superstructure shall not be placed on pile bents until the caps have been in place at least seven days and shall not be placed on other types of bents until the bents have been in place at least 14 days.

In placing concrete around steel shapes, it shall be placed on one side of the shape until it flushes up over the bottom flange of the shape on the opposite side, after which it shall be placed on both sides to completion.

Concrete in girder haunches less than three feet in height shall be placed at the same time as that in the girder stem. Whenever a haunch or fillet has a height of three feet or more at the abutment or columns, the haunch and the girder shall be poured in three successive stages: first, up to the lower side of the haunch; second, to the lower side of the girder; and third, to completion.

Except when intermediate construction joints are specified, concrete in slab, T-beam, or deck-girder spans shall be placed in one continuous operation for each span.

The floors and girders of through-girder superstructures shall be placed in one continuous operation unless otherwise specified, in which case special shear anchorage shall be provided to insure monolithic action between girder and floor.

Concrete in box girders shall be placed as shown on the plans.

Concrete shall not be chuted directly into the forms of the span and shall be placed continuously with sufficient speed to be monolithic and to allow for finishing before initial set.

907-804.03.7--Pneumatic Placing. Pneumatic placing of concrete will be permitted only if specified in the contract or if authorized by the Engineer. The equipment shall be so arranged that no vibrations result which might damage freshly placed concrete.

Where concrete is conveyed and placed by pneumatic means the equipment shall be suitable in kind and adequate in capacity for the work. The machine shall be located as close as practicable to the place of deposit. The position of the discharge end of the line shall not be more than 10 feet from the point of deposit. The discharge lines shall be horizontal or inclined upwards from the machine. At the conclusion of placement the entire equipment shall be thoroughly cleaned.

907-804.03.8--Pumping Concrete. Placement of concrete by pumping will be permitted only if specified in the contract or if authorized in writing by the Engineer. If used, the equipment shall be arranged so that no vibrations result which might damage freshly placed concrete.

Where concrete is conveyed and placed by mechanically applied pressure, the equipment shall be suitable in kind and adequate in capacity for the work. The operation of the pump shall be such that a continuous stream of concrete without air pockets is produced. When pumping is completed, the concrete remaining in the pipe line, if it is to be used, shall be ejected in such a manner that there will be no contamination of the concrete or separation of the ingredients. After this operation, the entire equipment shall be thoroughly cleaned.

Concrete for slump and air content requirements shall be obtained at the discharge end of the pipe.

The use of aluminum pipe as a conveyance for the concrete will not be permitted.

907-804.03.9--Depositing Concrete Under Water. Concrete shall not be deposited in water except with the approval of the Engineer.

Concrete deposited under water shall be Class S.

Concrete deposited under water shall be carefully placed in a compact mass in its final position by means of a tremie, a bottom dump bucket, or other approved method and shall not be disturbed after being deposited. Special care shall be exercised to maintain still water at the point of deposit. No concrete shall be placed in running water and all form work designed to retain concrete under water shall be water-tight. The consistency of the concrete shall be carefully regulated, and special care shall be exercised to prevent segregation of materials.

Concrete seals shall be placed continuously from start to finish, and the surface of the concrete shall be kept as nearly horizontal as practicable at all times. To insure thorough bonding, each succeeding layer of a seal shall be placed before the preceding layer has taken initial set.

When a tremie is used, it shall consist of a tube having a diameter of at least 10 inches and constructed in sections having flanged couplings fitted with gaskets. The means of supporting the tremie shall be such as to permit the free movement of the discharge over the entire top surface of the work and to permit it to be lowered rapidly when necessary to choke off or retard the flow of concrete. The discharge end shall be closed at the start of the work so as to prevent water entering the tube and shall be entirely sealed. The tremie tube shall be kept full to the bottom of

the hopper. When a batch is dumped into the hopper, the flow of concrete shall be induced by slightly raising the discharge end, always keeping it in the deposited concrete. The flow is then stopped by lowering the tremie. The flow shall be continuous until the work is completed.

Depositing of concrete by the drop bottom bucket method shall conform to the following: The top of the bucket shall be open. The bottom doors shall open freely downward and outward when tripped. The bucket shall be completely filled and slowly lowered to avoid backwash. It shall not be dumped until it rests on the surface upon which the concrete is to be deposited and when discharged shall be withdrawn slowly until well above the concrete.

Dewatering may proceed when the concrete seal is sufficiently hard and strong. As a general rule, this time will be 48 hours for concrete made with high-early-strengh cement and three days for concrete made with other types of cement. All laitance and other unsatisfactory material shall be removed from the exposed surface by scraping, chipping, or other means which will not injure the surface of the concrete.

907-804.03.10--Construction Joints.

907-804.03.10.1--General. Unless otherwise approved by the Engineer, construction joints shall be made only where located on the plans or shown in the pouring schedule.

In the event the Contractor plans to deviate from the pouring schedule for spans as shown on the plans he shall submit his proposed pouring schedule to the Bridge Engineer for approval prior to commencing the pour.

If not detailed on the plans, or in the case of emergency, construction joints shall be placed as directed by the Engineer. Shear keys or inclined reinforcement shall be used where necessary to transmit shear or to bond the two sections together.

907-804.03.10.2--Bonding. Before depositing new concrete on or against concrete which has hardened, the forms shall be retightened. The surface of the hardened concrete shall be roughened as required by the Engineer and in a manner that will not leave loosened particles of aggregate or damaged concrete at the surface. It shall be thoroughly cleaned of foreign matter and laitance and saturated with water. When directed by the Engineer, the cleaned and saturated surfaces, including vertical and inclined surfaces, shall first be thoroughly covered with a coating of mortar or neat cement grout against which the new concrete shall be placed before the grout has attained its initial set.

The placing of concrete shall be carried continuously from joint to joint. The face edges of all joints which are exposed to view shall be carefully finished, true to line and elevation.

In order to bond successive courses suitable depressed or raised keys of the designated size shall be constructed. Raised keys shall be monolithic with the concrete of the lower course.

907-804.03.11--Concrete Exposed to Sea Water. Unless otherwise specifically provided, concrete for structures exposed to sea water shall be Class AA concrete (Reference 907-804.02.7). The clear distance from the face of the concrete to the nearest face of reinforcing steel shall be at least four inches. The mixing time and the water content shall be carefully controlled and regulated so as to produce concrete of maximum impermeability. The concrete shall be thoroughly compacted, and stone pockets shall be avoided. No construction joints shall be formed between the levels of extreme low water and extreme high water as determined by the Engineer. Between these levels sea water shall not come in direct contact with the new concrete until at least 30 days have elapsed. The surface concrete as left by the forms shall be left undisturbed.

907-804.03.12--Blank.

907-804.03.13--Falsework. The Contractor shall submit to the Engineer four copies of structural design analysis and detail drawings which show the method of falsework or centering. These designs and detail plans shall be prepared and bear the seal of a Registered Professional Engineer with experience in falsework design.

Falsework plans shall include falsework elevations together with all other dimensions and details which is considered necessary for the construction.

Other pertinent data needed is size and spacing of all falsework members and minimum bearing requirements for false piles.

Upon completion of falsework erection, the Registered Professional Engineer shall certify that the erected falsework is capable of supporting the load for construction.

Falsework piling shall be spaced and driven so that the bearing value of each pile is sufficient to support the load that will be imposed upon it. The bearing value of the piles should be calculated according to the appropriate formula given in Section 803.

For designing falsework and centering, a weight of 150 pounds per cubic foot shall be assumed for green concrete. All falsework shall be designed and constructed to provide the necessary rigidity and to support the loads without appreciable settlement or deformation. The Contractor may be required to employ screw jacks or hardwood wedges to take up slight settlement in the falsework either before or during the placing of concrete. An allowance shall be made for anticipated compressibility of falsework and for the placement of shims, wedges, or jacks to produce the permanent structural camber shown on the plans. If during construction, any weakness develops and the falsework shows any undue settlement or distortion, the work shall be stopped, the part of the structure affected removed, and the falsework strengthened before work is resumed. Falsework which cannot be founded on a satisfactory footing shall be supported on piling, which shall be spaced, driven, and removed (reference 907-804.03.15) in a manner approved by the Engineer.

All structures built across a public street or highway on which maintenance of traffic is required, shall have falsework so arranged that a vertical clearance of at least 12'-6", and unless otherwise specified, a horizontal clearance of at least the width of the travelled way shall be provided at all times. If the vertical clearance is less than 13'-6" or the horizontal clearance is less than the full crown width of the roadway, the Contractor shall install and maintain appropriate safety devices, clearance signs and warning lights, and shall notify the Engineer sufficiently in advance of restricting the clearance for him to advise both the Traffic Control and Safety and the Maintenance Divisions.

907-804.03.14 Forms.

907-804.03.14.1--General. Forms shall be wood, metal, or other material approved by the Engineer. All forms shall be built mortar-tight and sufficiently rigid to prevent distortion due to pressure of the concrete and other loads incident to the construction operations. Forms shall be constructed and maintained so as to prevent warping and the opening of joints due to shrinkage. The forms shall be substantial and unyielding and shall be so designed that the finished concrete will conform to the proper dimensions and contours. The design of the forms shall take into account the effect of vibration of concrete as it is placed.

Minimum requirements for slab overhang forms shall be 3/4-inch plywood supported on 2" x 6" S4S wood timbers placed flatwise on 16-inch centers.

Adjustable brackets for support of slab overhang forms shall be spaced at a maximum distance of 3'-0" center to center unless specifically approved otherwise. Grade points for forms shall coincide with the location of the adjustable form brackets.

Forms for surfaces exposed to view shall be of uniform thickness with a smooth inside surface of an approved type. Joints in forms for exposed surfaces shall be closely fitted to eliminate fins, stone pockets, or other variations in the surface of the concrete which would mar a smooth and uniform texture.

Forms shall be filleted at all sharp corners and shall be given a bevel or draft in the case of all projections, such as girders and copings, to insure easy removal.

Metal ties or anchorages within the forms shall be so constructed as to permit their removal, without injury to the concrete, to a depth of at least the reinforcing steel clearance shown on the plans. In case ordinary wire ties are permitted, all wires, upon removal of the forms, shall be cut back at least 1/4 inch from the face of the concrete with chisels or nippers. Nippers shall be used for green concrete. All fittings for metal ties shall be designed so that upon their removal the cavities which are left will be the smallest practicable size. The cavities shall be filled with cement mortar and the surface left sound, smooth, even, and uniform in color.

Forms shall be set and maintained to the lines designated until the concrete is sufficiently cured for form removal. Forms shall remain in place for periods which shall be determined as hereinafter specified. If forms are deemed to be unsatisfactory in any way, either before or

during the placing of concrete, the Engineer will order the work stopped until the defects have been corrected.

The shape, strength, rigidity, water-tightness, and surface smoothness of reused forms shall be maintained at all times. Warped or bulged lumber shall be resized before being reused. Forms which are unsatisfactory in any respect shall not be reused.

Access to the lower portions of forms for narrow walls and columns shall be provided for cleaning out extraneous material immediately before placing the concrete.

All forms shall be treated with an approved oil or saturated with water immediately before placing the concrete. For rail members or other members with exposed faces, the forms shall be treated only with an approved oil to prevent the adherence of concrete. Any material which will adhere to or discolor the concrete shall not be used.

When metal forms are used they shall be kept free from rust, grease, or other foreign matter which will discolor the concrete. They shall be of sufficient thickness and so connected that they will remain true to shape and line, and shall conform in all respects as herein prescribed for mortar tightness, filleted corners, beveled projections, etc. They shall be constructed so as to insure easy removal without injury to concrete. All inside bolt and rivet heads shall be countersunk.

All chamfer strips shall be dressed, straight, and of uniform width and shall be maintained as such at all times.

907-804.03.14.2--Stay-In-Place Metal Forms.

907-804.03.14.2.1--General. Permanent stay-in-place metal forms will be considered only for hydraulic and relief structures subject to the conditions contained herein.

The additional deadload resulting from the use of these forms shall not be sufficient to require redesign of supporting components.

Additional slab thickness to accommodate the use of stay-in-place forms shall be the responsibility of the Contractor and subject to approval. Pay quantities for slab will be computed from the design dimensions shown on the plans with no allowance for changes in deflection and changes in dimensions necessary to accommodate the stay-in-place forms.

Prior to using stay-in-place forms the Contractor shall submit for approval detailed plans of the forming system together with design calculations showing conformance with these specifications. Stay-in-place forms shall not be used until the forming system and all necessary design revisions have been approved by the Bridge Engineer. The Department in no way assumes responsibility for the performance of the stay-in-place forms by approval of their use.

907-804.03.14.2.2--Materials. Permanent steel bridge deck forms and supports shall be fabricated from steel conforming to ASTM Designation: A 446 (Grades A through E) having a coating class of G 165 according at ASTM Designation: A 525.

907-804.03.14.2.3--Design. The following criteria shall govern the design of permanent bridge deck forms:

A. The forms shall be designed on the basis of deadload of form, reinforcement and plastic concrete plus 50 pounds per square foot for construction loads. The unit working stress in the steel sheet shall be not more than 0.725 of the specified minimum yield strength of the material furnished, but not to exceed 36,000 pounds per square inch.

B. Deflection under the weight of the forms, the plastic concrete and reinforcement shall not exceed 1/180 of the form span or 1/2 inch whichever is less, but in no case shall this loading be less than 120 PSF total. The permissible form camber shall be based on the actual deadload condition. Camber shall not be used to compensate for deflection in excess of the foregoing limits.

C. The design span of the form shall be the clear span of the form plus two inches. The span of steel forms shall be measured parallel to the form flutes.

D. Physical design properties of steel forms shall be computed in accordance with requirements of the American Iron and Steel Institute Specifications for the Design of Cold Formed Steel Structural Members, latest published edition.

E. All reinforcement shall have a minimum concrete cover required by the plans.

F. The plan dimensions of both layers of primary deck reinforcement from the top surface of the concrete deck shall be maintained. The minimum cover of the bottom mat of steel shall be measured normal to the steel mat to the top of steel form flutes.

G. The permanent bridge deck form shall not be considered as lateral bracing for compression flanges of supporting structural members.

H. Permanent steel bridge deck forms shall not be used in panels where longitudinal deck construction joints are located between stringers.

I. Forms shall be secured to the supporting members by means other than welding.

907-804.03.14.2.4--Construction. All forms shall be installed in accordance with approved fabrication and erection plans.

Steel form sheets shall not be permitted to rest directly on the top of the stringer or floor beams flanges. Sheets shall be securely fastened to form supports and shall have a minimum bearing length of one inch at each end for steel forms. Steel form supports shall be placed in direct

contact with the flange of stringer or floor beam. All attachments for steel forms shall be made by bolts, clips, or other approved means.

