

**CONTRACT DOCUMENTS AND SPECIFICATIONS
FOR
JACKSON, MISSISSIPPI**

**CITY OF JACKSON INFRASTRUCTURE IMPROVEMENTS
ROADWAY RESURFACING
PROJECT NO. COJ-RS-07**

APRIL 16, 2026



**DEPARTMENT OF PUBLIC
WORKS ENGINEERING DIVISION
200 South Presidents Street
Jackson, MS 39201**

**CONTRACT DOCUMENTS AND SPECIFICATIONS
FOR
CITY OF JACKSON INFRASTRUCTURE
IMPROVEMENTS ROAD RESURFACING COJ-RS-07**

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**CONTRACT DOCUMENTS AND SPECIFICATIONS
FOR
CITY OF JACKSON INFRASTRUCTURE IMPROVEMENTS
ROAD RESURFACING**

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ADVERTISEMENT FOR BIDS

NOTICE is hereby given that the City of Jackson will receive written sealed bids until the hour of **3:30 PM on May 19 , 2026** at the Chancery Clerk office for the furnishing of all labor and materials and for the construction of that certain project designated as **COJ-RS-07.**

Drawings and Specifications being on file at the office of Engineering Division Department of Public Works.

The project consists of construction of: Overlay, Leveling, Base Repair, Milling , and Striping and all related appurtenances shown on the Bid Form.

The total Contract Time will be **180** consecutive calendar days and the liquidated damages will be \$750 per consecutive calendar day thereafter.

The City of Jackson hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises/woman 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, or national origin in consideration for an award.

Copies of the plans and specifications, together with contract documents, may be obtained from the office of IMS Engineers located at 126 E Amite Street upon payment of \$150 for each set, none of which is refundable.

Award will be made to the lowest and best bidder and the City of Jackson reserves the right to reject any and all bids.

BY ORDER OF THE _____ THIS THE _____ DAY OF _____, 20__.

By: _____

PUBLISH: __April 16,__ and April 23 __, 2026 __ in the Mississippi Link _____ Bid opening May 19, 2026 __.

Furnish proof of publication to: _____

INFORMATION FOR BIDDERS

1. **Receipt and Opening of Bids:** Bids will be received by the City of Jackson no later than 3:30 PM on May 19, 2026 at the Municipal Clerk's office.

2. **Bids:**
 - A. Shall be made on the forms provided and all applicable blank spaces filled in. Alterations, erasures or changes of any kind must be initialed by the BIDDER and shall not contain any recapitulation of the work to be done. No oral, telephonic or telegraphic proposals will be considered.

 - B. **BIDDERS ARE HEREBY NOTIFIED THAT ANY PROPOSAL ACCOMPANIED BY LETTERS, QUALIFYING IN ANY MANNER, THE CONDITION UNDER WHICH THE PROPOSAL IS TENDERED, WILL BE CONSIDERED AS AN IRREGULAR BID AND SHALL NOT BE CONSIDERED IN MAKING THE AWARD.**

 - C. Bids may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Bids received after the time and date specified shall not be considered.

 - D. Submit bids (**in duplicate**) in an opaque sealed envelope marked in the lower left-hand corner as follows:
 1. Bid for construction of: City of Jackson Infrastructure Improvements (Road Resurfacing) Project No. COJ-RS-07.

 2. Certificate of Responsibility No. _____.

 - DI. Any addenda issued during the bidding shall be noted on the Bid Form and shall become a part of the executed Contract.

3. **Method of Bidding:**
 - A. The bid will consist of a base bid amount in accordance with the totals bid per various items and schedules of the project Bid Form with various additive and/or deductive alternatives.

 - B. The City of Jackson reserves the right to reject any or all bids and to waive any or all informalities.

4. **Addenda and Interpretations:**

- A. Should a BIDDER find discrepancies in, or omissions from, the drawings or specifications or should they be in doubt as to their written meaning, they should at once notify the ENGINEER, who will send a written instruction or interpretation to all known holders of the documents. The ENGINEER will not be responsible for any oral instructions.
- B. Addenda to specifications or drawings that may be issued before or during the time of bidding shall be included in the bid form and will become a part of the Contract.

5. **Certificate of Responsibility Number:**

- A. Each CONTRACTOR submitting a bid must show on the face of the envelope containing the bid, their State of Mississippi Certificate of Responsibility Number unless there appears a statement on the face of the envelope that the enclosed bid does not exceed \$50,000.00 with respect to public projects or \$100,000.00 with respect to private projects.
- B. **No bids will be accepted, opened or considered unless the above information is given as specified.**
- C. Sufficient evidence that said Certificate of Responsibility Number has been issued and is in effect at the time of receiving bids, and that BIDDER'S Certificate of Responsibility work classification(s) qualifies them to perform the type(s) of work required for this project, must be submitted when required by OWNER or ENGINEER.

6. **Notice to Nonresident Bidders:**

- A. A nonresident BIDDER domiciled in a state having laws granting preference to local contractors shall be awarded Mississippi public contracts only on the same basis as the nonresident BIDDERS's state awards contracts to Mississippi contractors bidding under similar circumstances; and resident contractors actually domiciled in Mississippi, be they corporate, individuals or partnerships, are to be granted preference over nonresidents in awarding of contracts in the same manner and to the same extent as provided by the laws of the state of domicile of the nonresident. This preference, if it is a percentage of the bid or other monetary amount, is not to be added to the nonresident BIDDER's bid by the nonresident BIDDER. The ENGINEER will add a line to the bid tabulation report that shows the amount of the nonresident BIDDER premium when the bids are tabulated for the sole purpose of determining the order of the BIDDERS.
- B. When a nonresident CONTRACTOR submits a bid for a public project, he shall attach thereto a copy of his resident state's current bid law pertaining to such state's treatment of nonresident CONTRACTORS.
- C. Nonresident BIDDERS Certificate: CONTRACTOR must complete the Nonresident BIDDERS Certificate included in the Contract Documents (page C-13) and submit same as part of their bid.

- D. As used in this section, the term “resident contractors” includes a nonresident person, firm or corporation that has been qualified to do business in this state and has maintained a permanent full-time office in the State of Mississippi for two (2) years prior to January 1, 1986, and the subsidiaries and affiliates of such a person, firm or corporation.
7. **Bid Security:** Each bid must be accompanied by a certified check of the BIDDER, or a Bid Bond prepared on the form of a bid bond as included herein, duly executed by the BIDDER as principal and having as surety thereon a surety company licensed by the State of Mississippi and signed by an agent resident in Mississippi, **in the amount of five percent (5%) of the base bid.**
 8. **Liquidated Damages for Failure to Enter into Contract:** The successful BIDDER, upon their failure or refusal to execute and deliver the contract and bonds required within ten (10) days after they have received the contract for execution, shall forfeit to the OWNER, as liquidated damages, the bid security deposited with their bid.
 9. **Security for Faithful Performance:** Simultaneously with their delivery of the executed Contract, the CONTRACTOR shall furnish Contract Performance and Payment Bonds in the full amount of the Contract for the payment of all persons performing labor on this Contract and for furnishing all materials in connection with this Contract. The surety on such Bond or Bonds shall be a duly authorized Surety Company doing business in the State of Mississippi.
 10. **Law And Regulations:** The BIDDERS’S attention is directed to the fact that all applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the Contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.
 11. **Condition of Work:** Each BIDDER shall visit the site and inform themselves fully of the conditions at the site relating to the completion of the project. Failure to do so will not relieve a successful BIDDER of their obligation to furnish all material and labor necessary to carry out the provisions of their contract.
 12. **Obligation of BIDDER:** At the time of the opening of bids, each BIDDER will be presumed to have inspected the site and to have read and to be thoroughly familiar with the Drawings, Specifications and Contract Documents (including addenda issued, if any).
 13. **Time of Completion:** BIDDER must agree to commence work on or before the date specified in a written "Notice to Proceed" from the OWNER and to fully complete the project within the number of consecutive calendar days as set forth in these Contract Documents.
 14. **Proposal Guarantees:** Proposal guarantees will be returned to the unsuccessful BIDDERS as soon as a Contract has been awarded and to the successful bidder after they have executed the Contract and have furnished Contract Performance and Payment Bonds and Certificates of Insurance as required.

15. **Non-Collusion Affidavit:** CONTRACTOR must complete **(in duplicate)** the non-collusion affidavits included in the Contract Documents (pages C-15 and C-17) and submit same as part of their bid. **FAILURE TO DO SO WILL DISQUALIFY THEIR BID.**
16. **Interpretations:** No oral interpretation made to any BIDDER as to the meaning of the Drawings and Specifications or Contract Documents shall be considered an effective modification of the provisions of the Contract Documents. Written and oral requests for interpretation of the Drawings and Specifications shall be submitted to the ENGINEER for a formal decision which will be given in writing to all Drawing and Specification holders.
17. **Subcontractor:** The BIDDER is specifically advised that any person, firm or other party to whom it proposes to award a subcontract must be acceptable to the OWNER. **The total allowable subcontract amount shall not exceed fifty percent (50%) of contract amount unless otherwise approved by the OWNER.**
18. **Qualifications of Subcontractors: Material and Equipment Suppliers:**
 - A. Within ten (10) working days after award of contract, the CONTRACTOR will submit to the OWNER and the ENGINEER for acceptance, a list of the names of Subcontractors and such other persons and organizations (including those who are to furnish principal items of materials or equipment) proposed for those portions of the Work as to which the identity of the Subcontractors and other persons and organizations must be submitted as specified in the Contract Documents. Within thirty (30) working days after receiving the list, the ENGINEER will notify the CONTRACTOR in writing if either the OWNER or the ENGINEER, after due investigation, has reasonable objection to any Subcontractor, person or organization on such list. The failure of the OWNER or the ENGINEER to make objection to any Subcontractor, person or organization on the list within thirty (30) working days of receipt shall constitute an acceptance of such Subcontractor, person or organization but shall not constitute a waiver of any right of the OWNER or the ENGINEER to reject any Work, Material or Equipment that is not in conformance with the requirements of the Contract Documents.
 - B. The CONTRACTOR will not employ any Subcontractor, other person or organization, whether initially or as a substitute, against whom the OWNER or the ENGINEER may have reasonable objection, nor will the CONTRACTOR be required to employ a Subcontractor who has been accepted by the OWNER and the ENGINEER, unless the ENGINEER determines that there is good cause for doing so.
 - C. The CONTRACTOR shall be fully responsible for all acts and omissions of his Subcontractors and of persons and organizations directly or indirectly employed by them and of persons and organizations for whose acts any of them may be liable to the same extent that he is responsible for the acts and omissions of persons directly employed by him. Nothing in the Contract Documents shall create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of monies due Subcontractors or other persons or organizations, except as may otherwise be required by law. OWNER or ENGINEER may furnish to Subcontractors or other persons or organizations, to the extent practicable, evidence of amounts paid to the

CONTRACTOR on account of specific Work done in accordance with the schedule of values.

- D. The divisions and sections of the Specifications and the identifications of Drawings shall not control the CONTRACTOR in dividing the Work among Subcontractors or delineating the Work to be performed by specific trades.
 - E. The CONTRACTOR agrees to bind specifically every Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the OWNER.
 - F. All Work performed for the CONTRACTOR by a Subcontractor shall be pursuant to an appropriate agreement between the CONTRACTOR and the Subcontractor.
 - G. The CONTRACTOR shall be responsible for the coordination of the trades and Subcontractors engaged in the Work.
 - a. The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the Work to bind Subcontractors to the CONTRACTOR by the terms of these General Conditions and other Contract Documents insofar as applicable to the Work of Subcontractors, and to give the CONTRACTOR the same power as regards terminating subcontracts that the OWNER may exercise over the CONTRACTOR under provisions of the Contract Documents.
 - b. The OWNER or ENGINEER will not undertake to settle differences between the CONTRACTOR and his Subcontractors or between Subcontractors.
 - c. If in the opinion of the ENGINEER, a Subcontractor on the Project proves to be incompetent or otherwise unsatisfactory, he shall be replaced if and when the CONTRACTOR is so directed in writing.
19. **Qualifications of BIDDERS:** The OWNER may make such investigations as he deems necessary to determine the ability of the BIDDER to perform the Work and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject a Bid if the evidence submitted by or investigation of such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the items of Work contemplated therein.

20. **Insurance:** The CONTRACTOR will be required to carry the types and amounts of insurance specified in the Project Supplemental Conditions, Section J.4, as enclosed herein for the full term of the Contract.
21. **Contract Award:** Award of Contract, if made, shall be within **90 days** of date of Receipt of Bids.
22. **Issuance of "Notice to Proceed":** If the Contract is awarded, the OWNER will issue the "Notice to Proceed" within **30 days** after the date of agreement of the Contract.

END OF SECTION

PROPOSAL

Proposal of _____ (hereinafter called "BIDDER"), organized and existing under the laws of the State of _____ doing business as a _____ insert: (corporation, partnership, limited liability company, or individual) to: the City of Jackson, (hereinafter called "OWNER"). In compliance with your advertisement for Bids, BIDDER, hereby proposes to perform all WORK for construction of City of Jackson Infrastructure Improvements (Road Resurfacing) in strict accordance with the CONTRACT DOCUMENTS, within the time set forth herein, and at the prices stated below. By submission of the BID, each BIDDER certifies, and in the case of a joint BID each party thereto certifies as to his own organization, that this BID has been developed independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

BIDDER hereby agrees to commence WORK under this contract on or before a date to be specified in a written "NOTICE TO PROCEED" and to fully complete the Project within **180** consecutive calendar days thereafter. BIDDER further agrees to pay as liquidated damages, the sum of \$750 for each consecutive calendar day thereafter as provided for elsewhere in these CONTRACT DOCUMENTS.

BIDDER ACKNOWLEDGES receipt of the following ADDENDA:

NUMBER: _____ DATE: _____
NUMBER: _____ DATE: _____
NUMBER: _____ DATE: _____
NUMBER: _____ DATE: _____

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to this bid.

BIDDER understands that the quantities mentioned below are approximate only and are subject to either increase or decrease, and hereby proposes to perform any increased or decreased quantities of work at the Unit Price Bid.

In accordance with the requirements of the Plans, Specifications and Contract Documents, BIDDER proposes to furnish all necessary materials, equipment, labor, tools and other means of construction and to construct the Project in accordance with the Contract Documents within the specified Contract Time for the following Unit Prices specified.

BIDDER further agrees to execute the contract agreement as bound herein within ten (10) days after receipt of contract forms from the OWNER.

BIDDER agrees to pay as liquidated damages the amount provided herein for each consecutive calendar day after the Contract completion date specified in a written "NOTICE TO PROCEED" that he fails to complete the work unless the Contract Time is extended by a written Change Order.

BIDDER also proposes to execute a Performance Bond and a Payment Bond, as shown in the Specifications, each in an amount of not less than **one hundred percent (100%)** of the total of the Base Bid. These Bonds shall not only serve to guarantee the completion of the work on the BIDDERS part, but also to guarantee the excellence of both workmanship and materials until the work is finally accepted.

BIDDER encloses a Bid Bond or Certified Check for **5% of Base Bid Amount** DOLLARS (\$_____) and hereby agree that in case of failure to execute the Contract and furnish the required Bonds within (10) days after the Receipt of Contract Forms, the amount of this Certified Check or Bid Bond will be forfeited to the OWNER, as liquidated damages arising out of his failure to execute the Contract as proposed.

It is understood that in case BIDDER is awarded the work, the Certified Check or Bid Bond submitted as Bid security will be returned as stipulated in the Specifications.

Further, the BIDDER agrees to abide by the requirements under Executive Order No. 11246, as amended, including specifically the provision of the Equal Opportunity Clause set forth in the Federal Requirements, if applicable.

The low BIDDER shall supply the names and address of major MATERIAL SUPPLIERS AND SUBCONTRACTORS when required to do so by the OWNER.

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit prices or base bid amount: **SEE PAGE C-5a through 5b FOR BID ITEMS.**

NOTES:

1. Unit price amounts are to be shown in figures where indicated. Where a discrepancy in the unit price and the extension of any items occurs, the unit price will govern.
2. Unit prices shall include all labor, materials, bonding, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.
3. Any erasure, change or alteration of any kind must be initialed by the BIDDER.
4. Bid prices shall include sales tax and all other applicable taxes and fees.
5. Any item of work not specified on the Proposal as a separate pay item or indicated as an absorbed cost in a pay item but which is incidental to completion of the work shall be considered as an absorbed cost with full compensation included in the unit price bid for the particular item involved.
6. OWNER reserves the right to award any combination of base and additive alternate bids (if any) it deems advantageous and in the event that all specified bid item units are lump sum (LS), the OWNER reserves the right to delete any such item or combination of such items from the project. The OWNER further reserves the right to delete any item or items desired from the Bid Schedule after the Contract has been awarded. Any deletions, if any made, shall be by Change Order and BIDDER hereby agrees to accept such Change Orders.

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**CITY OF JACKSON INFRASTRUCTURE IMPROVEMENTS ROADWAY RESURFACING
PROJECT NO. COJ-RS-07 PROPOSAL FORM**

CITY OF JACKSON

PROJECT DESCRIPTION: OVERLAY, BASE REPAIR, LEVELING, MILLING, AND STRIPING

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

BID SCHEDULE						
Line No.	PAY ITEM NO.	PLAN QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	ITEM TOTAL
00010	S-200-A	1	LS	Mobilization		
00020	S-202-C	1665	LF	Removal of Curb and Gutter (All Type)		
00030	S-202-D	200	SY	Removal of Sidewalk (All Type)		
00040	S-203-A	200	CY	Unclassified Excavation		
00050	S-403-A	200	TON	19 MM, ST, Asphalt Pavement		
00060	S-403-A	17392	TON	9.5 MM, MT, Asphalt Pavement		
00070	S-403-B	1976	TON	12.5-MM, ST, Asphalt Pavement, Leveling		
00080	S-406-A	143733	SY	Cold Milling of Bituminous Pavement, All Depths		
00090	S-608-A	200	SY	Concrete Sidewalk		
00100	S-609-D	1665	LF	Combination Curb and Gutter		
00110	S-613-E	98	Each	Adjustment of Manholes		
00120	S-613-E	35	Each	Adjustment of Valves		
00130	S-618-A	1	LS	Maintenance Of Traffic		
00140	S-618-B	0	SF	Additional Construction Signs		
00150	S-621-A	7.0	Mile	4" Wide Thermoplastic Traffic Stripe Skip White		
00160	S-621-C	7.0	Mile	4" Wide Thermoplastic Edge Stripe (Continuous White) (60 Mils)		
00170	S-621-E-1	36960	LF	4" Wide Thermoplastic Traffic Stripe (Continuous Yellow) (90 Mils)		

00180	S-621-H-1	6000	LF	Thermoplastic Legend (White)		
00190	S-621-H-2	1700	SF	Thermoplastic Legend (White)		
00200	S-627-J	1056	Each	Two-Way Yellow Reflective High Performance Raised Markers		
	PROJECT TOTAL					

Note: The City of Jackson reserves the right to increase, decrease, or otherwise modify the scope of work for this project as deemed necessary, without invalidating the contract.

RESPECTFULLY SUBMITTED BY: _____

SIGNATURE: _____

NAME: _____
(PLEASE PRINT)

TITLE: _____
(PLEASE PRINT)

ADDRESS: _____

CERTIFICATE OF RESPONSIBILITY NUMBER: _____

TELEPHONE NUMBER: _____

FACSIMILE NUMBER: _____

PROJECT: City of Jackson Infrastructure Resurfacing Project No. COJ-RS-07

Scope of Work

The contract documents do not include an official set of plans, but may, by reference, include some Standard Drawings or Special Drawings when so specified in a Notice 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:

Milling, leveling, base repairs and overlaying approximately 3.5 miles of existing asphalt pavement along the following roadway segments.

Item	Project Name	Begin Termini	Ending Termini	Width Feet	Approximate Miles
W3-24	Northside Drive	Medgar Evers Blvd	North State Street	70	3.5

Base Repair Work

Prior to overlay operations, the Contractor shall correct any failed areas as directed by the Engineer. Failed areas shall be undercut to a 6” minimum depth and repaired with 19mm, ST, Asphalt Pavement. The locations will be identified in the field prior to commencement of construction.

Milling Work

The Contractor shall cold mill the existing roadway from the B.O.P to E.O.P. (full width) and bridge approaches, designated by the Project Engineer to ensure smooth transition of new overlay with existing grade. The milled roadway area, opened to public traffic, shall be covered by placing the first required course within 5 calendar days of milling, unless prohibited by weather conditions or an emergency arises.

Leveling Work

Prior to overlay operations, the Contractor shall correct existing road and grade by pre-leveling areas with 12.5mm, ST, Asphalt Pavement Mixture. No minimum thickness is specified. Other preliminary leveling of the milled roadway and additional milling may be required to correct any differential settlement areas. This preliminary leveling lift shall be placed a minimum of 12 hours prior to final overlay. After leveling, the contractor is to grade shoulders to eliminate differential thicknesses that may be hazardous to traffic. The locations will be identified in the field prior to commencement of construction.

Overlay Work (Asphalt Pavement)

The Contractor shall overlay the above-mentioned roads with 2” (unless specified otherwise by the Engineer) and variable of 9.5mm, MT, Asphalt Pavement from edge of pavement to edge of pavement to be paid under Pay Item No. S-403-A. The overlay shall correct the roadway lane cross-slope to approximately 2% minimum as shown on the typical section or as directed. The existing super-elevation in horizontal curves is to be maintained as a minimum. Any work to control the laydown equipment for proper placement of the asphalt in the super-elevated curves

shall be absorbed by the contractor at no additional cost to the City. Turnouts for intersections and paved aprons are to be paved to the shoulder line. Construction joints are required at the end of the working day if work is not complete. Raised pavement markers are to be removed, were required, prior to overlay operations with the cost absorb under Pay Item No. S-403-A.

Shoulder Work

The Engineer to provide a field directive to the contractor on granular material required for each roadway shoulders. If directed by the Engineer, the existing shoulders shall be raised to match the new pavement elevation by placing 1- ½” inches and variable depth of Class 5, Group C granular material on the remainder of the existing shoulders. Placement of granular material on the finished asphalt course will not be permitted. Placed granular material shall be bladed, rolled and compacted to a finished slope of four percent (4%). Shoulders with adequate shoulder material in place shall be bladed to a slope of four (4%).