Any permanent exposed metal where the galvanized coating has been damaged shall be thoroughly cleaned, wire brushed and painted to the satisifaction of the Engineer using two coats of an inorganic zinc rich primer meeting the requirements of Subsection 710.03.1. Minor heat discoloration in areas of welds need not be touched up.

907-804.03.14.2.5--Placing of Concrete. Concrete shall be placed in accordance with the specifications. Particular emphasis shall be placed on proper vibration of the concrete to avoid honeycomb and voids, especially at construction joints, expansions joints, and valleys and ends of form sheets. Pouring sequences, procedures and mixes used by the Contractor shall be as approved.

907-804.03.14.2.6--Inspection. The Contractor's method of construction will be carefully observed during all phases of the construction of the bridge deck slab. Should the Engineer determine that the procedures used during the placement of the concrete warrant inspection of the underside of the deck, the Contractor shall remove at least one section of the forms in each span of the contract at selected location and time. This shall be done as soon after placing the concrete as practicable in order to provide visual evidence that the concrete mix and the Contractor's procedures are obtaining the desired results. An additional section in any span shall be removed if it is determined that there has been any change in the concrete mix.

After the deck concrete has been in place for a minimum period of two days, the Contractor shall test for soundness and bonding of the forms by sounding with a hammer as directed. If areas of doubtful soundness are disclosed by this procedure, the Contractor will be required to remove the forms from such areas for visual inspection after the concrete has attained adequate strength. This removal of the permanent bridge deck forms shall be at no cost to the Department.

At locations where sections of the forms are removed, the Contractor will not be required to replace the forms, but the adjacent forms and supports shall be repaired to present a neat appearance and assure their satisfactory retention. As soon as the form is removed, the concrete surfaces will be examined for cavities, honeycombing, and other defects. If irregularities are found, and it is determined that these irregularities do not justify rejection of the work, the concrete shall be repaired as directed and shall be given a Class 1 Finish in accordance with the specifications. If the concrete where the form is removed is unsatisfactory, additional forms, as necessary, shall be removed to inspect and repair the slab, and the Contractor's method of construction shall be modififed as required to obtain satisfactory concrete in the slab. All unsatisfactory concrete shall be removed and replaced by the Contractor as directed.

The amount of sounding and form removal may be moderated, when approved, after substantial amount of slab has been constructed and inspected, if the Contractor's method of construction and the results of the inspections as outlined above indicate that sound concrete is being obtained throughout the slabs.

The Contractor shall provide the facilities as are reasonably required for the safe and convenient conduct of the inspection procedures.

All costs of inspection and repair shall be borne by the Contractor and no reimbursement of costs incurred will be made.

907-804.03.15--Removal of Falsework, Forms, and Housing. In the determination of the time for the removal of falsework, forms, and housing and the discontinuance of heating, consideration shall be given to the location and character of the structure, the weather and other conditions influencing the setting of the concrete, and the materials used in the mix. No forms or supports shall be removed prior to approval by the Engineer. During cold weather, removal of housing and the discontinuance of heating shall be in accordance with 907-804.03.16.1.

Concrete in the last pour of a continuous superstructure shall have attained a compressive strength of 2,400 psi, as determined by cylinder tests, prior to striking any falsework. It is important that falsework be removed as evenly as possible to prevent excessive deflection stresses in the spans.

At the Contractor's option and with the approval of the Engineer, the time for removal of forms may be determined by cylinder tests, in which case the Contractor shall furnish facilities for testing the cylinders. The facilities shall include an approved concrete testing machine of sufficient capacity and calibrated by an acceptable commercial laboratory. Tests shall be conducted in the presence of a Department representative to witness and record strengths obtained on each break or performed by a Department certified technician in an approved testing laboratory.

When form removal or placing of beams is not controlled by cylinder tests, Column A (exclusive of the days when the ambient temperature is below 40^{o}F) herein shall apply as a guide for removal of forms and falsework. When cylinder tests are used, Column B shall be used. The cylinders shall be cured under conditions which are not more favorable than those existing for the portions of the structure which they represent.

If Type IP cement or Type I or II portland cement plus fly ash is used, only Column B will be applicable.

	Column A (Minimum Cure)	Column B (Minimum psi)
Forms:		
Columns	24 Hours	1000
Side of Beams	24 Hours	1000
Walls (not under pressure)	24 Hours	1000
Floor Slabs (overhead)	7 Days	2000
Floor Slabs (between beams)	7 Days	2000
Slab Spans	14 Days	2400
Other Parts	24 Hours	1000

Centering:			
Under Beams	14	Days	2400
Under Bent Caps	7	Days	2000
Limitation for Placing Beams on:			
Pile Bents (pile under beam)	3	Days	2000
Frame Bents (two or more columns)	7	Days	2200
Frame Bents (single column)	14	Days	2400

Methods of form removal likely to cause overstressing of the concrete shall not be used. Forms and supports shall be removed in a manner that will permit the concrete to uniformly and gradually take the stresses due to its own weight. Centers shall be gradually and uniformly lowered in a manner that will avoid injurious stresses in any part of the structure.

As soon as concrete for railings, ornamental work, parapets and vertical faces which require a rubbed finish has attained a safe strength, the forms shall be carefully removed without marring the surfaces and corners, the required finishing performed, and the required curing continued.

Prior to final inspection of the work, the Contractor shall remove all falsework, forms, excavated material or other material placed in the stream channel during construction. Falsework piles may be cut or broken off at least one foot below the mudline or ground line unless the plans specifically indicate that they are to be pulled and completely removed from the channel.

907-804.03.16--Cold or Hot Weather Concreting.

907-804.03.16.1--Cold Weather Concreting. No portland cement concrete, mortar, or grout shall be placed when the atmospheric temperature is below 35°F without written permission of the Engineer. When the Contractor proposes to place concrete during seasons when there is a probability of temperatures lower than 40°F, he shall have available on the project the approved facilities necessary to enclose uncured concrete and to keep the temperature of the air inside the enclosure within the ranges and for the minimum periods specified herein.

When there are indications of temperatures of less than 40°F during the first four days after placement of the concrete, the Engineer may not permit placement or he may stipulate conditions under which the concrete may be placed and protected. Concrete required to be protected from cold temperatures will be required to be maintained between 50°F and 100°F for at least four days after placement and between 40°F and 100°F for at least three additional days.

When directed by the Engineer, the Contractor shall use such heating equipment such as stoves, salamanders, or steam equipment as deemed necessary to protect the concrete. When dry heat is used, means of maintaining atmospheric moisture shall be provided. When directed by the

Engineer, one or more of the aggregates and/or mixing water shall be heated to a temperature of at least 70°F but not more than 150°F at the time of mixing. The aggregates may be heated by steam or dry heat or by placing in the mixing water which has been heated to a temperature of not more than 175°F provided the resulting temperature of the aggregates and mixing water is at least 70°F and not more than 150°F. Frozen aggregates shall not be placed in the mixing water. The temperature of the concrete shall be at least 60°F and not more than 80°F at the time of placing. In case of extremely cold temperatures, the Engineer may raise the minimum temperatures for the water, aggregates, and mixed concrete. When either aggregates or water are heated above 100°F, the aggregates and water shall be combined first in the mixer before the cement is added to avoid flash set.

The use of salt or other chemical admixtures in lieu of heating will not be permitted.

Before placing concrete, all ice or frost shall be removed from the forms and reinforcement.

In the case of concrete placed directly on or in the ground, such as for footings or bottom slabs, protection and curing during cold weather may be provided as set for concrete pavement under Subsection 501.03.20.3.

The Contractor shall assume all risk and added cost connected with the placing and protecting of concrete during cold weather. Permission given by the Engineer to place concrete during such time will in no way relieve the Contractor of responsibility for satisfactory results. Should it be determined at any time that the concrete placed under such conditions is unsatisfactory, it shall be removed and replaced with satisfactory concrete by the Contractor without extra compensation.

907-804.03.16.2--Hot Weather Concreting. The manufacture, placement, and protection of concrete during hot weather requires special attention to insure that uniform slump ranges and satisfactory placement qualities are maintained, that surface cracking is held to a minimum, and that design strengths are produced.

When the atmospheric temperature is 95°F or above, the Contractor shall use such controls as are deemed by the Engineer to be necessary to produce and place concrete in as cool and uniform condition as practicable to safeguard against improper placement characteristics or temporary or permanent damage. The Engineer may require any or all, but not limited to, the following precautions depending upon his determination as to the severity of the hot or arid conditions with respect to the work being performed.

A. Provide or require an adequate sprinkling system and sprinkle coarse aggregate stockpiles as necessary to keep the aggregates in a saturated condition in order to minimize variation of absorption of mixing water and to cool the aggregates by evaporation.

B. Protect mixing water lines from the sun by adequate covering.

C. Paint transporting containers with light colored, heat-reflective paints, or cool the surfaces of these containers by water spraying, fogging, or other effective methods.

D. Provide for proper spacing of trucks delivering fresh concrete to the project site so that the concrete will be placed in the work after only the minimum necessary elapsed time.

E. Fog spray with water the forms and foundations to receive the green concrete in order to reduce absorption and to cool by evaporation.

F. Fog spray with water or otherwise protect from excessive temperatures reinforcing steel and structural steel against which fresh concrete is to be placed.

G. Apply water spray to membrane curing surfaces after the curing compound has set in order to maintain lower daytime temperatures in the concrete.

In order to minimize the number and extent of precautions required for hot weather concreting, the Contractor may use approved chemical admixtures for set-retarding purposes. However, the use of set-retarding admixtures will not relieve the Contractor of the necessity of taking other precautions deemed necessary to protect the green concrete.

Unless otherwise specified, additives or admixtures shall be used only with the authority of the Testing Engineer and subject to the conditions set forth in such authority.

Unless otherwise provided in the contract, the furnishing and use of additives or admixtures and the other precautions necessary to provide satisfactory concrete shall be considered subsidiary to the furnishing and placement of the concrete, and all additional costs related thereto and risks resulting therefrom shall be borne by the Contractor.

907-804.03.17--Curing Concrete. Concrete surfaces shall be protected from premature drying by covering as soon as possible with a satisfactory curing material. When wetted burlap is used, it shall be not less than two thicknesses of Class 3 burlap or its equivalent, and the burlap shall be kept continuously and thoroughly wet. Careful attention shall be given to the proper curing and protection of concrete, and curing by the wetting method shall continue for a period of at least seven days after placing the concrete. If high-early-strength cement is used, this period may be reduced to four days.

Surfaces to have a Class 2 rubbed or sprayed finish and bridge deck surfaces when the atmospheric temperature is 90^{o}F or above shall be cured only by wetting methods. The curing of concrete bridges with membrane curing will be permitted only under the conditions specified herein.

Surfaces on which curing is to be by liquid membrane shall be given the required surface finish prior to the application of curing compound. During the finishing period the concrete shall be protected by the water method of curing. Concrete surfaces cured by the liquid membrane method shall receive two applications of curing compound. The first application shall be applied

immediately after the finishing is completed and accepted. Prior to applying the first application, the concrete shall be thoroughly wetted with water and the liquid membrane applied just as the surface film of water disappears. The second application shall be applied immediately after the first application has set. The rate of application of curing compound will be as prescribed by the Engineer with a minimum spreading rate per application of one gallon per 200 square feet of concrete surface. The coating shall be protected against marring for at least 10 days after the application of the curing compound. The coating on bridge decks shall receive extra attention and may require additional protection as required by the Engineer. All membrane marred or otherwise disturbed shall be given an additional coating. Should the surface coating be subjected repeatedly to injury, the Engineer may require that the water curing method be applied at once.

When using curing compound, the compound should be thoroughly mixed within an hour before use. If the use of curing compound results in a streaked or blotched appearance, the method shall be stopped and water curing applied until the cause of defective appearance is corrected.

Other precautions to insure the development of strength shall be taken as directed.

Adequate tarpaulins of ample size shall be on the project and used as necessary to protect the work in case of rain or other emergencies.

Conditions governing the placement of concrete and the requirements for the placement, protection, and curing of concrete during cold or hot weather shall conform to the limitations, conditions, and requirements stipulated in 907-804.03.16 as applicable.

907-804.03.18--Expansion and Fixed Joints, Bearings, Anchor Bolts, Plates, Castings, Pipes, Drains, Conduits, Etc. All joints shall be constructed according to details shown on the plans. The edges of the concrete at open or filled joints shall be chamfered or edged as indicated on the plans.

907-804.03.18.1--Open Joints. Open joints shall be placed in the locations shown on the plans and shall be constructed by the insertion and subsequent removal of a wood strip, metal plate, or other approved material. The insertion and removal of the template shall be accomplished without chipping or breaking the corners of the concrete. Reinforcement shall not extend across an open joint unless so specified on the plans.

907-804.03.18.2--Filled Joints. Poured expansion joints and joints to be sealed with premolded materials shall be constructed similar to open joints. When premolded types are specified, the filler shall be placed in correct position as the concrete on one side of the joint is placed. When the form is removed, the concrete on the other side shall be placed. Adequate water stops of metal, rubber, or plastic shall be carefully placed as shown on the plans.

907-804.03.18.3--Premolded and Preformed Joint Seals. When preformed elastomeric compressive joint seals are specified, the previously formed and cured open joint shall be thoroughly cleaned of all foreign matter, the required adhesive uniformly applied, and the seal installed in accordance with the recommendations of the manufacturer of the seal.

When premolded filler is used for the joints in the roadway slab, the tops shall be adequately sealed with poured joint filler in accordance with details on the plans. Premolded filler shall be permanently fastened to an adjacent concrete surface by appropriate use of copper wire, copper nails, or galvanized nails.

907-804.03.18.4--Steel Joints. The plates, angles, or other structural shapes shall be accurately shaped at the shop to conform to the section of the concrete floor. Fabrication and painting shall conform to the specifications covering those items. When called for on the plans or in the special provisions, the material shall be galvanized in lieu of painting. Care shall be taken to insure that the surface in the finished plane is true and free of warping. Positive methods shall be employed in placing the joints to keep them in correct position during the placing of the concrete. The opening at expansion joints shall be that designated on the plans at normal temperature, and care shall be taken to avoid impairment of the clearance in any manner.

907-804.03.18.5--Water Stops. Adequate water stops of metal, rubber, or plastic shall be placed as shown on the plans. Where movement at the joint is provided for, the water stops shall be of a type permitting movement without injury. They shall be spliced, welded, or soldered to form continuous water-tight joints.

907-804.03.18.6--Bearing Devices. Bearing plates, rockers, and other bearing devices shall be constructed according to details shown on the plans. Unless otherwise specified or set in plastic concrete, they shall be set in grout to insure uniform bearing. Structural steel and painting shall conform to the requirements of Section 810 and 814. When specified, the material shall be galvanized in lieu of painting. The rockers or other expansion bearing devices shall be set, considering the temperature at the time of erection, so that the required position of the device is provided.

At all points of bearing contact, concrete members shall be separated from underlying members by dimensioned bearing pads or by methods and/or materials specified on the plans.

When not otherwise specifically provided, contact areas between concrete super-structures and substructures shall be separated by three layers of 15-pound roofing felt.

907-804.03.18.7--Friction Joints. Metal friction joints shall consist of plates as indicated on the plans and shall be securely anchored in correct position. All sliding surfaces shall be thoroughly coated with an approved graphite grease. Movement shall not be impeded by the concrete in which the plates are embedded.

907-804.03.18.8--Placing Anchor Bolts, Plates, Castings, Grillage, Conduits, Etc. All anchor bolts, plates, castings, grillage, conduits, etc. indicated on the plans to be placed in or on the concrete shall be placed, set, or embedded as indicated or as directed. These items of the construction shall be set in portland cement mortar (Subsection 714.11.5) except that anchor bolts may, as permitted by the Engineer, be built into the masonry, set in drilled holes, or placed as the concrete is being constructed by inserting encasing pipe or oiled wooden forms of

sufficient size to allow for adjustment of the bolts. After removal of the pipe or forms, the space around the bolts shall be filled with portland cement mortar (Subsection 714.11.5) completely filling the holes. The bolt shall be set accurately and perpendicular to the plane of the seat.

Anchor bolts which are to be set in the masonry prior to the erection of the superstructure shall be carefully set to proper location and elevation with a template or by other suitable means.

When bed plates are set in mortar, no superstructure or other load shall be placed thereon until this mortar has been allowed to set for a period of at least 96 hours (subject to the restrictions for cold weather concreting in 907-804.03.16.1). The mortar shall be kept well moistened during this period.

Weep hole drains shall be installed in abutments and retaining walls, and roadway drains or scuppers shall be installed in the roadway slabs in accordance with the details shown on the plans.

Where backfill is to be made at weep holes or openings in the structure, sand or stone chimneys or French drains shall be constructed as specified and shall extend through the portion of the backfill to be drained. Except as otherwise provided, the sand, stone, or slag used in this construction shall meet the requirements of Subsection 704.04.

907-804.03.19--Finishing Concrete Surfaces.

907-804.03.19.1--Classes of Finishes. Surface finishes of exposed concrete surfaces shall be classified as follows:

Class 1 - Ordinary Surface Finish
Class 2 - Rubbed or spray Finish
Class 3 - Tooled Finish
Class 4 - Sand-Blast Finish
Class 5 - Wirebrush or Scrubbed Finish
Class 6 - Floated Surface Finish

907-804.03.19.2--Class 1, Ordinary Surface Finish. Immediately following the removal of forms, all fins and irregular projections shall be removed from all surfaces except from those which are not to be exposed or not to be waterproofed. On all surfaces, the cavities produced by form ties and all other holes, honeycomb spots, broken corners or edges, and other defects shall be thoroughly cleaned, and after having been kept saturated with water for at least three hours shall be carefully pointed and trued with a mortar of cement and fine aggregate mixed in the proportions used in the class of the concrete being finished. Mortar used in pointing shall be not more than one hour old. The mortar patches shall be cured as specified under 907-804.03.17. All construction and expansion joints shall be left carefully tooled and free of mortar and concrete. The joint filler shall be left exposed for its full length with clean and true edges.

The resulting surfaces shall be true and uniform. All surfaces which cannot be repaired to the satisfaction of the Engineer shall be given a Class 2 rubbed finish.

907-804.03.19.3--Class 2, Rubbed or Spray Finish.

907-804.03.19.3.1--Rubbed Finish. After removal of forms, the Class 1 finish shall be completed and the rubbing of concrete shall be started as soon as its condition will permit. Immediately before starting this work, the concrete shall be kept thoroughly saturated with water for at least three hours. Surfaces shall be rubbed with a medium course Carborundum stone using a small amount of mortar on its face. The mortar shall be composed of cement and sand mixed in the proportions used in the concrete being finished. Rubbing shall be continued until all form marks, projections, and irregularities have been removed, all voids are filled, and a uniform surface has been obtained. The paste produced by this rubbing shall be left in place at this time.

After all concrete above the surface being treated has been cast, the final finish shall be obtained by rubbing with a fine carborundum stone and water. This rubbing shall continue until the entire surface is of a smooth texture and uniform color.

After the final rubbing is completed and the surface has dried, it shall be rubbed with burlap to remove loose powder and objectionable marks.

907-804.03.19.3.2--Spray Finish. Prior to the spray finish, the concrete shall be given a Class 1 finish in accordance with 907-804.03.19.2, supplemented if necessary with a grout meeting the requirements of Subsection 714.11 with fine aggregate modified to require 100 percent passing the No. 16 Sieve.

Grout shall be applied with burlap pads or float sponges, and as soon as the grout has dried the surface shall be brushed to remove all loose grout and the surface left smooth and free of air holes. Surfaces to be sprayed shall be free of efflorescence, flaking coatings, dirt, oil, and other foreign substances. Prior to application of the spray finish, the surfaces shall be free of moisture, as determined by sight and touch, and in a condition consistent with the manufacturer's published recommendations.

The spray finish shall be applied with heavy duty spray equipment capable of maintaining a constant pressure as necessary for proper application. The material shall be applied as recommended by the manufacturer except the rate of application shall not be less than one gallon per 50 square feet of surface area without prior written approval of the Engineer.

The completed finish shall be tightly bonded to the structure and present a uniform appearance and texture equal to or better than a rubbed finish. If necessary, additional coats shall be sprayed to produce the desired surface texture and uniformity. Upon failure to adhere positively to the structure without chipping or cracking or to attain the desired surface appearance, the coatings shall be completely removed and the surface given a rubbed finish in accordance with 907-

804.03.19.3.1, or other approved methods shall be used to obtain the desired surface finish to the satisfaction of the Engineer without additional cost to the State.

907-804.03.19.4--Classes 3, 4, and 5 Finishes. If required, specifications for these finishes will be contained in the special provisions.

907-804.03.19.5--Class 6, Floated Surface Finish. After the concrete has been deposited in place, it shall be consolidated and the surface shall be struck off by means of a strike board and floated with a wooden or cork float. An edging tool shall be used on edges and expansion joints. The surface shall not vary more than 1/8 inch under a 10-foot straightedge. The surface shall have a granular or matte texture which will not be slick when wet.

907-804.03.19.6--Required Finishes for Various Surfaces.

907-804.03.19.6.1--General. Unless otherwise specified, the top surface of sidewalks, the top horizontal surfaces of footings, and top slabs of box bridges, box culverts, or other structures shall be given a Class 6 finish. All formed concrete surfaces shall be given a Class 1 finish, except on surfaces which are completely enclosed, such as the inside surfaces of cells of box girders, the removal of fins and form marks and the rubbing of mortared surfaces to a uniform color will not be required.

In reference to finishing, exposed surfaces are surfaces or faces which may be seen after all backfill has been placed. Exposed surfaces requiring a Class 2 finish shall be finished at least one foot below the ground line or the low water elevation, whichever is higher.

The Class 2 finish shall be made upon a Class 1 finish. After the removal of forms the Class 1 finish shall be completed and the rubbing of concrete shall be started as soon as the condition of the concrete will permit.

Bridge floors shall be finished in accordance with 907-804.03.19.7.

907-804.03.19.6.2--Finishing Formed Concrete Surfaces of Box Bridges, Box Culverts, Pipe Headwalls, and Minor Structures. The exposed surfaces of wing walls and parapets of box bridges and box culverts to be used as vehicular or pedestrian underpasses shall be given a Class 2 finish. Exposed surfaces of other box culverts or box bridges, pipe culvert headwalls, and other minor structures shall be given a Class 1 finish unless otherwise indicated on the plans.

The exposed surfaces of retaining walls including copings and parapets shall receive a Class 2 finish.

907-804.03.19.6.3--Finishing Formed Concrete Surface of Bridges. All formed concrete bridge surfaces which are exposed shall have a Class 1 or 2 finish as set forth herein unless designated otherewise on the plans.

Bridges with designated surfaces for Class 2 finish are classified as follows:

Group A - Bridges over highways, roads and streets.
Group B - Bridges over waterways and railroads.
Group BB - Twin or adjacent bridges of Group B category.

(A) Superstructures. Concrete surfaces to be given a Class 2 finish shall be the exposed surfaces of wings and rails and other exposed surfaces indicated by a double line in Figures 804-39, 804-40, and 804-41.

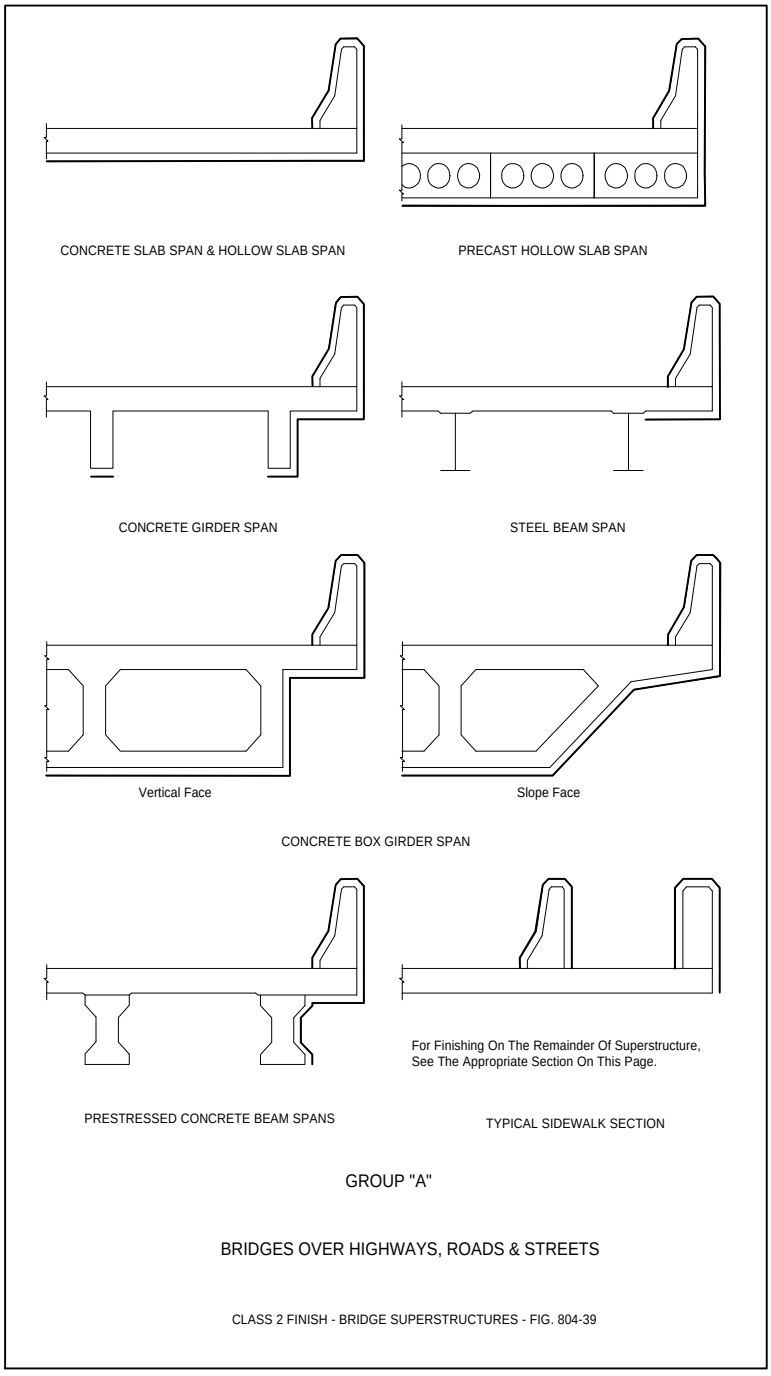
When a Group B or BB also spans a highway, road or street, the superstructure of spans over and extending one span in each direction beyond the lower level highway, road or street shall be given a Class 2 finish as shown for Group A.

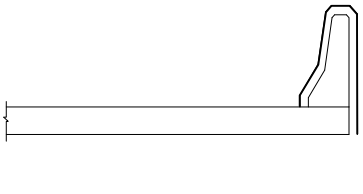
(B) Substructures. Concrete surfaces to be given a Class 2 finish are as follows:

Group A. Exposed surfaces of abutments, end bents, end bent posts, wing walls, railing, retaining walls, parapets, copings, piers, columns, piles, caps, struts or walls between columns or piles, encasement of steel piles, arch rings and spandrel walls.

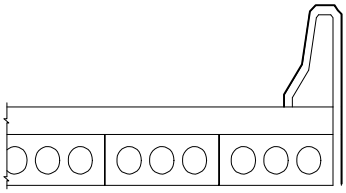
Group B and BB. Exposed surfaces of abutments, wing walls, end bent posts, railing, retaining walls, parapets and copings.

When a Group B or BB also spans a highway, road or street, the exposed portions of collision walls, bumpers and other substructure units extending one span in each direction beyond the span or spans over the lower level highway, road or street shall be given a Class 2 finish as designated for Group A Bridges.