Curb and Gutter Repair Work

The Contractor shall clean all curb and gutter sections along the project limits to remove debris, sediment, vegetation, and other obstructions to allow visual inspection by the Engineer. Curb and gutter sections identified by the Engineer for replacement shall be removed and replaced by the Contractor. Such work shall be performed under the Removal of Curb and Gutter and Combination Curb and Gutter pay items, respectively, and shall be paid for under the appropriate pay items.

Pavement Marking Work

The Contractor shall restripe only resurfaced roadways that were striped prior to the placement of asphalt in accordance with standard drawings or as directed by the Engineer. All permanent pavement markings are to be hot thermoplastic. The width of the permanent stripe shall be 6 inches. All Skip Pavement Marking shall be considered 6” Wide Thermoplastic Traffic Stripe Skip White (Mi.) and paid for under the appropriate pay item. All detail striping shall be considered Thermoplastic Legend (White) (LF) and paid for under the appropriate pay item. Edge lines shall be from BOP to EOP only on project segments that were previously striped. The detail combination continuous yellow and skip yellow stripe shall be considered Continuous Double Yellow (LF) and paid for under the appropriate pay item. Glass beads applied to thermoplastic shall conform to Subsection 720.01. Beads shall be Class B, High-Visibility first, and then Class A Standard.

Adjustment of Casting and Utility Appurtenance

All Manhole and Valves shall be adjusted to match roadway finished grade. Where a casting or utility appurtenance are to be lowered, the masonry shall be removed to sufficient depth so that a set of proper dimensions may be reconstructed to receive the casting or utility appurtenance at the new grade. Where the castings or utility is to be raised less than one foot, a new ring of masonry may be added without disturbing the old masonry. The use of metal rings to raise appurtenances will be allowed with approval of the engineer.

Traffic Control

All construction signage, both portable and non-portable, including posts, stands, mounting hardware, and lights shall be cost absorbed under Pay Item No. 618-A001 Maintenance of Traffic.

Fluorescent orange sheeting shall be used on all construction and traffic control signs except those designated to be black legend and border on white background.

The Contractor shall inform the Project Engineer of lane closures a least two business days in advance. The Engineer should coordinate dissemination of lane closure activities with MDOT and local Media.

For any lane closures that do not adhere to the Standard Drawings or the Typical Sections, the contractor shall provide a traffic control plan to the Engineer at least two business days in advance of the lane closure for approval.

No lane closures will be permitted on the following holidays or the day preceding them: New Year's Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. In the event of one of the before mentioned holidays fall during the weekend or on a Monday, **NO** lane closure will be allowed during that weekend of the Friday immediately preceding said holiday. Otherwise, lane closures resulting in less than the available travel lanes in either direction of travel flow will be permitted at all times other than those listed above or at the Engineers discretion, subject to applicable lane closures.

Incidental Work

Should the Contractor choose to perform work at night, the Contractor shall provide artificial lighting that conforms to Section 680 of the Standard Specifications. Portable Construction Lighting is considered incidental to other contract items; no direct payment will be made.

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

The Contractor shall be responsible for contacting Mississippi One Call (811) for location of utilities prior to any work performed. The contractor shall coordinate with respective utility owners in regards to adjustment of utilities and appurtenances.

It shall be the responsibility of the Contractor to protect existing structures such as pipes, aprons, bridges, etc., from damage occurring during construction. The Contractor shall replace or repair, as directed by the Engineer, any structures damaged during the life of the contract. No payment will be made for replacements and or repairs resulting from such damages.

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CORPORATE CERTIFICATE

(To be executed if BIDDER is a Corporation)

I, _____ certify that I am the Secretary of the Corporation named as CONTRACTOR in the foregoing Proposal; that _____ who signed said Proposal on behalf of the CONTRACTOR, was then _____ of said Corporation; that said Proposal was duly signed for and in behalf of said Corporation by authority of its governing body and is within the scope of its corporate powers.

Name: _____

Title: _____

Signature: _____

(CORPORATE SEAL)

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PARTNERSHIP CERTIFICATE

(To be executed if BIDDER is a Partnership)

STATE OF _____

COUNTY OF _____

On this _____ day of _____, 20____, before me personally appeared _____, known to be and known by me to be the person who executed the above instrument, who being by me first duly sworn, did depose and say that he is general partner in the firm of:

_____ ; That said firm consists of himself and _____ ; and that he executed the foregoing instrument for and on behalf of said firm for the uses and purposes stated herein.

Signature _____

Title _____

(SEAL)

Sworn before me this ___ day of _____, 20____.

_____, Notary Public

My commission expires _____

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LIMITED LIABILITY COMPANY CERTIFICATE

(To be executed if BIDDER is a LLC)

I, the undersigned _____, hereby certify that I am the Manager of _____ (the "Company") or if the Company does not have a Manager, a Member of the Company with full power and authority to bind the Company; that _____ who executed the Proposal on behalf of the Company is _____ of the Company with full power and authority to execute same on behalf of the Company, and that the Proposal and the Contract, if awarded to the Company, are within the powers and authority of the Company.

Signature _____

Title _____

(SEAL)

Sworn before me this ___ day of _____, 20__.

_____, Notary Public

My commission expires _____

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NONRESIDENT BIDDER CERTIFICATE
(to be executed if a BIDDER is a nonresident)

I, _____, hereby certify that the CONTRACTOR,
_____, is domiciled in the State of _____
and (check and complete one):

attached is a copy of the State of _____'s current law pertaining to the treatment of nonresident CONTRACTORS. Paragraph _____, page _____ of said law grants resident CONTRACTORS a _____ percent preference over nonresident CONTRACTORS for similar projects.

the State of _____ has no current law pertaining to the treatment of nonresident contractors.

I claim "resident contractor" status based upon having been qualified to do business in this state and having maintained a permanent full-time office in the State of Mississippi for two (2) years prior to January 1, 1986. Proof of such claim must be submitted and approved before contract is signed.

Signature _____

Title _____

(SEAL)

Sworn before me this ___ day of _____, 20___.

_____, Notary Public

My commission expires _____

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NON-COLLUSION AFFIDAVIT
(TO BE EXECUTED IN DUPLICATE)

STATE OF MISSISSIPPI
COUNTY OF _____

I, _____
(name of person signing affidavit)

individually, and in my capacity as _____
(title)

of _____
(name of firm, partnership, limited liability company, or corporation.)

being duly sworn, on oath do depose and say as follows:

(a) That _____, Bidder on the

COJ-RS-07 City of Jackson Infrastructure Improvements for the City of Jackson 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 officers, partners, employees or principal owners.

(b) further, that neither said legal entity nor any of its directors, officers, partners, principal owners or managerial employees are currently debarred from bidding on public contracts by the State of Mississippi or any of its agencies; or by one or more of the other states or any of their agencies; or by the Federal Highway Administration.

Signature _____

Title _____

(SEAL)

Sworn before me this ___ day of _____, 20__.

_____, Notary Public

My commission expires _____

NOTE: FAILURE TO PROPERLY SIGN AND NOTARIZE THIS AFFIDAVIT WILL DISQUALIFY THE BID.

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NON-COLLUSION AFFIDAVIT
(TO BE EXECUTED IN DUPLICATE)

STATE OF MISSISSIPPI
COUNTY OF _____

I, _____
(name of person signing affidavit)

individually, and in my capacity as _____
(title)

of _____
(name of firm, partnership, limited liability company, or corporation.)

being duly sworn, on oath do depose and say as follows:

(a) That _____, Bidder on the

COJ-RS-07 City of Jackson Infrastructure Improvements for the City of Jackson 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 officers, partners, employees or principal owners.

(b) further, that neither said legal entity nor any of its directors, officers, partners, principal owners or managerial employees are currently debarred from bidding on public contracts by the State of Mississippi or any of its agencies; or by one or more of the other states or any of their agencies; or by the Federal Highway Administration.

Signature _____

Title _____

(SEAL)

Sworn before me this ___ day of _____, 20__.

_____, Notary Public

My commission expires _____

NOTE: FAILURE TO PROPERLY SIGN AND NOTARIZE THIS AFFIDAVIT WILL DISQUALIFY THE BID.

BID BOND

KNOW ALL MEN BY THESE PRESENTS:

That _____
(Name of Contractor)

(Address of Contractor)

a _____ hereinafter called "Principal", and
(Corporation, Partnership, Limited Liability Company or
Individual)

_____ hereinafter called "Surety",
(Name of Surety)

are held and firmly bound unto the _____, hereinafter called
"OWNER" in the penal sum of 5% of Total Bid, for the payment of which sum well and truly to
be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.
Signed, this the ___ day of _____, 20___. The Condition of the above obligation is such
that whereas the Principal has submitted to the _____ a certain BID,
attached hereto and hereby made a part thereof to enter into a contract in writing, for the
construction of:

City of Jackson Infrastructure Improvements (Road Resurfacing)

NOW, THEREFORE,

- (a) If said BID shall be rejected, or,
- (b) If said BID shall be accepted and the Principal shall execute and deliver a contract on the Contract form as attached hereto (properly completed in accordance with said BID) and shall furnish BONDS for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection herewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these present to be signed by their officers, the day and year first set forth above.

_____	(L.S.)	_____
Principal		Surety
_____		_____
By:		By:

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

CONTRACT

THIS AGREEMENT, made this the _____ day of _____, 20____, by and between the _____ hereinafter called "OWNER" and _____ doing business as (an Individual), (a Partnership), (a Limited Liability Company), or (a Corporation) hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of:

City of Jackson Infrastructure Improvements (Road Resurfacing)
hereinafter called "PROJECT".

2. The CONTRACTOR will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the PROJECT described herein.

3. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS within 10 calendar days after the date of the NOTICE TO PROCEED and will complete the PROJECT within _____ calendar days, unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.

4. The CONTRACTOR agrees to perform all of the work described in the CONTRACT DOCUMENTS, and comply with the terms therein for the sum of \$ _____ or as shown in the BID Schedule.

5. The term "CONTRACT DOCUMENTS" means and includes the following:
 - A. This Agreement
 - B. Instruction to Bidders
 - C. Signed Copy of Proposal Form and Bidder's Certificate
 - D. Executed Non-Collusion Form and Compliance Statements
 - E. Executed Performance Bond
 - F. Executed Payment Bond
 - G. NSPE General Conditions
 - H. Special Contract Provisions
 - I. Technical Specifications
 - J. DRAWINGS prepared by _____ and dated _____, 20____.
 - K. SPECIFICATIONS prepared or issued by _____ and dated _____, 20____.
 - L. ADDENDA:
No. _____ Dated _____
No. _____ Dated _____
No. _____ Dated _____
No. _____ Dated _____

- M. All federal government conditions, specifications, regulations and requirements bound herein.
6. The CONTRACTOR agrees to abide by the following consequences for failure to complete the project within the time specified in the CONTRACT DOCUMENTS:
- A. LIQUIDATED DAMAGES - CONTRACTOR shall pay to OWNER for each and every calendar day that he shall be in default in attaining Completion of the Work within the time stipulated the sum of \$ 750 as liquidated damages. The CONTRACTOR shall be liable for the continued assessment of liquidated damages of \$ 750 for each calendar day that he shall be in default in completing the Work within the stipulated time as provided herein. Since the OWNER'S losses are due to the CONTRACTOR'S delay and are not readily ascertainable, the amount provided herein for liquidated damages constitutes agreed damages and not a penalty.
 - B. INDEMNIFICATION - In addition to payment of the above liquidated damages, CONTRACTOR shall fully indemnify and hold harmless the OWNER, the ENGINEER and their officers, personnel, and agents from and against: (1) any and all fines, civil penalties, and assessments levied by the State of Mississippi Office of Pollution Control, State of Mississippi Bureau of Environmental Health or any federal or state court for failure to meet, perform, or comply with any part of the time schedule as defined in the Contract Documents, and (2) any and all claims, damages, losses, expenses, liabilities, actions, judgments, and decrees of any and every nature whatsoever in any manner caused by, resulting from, or arising out of such failure.
 - C. RIGHT OF SET-OFF - The OWNER, in addition to its other remedies under this Contract and in law and in equity, may deduct from monies which become due the CONTRACTOR under this Contract any unpaid amounts which become due to the OWNER under any of the foregoing provisions.
7. The OWNER will pay to the CONTRACTOR in the manner and at such times set forth in the General Conditions such amount as required by the CONTRACT DOCUMENTS. The OWNER shall retain five percent (5%) of the amount of each payment until final completion and acceptance of all work covered by the CONTRACT DOCUMENTS unless otherwise mutually agreed.
8. The CONTRACTOR agrees to allow the OWNER or a duly authorized representatives thereof, access to books, documents, papers and records of the CONTRACTOR which are directly pertinent to the project which is the subject of this Contract, for the purpose of making audits, examinations, excerpts and transcriptions, and CONTRACTOR agrees to insert an identical access to records clause into all subcontracts.
9. The CONTRACTOR shall be held responsible for forfeiture of monies in the event that an audit indicates his failure to keep adequate records, including change orders, force accounts and payroll records.

10. Attached hereto and made a part of this Contract is a Payment Bond, executed by a Surety Company doing business in the State of Mississippi, in the sum of:

(\$ _____) _____
(not less than one hundred percent of Contract amount)

11. Attached hereto and made a part of this Contract is a Performance Bond, executed by a Surety Company doing business in the State of Mississippi, in the sum of:

(\$ _____) _____
(not less than one hundred percent of Contract amount)

12. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed or caused to be executed by their duly authorized officials, this Agreement in 5 copies each of which shall be deemed an original on the date first above written.

OWNER

BY: _____
NAME: _____
TITLE: _____

ATTEST:

BY: _____
NAME: _____
TITLE: _____

(SEAL)

CONTRACTOR

BY: _____
NAME: _____
Title _____

ATTEST:

BY: _____
NAME: _____
TITLE: _____

(SEAL)

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That _____
(Name of Contractor)

(Address of Contractor)

a _____ hereinafter called "PRINCIPAL", and
(Corporation, Partnership, Limited Liability Company
or Individual)

_____ hereinafter called "SURETY",
(Name of Surety)

are held and firmly bound unto the _____ hereinafter called
"OWNER" in the penal sum of

_____ Dollars (\$_____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain Contract with the OWNER, dated the _____ day of _____, 20____, a copy of which is hereto attached and made a part hereof for the construction of:

City of Jackson Infrastructure Improvements (Road Resurfacing)

NOW, THEREFORE, if the PRINCIPAL shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said Contract during the Original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the SURETY and during the one year guaranty period and if he shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER of all of outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect. PROVIDED, FURTHER, that the said SURETY for value received hereby stipulates and sees that no change, extension of time, alteration or addition to the terms of the Contract or to the WORK to be performed hereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the loans of this Contract or to the WORK or to the SPECIFICATIONS. PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may not yet be satisfied.

WITNESS WHEREOF, this instrument is executed in five (5) counterparts, each of which shall be deemed an original, this the _____ day of _____, 20__.

ATTEST:

(Principal) Secretary

(SEAL)

(Principal)

By _____

(Address)

Witness as to Principal

(Address)

ATTEST:

(SEAL)

(Surety)

By _____

Attorney-in-Fact

Witness as to Surety

(Address)

(Address)

NOTE:

Date of BOND **must not be** prior to date of CONTRACT. If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT:

Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the Project is located.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

That _____
(Name of Contractor)

(Address of Contractor)

a _____ hereinafter called "PRINCIPAL", and
(Corporation, Partnership, Limited Liability Company
or Individual)

hereinafter called "SURETY",

(Name of Surety)

are held and firmly bound unto the _____ hereinafter called
"OWNER" in the penal sum of

_____ Dollars (\$_____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we
bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a
certain Contract with the OWNER, dated the _____ day of _____, 20____, a copy of
which is hereto attached and made a part hereof for the construction of:

City of Jackson Infrastructure Improvements (Road Resurfacing)

NOW, THEREFORE, if the PRINCIPAL shall promptly make payment to all persons, firms,
SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the
prosecution of the WORK provided for in such Contract, and any authorized extension or
modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and
coke, repairs on machinery, equipment and tools, consumed or used in connection with the
construction of such WORK, and all insurance premiums on said WORK, and for all labor,
performed in such WORK whether by SUBCONTRACTOR or otherwise, then this obligation shall
be void; otherwise to remain in full force and effect. PROVIDED, FURTHER, that the said
SURETY for value received hereby stipulates and sees that no change, extension of time, alteration
or addition to the terms of the Contract or to the WORK to be performed hereunder or the
SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND,
and it does hereby waive notice of any such change, extension of time, alteration or addition to the
loans of this Contract or to the WORK or to the SPECIFICATIONS. PROVIDED, FURTHER, that
no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any
beneficiary hereunder, whose claim may not yet be satisfied.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR
shall abridge the right of any beneficiary hereunder, whose claim may not yet be satisfied.

WITNESS WHEREOF, this instrument is executed in five (5) counterparts, each of which shall be deemed an original, this the _____ day of _____, 20__.

ATTEST:

(Principal) Secretary

(SEAL)

(Principal)

By _____

(Address)

Witness as to Principal

(Address)

ATTEST:
(SEAL)

(Surety)

By _____
Attorney-in-Fact

Witness as to Surety

(Address)

(Address)

NOTE: Date of BOND **must not be** prior to date of CONTRACT. If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the Project is located.

CERTIFICATE OF SUFFICIENCY

I, _____, Chief Legal Officer for the City of Jackson do hereby certify that I have examined the agreement, contract bonds and evidence of insurance offered by the Contractor and I am of the opinion that each of the aforesaid documents is adequate and sufficient and has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said documents on behalf of the respective parties named thereon; and that the foregoing documents constitute valid and legally binding obligations upon the parties executing the same in accordance with terms, conditions and provisions thereof.

(Signature)

Name: _____

Date: _____

**Engineers Joint Documents Committee
Design and Construction Related Documents
Instructions and License Agreement**

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General:

You may not sublicense, assign, or transfer this license except as expressly provided in this Agreement. Any attempt otherwise to sublicense, assign, or transfer any of the rights, duties, or obligations hereunder is void.

This Agreement shall be governed by the laws of the State of Virginia. Should you have any questions concerning this Agreement, you may contact EJCDC by writing to:

Arthur Schwartz, Esq.
General Counsel
National Society of Professional Engineers
1420 King Street

Alexandria, VA 22314

Phone: (703) 684-2845

Fax: (703) 836-4875

e-mail: aschwartz@nspe.org

You acknowledge that you have read this agreement, understand it and agree to be bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the agreement between us which supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this agreement.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by

ACEC

AMERICAN COUNCIL OF ENGINEERING COMPANIES



ASCE American Society
of Civil Engineers

P/E National Society of
Professional Engineers
Professional Engineers in Private Practice

AMERICAN COUNCIL OF ENGINEERING COMPANIES

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Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 Copies of Documents

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 Starting the Work

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 Before Starting Construction

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 Preconstruction Conference; Designation of Authorized Representatives

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 Initial Acceptance of Schedules

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of

the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 Reference Standards

- A. Standards, Specifications, Codes, Laws, and Regulations
 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 Reporting and Resolving Discrepancies

- A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 Amending and Supplementing Contract Documents

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
3. Engineer's written interpretation or clarification.

3.05 Reuse of Documents

- A. Contractor and any Subcontractor or Supplier shall not:
 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 Electronic Data

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 Availability of Lands

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must

comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 Subsurface and Physical Conditions

A. *Reports and Drawings:* The Supplementary Conditions identify:

- 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
- 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

- 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
- 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
- 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 Differing Subsurface or Physical Conditions

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

- 1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any

of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 Underground Facilities

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have

been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 Reference Points

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 Hazardous Environmental Condition at Site

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with

such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 Performance, Payment, and Other Bonds

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 Licensed Sureties and Insurers

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 Certificates of Insurance

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of

insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 Contractor's Insurance

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
 - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
 - 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary

exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 Owner's Liability Insurance

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 Property Insurance

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and
 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property

insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 Waiver of Rights

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 Receipt and Application of Insurance Proceeds

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 Acceptance of Bonds and Insurance; Option to Replace

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 Partial Utilization, Acknowledgment of Property Insurer

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

6.01 Supervision and Superintendence

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 Labor; Working Hours

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 Services, Materials, and Equipment

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 Progress Schedule

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 Substitutes and "Or-Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
1. "*Or-Equal*" Items: If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
 - 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 Concerning Subcontractors, Suppliers, and Others

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or

entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 Patent Fees and Royalties

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its

use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 Permits

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 Laws and Regulations

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner

and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 Taxes

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 Use of Site and Other Areas

A. *Limitation on Use of Site and Other Areas:*

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 Record Documents

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
1. all persons on the Site or who may be affected by the Work;
 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor

(except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 Safety Representative

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 Hazard Communication Programs

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 Emergencies

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 Shop Drawings and Samples

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:*

- a. Submit number of Samples specified in the Specifications.
- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures:*

1. Before submitting each Shop Drawing or Sample, Contractor shall have:

- a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
- b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
- c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
- d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;
3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
6. any inspection, test, or approval by others; or
7. any correction of defective Work by Owner.