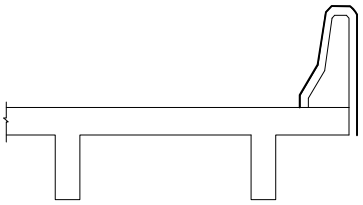

CONCRETE SLAB SPAN & HOLLOW SLAB SPAN
PRECAST HOLLOW SLAB SPAN
CONCRETE GIRDER SPAN
STEEL BEAM SPAN
Vertical Face
Slope Face
CONCRETE BOX GIRDER SPAN
For Finishing On The Remainder Of Superstructure, See The Appropriate Section On This Page.
PRESTRESSED CONCRETE BEAM SPANS
TYPICAL SIDEWALK SECTION
GROUP "A"
BRIDGES OVER HIGHWAYS, ROADS & STREETS
CLASS 2 FINISH - BRIDGE SUPERSTRUCTURES - FIG. 804-39



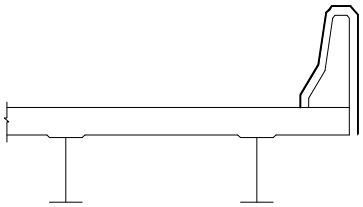
CONCRETE SLAB SPAN & HOLLOW SLAB SPAN



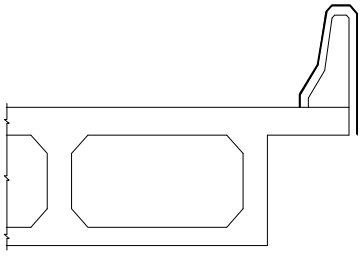
PRECAST HOLLOW SLAB SPAN



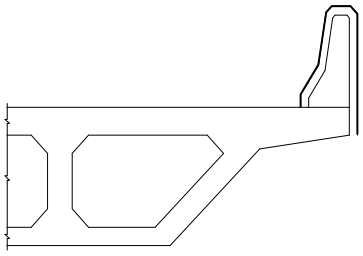
CONCRETE GIRDER SPAN



STEEL BEAM SPAN

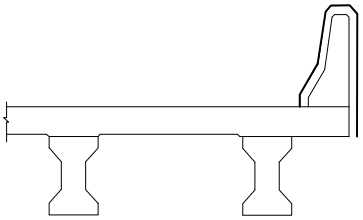


Vertical Face

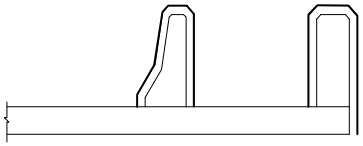


Slope Face

CONCRETE BOX GIRDER SPAN



PRESTRESSED CONCRETE BEAM SPANS



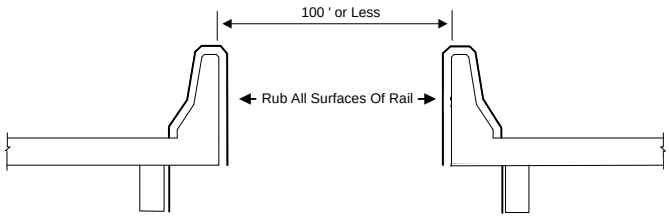
For Finishing On The Remainder Of Superstructure, See The Appropriate Section On This Page.

TYPICAL SIDEWALK SECTION

GROUP "B"

BRIDGES OVER WATERWAYS AND BRIDGES OVER RAILROAD TRACKS

CLASS 2 FINISH - BRIDGE SUPERSTRUCTURES - FIG. 804-40



GROUP "B B" - ADJACENT BRIDGES

GROUP "B B"

TWIN or DUAL BRIDGES

CLASS 2 FINISH - BRIDGE SUPERSTRUCTURS - FIG. 804-41

907-804.03.19.7--Finishing Bridge Floors.

907-804.03.19.7.1--General. Concrete bridge decks shall be struck off and finished by the method(s) designated on the plans.

In the event a method is not designated, the Contractor may use either the longitudinal or transverse method subject to the requirements contained in these specifications.

Except when indicated otherwise on the plans, the final surface texture of the bridge floor shall be either a drag, belt or broom finish. The surface texture specified and surface requirements shall be in accordance with the applicable requirements of Subsections 501.03.17 and 501.03.18 modified only as the Engineer deems necessary for bridge deck construction operations.

907-804.03.19.7.2--Longitudinal Method. The longitudinal method requires that the strike-off screed be supported on accurately graded and supported bulkheads or templates placed across the full width at the end(s) of the pour. Before the concrete is placed, approved fixed templates or wooden bulkheads of not less than 1 1/4 inch lumber shall be placed perpendicular to the centerline of the roadway, or in the case of skew bridges at the angle of skew. The upper surface of the template or bulkheads shall be accurately set to conform to the required grade and crown.

Special attention shall be given to the gutter lines where the strike-off screed cannot reach. The gutters shall be finished by hand and tested with the straight edge. Floor drains shall be set lower than the finished gutter line and finished over. After initial set, the concrete shall be dished out and finished around the drains to form an outlet.

After the concrete has been deposited and rough graded, it shall be struck off by means of a strike-off screed resting onthe bulkheads or fixed templates. The strike-off screed shall be of a type satisfactory to the Engineer and shall have sufficient strength to retain its shape under all working conditions. The final surface shall comply with the applicable requirements of Subsections 501.03.17.6 and 501.03.18, and unless otherwise specified in the contract, the final finish under this method shall be the belt finish.

In general, the overall strike-off screed should be trussed, with bracing heavy enough to support the weight of a man without deflecting, and should be adjustable for camber and correction of sag.

The strike-off screed will ride on the bulkheads or fixed templates at the ends of the section being finished. Care shall be taken to see that the bulkhead or fixed template elevations are accurately set since the entire span surface will be controlled by them. The manipulation of the screed shall be such that neither end is raised from the bulkheads or templates during the process.

The concrete shall be struck off by beginning at one curb and proceeding entirely across the span. A slight excess of concrete shall be kept in front of the cutting edge at all times. This operation shall be repeated at least three times. In each case, the strike-off screed shall be picked up and carried back to the point of beginning. No backward strokes will be allowed. The strike-off

screed shall be moved along the bulkheads or fixed templates with a combined longitudinal and transverse motion. This operation may be manual or mechanical. Standing or walking in the fresh concrete ahead of the strike- off screed will not be permitted.

907-804.03.19.7.3--Transverse Method. The transverse method requires that the screeding equipment be supported on accurately graded and supported rails placed beyond the gutter lines and parallel with the centerline of the bridge.

The machine shall be so constructed and operated as to produce a bridge floor of uniform density with minimum manipulation of the fresh concrete and achieved in the shortest possible time. Manual transverse methods of screeding will not be permitted.

The finishing machine shall be supported on vertically adjustable rails set a sufficient distance from the gutter line to allow free movement of the screed from gutter line to gutter line. Satisfactory means of load distribution with minimum rail deflection shall be provided. The screed rails for a deck pour shall be completely in place for the full length of the pour and shall be firmly secured prior to placing concrete. The screed rails shall be adjusted as necessary to compensate for settlement and deflection occurring during the screeding operations. Supports for the screed rail shall be located directly over slab overhang support brackets (reference 907-804.03.14.1).

At least one dry run shall be made the length of each pour with a "tell-tail" device attached to the screed carriage to assure the specified clearance to the reinforcing steel.

The screed shall be equipped with a metal cutting edge or other approved mechanical means for accurately fine grading the plastic concrete to the required grade and surface smoothness and shall be supported by a bridging structure sufficiently rigid and heavy to perform operations satisfactorily on concrete of minimum slump without vibration, distortion, and wrecking of forms. The screed shall be mechanically actuated to deliver the screeding action and for travel in a longitudinal direction at a uniform rate along the bridge floor.

The screed shall complete sufficient passes to strike off all of the excess concrete with ample mortar along the entire leading edge to assure filling of low spots. Care shall be taken to remove all objectionable material from the gutters where final hand finishing will be required.

The selection of the transverse method may require the Contractor to furnish bridge deck concrete which contains an approved water-reducing set retarding admixture in the quantities approved by the Engineer at no additional cost to the State. (Reference 907-804.02.10)

Other finishing requirements shall be in accordance with the general requirements in 907-804.03.19.7.1 and as specified on the plans.

907-804.03.19.7.4--Acceptance Procedure for Bridge Deck Smoothness. After the bridge decks and bridge end slabs are completed, they shall be tested for ride quality using a Contractor furnished profilograph. Profile Index Values shall be determined in accordance with Department

SOPs and these specifications. The profilograph shall meet the requirements of Subsection 907-401.02.6.5. Profiles will be obtained in the wheel paths of the main thru lanes and, where conditions allow, in the wheel paths of any auxiliary lanes or tapers. Profile Index Values for bridge decks and bridge end slabs shall be obtained for all state roads with four lanes or more, on state roads three lanes or less where the current traffic count is 2,000 ADT or higher, or as designated on the plans. Ride quality tests will begin at a point where the rearmost wheel of the profilograph is as close to the beginning of the bridge end slab as possible and shall proceed forward across the remainder of the bridge end slab, across the bridge deck and continue across the next bridge end slab to a point where the frontmost wheel of the profilograph reaches the farmost edge of the bridge end slab. Bridges and bridge end slabs not requiring a ride quality test must meet a 1/8 inch in 10-foot straightedge requirement in longitudinal and transverse directions. Bridges in horizontal curves having a radius of less than 1,000 feet at the centerline and bridges within the superelevation transition of such curves are excluded from a test with the profilograph.

The Profile Index Value for bridge decks including the bridge end slabs shall be averaged for the left and right wheel path for each lane and where applicable, each auxiliary lane and taper, and shall not exceed 65 inches per mile for each lane. In addition, individual bumps or depressions exceeding 0.3 of an inch, when measured from a chord length of 25 feet shall be corrected, and the surface shall meet a 1/8 inch in 10-foot straightedge check made transversely across the deck or slab.

Bridge decks and bridge end slabs not meeting the preceding requirements shall be corrected. Corrective work shall be done at no additional cost to the Department. Corrective work shall consist of diamond grinding in accordance with Subsection 907-804.03.19.7.5. All corrective work shall precede final surface texturing. All surface areas, corrected by grinding, shall be sealed with a sealant approved by the Bridge Engineer.

In case the bridge end slabs are to be constructed on a future project, the bridge deck(s) alone shall be tested for ride quality using the acceptance procedure outlined above, except that the ride quality test will begin at a point where the rearmost wheel of the profilograph is as close to the beginning of the bridge as possible and shall proceed forward across the bridge deck to a point where the frontmost wheel of the profilograph reaches the farmost edge of the bridge.

Expansion joint installation shall be delayed and the joint temporarily bridged to facilitate operation of the profilograph and grinding equipment across the joint wherever feasible.

It shall be the Contractor's responsibility to schedule profilograph testing. The Contractor shall notify the Department at least five (5) days in advance of profilograph testing. The Contractor shall ensure that the area to be tested has been cleaned and cleared of all obstructions. Profilograph testing of bridge decks and bridge end slabs shall be performed by the Contractor under supervision of the Engineer. All profilograph testing shall be performed at no additional cost to the Department. The Contractor will be responsible for traffic control associated with this testing operation.

907-804.03.19.7.5--Grinding Bridge Decks.

907-804.03.19.7.4.1.1--Equipment. The grinding equipment shall be a power driven, self-propelled machine that is specifically designed to smooth and texture Portland cement concrete pavement with diamond blades. The effective wheel base of the machine shall not be less than 12.0 feet. It shall have a set of pivoting tandem bogey wheels at the front of the machine and the rear wheels shall be arranged to travel in the track of the fresh cut pavement. The center of the grinding head shall be no further than 3.0 feet forward from the center of the back wheels.

The equipment shall be of a size that will cut or plane at least 3.0 feet wide. It shall also be of a shape and dimension that does not encroach on traffic movement outside of the work area. The equipment shall be capable of grinding the surface without causing spalls at cracks, joints, or other locations.

907-804.03.19.7.4.1.2--Grinding. The grinding areas will be determined by the Contractor and approved by the Engineer. The Contractor shall develop and submit to the Engineer for approval a Grinding Plan. The Contractor shall allow up to 45 days for the Department to review the Plan prior to starting any grinding operations. This plan shall include as a minimum:

1) Name of the project superintendent in responsible charge of the grinding operation.
2) List and description of all equipment to be used.
3) Maximum depth of each pass allowed by the grinding equipment.
4) Maximum width of each pass allowed by the grinding equipment.
5) Details of a sequence of the grinding operation.
6) Complete data from Profilograph runs, based on a 0.3 inch bump height, for each wheel path over the entire bridge including bridge end slabs, which shall include profile index, bump locations (in stations), bump heights and proposed final cross-slopes. When a computerized profilograph is used, a complete printout of the profile including the header information for each wheel path will be required.
7) Data showing reinforcing steel clearance in all areas to be ground.
8) A detailed drawing of the deck showing areas to be ground with station numbers and grinding depths clearly indicated.
9) A description of grinding in areas where drains are in conflict with grind areas.
10) Details of any changes in deck drainage, anticipated ponding, etc.

The Engineer will evaluate the grinding plan for conformance with the plans and specifications, after which the Engineer will notify the Contractor of any additional information required and/or changes that may be needed. Any part of the plan that is unacceptable will be rejected and the Contractor shall submit changes for reevaluation. All approvals given by the Engineer shall be subject to trial and satisfactory performance in the field, and shall not relieve the Contractor of the responsibility to satisfactorily complete the work.

The construction operation shall be scheduled and proceed in a manner that produces a uniform finished surface. Grinding will be accomplished in a manner that eliminates joint or crack faults while providing positive lateral drainage by maintaining a constant cross-slope between grinding

extremities in each lane. Auxiliary or ramp lane grinding shall transition as required from the mainline edge to provide positive drainage and acceptable riding surface.

The operation shall result in a finished surface that conforms as close as possible to the typical cross-section and the requirements specified in Subsection 907-804.03.19.7.4.

The Contractor shall establish positive means for removal of grinding residue. Residue shall not be permitted to flow across lanes used by public traffic or into gutters or drainage facilities.

907-804.03.19.7.4.1.3--Final Surface Finish. The grinding process shall produce a finish surface that is as close as possible to grade and uniform in appearance with a longitudinal line type texture. The line type texture shall contain parallel longitudinal corrugations that present a narrow ridge corduroy type appearance. The peaks of the ridges shall be approximately 1/16 inch higher than the bottoms of the grooves with approximately 53 to 57 evenly spaced grooves per foot. Grinding chip thickness shall be a minimum of 0.080 inches thick.

The finished bridge decks and bridge end slabs shall be retested for riding quality using a Contractor furnished profilograph meeting the requirements of Subsection 401.02.6.5. The finished results shall meet the following conditions:

(a) Individual bumps or depressions shall not exceed 0.3 inches when measured from a chord length of 25 feet.
(b) The final index value for the bridge deck and bridge end slabs shall be an average of both the right and left wheel paths of each lane and shall not exceed 65 inches per mile.

The final profilogram will be furnished to the Engineer for informational purposes.

907-804.03.19.8--Finishing Horizontal Surfaces of Footings or Top Slabs of Box Bridges, Culverts, or Other Structures. The finishing of horizontal surfaces of footing or top slabs of box bridges, culverts, or other structures shall be achieved by placing an excess of material in the form and removing or striking off the excess with a template, forcing the coarse aggregate below the mortar surface. After the concrete has been struck off the surface shall be given a Class 6 finish.

907-804.03.19.9--Finishing Exposed Surfaces of Sidewalks. After the concrete has been deposited in place it shall be consolidated and the exposed surface shall be given a Class 6 finish. An edging tool of the required radius shall be used on all edges and at all expansion joints. The surface shall have a granular texture which will not be slick when wet.

Sidewalk surfaces shall be laid out in blocks with an approved grooving tool as shown on the plans or as directed.

907-804.03.20--Opening Bridges.

907-804.03.20.1--Public Traffic. Unless otherwise specified, concrete bridge floors shall be closed to public highway traffic for a period of at least 21 days after placing concrete.

907-804.03.20.2--Construction Traffic. Unless otherwise specified, concrete bridge floors shall be closed to construction traffic for a period of seven (7) days after placing concrete and the minimum required compressive strength for the concrete placed is obtained.

907-804.03.21--Final Cleanup. Upon completion of the work all equipment, surplus materials, forms, and waste material shall be removed, the bridge cleaned, and the site of the work given a final cleanup.

907-804.03.22--Precast-Prestressed Concrete Bridge Members.

907-804.03.22.1--Plant, Equipment, Inspection and Supervision. All installations and plants for the manufacture of precast- prestressed bridge members shall be inspected and approved by the Engineer in a manner and under the conditions as determined by the Department prior to the manufacture of members to be used by the Department. Bridge members manufactured in plants or installations not so approved will not be accepted for use in the work. The Contractor or other manufacturer shall employ a technician skilled in the adopted system of prestressing to supervise the manufacturing operations. This technician shall be acceptable to the Engineer. Acceptance of a member at the plant shall in no way be final, and further inspection will be made at the structure, before and after the member has been placed in its final position.

The jacks for stressing shall be equipped with accurate calibrated gages for registering the jacking pressure. Means shall be provided for measuring elongation of strands to at least the nearest 1/16 inch.

Prior to beginning work, the Contractor or manufacturer shall have all jacks to be used, together with their gages, calibrated by an approved laboratory. All jacks and gages shall have an accuracy of reading within two percent. The testing agency shall furnish the Engineer a statement certifying that the jacks and gages meet this requirement. During the progress of the work, if a gage appears to be giving erratic results or if the gage pressure and elongations indicate materially differing stresses, recalibration will be required.

Calibration of jacks and gages shall be repeated at intervals deemed necessary by the Engineer. These intervals for calibration shall not exceed one year.

Shop drawings of prestressed beams, including an erection plan, shall be submitted in duplicate to the Bridge Engineer for approval prior to manufacture of members.

907-804.03.22.2--Stressing Requirements.

907-804.03.22.2.1--Methods. Plans for the particular bridge members will show prestressing by one of the following methods:

(A) Pretensioning. The prestressing strands are stressed initially. After the concrete is placed, cured, and has attained the compressive strength shown on the plans, the stress is transferred to the member.

(B) Posttensioning. The posttensioning tendons are installed in voids or ducts and are stressed and anchored after development of the compressive strength specified on the plans. The voids or ducts are then pressure grouted.

(C) Combined Method. Part of the reinforcing is pretensioned and part posttensioned. Under this method all applicable requirements for the two methods specified shall apply to the respective stressing elements being used.

907-804.03.22.2.2--Alternate Details for Prestressed Members. In the event that the Contractor (Manufacturer) desires to use materials or methods that differ in any respect from those shown on the plans or described in these specifications, he shall submit for approval full plan details (on acceptable tracings suitable for reproduction) and specifications, and these shall become the property of the Department. In order for alternate materials and/or methods to be considered, they will be required to comply fully with the following:

A. Provisions equal to those stipulated in these specifications.
B. Current AASHTO Specifications.
C. Recommendations of materials manufacturer.
D. Camber tolerance of beams and spans shown on plans.

(Note: Alternate materials and methods will not be authorized on Federal-Aid Projects.)

The Engineer shall be the sole judge as to the adequacy and 0propriety of any variation of materials or methods.

907-804.03.22.2.3--Stressing Procedure.

(A) General. Stressing shall be performed by suitable jacks working against unyielding anchorages and capable of maintaining the required stress for an indefinite period without movement or yielding. Strands may be stressed singularly or in a group.

The tension to be applied to each strand shall be as shown on the plans. The tension shall be measured by both jacking gages and elongations in the strands and the result shall check within close limits.

It is anticipated that there will possibly be a difference in indicated tension between jack pressure and elongation of about five (5) percent. In this event, the discrepency shall be placed on the side of slight overstress rather than understress.

In the event of an apparent discrepancy between gage pressure and elongation of as much as five (5) percent, the entire operation shall be carefully checked, and the source of error determined before proceeding further.

Elongation is to be measured after the strands have been suitably anchored, and all possible slippage at the anchorages has been eliminated.

In all stressing operations, the stressing force shall be kept as nearly symmetrical about the vertical axis of the member as practicable.

(B) Pretensioning. All strands to be prestressed shall be brought to a uniform initial tension prior to being given their full pretensioning. This uniform initial tension of approximtely 1000 to 2000 pounds shall be measured by suitable means such as a dynamometer so that its value can be used as a check against elongation computed and measured.

After the initial tensioning, the strand or group shall be stressed until the required elongation and jacking pressure are within the limits specified.

When the strands are stressed in accordance with the plan requirements and these specifications and all other reinforcing is in place, the concrete shall be placed in the prepared forms.

Strand stress shall be maintained until the concrete between anchorages has attained the required compressive strength as determined by cylinder tests, after which the strands shall be cut off flush with the ends of column members, and cut as shown on the plans for beams, girders, etc. Strands shall be cut or released in such a manner that eccentricity of prestress will be kept to a minimum and no damage to the member will result. The strand cutting pattern shall be as shown on the plans or as approved by the Bridge Engineer.

(C) Posttensioning. For all posttensioning tendons/bars the anchor plates shall set exactly normal in all directions to the axis of the tendon/bar. Parallel wire anchorage cones shall be recessed within the beams. Tensioning shall not take place until the concrete has reached the compressive strength shown on the plans.

Elongation and jacking pressures shall make appropriate allowance for all possible slippage or relaxation of the anchorage. Posttensioning tendons/bars shall be stressed in the order and manner shown on the plans.

The units shall be tensioned until the required elongations and jacking pressures are attained and reconciled within the limits specified in 907-804.03.22.2.3(A) with such overstresses as approved by the Engineer for anchorage relaxation.

Independent references shall be established adjacent to each anchorage to indicate any yielding or slippage that may occur between the time of initial stressing and final release of the strands.

Straight tendons/bars may be tensioned from one end. Unless otherwise specified, curved tendons shall be stressed by jacking from both ends of the tendons.

(D) Combined Method. In the event that girders are manufactured with part of the reinforcement pretensioned and part posttensioned, the applicable portions of the requirements listed herein shall apply to each type.

907-804.03.22.3--Manufacture.

907-804.03.22.3.1--Forms. Metal forms shall be used, except that wooded headers may be allowed. They shall be well braced and stiffened against undesirable deformations under pressure of the wet concrete and shall have smooth joints and inside surfaces accessible for adequate cleaning after each use.

Forms and centerings shall be made and maintained true to the shapes and dimensions shown on the approved plans during their use.

Form ties shall be either the threaded or snapoff type so that no form wires or metal pieces will be left at the surface of the finished concrete.

Pile ends shall be perpendicular to the axis of the pile, and all right angle corners shall be appropriately chamfered or rounded. Joints between panel forms shall be made smooth and tight. Failure of members to conform to the foregoing may be cause for rejection.

The inside faces of all forms shall be coated with a form lacquer approved by the Engineer. Care shall be exercised to prevent the form lacquer from getting on the reinforcement.

907-804.03.22.3.2--Placing and Fastening Steel. All steel shall be accurately placed in the position shown on the plans and firmly held during the placing and setting of the concrete. If necessary, distances from the forms shall be maintained by stays, blocks, ties, hangers, or other approved supports. Blocks to keep steel from contact with the forms shall be precast mortar blocks of approved shape and dimensions. Where required, layers of steel shall be separated by mortar blocks or other suitable devices. Wooden blocks will not be permitted.

The tolerances for placing and fastening steel are found in 907-804.03.22.7.

907-804.03.22.3.3--Holes for Prestressing Tendons/Bars. Holes provided in girders for prestressing tendons/bars shall be formed by means of inflatable rubber tubing, flexible metal conduit, metal tubing, or other approved means.

907-804.03.22.4--Placing and Curing Concrete.

907-804.03.22.4.1--Placing. The placing and curing of concrete shall meet the applicable requirements of these specifications.

The plant for handling, placing, and curing concrete shall be arranged to obtain a uniformly dense and high-grade concrete in all parts of the bridge member under all working and weather conditions.

The layout of the casting and curing plant shall be subject to the approval of the Engineer.

Concrete shall not be deposited in the forms until the Engineer has inspected the placing of the reinforcement, anchorages, and prestressing steel and given his approval therefor. The concrete shall be satisfactorily vibrated internally or externally, or both, as ordered. The vibrating shall be done with care and in such a manner as to avoid displacing reinforcing and wire strands.

907-804.03.22.4.2--Curing. Initial curing of all members shall be accomplished by fogging, wet burlap, or other approved methods and shall begin as soon as the concrete has hardened sufficiently to withstand surface damage. This curing shall continue until the concrete has attained its initial set; however, the minimum initial curing period shall be three hours and the maximum, five hours. If a retarding agent is used, the minimum period shall be five hours and the maximum seven hours. Following the initial curing, curing shall be resumed by steam, specified as follows.

In steam curing the member shall be enclosed in a suitable enclosure. The enclosure shall be of sturdy construction to withstand wind and shall be weather-tight to minimize moisture and heat losses. There shall be at least six inches of space between the enclosure and concrete for proper circulation of steam. Application of the steam shall not be directly on the surface of the concrete.

The steam shall be completely saturated in order to prevent loss of humidity and to provide excess moisture for proper hydration of the cement. When weather conditions require, and when directed, additional moisture shall be applied during steam curing in order that the surface of the concrete will show free moisture. This can be accomplished by use of fogging, spraying, wet burlap, or other approved methods.

The temperature of the interior of the enclosure shall be at least 80^{o}F and not more than 160^{o}F. The ideal temperature is 100^{o} to 130^{o}F. During initial application of the steam, the ambient air temperature within the enclosure shall increase at a rate not exceeding 40^{o}F per hour.

At least one recording thermometer for each enclosure shall be furnished by the producer. If the enclosure is longer than 300 feet, an additional recording thermometer shall be furnished for each additional 300 feet of length or fraction thereof. Each recording thermometer shall be placed within the enclosure at a point designated by the inspector. An approved portable thermometer shall be furnished by the producer for use by the producer and the Inspector in determining the temperature(s) at other points within the enclosure. The temperature at any point within the enclosure shall not vary more than 10^{o}F from that of the recording thermometer or the average of the recording thermometers if more than one is used.

An alternate means of determining and recording temperatures may consist of the use of temperature bulbs connected electrically to a central recorder. The same number of such bulbs will be required as specified above for recording thermometers, and the central recorder shall record the temperature of each bulb.

Steam may be temporarily suspended, if necessary, during removal of side forms. This operation shall be performed in such a manner that the concrete in any portion of the member shall not be exposed for more than one hour. If directed, due to low humidity or temperature, the exposed concrete shall be kept wet. In discontinuing the steam, it shall be cut off for at least one hour before uncovering the member. No restrictions as to the rate of increase of temperature are applicable for applying steam after this operation is completed.

Steam may be suspended, if necessary, during transfer of the tensioning load (detensioning or posttensioning). No restrictions as to rate of increase or decrease of temperature are applicable to discontinuing or re-applying steam for this operation. However, the concrete shall be kept wet during exposure.

After the stress-transfer operation, curing may be resumed either by steam, cotton mats, wetted burlap, or constant fogging. Liquid membrane may be used only when authorized in writing by the Engineer. When permitted, liquid membrane shall be white pigmented and shall be applied at the rate of one gallon to not more than 150 square feet of surface, Membrane shall not be applied to portions of units designated to be bonded to other concrete or which are to receive a Class 2 finish. Such portions shall be cured by other methods. Curing time shall be continued until the concrete has attained a compressive strength of 5,000 psi as evidenced by test specimens. Such specimens shall be cured under conditions not more favorable than the concrete in the member.

907-804.03.22.4.3--Removal of Side Forms. Side forms may be removed after the concrete has attained sufficient strength to maintain a true section. In order to obtain "sufficient strength," it may be necessary to cure members for 12 hours or more as prescribed in 907-804.03.22.4.2, or to attain a minimum compressive strength of 1,000 psi.

If high-early-strength concrete is obtained by use of low slump (0 to 1.5 inch) concrete, vacuum process, or other approved methods, side forms may be removed earlier; however, approval of the methods and revision from normal schedules will be made only after inspections by the District and Jackson Laboratories have determined that satisfactory results will be attained by the methods and schedules proposed.

907-804.03.22.4.4--Grouting. The holes through posttensioned members in which the tendons are installed shall be equipped with approved grouting vents. All prestressing tendons to be bonded shall be free of dirt, loose rust, grease, or other deleterious substances. Before grouting, the ducts shall be free of water, dirt, and other foreign substances. The ducts shall be blown out with compressed air until no water comes through the ducts. For long members with draped tendons an open tap at low points may be necessary. After completion of stressing, the annular

space between sides of tendon and sides of hole shall be grouted as set in the following paragraphs.

With the grouting vent open at one end of the core hole, grout shall be applied continuously under moderate pressure at the other end until all entrapped air is forced out through the open grout vent, as evidenced by a steady stream of grout at the vent. Whereupon, the open vent shall be closed under pressure. The grouting pressure shall be gradually increased to refusal (at least 75 psi) and held at this pressure for approximately 10 seconds, and the vent shall then be closed under this pressure.

Portland cement grout shall consist of a mixture of:

1 part Type 1 portland cement
1/4 part fly ash
3/4 part washed sand (all passing No. 16 sieve and not more than five percent retained on No. 30)
4 to 6 gallons of water per bag of cement.

A plasticizing admixture, subject to approval by the Engineer, shall be used in accordance with the manufacturer's recommendations.

The grout shall be mixed in a mechanical mixer, shall have the consistency of heavy paint, and shall be kept agitated until placed.

Members shall not be moved before the grout has set, ordinarily at least 24 hours at 80^{o} F or higher.

907-804.03.22.5--Finishing and Marking. Units shall be given a Class 1 finish at the plant and shall be given a Class 2 finish after erection when required.

Recesses in girders at end of diaphragm bars, holes left by form ties, and other surface irregularities shall be carefully cleaned and patched with an approved non-shrink commerical grout or a non-shrinkage mortar of the following composition:

1 part Type 1 cement
1 1/2 to 2 parts fine sand
1/2 to 3/4 ounces aluminum powder per sack of cement
Approved admixture per 907-804.02.10.
Sufficient water to produce a workable but rather stiff mix.

Prior to final inspection, the units shall be clearly marked in accordance with Department SOP.