6.20 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 Delegation of Professional Design Services

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 Related Work at Site

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe

access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 Coordination

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
 - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 Legal Relationships

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER’S RESPONSIBILITIES

8.01 Communications to Contractor

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 Replacement of Engineer

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 Furnish Data

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 Pay When Due

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 Lands and Easements; Reports and Tests

A. Owner’s duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner’s identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 Insurance

A. Owner’s responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 Change Orders

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 Inspections, Tests, and Approvals

A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 Limitations on Owner’s Responsibilities

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws

and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 Undisclosed Hazardous Environmental Condition

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 Evidence of Financial Arrangements

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 Compliance with Safety Program

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 Owner's Representative

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 Visits to Site

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 Project Representative

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 Authorized Variations in Work

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 Rejecting Defective Work

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 Shop Drawings, Change Orders and Payments

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 Determinations for Unit Price Work

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations

on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 Decisions on Requirements of Contract Documents and Acceptability of Work

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 Limitations on Engineer's Authority and Responsibilities

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of,

and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 Compliance with Safety Program

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 Authorized Changes in the Work

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 Unauthorized Changes in the Work

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
 - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 - 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 - 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of

executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 Notification to Surety

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 Claims

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part;
 2. approve the Claim; or
 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 Cost of the Work

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
 - 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 - 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 - 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:*
1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in

the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 2. there is no corresponding adjustment with respect to any other item of Work; and
 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. *Contractor's Fee*: The Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 Change of Contract Times

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 Delays

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 Notice of Defects

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 Access to Work

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 Tests and Inspections

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 Uncovering Work

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 Owner May Stop the Work

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 Correction or Removal of Defective Work

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers,

architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 Correction Period

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
1. repair such defective land or areas; or
 2. correct such defective Work; or
 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 Acceptance of Defective Work

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 Owner May Correct Defective Work

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 Progress Payments

A. *Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's

review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. *Payment Becomes Due:*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. *Reduction in Payment:*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 Substantial Completion

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 Partial Utilization

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 Final Inspection

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 Final Payment

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and

- d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 Waiver of Claims

- A. The making and acceptance of final payment will constitute:
1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
 2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 Owner May Terminate for Cause

- A. The occurrence of any one or more of the following events will justify termination for cause:
1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 3. Contractor's repeated disregard of the authority of Engineer; or
 4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 Owner May Terminate For Convenience

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other

dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 Methods and Procedures

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or

2. agrees with the other party to submit the Claim to another dispute resolution process; or
3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 Giving Notice

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 Computation of Times

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 Cumulative Remedies

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 Survival of Obligations

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 Controlling Law

- A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 Headings

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SECTION J.1

SPECIAL CONDITIONS

1-01 GENERAL

- A. The following Special Conditions consist of special requirements which shall apply to this project and to the CONTRACTOR executing the work.
- B. The information contained in these special conditions and technical specifications shall supersede information contained in NSPE, EDA, CDBG or SRF General Conditions if any found elsewhere herein.
- C. OWNER shall furnish to CONTRACTOR up to three (3) copies (unless otherwise specified in the General Requirements) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.
- D. Protect the finished work from damage and loss resulting from carelessness or by reason of the elements and from all other causes until the entire work is completed and accepted. The work is entirely at the CONTRACTOR'S risk. The OWNER assumes no responsibility or obligation whatsoever for damage or loss to the work.
- E. At all times protect existing work and adjacent property. Correct all damage thereto caused by construction operations of the CONTRACTOR'S employees at the expense of the CONTRACTOR, and to the complete satisfaction of the OWNER and ENGINEER.
- F. **CONSTRUCTION SAFETY IS A PROJECT REQUIREMENT.** The CONTRACTOR shall be responsible for providing Safety equipment and or methods necessary for the safe prosecution of the work by his personnel and the personnel of any sub-contractors, as well as providing safe access and site conditions to all elements of the project for the OWNER, ENGINEER, and their representatives. Such safety requirements shall meet guidelines as contained in OSHA and U.S. Department of Health and Human Services (National Institute for Occupational Safety and Health) (NIOSH) publication sections relative to the work contemplated herein.
- G. **PAYMENTS TO CONTRACTOR:** The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions, such amounts as required by the Contract Documents. The OWNER shall retain five percent (5%) of the amount of each progress payment until final completion and acceptance of all work covered by the Contract Documents unless otherwise mutually agreed.

1-02 PUBLIC SAFETY AND CONVENIENCE

- A. The CONTRACTOR shall at all times so conduct his work as to ensure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work, and to ensure the protection of persons and property in a manner satisfactory to the OWNER and ENGINEER.
- B. All work on existing highways, roads or streets, shall be in a manner to assure the least practicable interference with the public use of the facility. The CONTRACTOR shall use reasonable care and precaution to avoid accidents, damage, unnecessary delay or interference with traffic and provide competent flaggers when necessary to insure maximum public safety.

1-03 CONSTRUCTION STAKES AND GRADES

- A. The ENGINEER has provided a base line from which all layout is to be done. Preservation of reference points will be the responsibility of the CONTRACTOR. The CONTRACTOR must provide all grades, stakes, string lines, and other control work necessary for completion of the project in accordance with the requirements of the Specifications and Drawings.
- B. **No changes to grades will be made without the approval of the ENGINEER.**

1-04 EXISTING WATER, SEWER, ELECTRIC GAS AND UNDERGROUND TELEPHONE FACILITIES

- A. Existing water, sewer, gas, electricity, television cable, and buried telephone cable facilities shown on the drawings are approximate locations. The CONTRACTOR is required to coordinate his work with the representative of the respective utility company and protect all other adjacent structures, utilities, and work against damage or interruption of services. Damage which may result from failure of the CONTRACTOR to observe such precautions is the responsibility of the CONTRACTOR.
- B. **The OWNER shall be held harmless of the cost of repairing damage to public utilities.**

1-05 UTILITIES

- A. Water, electricity, gas or other utilities required on the site of the work by the CONTRACTOR must be arranged for by him and furnished at his expense.
- B. Required temporary utility installations are subject to the approval of the ENGINEER and are to be maintained and removed by the CONTRACTOR at his expense prior to completion of the construction work.

1-06 TEMPORARY STORAGE

- A. If materials are stored on the site of the work, each CONTRACTOR shall provide and maintain on the premises, where directed, water-tight storage sheds for the storage of materials that would be subject to damage by the weather.
- B. The CONTRACTOR shall be responsible for security of material storage sites.

1-07 CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

- A. The CONTRACTOR will execute and provide to the ENGINEER at the Pre-construction Conference a compliance statement where required.
- B. Such compliance form shall be provided by the ENGINEER.

1-08 LEAD BASED PAINT

- A. Use of lead based paint on the project is prohibited.

1-09 TEMPORARY TOILETS

- A. Provide and maintain temporary toilets as necessary for use of workmen. Locate toilets in locations acceptable to the OWNER.
- B. Toilets shall meet requirements of the State Health Department and any local codes.

1-10 TEMPORARY JOB OFFICE FOR ENGINEER

- A. None required for this Contract.

1-11 WAGE RATES

- A. None required for this Contract.

1-12 PROJECT SIGN

- A. None required for this Contract.

1-13 TESTING LABORATORY SERVICES

- A. Scope: The CONTRACTOR will employ and pay for the services of an independent laboratory to perform specified services. Employment of a testing laboratory shall in no way relieve CONTRACTOR of his obligation to perform work in accordance with the contract and/or Technical Specifications.

1-14 PRE-CONSTRUCTION CONFERENCE

- A. Prior to commencement of construction, a pre-construction conference will be scheduled with the date, time and location of the meeting to be established by the ENGINEER.
- B. The ENGINEER will prepare an agenda and distribute advance copies to each participant. The ENGINEER will also prepare and complete the minutes of the meeting and distribute same to all participants.
- C. Prior to the pre-construction conference, CONTRACTOR shall submit to ENGINEER an estimated progress schedule, in the form of a bar chart, indicating the starting and completion dates of the various stages of the Work along with anticipated earnings, and a preliminary schedule of Shop Drawings submissions. The ENGINEER shall review and return this schedule or require revisions thereto within fourteen (14) days of its submittal. If there is more than one CONTRACTOR involved in a Project the responsibility for coordinating the Work of all CONTRACTORS shall be as provided in the Special Conditions. Updated progress schedules will be required on a monthly basis at the time of submittal of the CONTRACTOR'S monthly progress pay request.
- D. The above schedules will be reviewed during the pre-construction conference to establish procedures for handling Shop Drawings and other submissions and for processing Application for Payment, and to establish a working understanding between the parties as to the Project requirements.
- E. Present at the conference will be the OWNER or his representative, ENGINEER, Resident Project Representative, CONTRACTOR, his Superintendent, and major Subcontractor.

END OF SECTION

J.1-4

SECTION J.2

INSTRUCTIONS FOR BONDS

1-01 GENERAL

- A. The following instructions and requirements for Bonds shall apply to this Project.

1-02 SURETY

- A. The surety on each bond must be a responsible surety company, qualified to do business in Mississippi, and shall be satisfactory to the OWNER.

1-03 NAME

- A. The name, including full legal name, and residence of each individual party to the bond shall be inserted in the body thereof, and each such party shall sign the bond with their usual signature on the line opposite the seal.

1-04 PARTNERSHIPS

- A. If the principals are partners, their individual names will appear in the body of the bond with the recital that they are partners composing a firm, naming it, and shall have all the partners of the firm execute the bond as individuals.
- B. The signature of a witness shall appear in the appropriate place, attesting to the signature of each individual party to the bond.

1-05 CORPORATIONS

- A. If the principal or surety is a corporation, the name of the State in which incorporated shall be inserted in the appropriate place in the body of the bond, and said instrument shall be executed and attested under the corporate seal as indicated in the form.
- B. The official character and authority of the person or persons executing the bond for the principal, if a corporation, shall be secretary or assistant secretary according to the form attached hereto. In lieu of such certificate, there may be attached to the bond copies of so much of the records of the corporation as will show the official character and authority of the officer signing, duly certified by the secretary or assistant secretary, under the corporate seal, to be true copies.

1-06 LIMITED LIABILITY COMPANIES

- A. If the principal is a limited liability company, the name of the state under which the limited liability company is organized shall be inserted in the appropriate place in the body of the bond, and said instrument shall be executed and attested.
- B. The bond shall be executed by a Manager of the limited liability company if managed by one or more Managers, or by a Member if managed by one or more Members. The bond shall disclose the capacity in which executed by the Member or Manager.

1-07 DATE

- A. The date shown on these bonds **must not be** prior to the date of the contract in connection with which they are given.

SECTION J.3

SPECIAL PROVISIONS

1-01 LOCATION AND DESCRIPTION

- A. The work required under this Contract includes the furnishing of all materials, tools, equipment, labor and incidentals necessary for the construction of City of Jackson Infrastructure Improvements (Road Resurfacing) and all related items required by the Drawings and Specifications.
- B. The summary of work as described above is a general description of the project and responsibilities of the CONTRACTOR and in no way supersedes the specific requirements of the Contract Documents.

1-02 TEMPORARY CONTROLS

- A. The CONTRACTOR shall provide and maintain methods, equipment, and temporary construction, as necessary to provide control over environmental conditions at the construction site and adjacent areas. Physical evidence of temporary facilities shall be removed after completion of the work.
- B. Noise Control
 - 1. The CONTRACTOR'S vehicles and equipment shall be such as to minimize noise to the greatest degree practical. Noise levels shall conform to the latest OSHA standards and in no case will noise levels be permitted which interfere with the work of the City or others.
- C. Water Control
 - 1. The CONTRACTOR shall provide methods to control surface water and water from excavations and structures to prevent damage to the work, the site, or adjoining properties, including beaver control on-site and adjacent thereto.
 - 2. Fill, grading and ditching shall be controlled to direct water away from excavations, pits, tunnels and other construction areas, and to direct the runoff course so as to prevent any erosion, damage or nuisance.
 - 3. The CONTRACTOR shall provide, operate and maintain equipment and facilities of adequate size to control surface water.
 - 4. Drainage water shall be disposed of in a manner to prevent flooding, erosion, or other damage to any portion of the site or to adjoining areas and in conformance with all environmental requirements.

D. Pollution Control

1. The CONTRACTOR shall provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.
2. The CONTRACTOR shall provide equipment and personnel, perform emergency measures required to contain any spillage, and remove contaminated soils or liquids. The contaminated earth will be removed and disposed of offsite, and replaced with suitable compacted fill and topsoil at no additional cost to the OWNER.
3. The CONTRACTOR shall prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to streams, or in sanitary or storm sewers. All sewage, oil and refuse generated during the course of the work shall not be discharged into any watercourses adjacent to the job site.

E. Erosion Control

1. The CONTRACTOR shall plan and execute construction and earthwork by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation. The areas of bare soil exposure at one time shall be held to a minimum, and temporary control measures such as silt screens, berms, dikes and drains shall be provided.
2. Fills and waste areas shall be constructed by selective placement to eliminate surface silts and clays which will erode.
3. The CONTRACTOR shall periodically inspect earthwork to detect any evidence of the start of erosion, and shall apply corrective measures to control erosion as required by the ENGINEER at no additional cost to the OWNER.

1-03 RECORDS

- A. The CONTRACTOR shall maintain a complete and accurate log of any control or survey work as it progresses. Upon completion of major items or upon request, the CONTRACTOR shall submit two (2) copies to the ENGINEER.

1-04 CONTRACT DRAWINGS

- A. Contract Drawings identified as City of Jackson Infrastructure Improvements (Road Resurfacing), dated 4/22/2025 are issued with these documents.

1-05 CONTRACT SPECIFICATIONS

- A. The Specifications governing the work under this Contract shall be as set forth hereinafter as Technical Specifications together with any and all addenda.

1-06 ENGINEER

- A. References in these contract documents to ENGINEER shall refer to IMS Engineers.

1.07 REVIEW OF THE WORK

- A. Resident Project Representatives, who are representatives of the ENGINEER, will be appointed to review materials used and work performed. The Resident Project Representatives will not be authorized to revoke, alter, enlarge or relax the provisions of these Contract Documents, nor to delay the fulfillment of this Contract by failure to inspect materials and work with reasonable promptness. Resident Project Representatives are placed on the work to keep the ENGINEER informed as to the progress of the work and the manner in which it is being done; also to call the attention of the CONTRACTOR to nonconformity with the requirements of the Drawings and Specifications. The Resident Project Representatives will not have authority to approve or accept portions of the work, to issue instructions contrary to the Drawings, Specifications or other parts and sections of these Contract Documents, or to act as foreman for the CONTRACTOR. **The Resident Project Representatives will have authority to reject defective material.**
- B. The presence of a Resident Project Representative shall in no way lessen the responsibility of the CONTRACTOR for full compliance with the requirements of these Contract Documents.

1-08 SUGGESTIONS TO CONTRACTOR

- A. Means, process or method of work suggested by the ENGINEER or other representative of the OWNER to the CONTRACTOR, if adopted or followed by the CONTRACTOR in whole or in part, shall be used at the risk and responsibility of the CONTRACTOR, and the ENGINEER and the OWNER will assume no responsibility therefor.

1-09 CONTRACTOR'S OBLIGATIONS

- A. The CONTRACTOR shall do and perform all work and furnish supplies and materials, machinery, equipment, facilities and means, except as herein otherwise expressly specified, necessary or proper to perform and complete the work required by the Contract, within the time herein specified, in accordance with the provisions of the Contract, Specifications, Drawings and Supplemental Drawings, and in accordance with the directions of the ENGINEER as given from time-to-time during the progress of the work. He shall furnish, erect, maintain and remove such construction plant and such temporary works as may be required. The CONTRACTOR shall observe, comply with and be subject to terms, conditions, requirements and limitations of the Contract and Specifications, and shall do, carry on and complete the entire work to the satisfaction of the ENGINEER and the OWNER.
- B. The CONTRACTOR shall be responsible for any state and local permits.

1-10 TIME FOR COMPLETION

- A. It is hereby understood and mutually agreed, by and between the CONTRACTOR and the OWNER, that the date of beginning and the time for completion as specified in the

Contract for the work to be done hereunder are ESSENTIAL CONDITIONS of the Contract; and it is further mutually agreed that the work embraced in this Contract shall be commenced on or before a date to be specified in a written "NOTICE TO PROCEED".

- B. The CONTRACTOR agrees that said work shall be prosecuted regularly and diligently without interruption at such rate of progress as will ensure full completion thereof within the time specified.
- C. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the time for the completion of the work described herein is a reasonable time for the completion of same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.
- D. If the said CONTRACTOR shall neglect, fail or refuse to complete the work within the time herein specified, or extension thereof granted by the OWNER, the CONTRACTOR does hereby agree, as a part of consideration for the awarding of this Contract, to pay to the OWNER the amount specified in the Contract, not as a penalty but as liquidated damages for such breach of Contract as hereinafter set forth, for each and every calendar day that the CONTRACTOR shall be in default after the time stipulated in the contract for completing the work.

1-11 SUPPLEMENTARY DRAWINGS

- A. Whenever required by the Specifications or the Drawings, as well as for all undetailed material to be fabricated and furnished by the CONTRACTOR, the CONTRACTOR shall make specialty or detailed shop drawings in amplification of the Drawings referred to in the Contract before commencing the work.
- B. Six (6) copies of each drawing and necessary data shall be submitted to the ENGINEER. Each drawing or data sheet shall be clearly marked with the name of the Project, the CONTRACTOR'S name and references to applicable Specification paragraphs and Drawing sheet.
- C. After the ENGINEER has reviewed the Drawings and data, three (3) copies will be returned to the CONTRACTOR marked either (1) "Rejected", (2) "Reviewed", (3) "Furnish as Corrected", or (4) "Revise and Resubmit".
- D. Unless otherwise directed by the ENGINEER, when Drawings and data are returned marked "Furnish as Corrected", the changes shall be made as noted thereon and six (6) corrected copies furnished to the ENGINEER.

- E. When Drawings and data are returned marked "Revise and Resubmit", the corrections shall be made as noted thereon and as instructed by the ENGINEER and six (6) corrected copies resubmitted.
- F. The ENGINEER'S review of Drawings and data submitted by the CONTRACTOR will cover only general conformity to the Drawings and Specifications, external connections and dimensions which affect the layout. The ENGINEER'S review of Drawings marked "Reviewed" or "Furnish as Corrected" does not indicate a through review of all dimensions, quantities and details of the material, equipment, device or item shown and does not relieve the CONTRACTOR from the responsibility for errors or deviations from the Contract Requirements.
- G. Corrections or comments made on the drawings during the ENGINEER'S review do not relieve the CONTRACTOR from compliance with the requirements of the Drawings and Specifications. Checking will be only for review of general conformance with the information given in the contract Documents. The CONTRACTOR is responsible for: confirming and correlating quantities and dimension; selecting fabrication processes and techniques of construction; coordination his work in a safe and satisfactory manner.
- H. Drawings and data, after final processing by the ENGINEER, shall become a part of the Contract Documents and the work shown or described thereby shall be performed in conformity therewith unless otherwise authorized by the OWNER or the ENGINEER.

1-12 CORRECTION OF DEFECTIVE WORK AFTER FINAL ACCEPTANCE

- A. The CONTRACTOR hereby agrees to make, at his own expense, repairs or replacements necessitated by defects in materials or workmanship, supplied under terms of this Contract, which become evident within one (1) year after the date of substantial completion. The CONTRACTOR further assumes responsibility for a similar one (1) year guarantee for work and materials provided by subcontractors or manufacturers of packaged equipment components. The effective date for the start of the guarantee or warranty period is defined as the date of substantial completion established by the ENGINEER in the Certificate of Substantial Completion.

1-13 COOPERATION BETWEEN CONTRACTORS

- A. If separate contracts are let within the limits of a project, such CONTRACTORS shall arrange and conduct the performance of their work and handling of materials so as to minimize interference with work being performed by other CONTRACTORS within the limits of the same project.

END OF SECTION

J.3-5

SECTION J.4

INSURANCE REQUIREMENTS

- 1-01 All references to "OWNER" herein shall refer to the City of Jackson.
- 1-02 The CONTRACTOR shall carry insurance as prescribed herein and all policies shall be with companies satisfactory to the OWNER. **See attached sample insurance form for minimum coverage required.**
- 1-03 If a part of this Contract is sublet, the CONTRACTOR shall require each subcontractor to carry insurance of the same kinds and in like amounts as carried by the prime CONTRACTOR.
- 1-04 Certificates of insurance shall state that thirty (30) days written notice WILL BE given to the OWNER before the policy is canceled or changed.** No CONTRACTOR or subcontractor will be allowed to start construction work on this Contract until all certificates of insurance required herein are filed and approved by the OWNER. The certificates shall show the type, amount, class of operations covered, effective dates and the dates of expiration of policies. In the event the contract time exceed one year CONTRACTOR shall submit renewal certificates for all policies 30 days prior to the expiration of the existing policy.
- 1-05 The CONTRACTOR shall secure and maintain in effect for the period of the Contract and pay all premiums for the following kinds and amounts of insurance:
- A. Workmen's Compensation and Employer's Liability Insurance:
1. This insurance shall protect the CONTRACTOR against all claims under applicable State Workmen's Compensation Laws. The CONTRACTOR shall also be protected and shall cause each subcontractor to be protected against claims for injury, disease, or death of employees which, for any reason, may not fall within the provisions of a Workmen's Compensation law. The liability limits shall not be less than the required statutory limits for Workmen's Compensation and Employer's Liability in the amount of Five Hundred Thousand Dollars (\$500,000) for each person. This policy shall include an "all states" endorsement. CONTRACTOR will secure a Waiver of Subrogation endorsement in favor of both OWNER and ENGINEER. CONTRACTOR further agrees to maintain USL&H or other necessary Federal coverages, when applicable, to protect both CONTRACTOR and its employees.
- B. CONTRACTOR'S Comprehensive Commercial General Liability Insurance, covering all operations in connection with the performance of this Contract in amounts not less than the following, and shall name OWNER and ENGINEER and its employees as additional insureds:

1. Bodily injury liability in the amount of One Million Dollars (\$1,000,000) for each occurrence subject to that limit per accident a total (or aggregate) limit of Two Million Dollars (\$2,000,000), in the aggregate for all damages arising out of injury to or destruction of property during the policy period.
 2. The Comprehensive General Liability policies carried by both the prime and the subcontractors shall contain an endorsement to include the coverage of the following hazards;
 - a. Explosion, collapse, and underground property damage (XCU) to include any damage or destruction of property below the surface of the ground, such as wires, conduits, pipes, mains, sewers, etc. caused by the CONTRACTOR'S operations.
 - b. The collapse of or structural injury to buildings, structures or property on or adjacent to the OWNER'S premises caused by the CONTRACTOR'S operations in the removal of other buildings, structures, or supports, or by excavation below the surface of the ground.
 - c. Contractual Liability Coverage for the "Hold Harmless" segments of the Contract Documents.
- C. CONTRACTOR'S Contingent or Protective Liability and Property Damage:
1. In case part of this Contract is sublet, the CONTRACTOR shall secure contingent or protective liability and property damage insurance to protect him from claims arising from the operation of his subcontractors in the execution of work included in the Contract. In no case shall the amount of such protection be less than the limits of \$1,000,000 for each occurrence and \$2,000,000 in the aggregate. The coverage in each case shall be acceptable to the OWNER.
- D. Automotive Public Liability and Property Damage:
1. The CONTRACTOR shall maintain automobile public liability insurance in the amount of not less than a combined single limit of \$1,000,000 to protect him from any and all claims arising from the use of the following:
 - a. CONTRACTOR'S own automobiles and trucks.
 - b. Hired automobiles and trucks.
 - c. Automobiles and trucks owned by sub-contractors.

2. The aforementioned is to cover use of automobiles and trucks on and off the site of the project, and shall name OWNER and ENGINEER and its employees as additional insureds.

E. OWNER'S Protective Liability Policy (OCP):

1. The Contractor shall maintain OWNER'S Protective Liability Insurance with the OWNER as the named insured, and their servants, agents including the ENGINEER and employees as additional insureds in amount not less than the following:
 - a. Each occurrence in the amount of One Million Dollars (\$1,000,000) and Two Million Dollars (\$2,000,000) in the aggregate for all damages arising out of any injury or destruction of property.

F. Umbrella liability insurance with a limit of not less than One Million Dollars (1,000,000) providing additional coverage to the policies listed above.

G. Builder's Risk Insurance (Fire and Extended Coverage):

1. Until the Project is completed and is accepted by the OWNER the CONTRACTOR is required to maintain Builder's Risk Insurance (fire and extended coverage) adequate to fully cover the insurable portion of the project for the benefit of the OWNER, the prime CONTRACTOR and sub-contractors as their interests may appear.

- 1-06. Insurance policies shall remain in effect on portions of the work which have been completed and which may or may not be occupied or utilized by the OWNER prior to the completion and acceptance of the entire work included in the Contract.

SECTION J.5

SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

1-01 REQUIREMENTS INCLUDED

- A. Submit Shop Drawings, Product Data and Samples required by Contract Documents.
- B. Submit six (6) bound copies to ENGINEER for review unless otherwise specified.

1-02 SHOP DRAWINGS

- A. Drawings shall be presented in a clear and thorough manner.
- B. Identify details by reference to sheet and detail, schedule or item numbers shown on Contract Drawings.

1-03 PRODUCT DATA

- A. Preparation:
 - 1. Clearly mark each copy to identify pertinent products.
 - 2. Show performance characteristics and capacities.
 - 3. Show dimensions and clearances required.
 - 4. Show wiring or piping diagrams and controls as necessary.
- B. Manufacturer's standard schematic drawings and diagrams: 1) Modify drawings and diagrams to delete information which is not applicable to the work; 2) Supplement standard information to provide information specifically applicable to the work.

1-04 SAMPLES

- A. Office samples shall be adequate to clearly illustrate: 1) Functional characteristics of the product, with integrally related parts and attachment devices; 2) Full range of color, texture, pattern, operation, use, etc.

1-05 CONTRACTOR RESPONSIBILITIES

- A. Review Shop Drawings, Product Data and Samples prior to submission to ENGINEER.
- B. Determine and verify:
 - 1. Field measurements where necessary.

2. Field construction criteria from drawings or manufacturer's manuals.
 3. Catalog numbers and similar data from manufacturer.
 4. Conformance with specifications and detailed drawings.
- C. Coordinate each submittal with requirements of the Work and of the Contract Documents.
- D. Notify the ENGINEER in writing, at time of submission, of deviations in the submittals from requirements of the Contract Documents and provide an explanation for such deviation.
- E. Begin no fabrication of items or perform items of work which requires submittals until return of submittals indicating ENGINEER'S review.

1-06 SUBMISSION REQUIREMENTS

- A. Transmittal Letter and Submittals:
1. Use transmittal forms acceptable to the ENGINEER.
 2. One copy only, with each item completed, is required for each submittal.
 - a. Submittals tendered with incomplete "Transmittal Letters" will be returned for resubmission.
 3. Make submittals promptly and in such sequence as to cause no delay in the work or in the work of other CONTRACTORS, should one or more CONTRACTORS be involved on a project.
- B. Number of submittals required:
1. Shop Drawings: Submit the number of opaque reproductions which the Contract Documents require, but in no case less than six (6) copies. Three (3) copies of each will be retained by the ENGINEER for the project files. Three (3) copies will be stamped, indicating any additional requirements, and returned to the CONTRACTOR.
- C. Submittals shall contain:
1. The date of submission and the dates of any previous unapproved submissions.
 2. The project title and number.

3. The names of:
 - a. CONTRACTOR
 - b. Supplier
 - c. Manufacturer
4. Identification of the product or component, with reference to the applicable specification section number.
5. Field dimensions, clearly identified as such.
6. Relation to adjacent or critical features of the work or materials.
7. Applicable standards, such as ASTM, AWWA, AASHTO, or Federal Specification numbers, etc.
8. Identification of deviations from Contract Specifications.
9. Identification of revisions made on resubmittals.
10. CONTRACTOR'S stamp, initialed or signed, certifying as to review of submittal, verification of products, field measurements and field construction criteria and coordination of the information within the submittal, with requirements of the work and of Contract Documents.

1-07 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required and resubmit until approved.
- B. Shop Drawings and Product Data
 1. Revise initial drawings or data, and resubmit as specified for the initial submittal.
 2. Indicate changes which have been made other than those requested by the ENGINEER.
- C. Samples: Submit new samples as required for initial submittal.

1-08 ENGINEER'S DUTIES

- A. Review submittals with reasonable promptness and in accord with project schedule.
- B. Affix stamp and initials or signature, and indicate requirements for resubmittal, or review of submittal.
- C. Return submittals to CONTRACTOR for distribution or for resubmission.

END OF SECTION

J.5-3

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MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO NOTICE TO BIDDERS NO. 1

DATE: 06/08/2021

SUBJECT: Governing Specifications

Change the web address at the end of the first paragraph to the following.

<https://shop.mdot.ms.gov/default.aspx?StoreIndex=1>

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1

CODE: (IS)

DATE: 03/01/2017

SUBJECT: Governing Specifications

The current (2017) 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 within this proposal. Copies of the specification book may be purchased from the MDOT Construction Division, or online at shopmdot/default.aspx?StoreIndex=1.

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 2004 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 2017 Edition of the Standard Specifications.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904- NOTICE TO BIDDERS NO. 1A LPA

CODE: (SP)

DATE:

SUBJECT: Designated Owner and Engineer

PROJECT:

Any reference in the Contract Documents to the State of Mississippi, Mississippi Department of Transportation, Mississippi Transportation Commission, or any official thereof, it shall be interpreted to mean the (City Jackson, Missississippi), the "Owner".

Any reference in the Standard Specifications to the Project Engineer, District Engineer, Chief Engineer, or Engineer it shall be interpreted to mean the (Project Engineer for the City of Jackson, Mississippi, IMS Engineers, P.A.).

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 3

CODE: (SP)

DATE: 01/17/2017

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 as 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. 28

CODE: (SP)

DATE: 01/17/2017

SUBJECT: Fuel and Material Adjustments

Bidders are advised that **NO FUEL OR MATERIAL ADJUSTMENT**, as addressed in Subsection 109.07 of the Standard Specifications, will be allowed on this project.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 516

CODE: (IS)

DATE: 11/28/2017

SUBJECT: Errata and Modifications to the 2017 Standard Specifications

<u>Page</u>	<u>Subsection</u>	<u>Change</u>
16	102.06	In the seventh full paragraph, change “Engineer” to “Director.”
33	105.05.1	In the sixth sentence, change “Contract Administration Engineer” to “Contract Administration Director.”
34	105.05.2.1	In subparagraph 2, change “SWPPP, ECP” to “SWPPP and the ECP”
35	105.05.2.2	In subparagraphs 2, add “ and” to the end of the sentence. In subparagraph 3, remove “, and” and add “.”.
90	109.04.2	In the last paragraph of subparagraph (a), place a period “.” at the end of the sentence.
93	109.04.2	In the last paragraph of subparagraph (g), place a period “.” at the end of the sentence. Also, in the first paragraph of subparagraph (h), place a period “.” at the end of the sentence.
97	109.07	Under ADJUSTMENT CODE, subparagraph (A1), change “HMA mixture” to “Asphalt mixtures.”
98	109.11	In the third sentence, change “Engineer” to “Director.”
219	308.04	In the last sentence of the last paragraph, change “Contractor’s decision” to “Engineer’s decision.”
300	405.02.5.9	In the first sentence of the second paragraph, change “Hot Mix Asphalt” to “Asphalt Mixtures.”
502	630.01.1	In the first paragraph, change “ <u>AASHTO</u> ” to “ <u>AASHTO’s LRFD</u> ”.
636	646.05	Change “each” to “per each” for the pay item units of payment.
640	656.02.6.2	In item 7), change “down stream” to “downstream”.
688	630.03.2	Change the subsection number from “630.03.2” to “680.03.2.”

- | | | |
|-----|---------------|---|
| 725 | 702.08.3 | In the second sentence of the first paragraph, change “hot-mix” to “asphalt.” |
| 954 | 804.02.13.1.6 | In the definition for “M” in the % Reduction formulas, change “paragraph 7.3” to “paragraph 5.3.” |

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1546

CODE: (SP)

DATE: 05/23/2007

SUBJECT: Advancement of Materials

Bidders are advised that **NO ADVANCEMENT OF MATERIALS**, as addressed in Subsection 109.06.2 of the Standard Specifications, will be allowed on this project.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 2689 LPA

CODE: (SP)

DATE: 06/15/2017

SUBJECT: Asphalt Smoothness Requirement

Bidders are advised that Subsection 403.03.2.1—Smoothness Tolerances for Mean Roughness Index (MRI) is removed from this project. Any incentive or disincentive for asphalt smoothness associated with (MRI) is also hereby eliminated from this project.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 2766

CODE: (SP)

DATE: 08/05/2020

SUBJECT: Material Transfer Device

Bidders are advised that the use of a material transfer device as referenced in Subsection 401.03.9 of the Standard Specifications is not mandatory on this project(s). The Contractor may use a material transfer device if desired, but it is not required.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 – NOTICE TO BIDDERS NO. 7624

CODE: (SP)

DATE: 01/20/2026

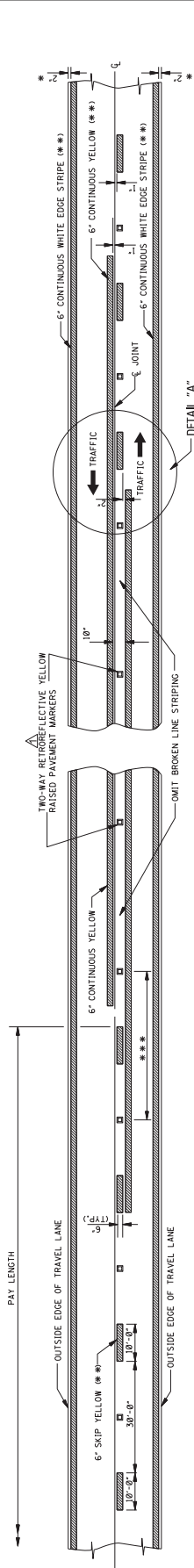
SUBJECT: Standard Drawings

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

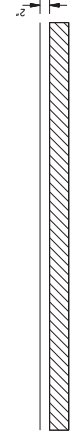
Larger copies of Standard Drawings may be purchased from:

MDOT Plans Print Shop
MDOT Shop Complex, Building C, Room 114
2567 North West Street
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)



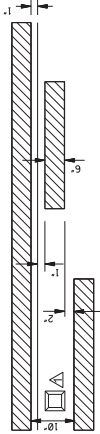
NOTE: THE CRITERIA FOR NO-PASSING ZONES CAN BE FOUND IN THE MDOT ROADWAY DESIGN MANUAL, SECTION 11-1.0B1.



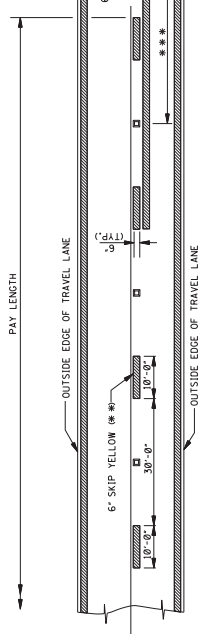
- GENERAL NOTES:
- * 1. UNLESS SHOWN ELSEWHERE ON THE PLANS, FOR CURVE DATA AND DIMENSIONS REFER TO WK. SHEETS RS-1, RS-2, AND RS-3.
 - ** 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE AND RAISED PLASTIC AS INDICATED IN PARTS ITEMS.
 - *** 3. 6'-0" WIDE RETROREFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:

TANGENT SECTIONS	URBAN AREA
HORIZONTAL CURVES	RURAL AREA
40'-0"	40'-0"
80'-0"	80'-0"
INTERCHANGE LIMITS	140'-0"

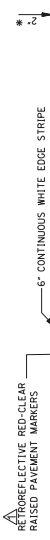
- * NOTE: ON THE MAIN FACILITY RETROREFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINES THROUGH ALL INTERCHANGE AREAS BEGINNING 100 FEET BEFORE THE INTERCHANGE AND ENDING AT THE END OF THE ENTRANCE RAMP TAPEL.
- ** 4. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RETROREFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED PRODUCTS LIST."



DETAIL "A"



4-LANE WITH ONE-WAY TRAFFIC



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

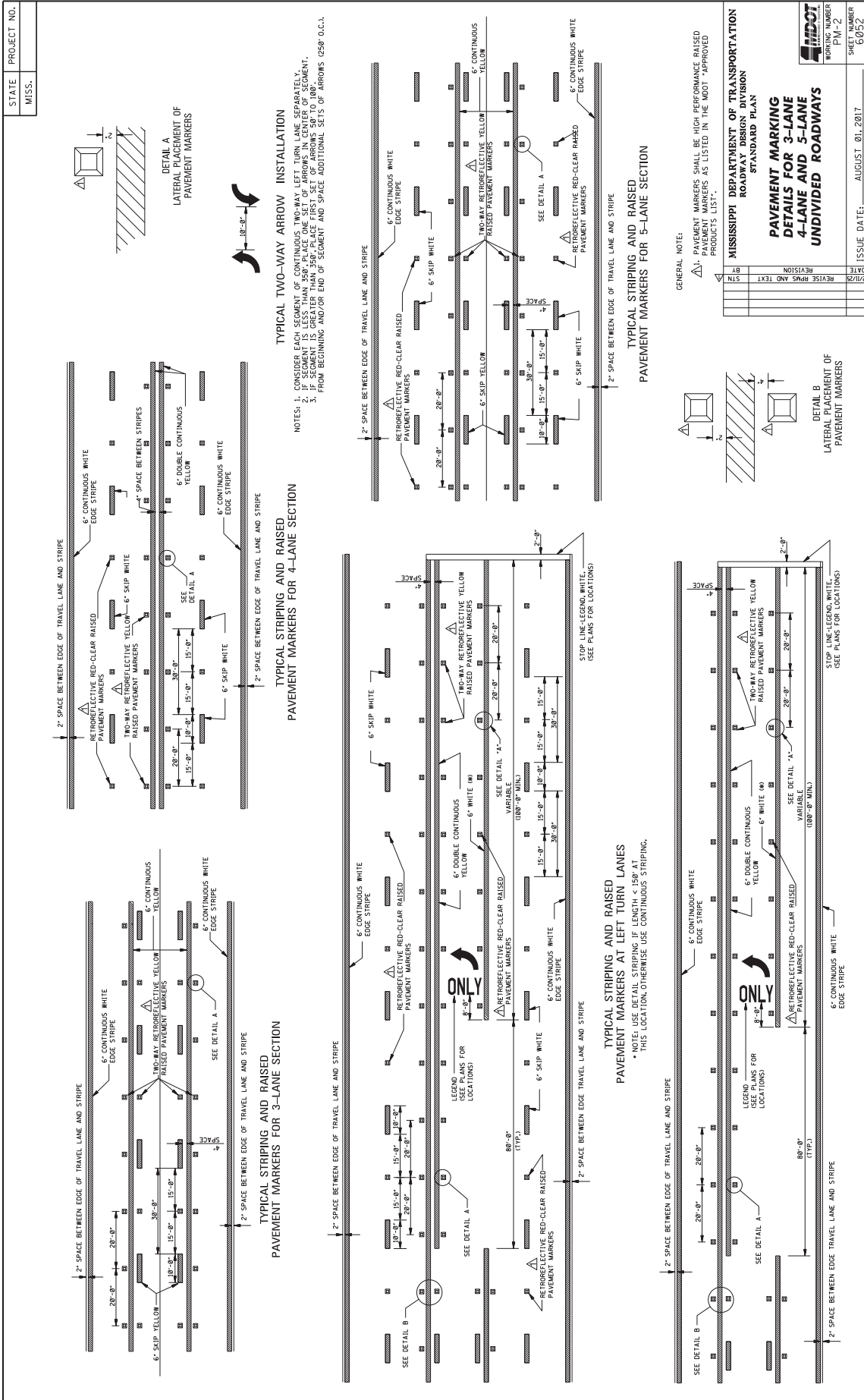
**PAVEMENT MARKING
DETAILS FOR
2-LANE AND 4-LANE
DIVIDED ROADWAYS**

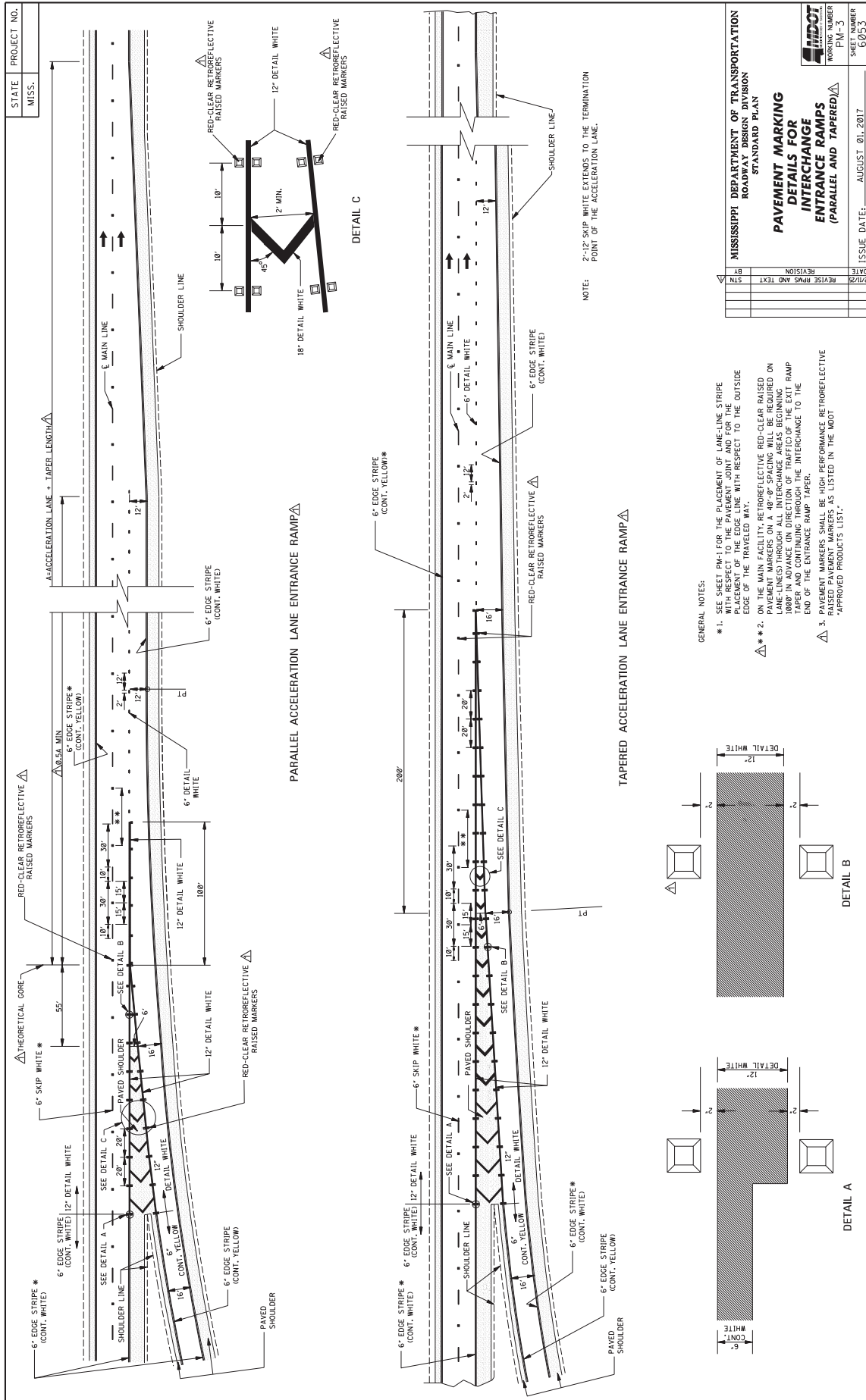
WORKING NUMBER
PM-1

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6031

DATE	BY	REVISION



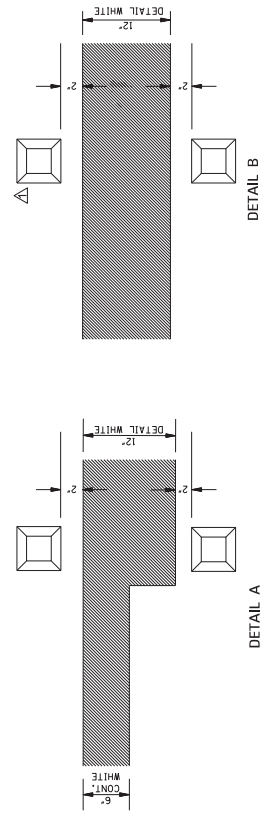


STATE	PROJECT NO.
MISS.	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
PAVEMENT MARKING DETAILS FOR INTERCHANGE RAMP (PARALLEL AND TAPERED)	
DATE	ISSUE DATE: AUGUST 01, 2017
BY	SHEET NUMBER PW-3
REVISION	WORKING NUMBER 0033
DATE	
BY	
REVISION	
DATE	
BY	
REVISION	

- GENERAL NOTES:
- # 1. SEE SHEET PW1 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, RETROREFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON 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 RETROREFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDT "APPROVED PRODUCTS LIST".

NOTE: 2'-0" SKIP WHITE EXTENDS TO THE TERMINATION POINT OF THE ACCELERATION LANE.