907-804.03.22.6--Handling, Storage, and Installation. Posttensioned members may be handled immediately after completion of stressing and grout has set. Pretensioned members may

be handled immediately after release of tensioning. In either case, the members shall have developed a minimum compressive strength of 4000 psi prior to handling. In the event stressing is not done in a continuous operation, members shall not be handled before they are sufficiently stressed, as determined by the Engineer, to sustain all forces and bending moments due to handling. In the handling, storage, and transporting of beams or girders, they shall be maintained in an upright position (position as cast) at all times and shall be picked up from points within distance from beam ends equal to beam depth or at pick-up points designated on the plans. Disregard of this requirement and dropping of units may be cause for rejection, whether or not injury to the unit is apparent. Piles shall be picked up and loaded for shipment at points shown by the suspension diagram on the plans. Extreme care shall be used in handling and storing piles to prevent damage. The dropping of a pile may be cause for rejection of same, whether or not there is apparent injury to the member.

Care shall be exercised during the storage, hoisting, and handling of precast units to prevent damage. Damaged units shall be replaced by the Contractor at his expense.

When members are stacked for storage, each layer shall be supported at or near the pick-up points. Supports shall be carefully placed in a vertical line in order that the weight of any member will not stress an underlying member. To prevent damage in moving members it is suggested that rigid supports be covered with a cushion of wood or other resilient material.

Members shall not be transported until at least one day after the concrete has reached a compressive strength of 5,000 psi or greater strength when shown on the plans.

Piles used in salt water shall not be driven until concrete is seven days old, and air-entrained concrete shall be used in such piles.

After prestressed concrete voided slab units are set, doweled and bolted in their final position the keyways and dowel holes shall be filled with an approved non-shrink grout. Traffic shall not be permitted on the spans for 24 hours after grouting, and heavy construction equipment exceeding 15 tons will not be permitted on the spans for a period of 72 hours after grouting.

Adjacent slab units that mismatch more than one-fourth inch shall be adjusted prior to grouting of the shear keys. The maximum deviation from cross-section and grade (exclusive of camber) at any point shall not exceed one-fourth inch; and when the surface is checked with a ten-foot straightedge applied both parallel and perpendicular to the centerline, the variance shall not exceed one-fourth inch.

In addition to the requirements set out in this section, the applicable requirements of Section 803 shall apply.

907-804.03.22.7--Tolerances for Accepting Precast Prestressed Concrete.

Precast Prestressed Concrete I-Beams

Depth (flanges, web and fillets)	±1/4 in.
Depth (overall)	+1/2 in. to -1/4 in.
Width (flanges and fillets)	+3/8 in. to -1/4 in.
Width (web)	+3/8 in. to -1/4 in.
Length of Beam	±1/8 in. per 10 ft. or 1/2 in. whichever is greater.
Exposed beam ends deviation from square or designated skew	Horizontal = 1/4 in. Vertical = 1/8 in. per ft. of beam ht.
Side Inserts (spacing between centers of inserts and from the centers of inserts to the ends of the beams)	±1/2 in.
Bearing Plates (spacing between the centers of bearing plates)	±1/8 in. per 10 ft. or 1/2 in. whichever is greater.
Bearing Plates (spacing from the centers of bearing plates to the ends of the beams)	+1/2 in.
Bearing Plate or Bearing Area deviation from plane	±1/16 in.
Stirrup Bars - Projection above top of beam	±3/4 in.
Stirrup Bars - Longitudinal Spacing	±1 in.
End Stirrup Bars	not more than 2 in. from the end of the beam

Horizontal Alignment (deviation from a straignt line parallel to the centerline of beam):

At the yard site before shipment -	1/4 in. per 10 ft.
When erected and the diaphragms poured	1/8 in. per 10 ft.
Center of gravity of strand group	±1/4 in.
Center of gravity of depressed strand group at end of beam	±1/2 in.
Position of post-tensioning duct	±1/4 in.
Position of hold-down points for depressed strands	±6 in.
Position of handling devices	±6 in.

Precast Prestressed Concrete Piling

Width or Diameter	-1/4 in. to + 3/8 in.
Head out of square	1/16 in. per 12 in. of width
Length of Pile	±1 1/2 in.
Horizontal Alignment (deviation from a straight line parallel to the centerline of the pile)	1/8 in. per 10 ft.
Void location	±1/2 in.
Stirrup Bars or Spiral Positioning	Same as for I-Beams
Tendon Positioning	Same as for I-Beams

Handling Device Positioning	Same as for I-Beams

Prestressed Concrete Voided Slab Units and Precast Concrete Caps

Depth	± 1/4 in.
Width	± 1/4 in.
Length	± 1/2 in.
Location of Void (Vertical)	± 1/4 in.
Location of Void (Horizontal)	± 1/2 in.
Horizontal Alignment (Deviation from a straight line parallel to the centerline of unit)	± 3/8 in.
Center of Gravity of Strand Group (Vertical)	± 1/4 in.
Center of Gravity of Strand Group (Horizontal)	± 1/2 in.
Stirrup Positioning	Same as for I-Beams
Handling Device Positioning	Same as for I-Beams

These tolerances for beams and piles may be modified for sufficient cause by the Engineer, who shall be the final judge of the acceptability of the member. The member should be checked immediately after strand release and again immediately before shipment.

In all cases, the variation should be uniform and not a local variation from alignment. If the variation is caused by unsymmetrical strand pattern or some other feature of bad workmanship, this should be called to the attention of the Engineer prior to shipment as it may be ground for rejection.

907-804.04--Method of Measurement. The volume of concrete, complete and accepted, will be measured in cubic yards. In computing the volume, the neat dimensions shown on the plans will be used, except for such variations as may be ordered in writing by the Engineer. The quantity of concrete involved in fillets, scorings, and chamfers one square inch or less in cross-sectional area will be neglected. Deductions shall be made for the following:

(1) The volume of structural steel, including steel piling encased in concrete.
(2) The volume of timber piles encased in concrete, assuming the volume to be 0.80 cubic foot per linear foot of pile.
(3) The volume of concrete piles encased in concrete.

No deduction will be made for the volume of concrete displaced by steel reinforcement, floor drains, or expansion joint material that is one inch or less in width normal to the centerline of the joint. Where railing is bid as a separate item, that portion of the railing above the top of the curb, above the surface of the sidewalk, or above the bridge roadway, as the case may be, will not be included in the measurement of concrete, but will be measured as railing. Massive pylons or posts which are to be excepted from payment for railing and are intended to be measured for as concrete will be so noted on the plans.

When shown on the plans or directed by the Engineer, concrete placed as a seal for cofferdams will be measured by the cubic yard actually in place, except that no measurement will be made of seal concrete placed outside of an area bounded by vertical planes 18 inches outside the neat lines of the footing as shown on the plans or as directed and parallel thereto.

Reinforcing steel will be measured and paid for in pounds as set out in Section 805.

Unless otherwise specified, structural steel will be measured and paid for as set out in Section 810.

Excavation for bridges will be measured and paid for as in Section 801.

Piling will be measured and paid for as set out in Sections 802 and 803.

Railing will be measured and paid for as set out in Section 813.

Prestressed concrete beams and plank will be measured by the linear foot.

Prestressed concrete voided slab units (interior and exterior with railing) and precast concrete caps (intermediate and end cap with winged abutment wall) of the size and type specified will be measured by the unit complete in place and accepted. Railing, winged abutment walls, grout, tie rods, nuts, washers, bearing pads and other appurtenances will not be measured for separate payment.

907-804.05--Basis of Payment. Concrete will be paid for at the contract unit price per cubic yard for the class or classes specified, complete in place. Prestressed concrete beams and plank will be paid for at the contract unit per linear foot of specified size and type.

Prestressed concrete voided slab units and precast caps will be paid for at the contract unit price per each for the specified types and sizes, complete in place and accepted; which price shall be full compensation for furnishing, hauling and erecting the members; including all prestressing reinforcement and other reinforcement in the members. Payment at the contract unit prices bid shall be full compensation for furnishing all materials, equipment, tools, labor and incidentals necessary to complete the work.

Payment will be made under:

907-804-A:	Bridge Concrete (Class ___)	- per cubic yard
907-804-B:	Box Bridge Concrete (Class ___)	- per cubic yard
907-804-C:	_____ Prestressed Concrete Beam (Length)	- per linear foot

907-804-D: _____ Prestressed Concrete Plank - per linear foot
(Length)

907-804-E: _____ Prestressed Concrete Voided Slab (_*_Int.)
(Length) - per each

907-804-F: _____ Prestressed Concrete Voided Slab (_*_Ext.)
(Length) - per each

907-804-G: _____ Precast Concrete Caps (End Unit with Wall)
(Length) - per each

907-804-H: _____ Precast Concrete Caps (Intermediate Unit)
(Length) - per each

*Description

SPECIAL PROVISION NO. 906-3

Training Special Provisions

This Training Special Provision supersedes subparagraph 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," (Attachment 1), and is in implementation of 23 U.S.C. 140(a).

As part of the Contractor's equal employment opportunity affirmative action program training shall be provided as follows:

> The Contractor shall provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

The number of trainees to be trained under this special provision will be as indicated in the bid schedule of the contract.

In the event that a Contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided, however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The Contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the Contractor shall submit to the State highway agency for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. The Contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeymen status is a primary objective of this Training Special Provision. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a

journeyman. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by the State highway agency and the Federal Highway Administration. The State highway agency and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the division office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the Contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the Contractor receives additional training program funds from other sources, provided such other does not specifically prohibit the Contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the Contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. It is not required that all trainees be on board for the entire length of the contract. A

Contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The Contractor shall furnish the trainee a copy of the program he will follow in providing the training. The Contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The Contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

SPECIAL PROVISION NO. 906-6

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ON-THE-JOB TRAINING PROGRAM

ALTERNATE TRAINING SPECIAL PROVISION

PURPOSE

The purpose of the On-The-Job Training (OJT) Program is to provide training for minority, female and economically disadvantaged individuals in order that they may develop marketable skills and gain journey status in the skilled craft classifications in which they are being trained.

INTRODUCTION

This voluntary OJT Program has been developed through the partnering efforts of the Road Builders of Mississippi, the Federal Highway Administration (FHWA) and the Mississippi Department of Transportation (MDOT).

The OJT Program has been designed for use by participating contractors and subcontractors in meeting their training needs. The objective of the OJT Program is to develop skilled workers in the skilled craft trade areas of highway construction who are sufficiently trained to be productive employees in the highway construction industry work force.

The success of the OJT Program will require that contractors and subcontractors take part in the program and follow uniform procedures in training and in tracking trainee's progress.

FUNDING

MDOT will establish an annual OJT Fund from which, contractors and subcontractors may bill the Department directly for hours worked by trainees. The funding source of this money will be state and federal funds for MDOT's OJT Program.

DISBURSEMENT OF FUNDS

MDOT will pay $3.00 per hour toward the trainee's salary for each hour of training performed by each trainee in an approved training program. Program reimbursements will be made directly to the prime or sub contractor. Requests for payment will be submitted to the Office of Civil Rights for approval.

Contractors must provide a signed invoice providing the following information to be reimbursed.

- Contractor's Name
- Mailing Address
- Trainee Name
- Social Security Number

- Race
- Sex
- Project Number
- Job Classification
- Total Number of Hours Completed

TRAINING PROGRAM APPROVAL

A. To use the OJT Program on highway construction projects, the contractor will notify the Department Office of Civil Rights using the On-the-Job Trainee Schedule Form. The notification must include the following information:

- Trainee Starting Date
- Project number (s) trainee starting on
- Training program (classification) to be used; and
- Number of Training Hours Required

B. If a contractor chooses to use a training program different from those listed in the OJT Program Manual, or desires to train in a different classification, the training program must be submitted in its entirety for approval by the Department and FHWA. The training proposal must include the following:

1. The primary objective of the program: To provide training for minority, female and economically disadvantaged individuals for development to full journey status in the work classifications in which they are being trained.

2. The minimum number of hours and type of training the trainee will receive as it relates to each specific task required to achieve journey status.

3. No less than minimum wage.

4. Trainee certification of completion.

5. Records and reports submitted to the Office of Civil Rights on a monthly basis.

DEPARTMENT RESPONSIBILITY

1. Department project staff will monitor trainees on the project. They will monitor payrolls for payment of correct wage rates and fringe benefits. The Office of Civil Rights will maintain a master list by contractor name, project number, trainee name and trainee social security number to aid project staff in monitoring trainees who work on multiple projects.

2. The Office of Civil Rights may elect to interview trainees periodically during the training period to assess their performance and training program.

CONTRACTOR RESPONSIBILITY

1. Trainees must be identified on payrolls (i.e. dragline trainee).

2. When any trainee completes a program, or is terminated for a reason or reasons other than successful completion, the contractor must include the date of completion or an explanation for the termination and date of termination on the OJT Termination Report.

3. The contractor will assign each trainee to a particular person--either a supervisor or a journeyman/woman who is proficient in the craft the trainee is being trained in, to ensure that timely instructional experience is received by the trainee. This person, cooperating with the appropriate company personnel, will see that proper records and the total intended training hours are completed during the allocated number of hours set up in the classification criteria.

4. The contractor has the prerogative of terminating the training period of the trainee and advancing the trainee to journey status. Approval requests must be submitted to the Office of Civil Rights with an explanation (***refer to 2 above***).

5. Upon notification from the contractor, the Department will issue a skill verification card and certificate of training to the trainee.

6. Trainees may be transferred to state-aid highway construction projects in order to complete the training program. If transfers are made the Office of Civil Rights must be notified on the Monthly Trainee Form. All of the training hours completed by trainees will count toward overall program completion.

7. Program reimbursements will be made directly to the prime or sub contractor.

WAGE RATE

The wage rate for all trainees is $5.15, during their OJT training program. Trainees shall be paid full fringe benefit amounts, where applicable. At the completion of the training program, the trainee shall receive the wages of a skilled journey.

RECRUITMENT AND SELECTION PROCEDURES

A. Prerequisites for Trainees

To be qualified for enrollment in the OJT Program, trainees must possess basic physical fitness for the work to be performed, dependability, willingness to learn and ability to follow instructions.

B. Licenses

Truck driver trainees must possess appropriate driver permits or licenses for the operation of Class A, B and C trucks. However, when an instructional permit is used in lieu of a license, the trainee must be accompanied by an operator who:

1. Holds a license corresponding to the vehicle being operated;

2. Has had at least one year of driving experience; and

3. Is occupying the seat next to the driver.

C. Recruitment

1. Notices and posters setting forth the contractor's Equal Employment Opportunity Policy and availability of training programs will be placed in areas readily accessible to employees, applicants for employment and potential employees.

2. The contractor must target minority, female or economically disadvantaged trainees.

3. The contractor will conduct systematic and direct recruitment through public and private employee referral sources. Contractors must submit the trainee's name and completed application form to the Office of Civil Rights for review and approval. Approval must be obtained before the trainee can begin work under the training program.

4. Present employees will be screened for upgrading.

D. Selection

1. The selection and employment of a person by participating contractor shall qualify the person for the OJT Program.

2. Selection will be made without regard to race, color, religion, sex, age or national origin and shall be completely nondiscriminatory.