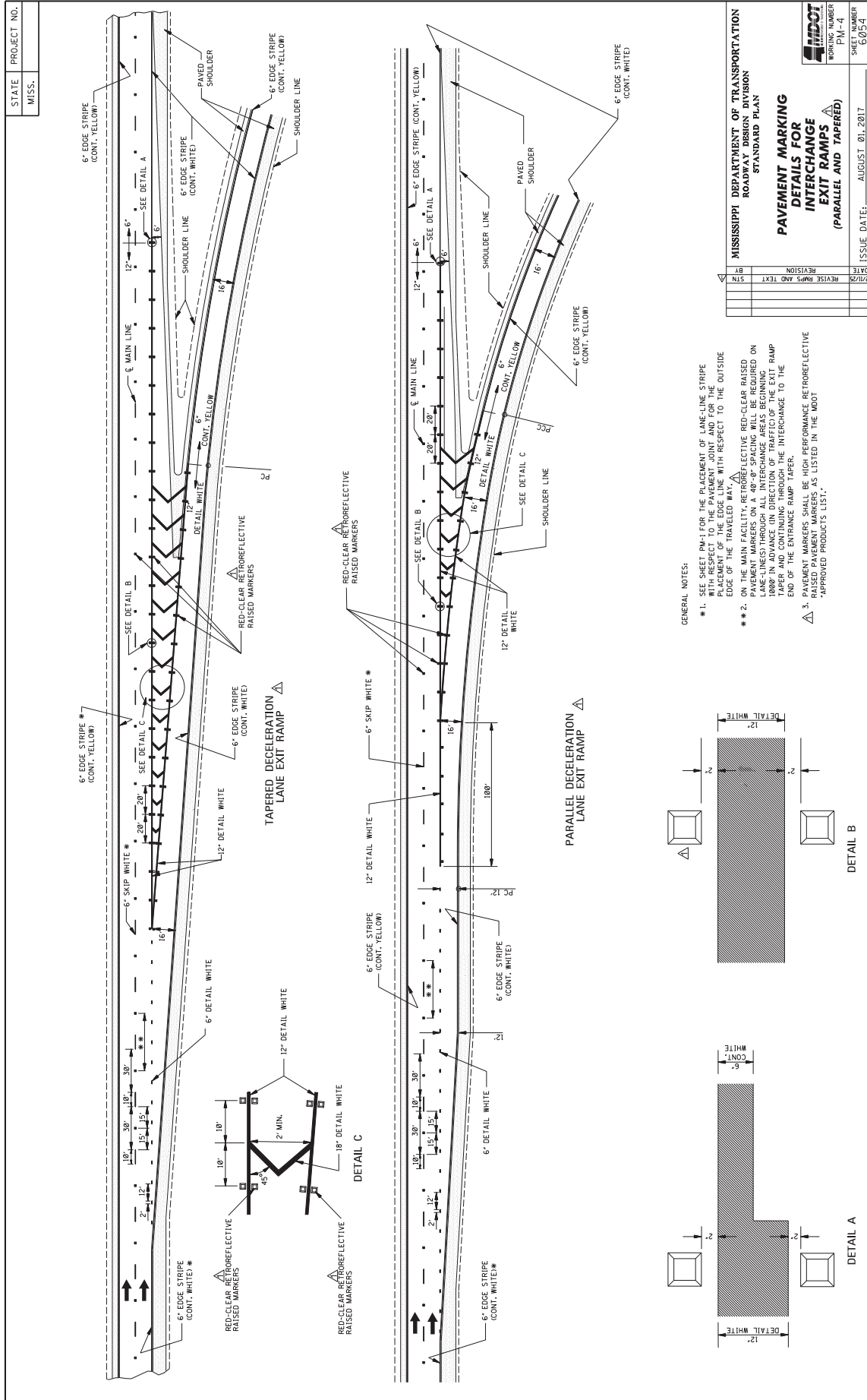
PARALLEL ACCELERATION LANE ENTRANCE RAMP

TAPERED ACCELERATION LANE ENTRANCE RAMP

DETAIL C

DETAIL A

DETAIL B



STATE PROJECT NO.		MISS.	
DATE		REVISE REVISION	
BY		STN	
DATE		REVISE REVISION	
BY		STN	

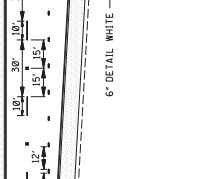
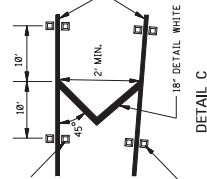
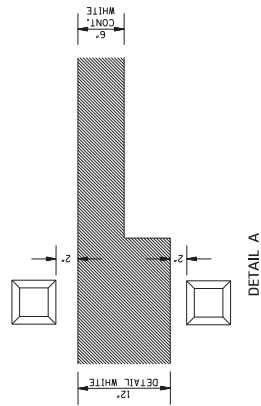
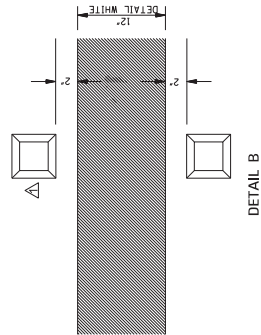
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

**PAVEMENT MARKING
DETAILS FOR
INTERCHANGE
EXIT RAMP
(PARALLEL AND TAPERED)**

ISSUE DATE: AUGUST 01, 2017
SHEET NUMBER: PM-4
WORKING NUMBER: G034

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 PAVED SHOULDER.
- ** 2. FOR THE TAPERED EXIT RAMP, RED-CLEAR RAISED PAVEMENT MARKERS ON K-40-90 SPACING WILL BE REQUIRED ON LANE LINES THROUGH ALL INTERCHANGE AREAS BEGINNING 100' 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. PAVED PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RETROREFLECTIVE *APPROVED PRODUCTS LIST*.



STATE MISS.	PROJECT NO.	
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The legend displays 14 pavement marking signs on a grid background. Each sign is accompanied by dimension lines indicating its width and height. The signs are: STOP (8'-4" x 6'-4"), RIGHT (8'-4" x 7'-8"), LEFT (8'-4" x 6'-4"), TRAVEL (8'-4" x 6'-4"), AHEAD (8'-4" x 8'-0"), SLOW (8'-4" x 9'-8"), SLOW (8'-4" x 9'-8"), AHEAD (8'-4" x 8'-0"), STOP (8'-4" x 6'-4"), RIGHT (8'-4" x 7'-8"), LEFT (8'-4" x 6'-4"), TRAVEL (8'-4" x 6'-4"), SIGNAL (8'-4" x 8'-8"), and SLOW (8'-4" x 9'-8").

GENERAL NOTES:

- TWO HORIZONTAL GAPS, CAUSED BY UNAVAILABLE LETTERS, SHALL BE PERMITTED IN EACH LETTER. UNLESS OTHERWISE NOTED IN THE TABLES, ALL LETTERS SHALL BE PERMITTED IN EACH LETTER.
- PAVEMENT MARKING LETTERS, NUMERALS, SYMBOLS, AND ARROWS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "STANDARD HIGHWAY SIGNS" PUBLICATION AS REFERENCED IN SECTION 100.01, LATEST EDITION OF THE MUTCD.
- WORD, SYMBOL, AND ARROW MARKINGS SHALL BE WHITE, UNLESS OTHERWISE NOTED IN THE TABLES.
- PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:

LEGEND	AREA (FT ²)
STOP	24.6
RIGHT	28.6
LEFT	19.5
TURN	27.3
AHEAD	32.3
YIELD	26.8
EXIT	18.5
SIGNAL	32.5
SCHOOL	35.5

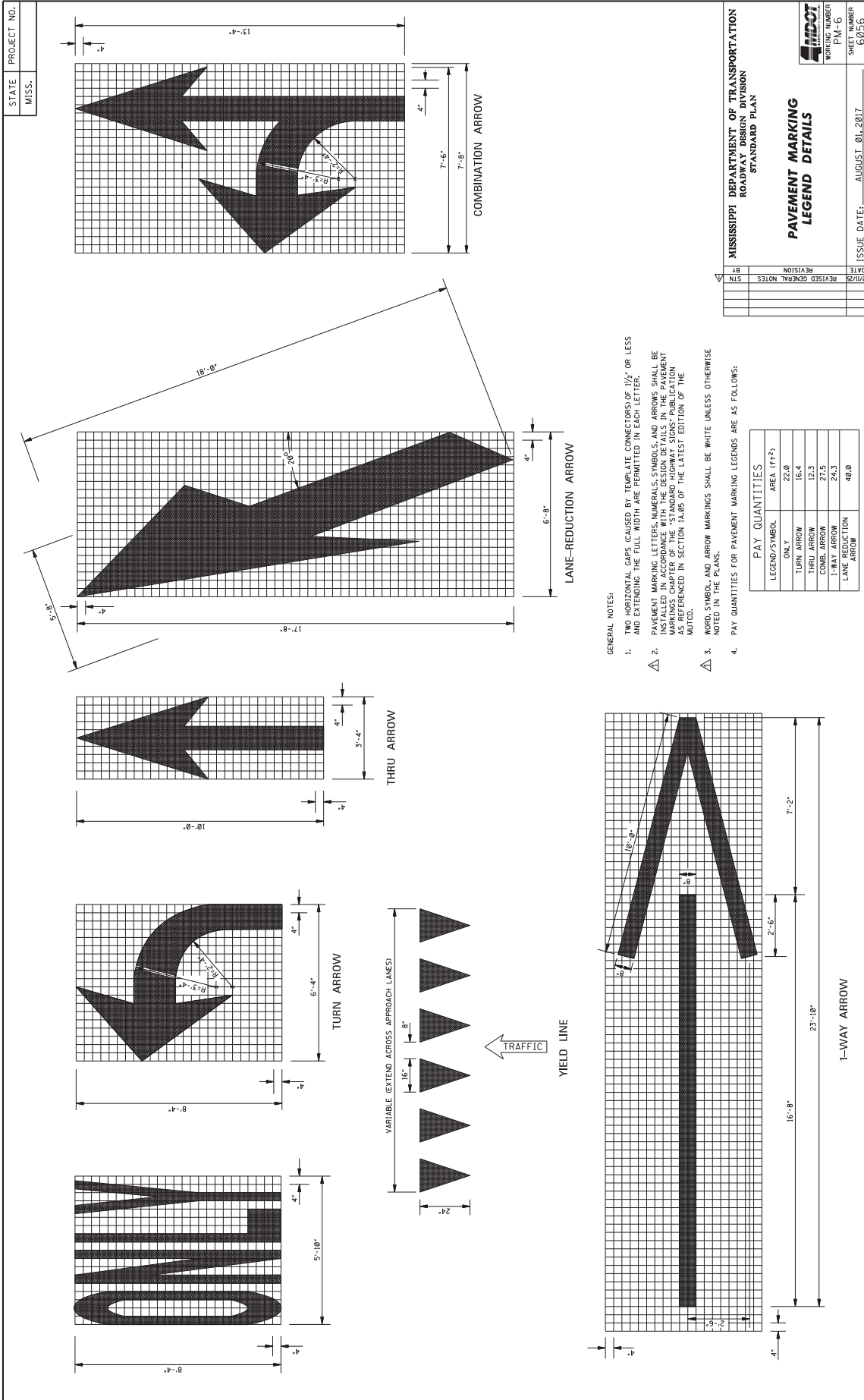
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

**PAVEMENT MARKING
LEGEND DETAILS**

ISSUE DATE: AUGUST 01, 2017

WORKING NUMBER: PM-5

SHEET NUMBER: 6035

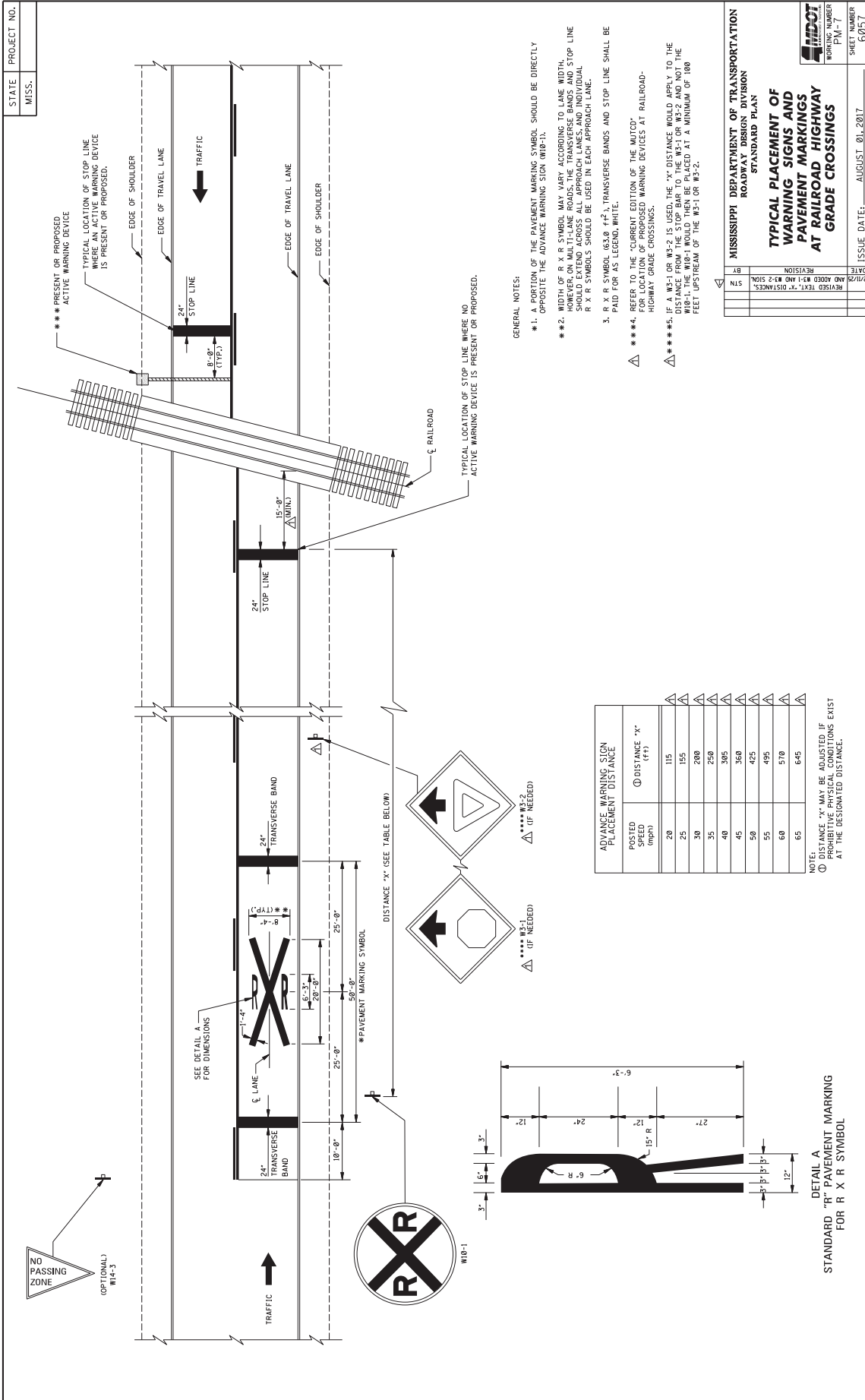


MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

**PAVEMENT MARKING
LEGEND DETAILS**

ISSUE DATE: AUGUST 01, 2017
SHEET NUMBER 6056

DATE	REVISION	GENERAL NOTES	BY	CHKD



STATE PROJECT NO.
MISS.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

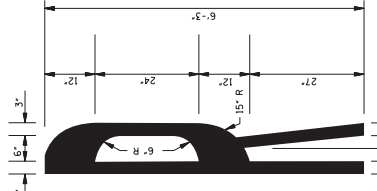
TYPICAL PLACEMENT OF WARNING SIGNS AND PAVEMENT MARKINGS AT RAILROAD HIGHWAY GRADE CROSSINGS

ISSUE DATE: AUGUST 01, 2017
SHEET NUMBER 60571

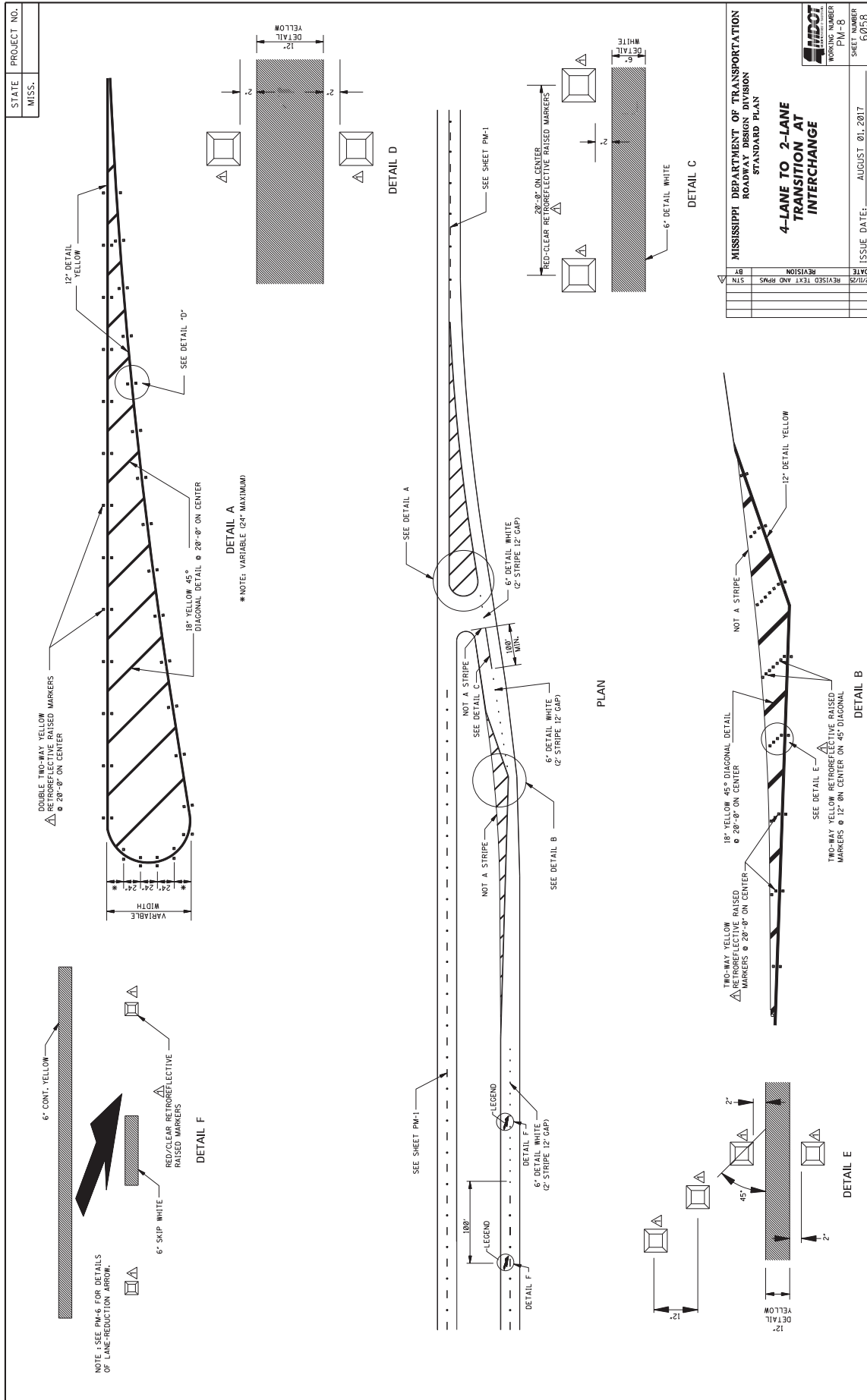
- GENERAL NOTES:
- ***1. A PORTION OF THE ADVANCE MARKING SYMBOL SHOULD BE DIRECTLY OPPOSITE THE ADVANCE MARKING SIGN (W10-1).
 - ***2. WIDTH OF R X R SYMBOL MAY VARY ACCORDING TO LANE WIDTH. TOP LINE SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.
 - 3. R X R SYMBOL (63.0 x 42), TRANSVERSE BANDS AND STOP LINE SHALL BE PAID FOR AS LEGEND WHITE.
 - ***4. REFER TO THE CURRENT EDITION OF THE MUTCD FOR LOCATION OF PROPOSED MARKING DEVICES AT RAILROAD-HIGHWAY GRADE CROSSINGS.
 - ***5. IF A W10-1 OR W10-2 IS USED, THE 'X' DISTANCE WOULD APPLY TO THE DISTANCE FROM THE STOP BAR TO THE W10-1 OR W10-2 AND NOT THE DISTANCE FROM THE STOP BAR TO THE W10-1. THE W10-1 WOULD THEN BE PLACED AT A MINIMUM OF 100 FEET UPSTREAM OF THE W10-1 OR W10-2.

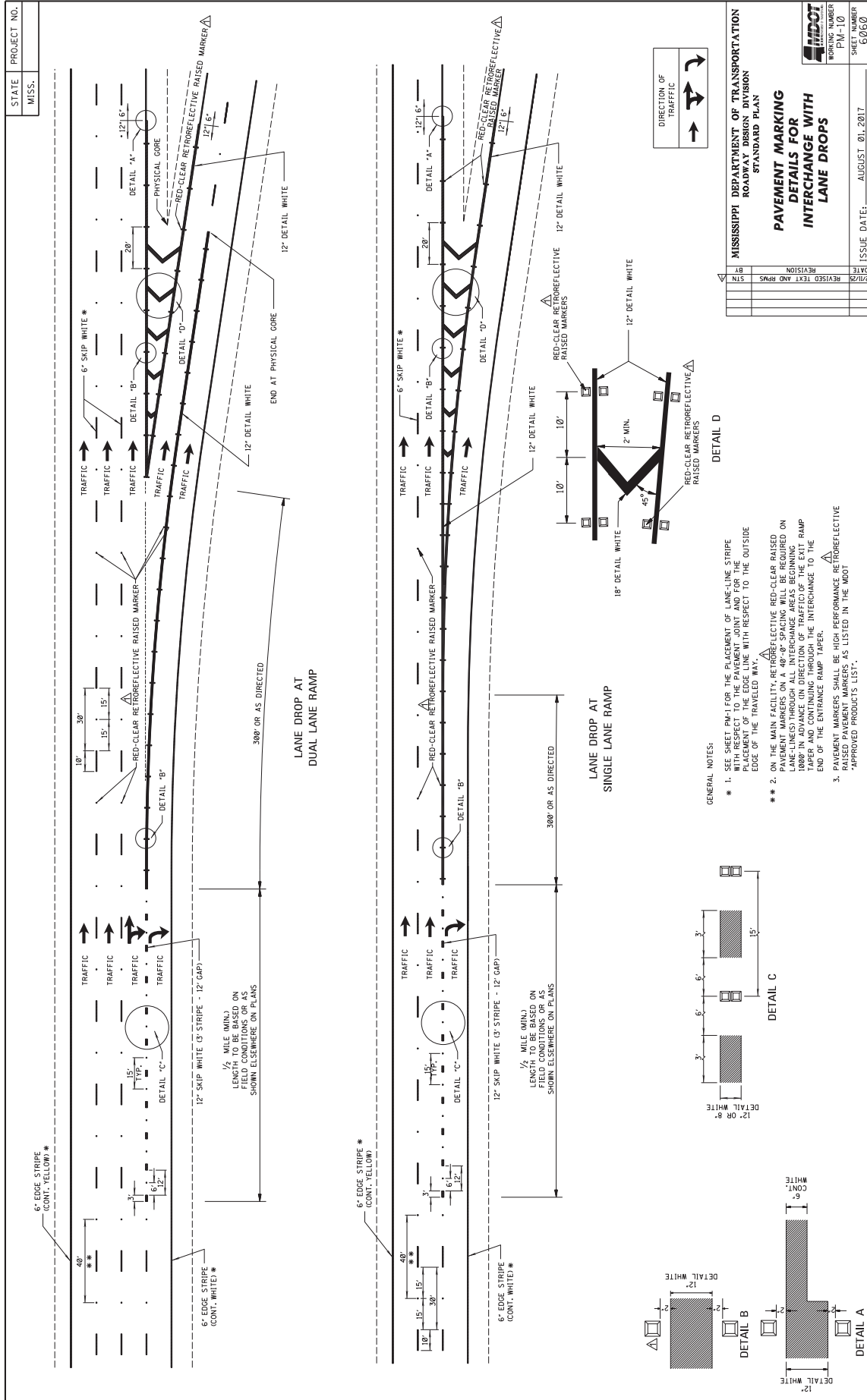
POSTED SPEED (mph)	DISTANCE 'X' (ft)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

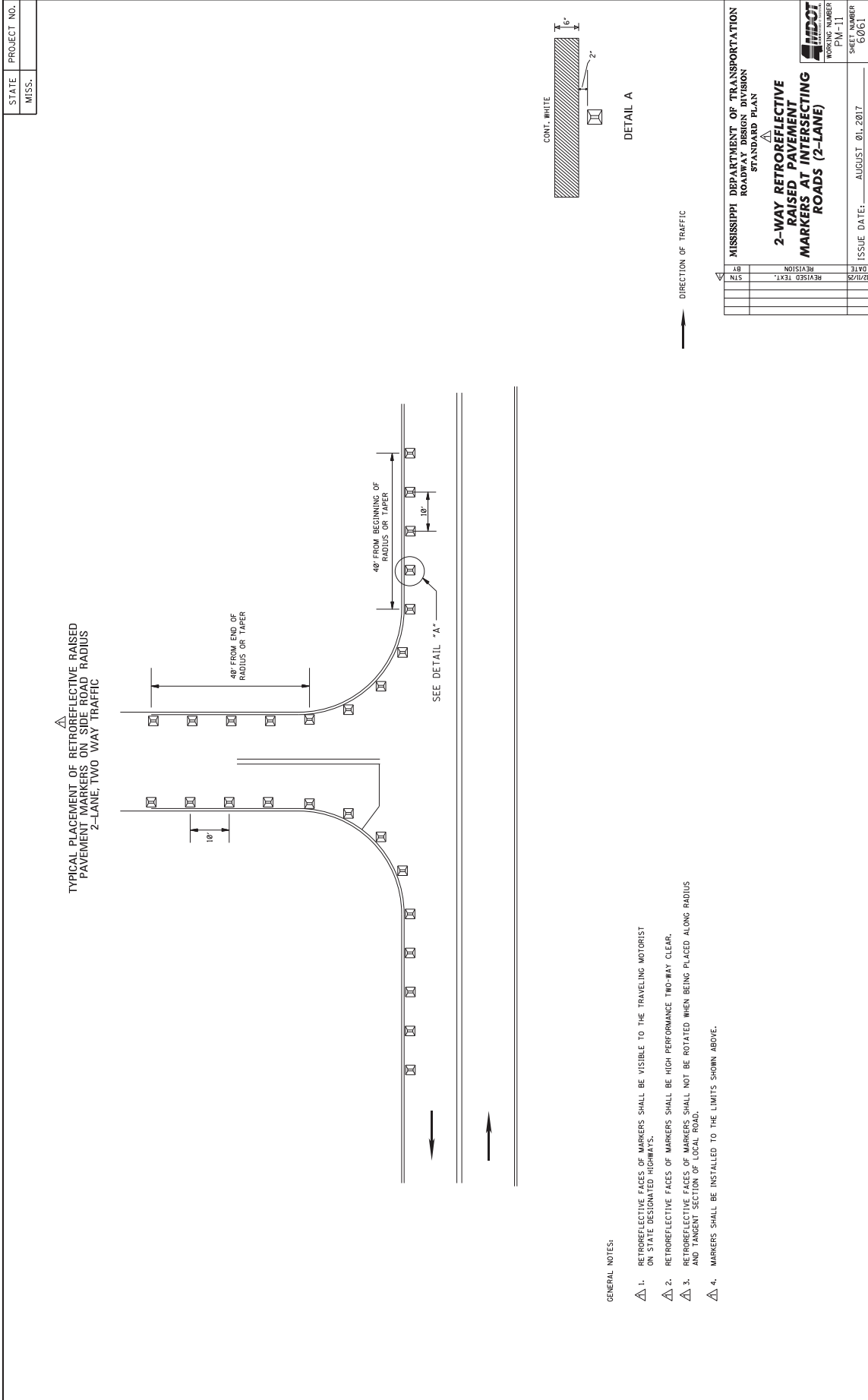
NOTE:
 ① DISTANCE 'X' MAY BE ADJUSTED IF PROHIBITIVE PHYSICAL CONDITIONS EXIST AT THE DESIGNATED DISTANCE.



DETAIL A
STANDARD "R" PAVEMENT MARKING FOR R X R SYMBOL





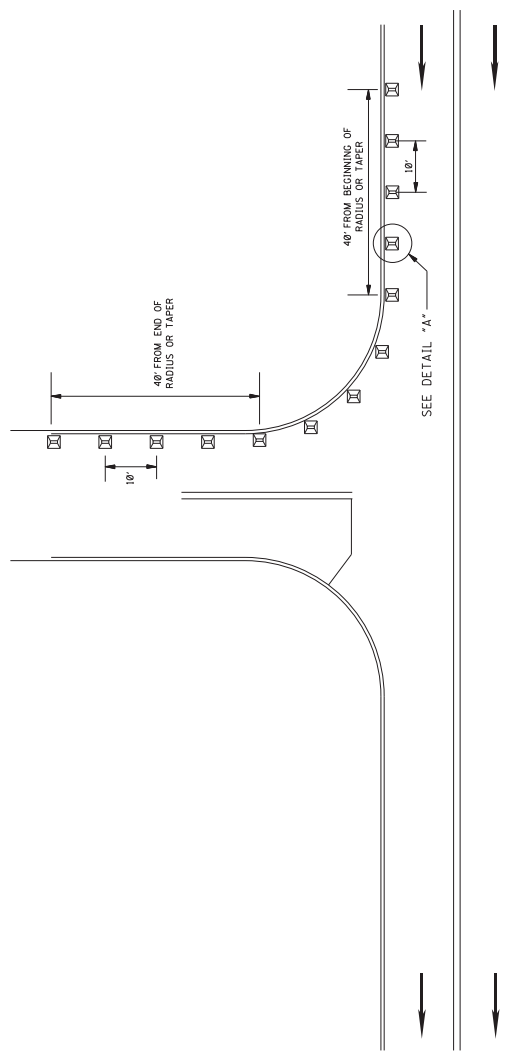


- GENERAL NOTES:
- △ 1. RETROREFLECTIVE FACES OF MARKERS SHALL BE VISIBLE TO THE TRAVELING MOTORIST ON STATE DESIGNATED HIGHWAYS.
 - △ 2. RETROREFLECTIVE FACES OF MARKERS SHALL BE HIGH PERFORMANCE TWO-WAY CLEAR.
 - △ 3. RETROREFLECTIVE FACES OF MARKERS SHALL NOT BE ROTATED WHEN BEING PLACED ALONG RADII AND TANGENT SECTION OF LOCAL ROAD.
 - △ 4. MARKERS SHALL BE INSTALLED TO THE LIMITS SHOWN ABOVE.

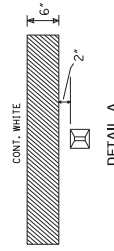
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
2-WAY RETROREFLECTIVE RAISED PAVEMENT MARKERS AT INTERSECTING ROADS (2-LANE)	
DATE	ISSUE DATE: AUGUST 01, 2017
BY	SHEET NUMBER PW-11
REVISION	WORKING NUMBER 6061
REVISED TEXT	
SYN	

STATE	PROJECT NO.
MISS.	

△
TYPICAL PLACEMENT OF RETROREFLECTIVE
RAISED PAVEMENT MARKERS
ON SIDE ROAD RADIUS
4-LANE, TWO WAY TRAFFIC



SEE DETAIL "A"



DETAIL A

△ GENERAL NOTES:

- △ 1. RETROREFLECTIVE FACES OF MARKERS SHALL BE VISIBLE TO THE TRAVELING MOTORIST ON STATE DESIGNATED HIGHWAYS.
- △ 2. RETROREFLECTIVE FACES OF MARKERS SHALL BE HIGH PERFORMANCE TWO-WAY CLEAR.

↑ DIRECTION OF TRAFFIC

DATE	REVISION	BY	STN.
	REVISED TEXT		

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

**2-WAY RETROREFLECTIVE
RAISED PAVEMENT MARKERS
AT INTERSECTING
ROADS (4-LANE)**

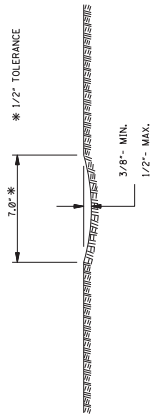
ISSUE DATE: AUGUST 01, 2017

WORKING NUMBER: PM-12
SHEET NUMBER: 6062

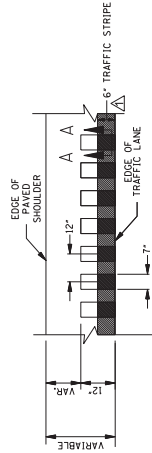
STATE	PROJECT NO.
MISS.	

GENERAL NOTES

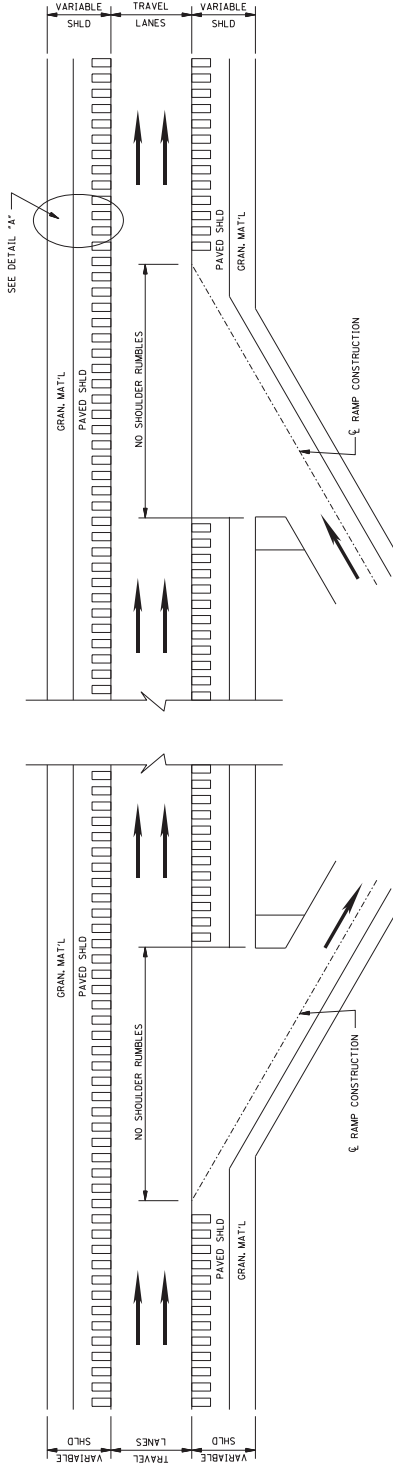
- GROUND-IN RUMBLE STRIPES SHALL BE APPLIED ON LEFT AND RIGHT SHOULDERS OF ALL PAVED SHOULDERS ON THIS PROJECT.
- GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO ALL PAVED SHOULDERS ON ROADWAYS OR OTHER INTERRUPTIONS IN NORMAL SHOULDER WIDTH AS DIRECTED BY THE ENGINEER.
- COST TO BE PAID FOR USING APPROPRIATE PAY ITEMS
- GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO:
 - MAINLINE
 - INTERSECTING ROADWAY IF OVERLAID OR RECONSTRUCTED BEYOND NORMAL MAINLINE R.O.M.
 - ANY ROADWAY WITH EXISTING RUMBLE STRIPES PRIOR TO CONSTRUCTION.



SECTION "A-A"

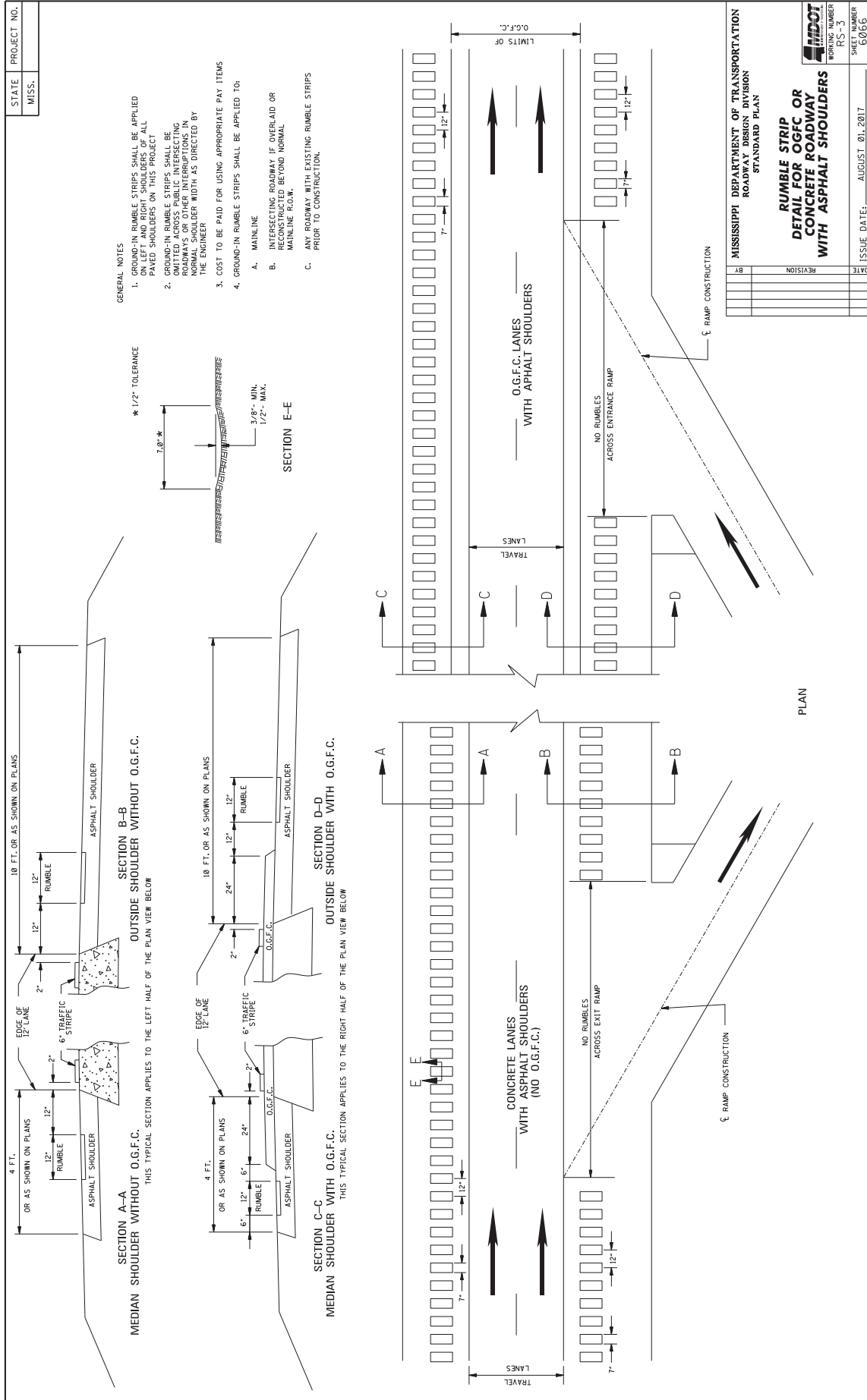


DETAIL "A"

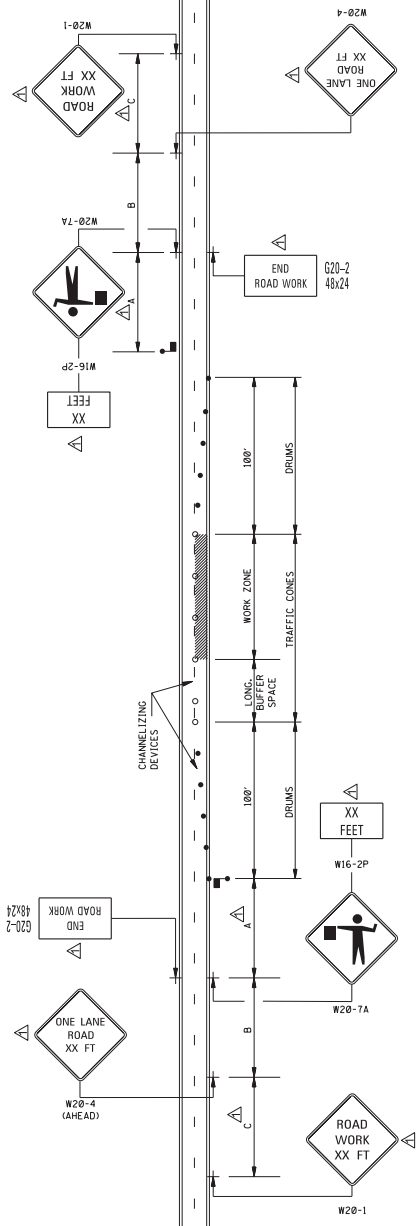


PLAN
NOT TO SCALE
DETAILS OF
RUMBLE STRIPS

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
RUMBLE STRIPES 4-LANE HIGHWAYS (ASPHALT LANES, 2-FT OR WIDER, ASPHALT SHOULDERS)	
WORKING NUMBER RS-2	SHEET NUMBER 0005
ISSUE DATE: AUGUST 01, 2017	
DATE	REVISION
	REVISED STRIPS DETAIL



STATE PROJECT NO.
MISS.



- LEGEND
- FLAGGER
 - RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
 - TRAFFIC CONES (28" HEIGHT MINIMUM)

ROAD TYPE	A	B	C
URBAN (35 MPH OR LESS)	100 FT.	100 FT.	100 FT.
URBAN (40 - 70 MPH)	350 FT.	350 FT.	350 FT.
RURAL	500 FT.	500 FT.	500 FT.
EXPRESSWAY / FREEWAY	1000 FT.	1500 FT.	2640 FT.

- GENERAL NOTES:
1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE. FLAGGER STATIONS SHALL BE LOCATED SUCH THAT THE FLAGGER WILL BE IN THE CENTER OF THE STOPPING DISTANCE. STOPPING DISTANCE VALUES IN STOPPING SIGHT DISTANCE COLUMN MAY BE USED AS A MINIMUM FOR THIS DISTANCE.
 2. ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 28" IN HEIGHT.
 3. DIAMOND SHARED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 36" x 36" AND BLACK COPY ON FLUORESCENT ORANGE SHEETING.
 4. WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED. ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.
 5. ADDITIONAL FLAGGERS MAY BE NEEDED AS DIRECTED BY THE ENGINEER.
 6. WHEN WORK IS REQUIRED AT NIGHT, FLAGGER STATIONS SHALL BE ILLUMINATED EXCEPT IN EMERGENCIES.
 7. CHANNELIZING DEVICE TYPES FOR:
 - A. APPROACH AND EXIT TAPERS- RETROREFLECTIVE PLASTIC DRUMS
 - B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT)
 8. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
 9. AN OPTIONAL FLAGGER (W20-7A) WORD MESSAGE IS SHOWN IN THE STANDARD HIGHWAY SIGNS PUBLICATION.