3. Employment of trainees will be in accordance with the work force requirements of the contractor. Each contractor will hire and train the trainees for uses in their own organization.

4. Written certification of individuals under the category of economically disadvantaged can be provided to the contractor at the time of the interview. This certification must then be provided to the Office of Civil Rights with the other required information as part of the approval process for trainees.

- ***NOTE:*** The OJT Program is to provide training for minority, female and economically disadvantaged individuals in order that they may develop marketable skills and gain journey status in the skilled craft classifications in which they are being trained. However, this program does not exclude trainees that are not members of the above groups.

S E C T I O N 9 0 5 - P R O P O S A L

Date _____

Mississippi Transportation Commission
Jackson, Mississippi

Sirs: The following proposal is made on behalf of _____
_____ of _____
_____
for constructing the following designated project(s) within the time(s) hereinafter specified.

The plans are composed of drawings and blue prints on file in the offices of the Mississippi Department of Transportation, Jackson, Mississippi.

The Specifications are the current Standard Specifications of the Mississippi Department of Transportation approved by the Federal Highway Administration, except where superseded or amended by the plans, Special Provisions and Notice(s) to Bidders attached hereto and made a part thereof.

I (We) certify that I (we) possess a copy of said Standard and Supplemental Specifications.

Evidence of my (our) authority to submit the Proposal is hereby furnished. The proposal is made without collusion on the part of any person, firm or corporation. I (We) certify that I (we) have carefully examined the Plans, the Specifications, including the Special Provisions and Notice(s) to Bidders, herein, and have personally examined the site of the work. On the basis of the Specifications, Special Provisions, Notice(s) to Bidders, and Plans, I (we) propose to furnish all necessary machinery, tools, apparatus and other means of construction and do all the work and furnish all the materials in the manner specified. I (We) understand that the quantities mentioned herein are approximate only and are subject to either increase or decrease, and hereby propose to perform any increased or decreased quantities of work at the unit prices bid, in accordance with the above.

Attached hereto is a certified check, cashier's check or Proposal Guaranty Bond in the amount as required in the Advertisement (or, by law).

INSTRUCTION TO BIDDERS: Alternate and Optional Items on Bid Schedule.

1. Two or more items entered opposite a single unit quantity WITHOUT DEFINITE DESIGNATION AS "ALTERNATE ITEMS" are considered as "OPTIONAL ITEMS". Bidders may or may not indicate on bids the Optional Item proposed to be furnished or performed WITHOUT PREJUDICE IN REGARD TO IRREGULARITY OF BIDS.

2. Items classified on the bid schedule as "ALTERNATE ITEMS" and/or "ALTERNATE TYPES OF CONSTRUCTION" must be preselected and indicated on bids. However, "Alternate Types of Construction" may include Optional Items to be treated as set out in Paragraph 1, above.

3. Optional items not preselected and indicated on the bid schedule MUST be designated in accordance with Subsection 102.06 prior to or at the time of execution of the contract.

4. Optional and Alternate items designated must be used throughout the project.

I (We) further propose to perform all "force account or extra work" that may be required of me (us) on the basis provided in the Specifications and to give such work my (our) personal attention in order to see that it is economically performed.

SECTION 905 -- PROPOSAL (CONTINUED)

I (We) further propose to execute the attached contract agreement (Section 902) as soon as the work is awarded to me (us), and to begin and complete the work within the time limit(s) provided for in the Specifications and Advertisement. I (We) also propose to execute the attached contract bond (Section 903) in an amount not less than one hundred (100) percent of the total of my (our) part, but also to guarantee the excellence of both workmanship and materials until the work is finally accepted.

I (We) enclose a certified check, cashier's check or bid bond for **five percent (5%) of total bid** and hereby agree that in case of my (our) failure to execute the contract and furnish bond within Ten (10) days after notice of award, the amount of this check (bid bond) will be forfeited to the State of Mississippi as liquidated damages arising out of my (our) failure to execute the contract as proposed. It is understood that in case I am (we are) not awarded the work, the check will be returned as provided in the Specifications.

Respectfully Submitted,

DATE _____

_____
Contractor

BY _____
Signature

TITLE _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE _____

FAX _____

E-MAIL _____

(To be filled in if a corporation)

Our corporation is chartered under the Laws of the State of _____ and the names, titles and business addresses of the executives are as follows:

President	Address
Secretary	Address
Treasurer	Address

The following is my (our) itemized proposal.

SECTION 905

PROPOSAL (Sheet No. 2- 1)

OVERLAYING MISSISSIPPI HIGHWAY 53 FROM 5.4 MILES NORTH OF HANCOCK COUNTY LINE, NORTH 9.5 MILES,KNOWN AS FEDERAL AID PROJECT NO. STP-0064-01(024)MP / 104763, IN THE COUNTY OF PEARL RIVER, STATE OF MISSISSIPPI.

I (We) agree to complete the entire project within the specified contract time.

*** SPECIAL NOTICE TO BIDDERS ***

BIDS WILL NOT BE CONSIDERED UNLESS BOTH UNIT PRICES AND ITEM TOTALS ARE ENTERED

BIDS WILL NOT BE CONSIDERED UNLESS THE BID CERTIFICATE LOCATED AT THE END OF THE BID SHEETS IS SIGNED

BID SCHEDULE

REF. NO.	PAY ITEM NO.	ADJ. CODE	APPROX. QUANTITY	UNIT	DESCRIPTION	UNIT PRICE DOLLAR	UNIT PRICE CENT	ITEM TOTAL DOLLAR	ITEM TOTAL CENT
					DIRECT PAY ITEMS				
(10)	202-B		685	Square Yard	Removal of Pavement, All Types and Depths				
(20)	202-B		650	Linear Feet	Removal of Guard Rail Including Post, Blockouts & Hardware				
(30)	202-B		1,100	Linear Feet	Removal of Traffic Stripe				
(40)	203-E	(E)	4,250	Cubic Yard	Borrow Excavation, LVM, Class B7-6				

REF. NO.	PAY ITEM NO.	ADJ. CODE	APPROX. QUANTITY	UNIT	DESCRIPTION	UNIT PRICE DOLLAR	UNIT PRICE CENT	ITEM TOTAL DOLLAR	ITEM TOTAL CENT
(50)	907-403-A	(B) (A1)	14,610	Ton	Hot Mix Asphalt, ST, 9.5-mm mixture				
(60)	907-403-A	(B) (A1)	300	Ton	Hot Mix Asphalt, ST, 19-mm mixture				
(70)	907-403-B	(B) (A1)	1,500	Ton	Hot Mix Asphalt, ST, 9.5-mm mixture, Leveling				
(80)	406-A		1,760	Square Yard	Cold Milling of Bituminous Pavement, All Depths				
(90)	423-A		19	Mile	Rumble Strips, Ground In				
(100)	606-B		395	Linear Feet	Guard Rail, Class A, Type 1, 'W' Beam, Metal Post				
(110)	606-D		4	Each	Guard Rail, Bridge End Section, Type A Modified				

REF. NO.	PAY ITEM NO.	ADJ. CODE	APPROX. QUANTITY	UNIT	DESCRIPTION	UNIT PRICE DOLLAR	UNIT PRICE CENT	ITEM TOTAL DOLLAR	ITEM TOTAL CENT
(120)	606-E		4	Each	Guard Rail, Terminal End Section				
(130)	609-D	(S)	315	Linear Feet	Combination Concrete Curb and Gutter Type 2				
(140)	616-A	(S)	11	Square Yard	Concrete Median and/or Island Pavement, 4-inch				
(150)	616-A	(S)	18	Square Yard	Concrete Median and/or Island Pavement, 10-inch				
(160)	618-B		1	Square Feet	Additional Construction Signs	10	.0000	10	.00
(170)	619-A1		19	Mile	Temporary Traffic Stripe, Continuous White				
(180)	619-A2		14	Mile	Temporary Traffic Stripe, Continuous Yellow				

REF. NO.	PAY ITEM NO.	ADJ. CODE	APPROX. QUANTITY	UNIT	DESCRIPTION	UNIT PRICE DOLLAR	UNIT PRICE CENT	ITEM TOTAL DOLLAR	ITEM TOTAL CENT
(190)	619-A4		7	Mile	Temporary Traffic Stripe, Skip Yellow				
(200)	619-A6		1,025	Linear Feet	Temporary Traffic Stripe, Legend				
(210)	907-626-C		19	Mile	6" Thermoplastic Double Drop Edge Stripe, Continuous White				
(220)	626-D		7	Mile	6" Thermoplastic Traffic Stripe, Skip Yellow				
(230)	626-E		14	Mile	6" Thermoplastic Traffic Stripe, Continuous Yellow				
(240)	626-G		2,240	Linear Feet	Thermoplastic Detail Stripe, White				
(250)	626-G		3,040	Linear Feet	Thermoplastic Detail Stripe, Yellow				

REF. NO.	PAY ITEM NO.	ADJ. CODE	APPROX. QUANTITY	UNIT	DESCRIPTION	UNIT PRICE DOLLAR	UNIT PRICE CENT	ITEM TOTAL DOLLAR	ITEM TOTAL CENT
(260)	626-H		1,025	Linear Feet	Thermoplastic Legend, White				
(270)	626-H		665	Square Feet	Thermoplastic Legend, White				
(280)	627-L		1,320	Each	Two-Way Yellow Reflective High Performance Raised Markers				
(290)	628-J		550	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Continuous White				
(300)	628-L		275	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Skip Yellow				
(310)	628-M		275	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Continuous Yellow				
(320)	630-F		25	Each	Delineators, Guard Rail, White				

REF. NO.	PAY ITEM NO.	ADJ. CODE	APPROX. QUANTITY	UNIT	DESCRIPTION	UNIT PRICE DOLLAR	UNIT PRICE CENT	ITEM TOTAL DOLLAR	ITEM TOTAL CENT

SUBTOTAL - DIRECT PAY ITEMS.....$

DEPENDENT PAY ITEMS

(330)	618-A		Lump Sum		Maintenance of Traffic	XXXXXXXXXX	XXXX		
						XXXXXXXXXX	XXXX		
						XXXXXXXXXX	XXXX		
						XXXXXXXXXX	XXXX		

SUBTOTAL - DEPENDENT ITEMS.....$

TOTAL BID - DIRECT AND DEPENDENT ITEMS.....$_____

COMPLETE ITEM NOS. 1, 2, AND/OR 3 AS APPROPRIATE. SEE NOTICE TO BIDDERS NO.696 AND SUPPLEMENT.

1. **I/We agree that no less than percent shall be expended with small business concerns owned and controlled by socially and economically disadvantaged individuals (DBE and WBE).**

2. **Classification of Bidder: Small Business (DBE)_____ Small Business (WBE)_____**

3. **A joint venture with a Small Business (DBE/WBE): YES _____**

***** SIGNATURE STATEMENT *****

BIDDER ACKNOWLEDGES THAT HE/SHE HAS CHECKED ALL ITEMS IN THIS PROPOSAL FOR ACCURACY AND CERTIFIED THAT THE FIGURES SHOWN THEREIN CONSTITUTE THEIR OFFICIAL BID.

_____
BIDDER'S SIGNATURE

CONDITIONS FOR COMBINATION BID

If a bidder elects to submit a combined bid for two or more of the contracts listed for this month's letting, the bidder must complete and execute these sheets of the proposal in each of the individual proposals to constitute a combination bid. In addition to this requirement, each individual contract shall be completed, executed and submitted in the usual specified manner.

Failure to execute this Combination Bid Proposal in each of the contracts combined will be just cause for each proposal to be received and evaluated as a separate bid.

* *

COMBINATION BID PROPOSAL

I. This proposal is tendered as one part of a Combination Bid Proposal utilizing option ___* of Subsection 102.11 on the following contracts:

* Option to be shown as either (a), (b), or (c).

	Project No.	County		Project No.	County
1.	____________	____________	6.	____________	____________
2.	____________	____________	7.	____________	____________
3.	____________	____________	8.	____________	____________
4.	____________	____________	9.	____________	____________
5.	____________	____________	10.	____________	____________

A. If option (a) has been selected, then go to II, and sign Combination Bid Proposal.

B. If option (b) has been selected, then complete the following, go to II, and sign Combination Bid Proposal.

Project Number	Pay Item Number	Unit	Unit Price Reduction	Total Item Reduction	Total Contract Reduction
1. _____	_____ _____	_____ _____	_____ _____	_____ _____	
2. _____	_____ _____	_____ _____	_____ _____	_____ _____	
3. _____	_____ _____	_____ _____	_____ _____	_____ _____	
4. _____	_____ _____	_____ _____	_____ _____	_____ _____	
5. _____	_____ _____	_____ _____	_____ _____	_____ _____	
6. _____	_____ _____	_____ _____	_____ _____	_____ _____	
7. _____	_____ _____	_____ _____	_____ _____	_____ _____	
8. _____	_____ _____	_____ _____	_____ _____	_____ _____	

Project Number	Pay Item Number	Unit	Unit Price Reduction	Total Item Reduction	Total Contract Reduction
9. _____	_____ _____	_____ _____	_____ _____	_____ _____	
10. _____	_____ _____	_____ _____	_____ _____	_____ _____	

C. If option (c) has been selected, then initial and complete one of the following, go to II. and sign Combination Bid Proposal.

_____ I (We) desire to be awarded work not to exceed a total monetary value of $ _____.

_____ I (We) desire to be awarded work not to exceed _____ number of contracts.

II. It is understood that the Mississippi Transportation Commission not only reserves the right to reject any and all proposals, but also the right to award contracts upon the basis of lowest separate bids or combination bids most advantageous to the State.

It is further understood and agreed that the Combination Bid Proposal is for comparison of bids only and that each contract shall operate in every respect as a separate contract in accordance with its proposal and contract documents.

I (We), the undersigned, agree to complete each contract on or before its specified completion date.

SIGNED _____

_____

_____

Certification with regard to the Performance of Previous Contracts or Subcontracts subject to the Equal Opportunity Clause and the filing of Required Reports

The Bidder ____, proposed Subcontractor ____, hereby certifies that he has ____, has not ____, participated in a previous contract or subcontract subject to the Equal Opportunity Clause, as required by Executive Orders 10925, 11114, or 11246, and that he has ____, has not ____, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

_____
(COMPANY)

BY _____

_____
(TITLE)

DATE: _____

NOTE: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7 (b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the Equal Opportunity Clause. Contracts and Subcontracts which are exempt from the Equal Opportunity Clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of $10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime Contractors and Subcontractors who have participated in a previous contract or subcontract subject to the Executive orders and have not filed the required reports should note that 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such Contractors submit a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U. S. Department of Labor.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

CERTIFICATION
(Execute in duplicate)

State of Mississippi

County of _____

I, _____,
(Name of person signing certification)

individually, and in my capacity as _____ of
(Title)

_____ do hereby certify under
(Name of Firm, Partnership, or Corporation)

penalty of perjury under the laws of the United States and the State of Mississippi that _____

_____, Bidder
(Name of Firm, Partnership, or Corporation)

on Project No. **STP-0064-01(024)MP / 104763**,

in **Pearl River** County(ies), Mississippi, has not either

directly or indirectly entered into any agreement, participated in any collusion; or otherwise taken any action in restraint of free competitive bidding in connection with this contract; nor have any of its corporate officers or principal owners.