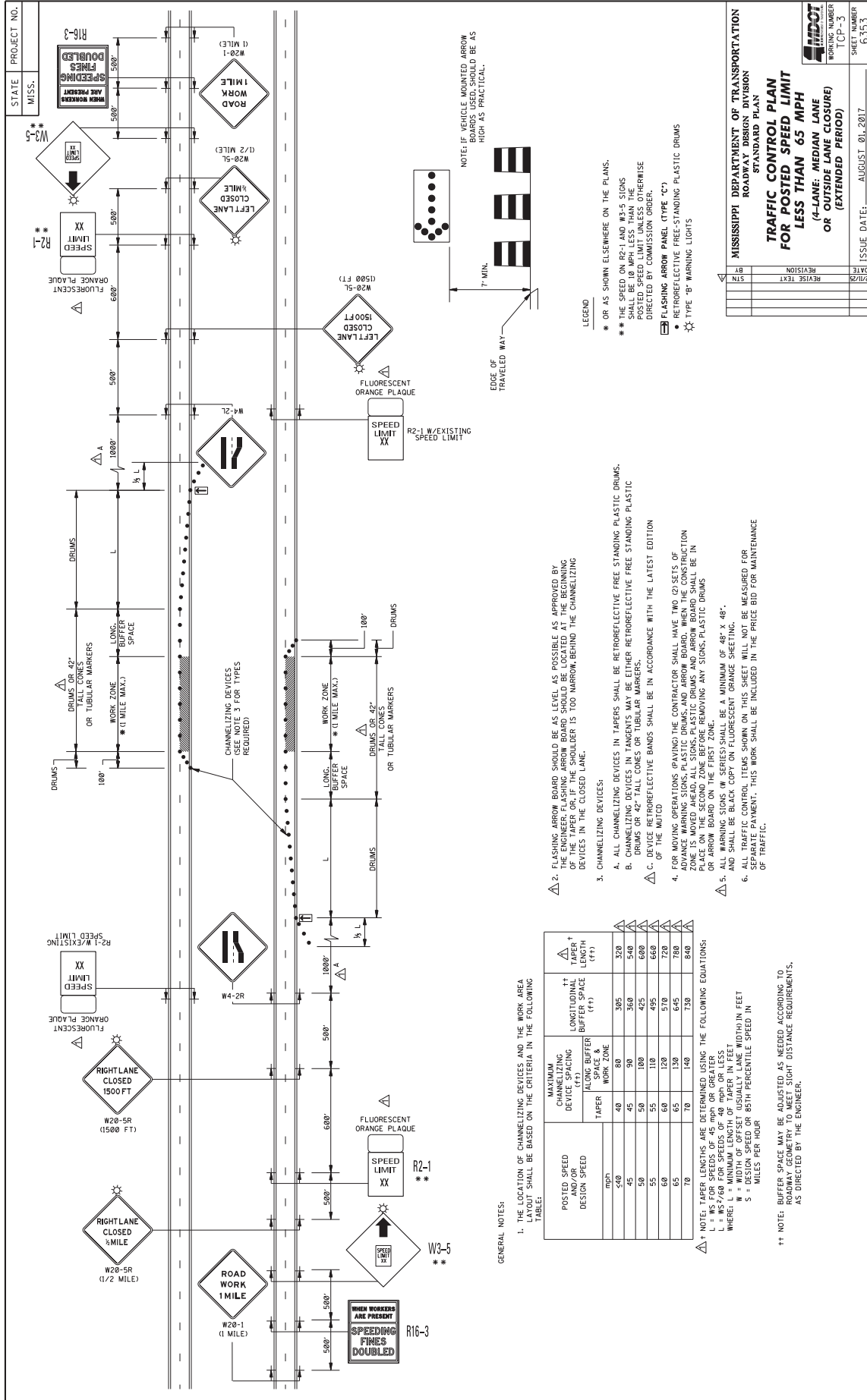
POSTED SPEED AND/OR DESIGN SPEED AND/OR ANTICIPATED OPERATING SPEED (mph)	MAXIMUM CHANNELIZING DEVICE SPACING (ft)	LONGITUDINAL BUFFER SPACE (ft)	STOPPING SIGHT DISTANCE
25	20	50	155
30	20	60	200
35	20	70	250
40	20	80	305
45	20	90	360
50	20	100	425
55	20	110	495
60	20	120	570
65	20	130	645

* NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL PLAN
WITH FLAGGER
(ONE-LANE CLOSURE OF TWO-WAY TRAFFIC)

ISSUE DATE: AUGUST 01, 2017
SHEET NUMBER: 6351
WORKING NUMBER: TCP-1



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 DEVICES SPACING (ft)		LONGITUDINAL BUFFER SPACE (ft)	TRANSVERSE BUFFER SPACE (ft)
	TAPER	WORK ZONE		
40	40	80	305	320
45	45	90	360	540
50	50	100	425	600
55	55	110	495	660
60	60	120	570	720
65	65	130	645	780
70	70	140	730	840

†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

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

2. FLASHING ARROW BOARD SHOULD BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW BOARD SHOULD BE LOCATED AT THE BEGINNING OF THE WORK AREA. THE BUFFER IS 100' WIDE BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
3. CHANNELIZING DEVICES:
 - A. ALL CHANNELIZING DEVICES IN TAPERS SHALL BE RETROREFLECTIVE FREE STANDING PLASTIC DRUMS.
 - B. CHANNELIZING DEVICES IN TANGENTS MAY BE EITHER RETROREFLECTIVE FREE STANDING PLASTIC DRUMS OR 42" TALL CONES OR TUBULAR MARKERS.
 - C. DEVICE RETROREFLECTIVE BANDS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD.
4. FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING DEVICES (RETROREFLECTIVE PLASTIC DRUMS, AND TUBULAR MARKERS) PLACED ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS/PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.
5. ALL WARNING SIGNS (W SERIES) SHALL BE A MINIMUM OF 48" X 48" AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
6. SEPARATE PAYMENT: THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

LEGEND

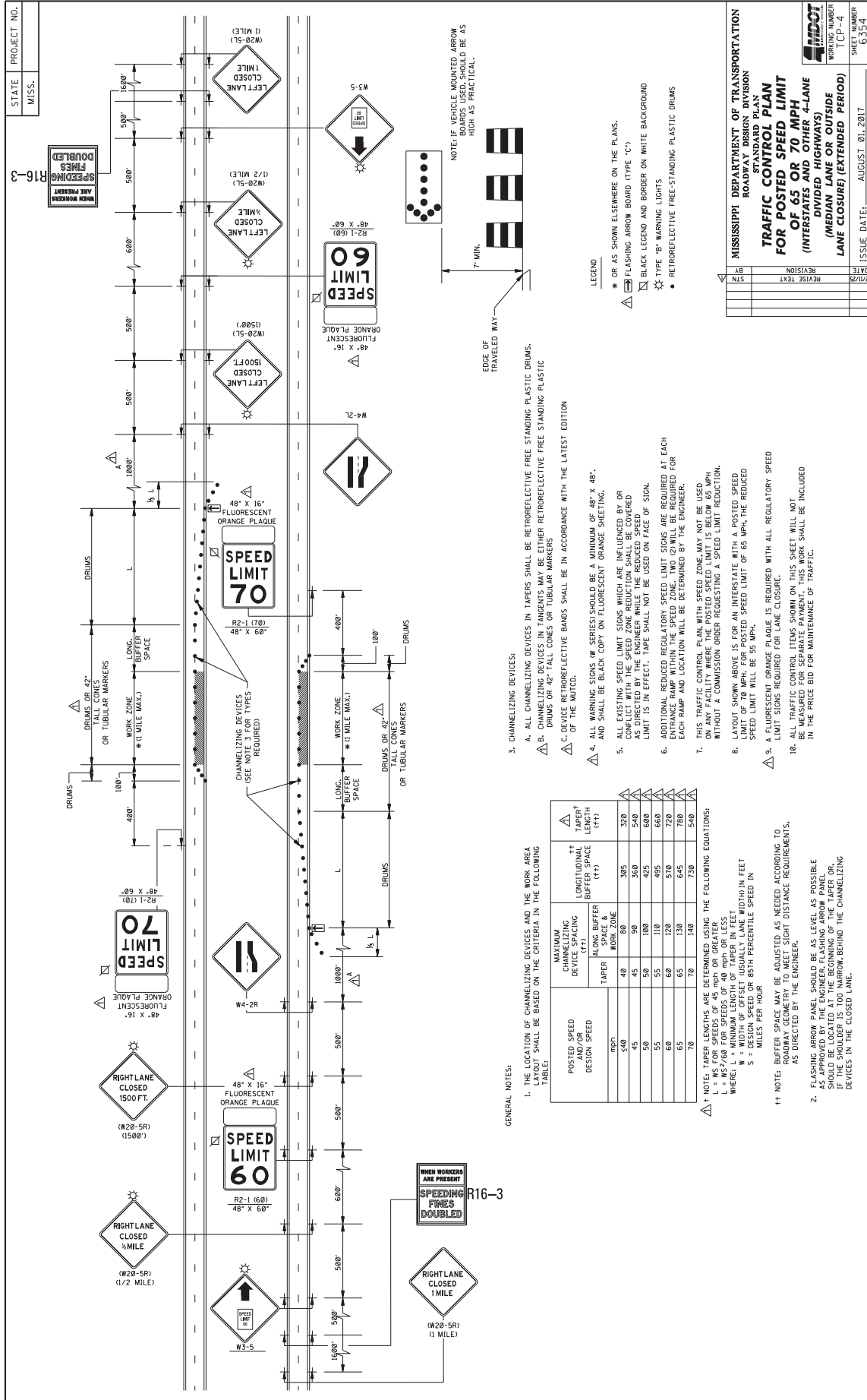
- * OR AS SHOWN ELSEWHERE ON THE PLANS.
- ** THE SPEED ON R2-1 AND R2-5 SIGNS SHALL BE 10 MPH LESS THAN THE POSTED SPEED LIMIT UNLESS OTHERWISE DIRECTED BY COMMISSION ORDER.
- ▢ FLASHING ARROW PANEL (TYPE 'C')
- RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
- ⊙ TYPE 'B' WARNING LIGHTS

STATE PROJECT NO. MISS.

TRAFFIC CONTROL PLAN FOR POSTED SPEED LIMIT LESS THAN 65 MPH (4-LANE, MEDIAN LANE OR OUTSIDE LANE CLOSURE) (EXTENDED PERIOD)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 STANDARD PLAN

ISSUE DATE: AUGUST 01, 2017
 SHEET NUMBER 6353



STATE PROJECT NO.
MISS.

WHEN WORKERS ARE PRESENT
SPEEDING FINES DOUBLED
R16-3

WHEN WORKERS ARE PRESENT
SPEEDING FINES DOUBLED
R16-3

RIGHT LANE CLOSED 1 MILE
(W20-5R) (1 MILE)

RIGHT LANE CLOSED 1/2 MILE
(W20-5R) (1/2 MILE)

RIGHT LANE CLOSED 1500 FT.
(W20-5R) (1500 FT.)

SPEED LIMIT 70
R2-1-70
48" X 16"
FLUORESCENT ORANGE PLAQUE

SPEED LIMIT 60
R2-1-60
48" X 60"

SPEED LIMIT 60
R2-1-60
48" X 16"
FLUORESCENT ORANGE PLAQUE

SPEED LIMIT 70
R2-1-70
48" X 16"
FLUORESCENT ORANGE PLAQUE

RIGHT LANE CLOSED 1 MILE
(W20-5L) (1 MILE)

RIGHT LANE CLOSED 1/2 MILE
(W20-5L) (1/2 MILE)

RIGHT LANE CLOSED 1500 FT.
(W20-5L) (1500 FT.)

WHEN WORKERS ARE PRESENT
SPEEDING FINES DOUBLED
R16-3

STATE PROJECT NO.
MISS.

GENERAL NOTES:

- THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA TAPER SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:

POSTED SPEED AND/OR DESIGN SPEED mph	MAXIMUM CHANNELIZING DEVICE SPACING		LONGITUDINAL BUFFER SPACE (FT)	TAPER LENGTH (FT)
	ALONG BUFFER SPACE & WORK ZONE	TAPER		
40	40	80	305	320
45	45	90	350	340
50	50	100	400	360
55	55	110	450	380
60	60	120	520	420
65	65	130	645	510
70	70	140	730	540

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

††† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

- FLASHING ARROW PANEL SHOULD BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR AT THE END OF THE TAPER, DEPENDING ON THE CHANNELIZING DEVICES IN THE CLOSED LANE.

- CHANNELIZING DEVICES:
 - ALL CHANNELIZING DEVICES IN TAPERS SHALL BE RETROREFLECTIVE FREE STANDING PLASTIC DRUMS.
 - CHANNELIZING DEVICES IN TANGENTS MAY BE EITHER RETROREFLECTIVE FREE STANDING PLASTIC DRUMS OR 42" TALL CONES OR TUBULAR MARKERS
 - DEVICE RETROREFLECTIVE BANDS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD.
- ALL WARNING STONES (W SERIES) SHOULD BE A MINIMUM OF 48" X 48". AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
- 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 FACE OF SIGN.
- ADDITIONAL REDUCED REGULATORY SPEED LIMIT SIGNS ARE REQUIRED AT EACH ENTRANCE RAMP WITHIN THE SPEED ZONE. TWO (2) WILL BE REQUIRED FOR EACH RAMP AND LOCATION WILL BE DETERMINED BY THE ENGINEER.
- THIS TRAFFIC CONTROL PLAN WITH SPEED ZONE MAY NOT BE USED ON ANY FACILITY WHERE THE POSTED SPEED LIMIT IS BELOW 65 MPH WITHOUT THE APPROVAL OF THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION. WITHOUT A COMMISSION ORDER REQUESTING A SPEED LIMIT REDUCTION.
- LAYOUT SHOWN ABOVE IS FOR AN INTERSTATE WITH A POSTED SPEED LIMIT OF 70 MPH. IF THE POSTED SPEED LIMIT IS 65 MPH, THE REDUCED SPEED LIMIT WILL BE 55 MPH.
- A FLUORESCENT ORANGE PLaque IS REQUIRED WITH ALL REGULATORY SPEED LIMIT SIGNS REQUIRED FOR LANE CLOSURE.
- ALL TRAFFIC CONTROL TAPER SIGNS ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

NOTE: IF VEHICLE MOUNTED ARROW BOARD IS USED, IT SHOULD BE AS HIGH AS PRACTICAL.

EDGE OF TRAVELED WAY

7" MIN.

LEGEND

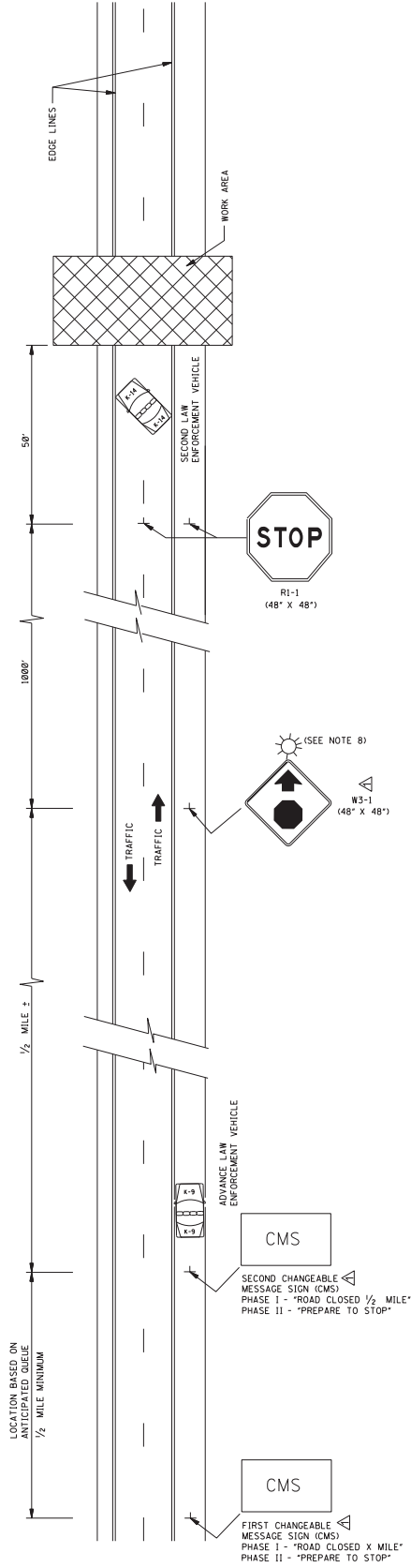
- * OR AS SHOWN ELSEWHERE ON THE PLANS.
- FLASHING ARROW BOARD (TYPE "C")
- BLACK LEGEND AND BORDER ON WHITE BACKGROUND
- TYPE "B" WARNING LIGHTS
- RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 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)

DATE: _____
 REVISION: _____
 SHEET NUMBER: 6254

ISSUE DATE: AUGUST 01, 2017

STATE	PROJECT NO.
MISS.	



GENERAL NOTES:

1. THIS TYPE OF HIGHWAY CLOSURE SHOULD BE USED ONLY WHEN THE DURATION OF CLOSURE WILL NOT EXCEED 30 MINUTES. AFTER THE HIGHWAY CLOSURE, THE CONTRACTOR SHALL MAINTAIN THIS PROCEDURE A MINIMUM PERIOD OF 30 MINUTES SHOULD ELAPSE BEFORE ANOTHER CLOSURE OF THE HIGHWAY IS PERMITTED WITH THE APPROVAL OF THE ENGINEER.
2. AT LEAST TWO LAW ENFORCEMENT OFFICERS AND ONE ADVANCE LAW ENFORCEMENT VEHICLE SHOULD BE PROVIDED ON EACH APPROACH TO THE CLOSURE. EACH LAW ENFORCEMENT VEHICLE SHOULD HAVE A PROTRUDING OPERATING FLASHING BLUE LIGHT ON LIGHT BAR.
3. RESTRICTIONS ON ROAD CLOSURES ARE SPECIFIED IN THE CONTRACT DOCUMENT.
4. THE ADVANCE LAW ENFORCEMENT VEHICLE SHOULD BE EQUIPPED WITH A SIGN AS SHOWN BY THE QUEUING OF STOPPED VEHICLES.
5. IF QUEUE EXCEEDS THE FIRST CHANGEABLE MESSAGE SIGN (CMS) AT ANY TIME DURING A CLOSURE, THE TRAFFIC CONTROL PLAN SHOULD BE ADJUSTED AS NECESSARY, WITH APPROVAL OF THE ENGINEER.
6. TRAFFIC CONTROL FOR THE CLOSURE SHOULD BE ACCOMPLISHED IN THE FOLLOWING ORDER:
 - A. FIRST CHANGEABLE MESSAGE SIGN (CMS)
 - B. SECOND CHANGEABLE MESSAGE SIGN (CMS)
 - C. ADVANCE LAW ENFORCEMENT VEHICLE, LIGHTS AND FLASHERS ON
 - D. "W3-1 (48" X 48") (ORANGE/BLACK TYPE XI RETROREFLECTIVE SHEETING) SIGNS ERECTED.
 - E. "R1-1 (48" X 48") SIGNS ERECTED OR INSTALLED ON TEMPORARY STANDS TO STOP TRAFFIC. THE ORDER OF ERECTION SHOULD BE IN THE FOLLOWING ORDER: RIGHT SHOULDER THEN CENTER, AND FLASHERS ON.
 - F. SECOND LAW ENFORCEMENT VEHICLE, LIGHTS AND FLASHERS ON.
7. TRAFFIC CONTROL SHOULD BE REMOVED IN THE FOLLOWING ORDER:
 - A. WITH TRAFFIC STOPPED REMOVE THE "R1-1 (48" X 48") SIGNS TOWARD THE RIGHT SHOULDER THEN SIGN ON THE RIGHT SHOULDER. SECOND LAW ENFORCEMENT VEHICLE LEADS TRAFFIC THROUGH WORK AREA.
 - B. AFTER ALL STOPPED VEHICLES HAVE STARTED MOVING, THE "W3-1 (48" X 48") SIGNS SHALL BE REMOVED. THESE SIGNS SHALL BE COVERED IF RE-USE IS IMMINENT.
8. AFTER ALL VEHICLES HAVE RESUMED APPROXIMATELY NORMAL SPEED, THE CHANGEABLE MESSAGE SIGNS SHALL BE TURNED OFF.

8. UNILLUMINATED SECTIONS OF HIGHWAYS SHOULD NOT BE CLOSED DURING HOURS OF DARKNESS EXCEPT FOR EMERGENCY REPAIRS. THE CONTRACTOR SHALL ADVISE THE ENGINEER, BEFORE THE WORK BEGINS, OF THE DURATION OF CLOSURE. HOURS OF DARKNESS, A TYPE B HIGH INTENSITY FLASHING BARRICADE WARNING LIGHT SHALL BE USED ON EACH W5-1 SIGN.
9. IF AN ENTRANCE RAMP IS LOCATED BETWEEN THE CLOSURE AND THE RAMP SHOULDER, AND W5-1 SIGNS SHALL ALSO BE ERECTED ON THE RAMP SHOULDER.
10. THE ABOVE DURATION WILL APPLY TO EACH APPROACH TO THE CLOSURE.
11. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE CONTRACT, INCLUDING SECURING AND MAINTAINING LAW ENFORCEMENT SERVICES.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
SHORT DURATION CLOSING OF TWO-LANE TWO-WAY HIGHWAYS	
DATE	ISSUE DATE: AUGUST 01, 2017
REVISION	SHEET NUMBER TCP-6
REVISED TEXT	WORKING NUMBER 6356
BY	
BY	

STATE	PROJECT NO.
MISS.	

BARRICADE CLOSING A ROAD

WING BARRICADES

1. WING BARRICADES ARE TYPE III BARRICADES ERECTED ON THE SHOULDER ON ONE OR BOTH SIDES OF THE PAVEMENT TO GIVE THE OPERATOR ADVANCE WARNING OF A ROAD CLOSURE. THE BARRICADES SHOULD BE USED AS A WARNING FOR THE ADVANCE WARNING SIGNS OR FLASHERS.

2. WING BARRICADES SHOULD BE USED:

- IN ADVANCE OF A CONSTRUCTION PROJECT EVEN WHEN NO PART OF THE ROADWAY IS ACTUALLY CLOSED.
- IN ADVANCE OF ALL BRIDGE OR CULVERT REPAIRING OPERATIONS.

BARRICADE CHARACTERISTICS

	I	II	III
BWIDTH OF RAIL **	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.
LENGTH OF RAIL **	24" MIN. / 96" MAX.	24" MIN. / 96" MAX.	48" MIN. / 96" MAX.
BWIDTH OF STRIPE #	6"	6"	6"
HEIGHT	36" MIN.	36" MIN.	60" MIN.
NUMBER OF SELF-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

STANDARD BARRICADES

1. THE RETROREFLECTIVE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION THAT TRAFFIC IS TO PASS).

2. RAIL STRIPE SHOULD BE 6 INCHES, EXCEPT THAT 4-INCH WIDE STRIPES MAY BE USED IF RAIL LENGTHS ARE LESS THAN 36 INCHES.

3. DO NOT PLACE SANDBAGS OR OTHER DEVICES ON BARRICADE RAILS TO PROVIDE MASS SANDBAGS; HOWEVER, THEY MAY BE PLACED AS BALLAST TO THE LOWER PARTS OF THE FRAME.

4. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.

5. BARRICADES FOR CATEGORY II AS LISTED IN MUTCD, LATEST EDITION, SHALL BE USED FOR CATEGORY II WORK ZONE DEVICES.

6. A LIST OF CRASHWORTHY BARRICADES AND OTHER CATEGORY II DEVICES CAN BE FOUND ON FHWA'S WEBSITE: <http://highways.dot.gov/safety/rnd/reduce-crash-severity>

7. WHERE ROAD USERS INCLUDE PEDESTRIANS, THE PROVISION OF SUPPLEMENTAL AUDIBLE INFORMATION OR DETECTABLE BARRIERS OR BARRICADES SHOULD BE PROVIDED FOR PEOPLE WITH VISION DISABILITIES.

8. BARRICADE RAIL SUPPORTS SHOULD NOT PROJECT INTO PEDESTRIAN CIRCULATION ROUTES MORE THAN 4 INCHES FOR THE SUPPORTS LOCATED BETWEEN 27 INCHES TO 80 INCHES ABOVE THE EXISTING SURFACE.