Except as noted hereafter, it is further certified that said legal entity and its corporate officers, principal owners, managers, auditors and others in a position of administering federal funds:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in (b) above; and

d) Have not within a three-year period preceding this application/ proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Initial here "_____" if exceptions are attached and made a part thereof. Any exceptions shall address to whom it applies, initiating agency and dates of such action.

Note: Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

The bidder further certifies that the certification requirements contained in Section XI of Form FHWA 1273, will be or have been included in all subcontracts, material supply agreements, purchase orders, etc. except those procurement contracts for goods or services that are expected to be less than the Federal procurement small purchase threshold fixed at 10 U.S.C. 2304(g) and 41 U.S.C. 253(g) (currently $25,000) which are excluded from the certification requirements.

The bidder further certifies, to the best of his or her knowledge and belief, that:

1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this contract, Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions will be completed and submitted.

The certification contained in (1) and (2) above is a material representation of fact upon which reliance is placed and a prerequisite imposed by Section 1352, Title 31, U.S. Code prior to entering into this contract. Failure to comply shall be subject to a civil penalty of not less than $10,000 and not more than $100,000. The bidder shall include the language of the certification in all subcontracts exceeding $100,000 and all subcontractors shall certify and disclose accordingly.

All of the foregoing and attachments (when indicated) is true and correct.

Executed on _____ _____

Signature

(11/23/92F)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

CERTIFICATION
(Execute in duplicate)

State of Mississippi

County of _____

I, _____,
(Name of person signing certification)

individually, and in my capacity as _____ of
(Title)

_____ do hereby certify under
(Name of Firm, Partnership, or Corporation)

penalty of perjury under the laws of the United States and the State of Mississippi that _____

_____, Bidder
(Name of Firm, Partnership, or Corporation)

on Project No. **STP-0064-01(024)MP / 104763**,

in **Pearl River** County(ies), Mississippi, has not either

directly or indirectly entered into any agreement, participated in any collusion; or otherwise taken any action in restraint of free competitive bidding in connection with this contract; nor have any of its corporate officers or principal owners.

Except as noted hereafter, it is further certified that said legal entity and its corporate officers, principal owners, managers, auditors and others in a position of administering federal funds:

e) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

f) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

g) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in (b) above; and

h) Have not within a three-year period preceding this application/ proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Initial here "_____" if exceptions are attached and made a part thereof. Any exceptions shall address to whom it applies, initiating agency and dates of such action.

Note: Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

The bidder further certifies that the certification requirements contained in Section XI of Form FHWA 1273, will be or have been included in all subcontracts, material supply agreements, purchase orders, etc. except those procurement contracts for goods or services that are expected to be less than the Federal procurement small purchase threshold fixed at 10 U.S.C. 2304(g) and 41 U.S.C. 253(g) (currently $25,000) which are excluded from the certification requirements.

The bidder further certifies, to the best of his or her knowledge and belief, that:

3) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

4) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this contract, Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions will be completed and submitted.

The certification contained in (1) and (2) above is a material representation of fact upon which reliance is placed and a prerequisite imposed by Section 1352, Title 31, U.S. Code prior to entering into this contract. Failure to comply shall be subject to a civil penalty of not less than $10,000 and not more than $100,000. The bidder shall include the language of the certification in all subcontracts exceeding $100,000 and all subcontractors shall certify and disclose accordingly.

All of the foregoing and attachments (when indicated) is true and correct.

Executed on _____ _____

Signature

(11/23/92F)

S E C T I O N 9 0 2

CONTRACT FOR **STP-0064-01(024)MP / 104763**

LOCATED IN THE COUNTY(IES) OF **Pearl River**

STATE OF MISSISSIPPI,

COUNTY OF HINDS

This contract entered into by and between the Mississippi Transportation Commission on one hand, and the undersigned contractor, on the other witnesseth;

That, in consideration of the payment by the Mississippi Transportation Commission of the prices set out in the proposal hereto attached, to the undersigned contractor, such payment to be made in the manner and at the time of times specified in the specifications and the special provisions, if any, the undersigned contractor hereby agrees to accept the prices stated in the proposal in full compensation for the furnishing of all materials and equipment and the executing of all the work contemplated in this contract.

It is understood and agreed that the advertising according to law, the Advertisement, the instructions to bidders, the proposal for the contract, the specifications, the revisions of the specifications, the special provisions, and also the plans for the work herein contemplated, said plans showing more particularly the details of the work to be done, shall be held to be, and are hereby made a part of this contract by specific reference thereto and with like effect as if each and all of said instruments had been set out fully herein in words and figures.

It is further agreed that for the same consideration the undersigned contractor shall be responsible for all loss or damage arising out of the nature of the work aforesaid; or from the action of the elements and unforeseen obstructions or difficulties which may be encountered in the prosecution of the same and for all risks of every description connected with the work, exceptions being those specifically set out in the contract; and for faithfully completing the whole work in good and workmanlike manner according to the approved Plans, Specifications, Special Provisions, Notice(s) to Bidders and requirements of the Mississippi Department of Transportation.

It is further agreed that the work shall be done under the direct supervision and to the complete satisfaction of the Executive Director of the Mississippi Department of Transportation, or his authorized representatives, and when Federal Funds are involved subject to inspection at all times and approval by the Federal Highway Administration, or its agents as the case may be, or the agents of any other Agency whose funds are involved in accordance with those Acts of the Legislature of the State of Mississippi approved by the Governor and such rules and regulations issued pursuant thereto by the Mississippi Transportation Commission and the authorized Federal Agencies.

The Contractor agrees that all labor as outlined in the Special Provisions may be secured from list furnished by

It is agreed and understood that each and every provision of law and clause required by law to be inserted in this contract shall be deemed to be inserted herein and this contract shall be read and enforced as though it were included herein, and, if through mere mistake or otherwise any such provision is not inserted, then upon the application of either party hereto, the contract shall forthwith be physically amended to make such insertion.

The Contractor agrees that he has read each and every clause of this Contract, and fully understands the meaning of same and that he will comply with all the terms, covenants and agreements therein set forth.

Witness our signatures this the _____ day of _____, _____.

_____
Contractor (s)

By _____ MISSISSIPPI TRANSPORTATION COMMISSION

Title _____ By _____
Signed and sealed in the presence of: Executive Director
(names and addresses of witnesses)

_____ _____
Secretary to the Commission

Award authorized by the Mississippi Transportation Commission in session on the ____ day of _____, _____, Minute Book No. _____, Page No. _____.

Revised 8/06/2003

S E C T I O N 9 0 3

CONTRACT BOND FOR: **STP-0064-01(024)MP / 104763**

LOCATED IN THE COUNTY(IES) OF: **Pearl River**

STATE OF MISSISSIPPI,

COUNTY OF HINDS

Know all men by these presents: that we, _____

_____ Principal, a _____

residing at _____ in the State of _____

and _____

residing at _____ in the State of _____,

authorized to do business in the State of Mississippi, under the laws thereof, as surety, are held and firmly bound unto the State of Mississippi in the sum of _____

_____

($_____) Dollars, lawful money of the United States of America, to be paid to it for which payment well and truly to be made, we bind ourselves, our heirs, administrators, successors, or assigns jointly and severally by these presents.

Signed and sealed this the _____ day of _____ A.D. _____.

The conditions of this bond are such, that whereas the said _____

_____

principal, has (have) entered into a contract with the Mississippi Transportation Commission, bearing the date of _____ day of _____ A.D. _____ hereto annexed, for the construction of certain projects(s) in the State of Mississippi as mentioned in said contract in accordance with the Contract Documents therefor, on file in the offices of the Mississippi Department of Transportation, Jackson, Mississippi.

Now therefore, if the above bounden _____

_____ in all things shall stand to and abide by and well and truly observe, do keep and perform all and singular the terms, covenants, conditions, guarantees and agreements in said contract, contained on his (their) part to be observed, done, kept and performed and each of them, at the time and in the manner and form and furnish all of the material and equipment specified in said contract in strict accordance with the terms of said contract which said plans, specifications and special provisions are included in and form a part of said contract and shall maintain the said work contemplated until its final completion and acceptance as specified in Subsection 109.11 of the approved specifications, and save harmless said Mississippi Transportation Commission from any loss or damage arising out of or occasioned by the negligence, wrongful or criminal act, overcharge, fraud, or any other loss or damage whatsoever, on the part of said principal (s), his (their) agents, servants, or employees in the performance of said work or in any manner connected therewith, and shall be liable and responsible in a civil action instituted by the State at the instance of the Mississippi Transportation Commission or any officer of the State authorized in such cases, for double any amount in money or property, the State may lose or be overcharged or otherwise defrauded of, by reason of wrongful or criminal act, if any, of the Contractor(s), his (their) agents or

employees, and shall promptly pay the said agents, servants and employees and all persons furnishing labor, material, equipment or supplies therefor, including premiums incurred, for Surety Bonds, Liability Insurance, and Workmen's Compensation Insurance; with the additional obligation that such Contractor shall promptly make payment of all taxes, licenses, assessments, contributions, damages, any liquidated damages which may arise prior to any termination of said principal's contract, any liquidated damages which may arise after termination of the said principal's contract due to default on the part of said principal, penalties and interest thereon, when and as the same may be due this state, or any county, municipality, board, department, commission or political subdivision: in the course of the performance of said work and in accordance with Sections 31-5-51 et seq. Mississippi Code of 1972, and other State statutes applicable thereto, and shall carry out to the letter and to the satisfaction of the Executive Director of the Mississippi Department of Transportation, all, each and every one of the stipulations, obligations, conditions, covenants and agreements and terms of said contract in accordance with the terms thereof and all of the expense and cost and attorney's fee that may be incurred in the enforcement of the performance of said contract, or in the enforcement of the conditions and obligations of this bond, then this obligation shall be null and void, otherwise to be and remain in full force and virtue.

Witness our signatures and seals this the _____ day of _____ A.D. _____.

_____ _____

(Contractors) Principal Surety

By _____ By _____

(Signature) Attorney in Fact

_____

Title _____ _____

(Contractor's Seal) (Name and Address of Local (Mississippi) Representative)

(Surety Seal)

OCR-485
REV. 10/02

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
OFFICE OF CIVIL RIGHTS
JACKSON, MISSISSIPPI

LIST OF FIRMS SUBMITTING QUOTES

I/we received quotes from the following firms on Project No: **STP-0064-01(024)MP / 104763**
County: **Pearl River**

Disadvantaged Business Enterprise (DBE) Regulations as stated in 49 CFR 26.11 require the Mississippi Department of Transportation (MDOT) to create and maintain a comprehensive list of all firms quoting/bidding subcontracts on prime contracts and quoting/bidding subcontracts on federally-funded transportation projects. For every firm, we require the following information:

Firm Name: ______________________________
Contact Name/Title: ______________________________
Firm Mailing Address ______________________________
Phone Number: ______________________________
_____ DBE Firm _____ Non-DBE Firm

Firm Name: ______________________________
Contact Name/Title: ______________________________
Firm Mailing Address ______________________________
Phone Number: ______________________________
_____ DBE Firm _____ Non-DBE Firm

Firm Name: ______________________________
Contact Name/Title: ______________________________
Firm Mailing Address ______________________________
Phone Number: ______________________________
_____ DBE Firm _____ Non-DBE Firm

Firm Name: ______________________________
Contact Name/Title: ______________________________
Firm Mailing Address ______________________________
Phone Number: ______________________________
_____ DBE Firm _____ Non-DBE Firm

Firm Name: ______________________________
Contact Name/Title: ______________________________
Firm Mailing Address ______________________________
Phone Number: ______________________________
_____ DBE Firm _____ Non-DBE Firm

____
SUBMITTED BY (Signature)

____
FIRM NAME

Submit this form to Contract Administration as a part of your bid package. If this form is not included as part of the bid packet, your bid will be deemed irregular. For further information about this form, call Mississippi DOT's Office of Civil Rights at (601) 359-7466; FAX (601) 576-4504. Please make copies of this form when needed and also add those copies to the bid package.

FORM CSD-610
Rev. 05 / 2004

YEAR **2006** PROGRESS SCHEDULE
FOR USE WITH COLUMN "D" IN THE TABLE OF TIME UNITS

YEAR **2007**

PROJECT NUMBER STP-0064-01(024)MP/104763
COUNTY Pearl River

WORK PHASE NO.	WORK PHASE DESCRIPTION	REFERENCE NUMBERS	PHASE VALUE	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOV	DEC	NO.	AVTU
1	Miscellaneous	10-30 80-200 & 320-330												0															
2	Granular Material, Pavement	40-70												5															
3	Permanent Stripe	210-310																											
		LET: July 25,2006 NOA: August 08,2006																											
		TU: 54																											
		GCG																											
MONTH				JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOV	DEC	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOV	DEC		170
TIME UNITS PER MONTH				7	9	13	17	19	19	18	18	17	15	12	6	7	9	13	17	19	19	18	18	17	15	12	6		TIME UNITS PER YEAR
CUMULATIVE TIME UNITS																													

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

HAUL PERMIT FOR BRIDGES

WITH

POSTED WEIGHT LIMITS

DATE: _____

PROJECT: STP-0064-01(024)MP / 104763

COUNTIES: Pearl River

LOCATION: Overlaying Mississippi Highway 53 from 5.4 miles north of Hancock County Line, north 9.5 miles.

A permit is issued to _____ for transporting loads exceeding the posted limit for any such bridge located on State designated routes within the project termini provided that such transport vehicles comply with all other governing statutory weight limits.

This permit is valid on all State designated routes from the point of origin to the point of delivery for materials and equipment utilized in construction of said project and also valid for sub-contractors and vendors upon written permission of the Contractor. The permit is non-transferable and no other haul permit for posted bridges will be issued to other individuals, vendors, or companies for construction of this project.

A copy of this signed permit shall be carried in all vehicles operating under the authority of this permit and also a copy of the Contractor's written permission when the vehicle is other than Contractor owned.

In accordance with State law, the above named Contractor will be liable for damages directly attributable to vehicles operating under this permit.

_____

EXECUTIVE DIRECTOR