RETROREFLECTIVE CHEVRON ALIGNMENT SIGN DETAIL (WT-8)

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 CRASHWORTHY SUPPORT.

3. CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHOULD BE PLACED APPROXIMATELY 2'-0" BEHIND THE LANE TRANSITION STRIPE.

4. CHEVRON SIGNS SHALL BE INSTALLED AT A MINIMUM HEIGHT OF 4 FEET MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE ELEVATION OF THE NEAR EDGE OF THE TRAVELWAY.

TYPE 3 OBJECT MARKER (OM3-R)

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 OM3-R IS SHOWN. THE OM3-L IS SIMILAR EXCEPT THE STRIPES ARE PLACED ON THE UPPER RIGHT SIDE AND SHALL BE PLACED ON THE LEFT SIDE OF THE OBJECT.

3. THE INNER EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.

4. THE STRIPING SHALL CONSIST OF ALTERNATING BLACK AND RETROREFLECTIVE YELLOW SLOPING DOWNWARD TOWARD THE SIDE ON WHICH TRAFFIC IS THE PASS.

PLASTIC DRUM DETAIL

1. PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHALL BE ON END AND USED AS AN EXPEDITIOUS METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF THE DEVICE SHALL BE AS SHOWN ON THE DETAILS. THE COLOR OF THE MARKING SHALL BE RETROREFLECTIVE. THE COLOR ON THE DEVICE USED SHALL BE ORANGE WITH RETROREFLECTIVE, HORIZONTAL, CIRCUMFERENTIAL WHITE STRIPES AS SHOWN ON THE DETAILS.

2. DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.

3. WHERE PRACTICAL, PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

4. BALLAST SHALL NOT BE PLACED ON THE TOP OF THE DRUM.

PLASTIC CONE DETAIL (28" - 36")

1. PLASTIC CONES SHALL BE ON END AND USED AS AN EXPEDITIOUS METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF THE DEVICE SHALL BE AS SHOWN ON THE DETAILS. THE COLOR OF THE MARKING SHALL BE RETROREFLECTIVE. THE COLOR ON THE DEVICE USED SHALL BE ORANGE WITH RETROREFLECTIVE, HORIZONTAL, CIRCUMFERENTIAL WHITE STRIPES AS SHOWN ON THE DETAILS.

2. DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.

3. WHERE PRACTICAL, PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

4. BALLAST SHALL NOT BE PLACED ON THE TOP OF THE DRUM.

PLASTIC DRUM DETAIL

1. PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHALL BE ON END AND USED AS AN EXPEDITIOUS METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF THE DEVICE SHALL BE AS SHOWN ON THE DETAILS. THE COLOR OF THE MARKING SHALL BE RETROREFLECTIVE. THE COLOR ON THE DEVICE USED SHALL BE ORANGE WITH RETROREFLECTIVE, HORIZONTAL, CIRCUMFERENTIAL WHITE STRIPES AS SHOWN ON THE DETAILS.

2. DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.

3. WHERE PRACTICAL, PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

4. BALLAST SHALL NOT BE PLACED ON THE TOP OF THE DRUM.

PLASTIC CONE DETAIL (36" OR GREATER)

1. PLASTIC CONES SHALL BE ON END AND USED AS AN EXPEDITIOUS METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF THE DEVICE SHALL BE AS SHOWN ON THE DETAILS. THE COLOR OF THE MARKING SHALL BE RETROREFLECTIVE. THE COLOR ON THE DEVICE USED SHALL BE ORANGE WITH RETROREFLECTIVE, HORIZONTAL, CIRCUMFERENTIAL WHITE STRIPES AS SHOWN ON THE DETAILS.

2. DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.

3. WHERE PRACTICAL, PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

4. BALLAST SHALL NOT BE PLACED ON THE TOP OF THE DRUM.

TUBULAR MARKER DETAIL

1. PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHALL BE ON END AND USED AS AN EXPEDITIOUS METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF THE DEVICE SHALL BE AS SHOWN ON THE DETAILS. THE COLOR OF THE MARKING SHALL BE RETROREFLECTIVE. THE COLOR ON THE DEVICE USED SHALL BE ORANGE WITH RETROREFLECTIVE, HORIZONTAL, CIRCUMFERENTIAL WHITE STRIPES AS SHOWN ON THE DETAILS.

2. DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.

3. WHERE PRACTICAL, PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

4. BALLAST SHALL NOT BE PLACED ON THE TOP OF THE DRUM.

PLASTIC CONE DETAIL (28" - 36")

1. PLASTIC CONES SHALL BE ON END AND USED AS AN EXPEDITIOUS METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF THE DEVICE SHALL BE AS SHOWN ON THE DETAILS. THE COLOR OF THE MARKING SHALL BE RETROREFLECTIVE. THE COLOR ON THE DEVICE USED SHALL BE ORANGE WITH RETROREFLECTIVE, HORIZONTAL, CIRCUMFERENTIAL WHITE STRIPES AS SHOWN ON THE DETAILS.

2. DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.

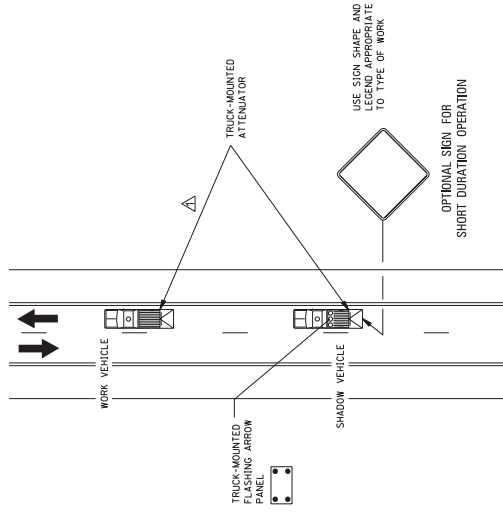
3. WHERE PRACTICAL, PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

4. BALLAST SHALL NOT BE PLACED ON THE TOP OF THE DRUM.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
ROADWAY DESIGN DIVISION	
STANDARD PLAN	
HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS	
DATE	ISSUE DATE: AUGUST 01, 2017
BY	
REVISED TEXT AND DETAILS	
REVISED	
WORKING NUMBER	ICP-6
SHEET NUMBER	0530

STATE	PROJECT NO.
MISS.	

MOBILE OPERATIONS ON TWO-LANE ROAD

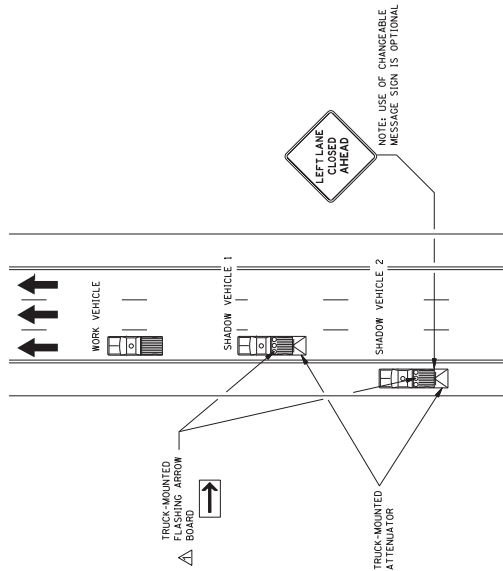


MOBILE OPERATIONS ON TWO-LANE ROAD

NOTES FOR TWO-LANE OPERATION:

- WHERE PRACTICAL AND WHEN NEEDED, THE WORK AND SHADOW 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.
- THE DISTANCE BETWEEN THE WORK AND SHADOW VEHICLES MAY VARY ACCORDING TO TERRAIN, PAINT DRYING TIME, AND OTHER FACTORS. SHADOW VEHICLES ARE USED TO WARN TRAFFIC OF THE OPERATION AHEAD. WHENEVER ADEQUATE SPACE IS AVAILABLE, THE SHADOW VEHICLE SHOULD BE POSITIONED TO MAINTAIN THE MINIMUM DISTANCE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. THE SHADOW VEHICLE SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ADDITIONAL SHADOW VEHICLES TO WARN AND REDUCE THE SPEED OF ONCOMING OR OPPOSING TRAFFIC MAY BE USED. POLICE PATROL CARS MAY BE USED FOR THIS PURPOSE.
- A TRUCK-MOUNTED ATTENUATOR (TMA) SHOULD BE USED ON THE SHADOW VEHICLE AND MAY BE USED ON THE WORK VEHICLE.
- THE WORK VEHICLE SHALL BE EQUIPPED WITH BEACONS, AND THE SHADOW VEHICLE SHALL BE EQUIPPED WITH BEACONS. TRUCK-MOUNTED WORK LIGHTS MOUNTED ON THE REAR, ADJACENT TO THE SIGN, SHADOW AND WORK VEHICLES SHALL DISPLAY FLASHING OR ROTATING BEACONS BOTH FORWARD AND TO THE REAR.
- VEHICLE-MOUNTED SIGNS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT AND SHALL NOT BE OBSCURED BY EQUIPMENT ON THE VEHICLE. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
- ARROW BOARD TO BE USED IN CAUTION MODE.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

MOBILE OPERATIONS ON MULTILANE ROAD

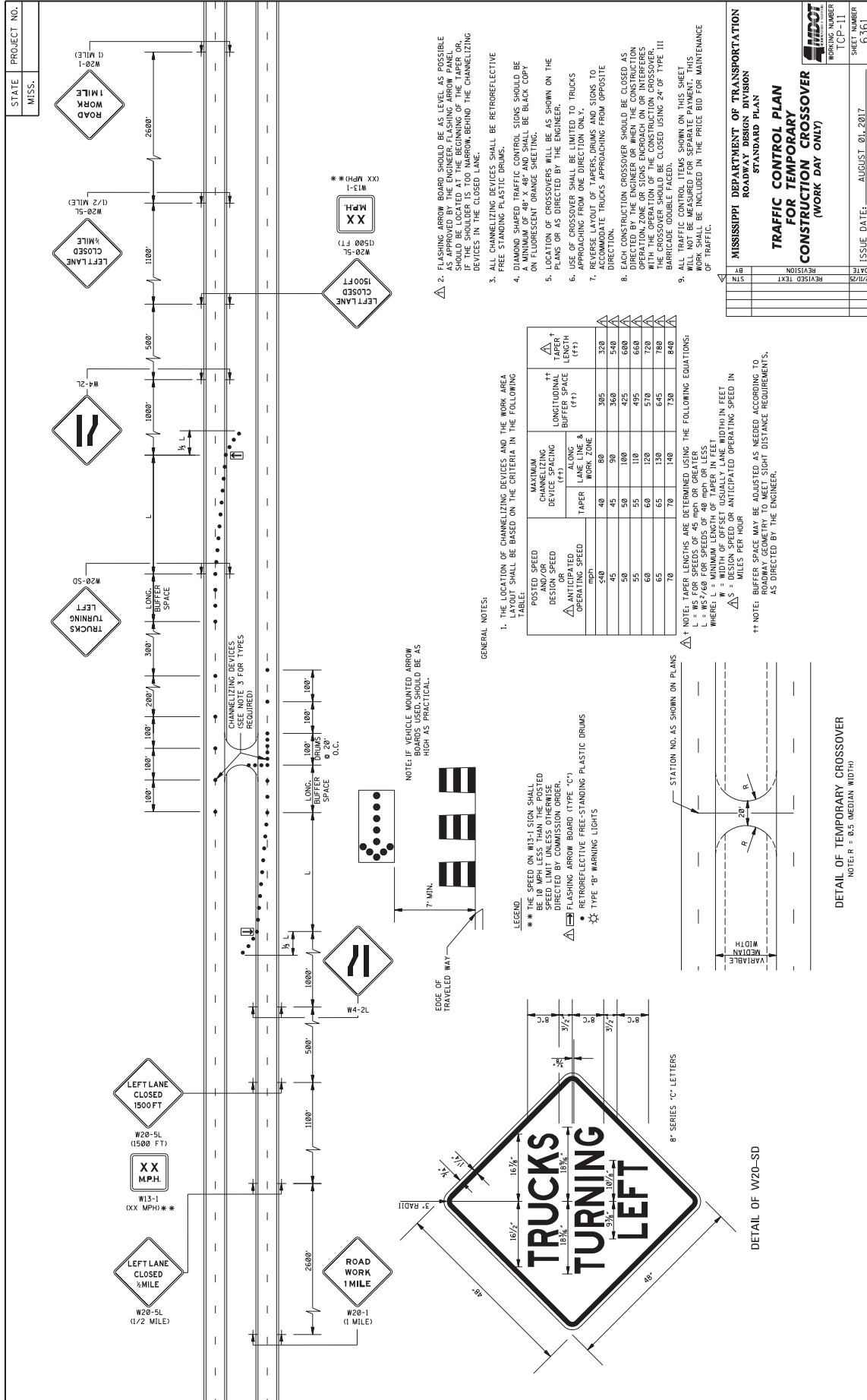


MOBILE OPERATIONS ON MULTILANE ROAD

NOTES FOR MULTILANE LANE OPERATION:

- SHADOW AND WORK VEHICLES SHALL DISPLAY HIGH-INTENSITY FLASHING BEACONS. A TRUCK-MOUNTED FLASHING ARROW BOARD SHALL BE USED WHEN A FREEWAY LANE IS CLOSED. WHEN MORE THAN ONE FREEWAY LANE IS CLOSED, A SEPARATE ARROW BOARD SHALL BE USED FOR EACH CLOSED LANE.
- SHADOW VEHICLE 2 SHOULD BE EQUIPPED WITH AN ARROW BOARD AND TRUCK-MOUNTED ATTENUATOR (TMA). APPROPRIATE LANE CLOSURE SIGNS SHOULD BE PLACED ON SHADOW VEHICLE 2 SO AS NOT TO OBSCURE THE ARROW BOARD.
- SHADOW VEHICLE 1 SHOULD BE EQUIPPED WITH AN ARROW BOARD AND TRUCK-MOUNTED ATTENUATOR (TMA).
- SHADOW VEHICLE 2 SHOULD TRAVEL AT A VARYING DISTANCE FROM THE WORK OPERATION SO AS TO PROVIDE ADEQUATE SIGHT DISTANCE FOR TRAFFIC APPROACHING FROM THE REAR.
- THE SPACING BETWEEN THE WORK VEHICLES AND THE SHADOW VEHICLES, AND BETWEEN EACH SHADOW VEHICLE, SHOULD BE MINIMIZED TO DETER ROAD USERS FROM DRIVING IN BETWEEN.
- ON HIGH-SPEED ROADWAYS, A THIRD SHADOW VEHICLE (NOT SHOWN) MAY BE USED WITH SHADOW VEHICLE 1 IN THE CLOSED LANE, SHADOW VEHICLE 2 STRADDLING THE EDGE LINE, AND SHADOW VEHICLE 3 ON THE SHOULDER.
- WHERE ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, SHADOW VEHICLE 3 MAY ALSO STRADDLE THE EDGE LINE.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
- ON HIGH-SPEED ROADWAYS, A THIRD SHADOW VEHICLE (NOT SHOWN) MAY BE USED WITH SHADOW VEHICLE 1 IN THE CLOSED LANE, SHADOW VEHICLE 2 STRADDLING THE EDGE LINE, AND SHADOW VEHICLE 3 ON THE SHOULDER.
- ARROW BOARD SHALL BE AS A MINIMUM TYPE B, 60" x 36" IN ACCORDANCE WITH THE CRITERIA PRESENTED IN THE MUTCD.
- WORK SHOULD NORMALLY BE DONE DURING OFF-PEAK HOURS.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
TRAFFIC CONTROL PLAN MOBILE OPERATIONS MULTILANE ROADS TWO-LANE ROADS	
DATE	ISSUE DATE: AUGUST 01, 2017
BY	
CHKD	
REVISED	
TEXT AND DETAILS	
WORKING NUMBER	TCP-9
SHEET NUMBER	6359

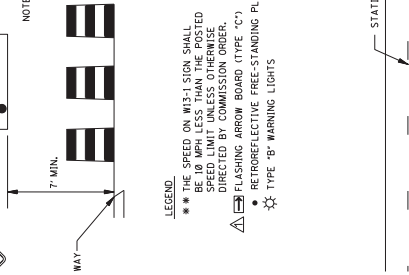


1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LIMIT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:
2. FLASHING ARROW BOARD SHOULD BE AS FEW AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
3. ALL CHANNELIZING DEVICES SHALL BE RETROREFLECTIVE FREE STANDING PLASTIC DRUMS.
4. DIAMOND SHARED TRAFFIC CONTROL SIGNS SHOULD BE ON FLUORESCENT ORANGE SHEETING. BE BLACK COPY PLANS OR AS DIRECTED BY THE ENGINEER.
5. LOCATION OF CROSSOVERS WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
6. USE OF CROSSOVER SHALL BE LIMITED TO TRUCKS APPROACHING FROM ONE DIRECTION ONLY.
7. REVERSE LAYOUT OF TAPERS, DRUMS AND SIGNS TO ACCOMMODATE TRUCKS APPROACHING FROM OPPOSITE DIRECTION.
8. EACH CONSTRUCTION CROSSOVER SHOULD BE CLOSED AS EARLY AS POSSIBLE AND KEPT CLOSED UNTIL THE OPERATION ZONE OR SIGNS ENDOUR ON OR INTERFERES WITH THE OPERATION OF THE CONSTRUCTION CROSSOVER. THE CROSSOVER SHOULD BE CLOSED USING 24' OF TYPE III BUFFER SPACE.
9. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

POSTED SPEED AND/OR DESIGN SPEED (MPH)	MAXIMUM CHANNELIZING DEVICE SPACING (FT)	LONGITUDINAL BUFFER SPACE (FT)	TAPER LENGTH (FT)
50	49	80	395
45	45	80	360
50	50	100	425
55	55	110	495
60	60	120	570
65	65	130	645
70	70	140	720
			840

NOTE: TAPER LENGTHS ARE DETERMINED USING THE FOLLOWING EQUATIONS:
 $L = WS^2/400$ FOR SPEEDS OF 40 MPH OR LESS
 $L = WS^2/400$ 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 = ANTICIPATED OPERATING SPEED IN MILES PER HOUR

NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.



NOTE: IF VEHICLE MOUNTED ARROW BOARDS USED, SHOULD BE AS HIGH AS PRACTICAL.

NOTE: ** THE SPEED ON W13-1 SIGN SHALL BE 10 MPH LESS THAN THE POSTED SPEED ON THE ROADWAY AS DIRECTED BY COMMISSION ORDER.

NOTE: †† BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

NOTE: †† BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

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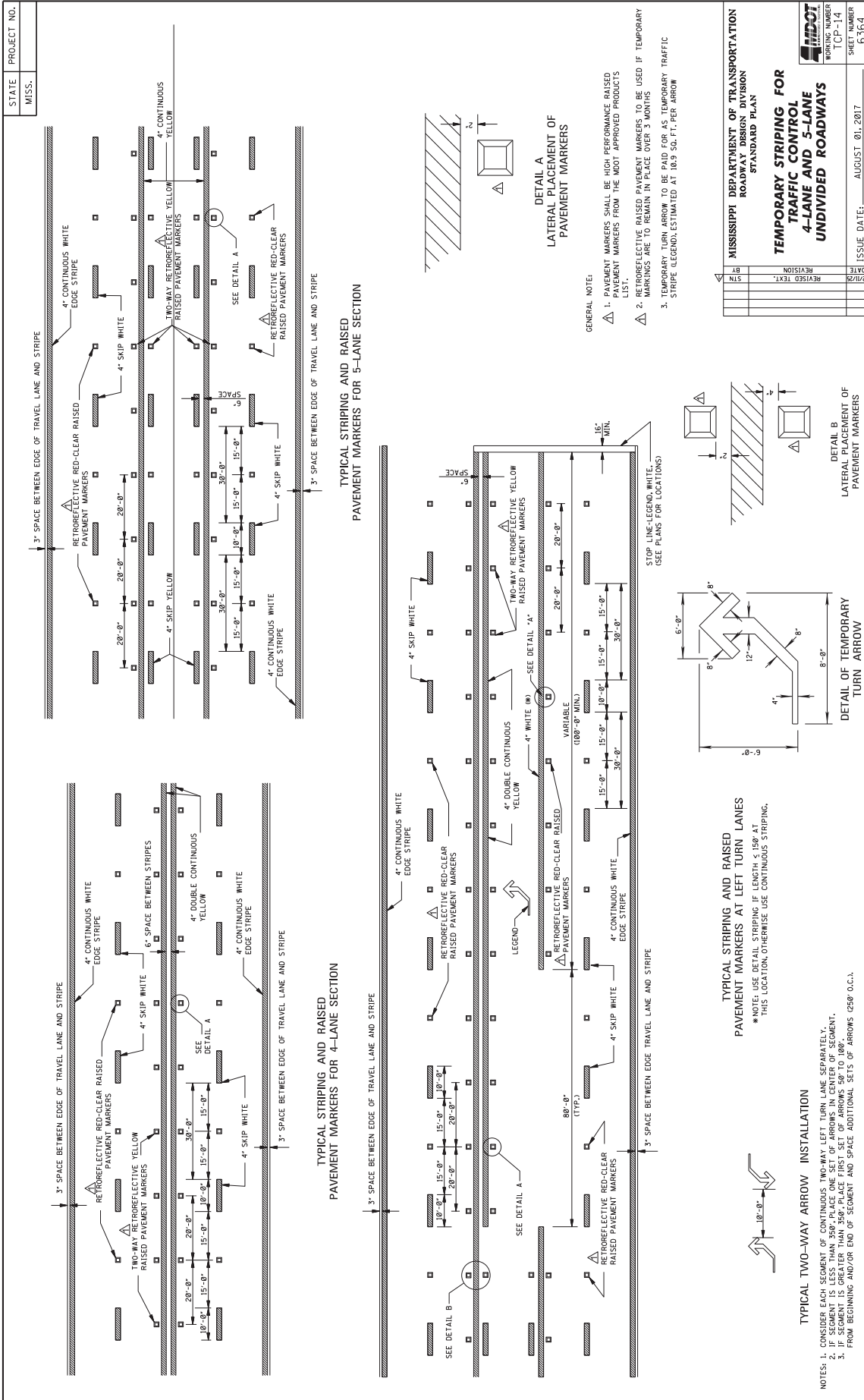
NOTE: †† BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

STATE PROJECT NO. MISS.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 STANDARD PLAN
**TRAFFIC CONTROL PLAN
 FOR TEMPORARY
 CONSTRUCTION CROSSOVER
 (WORK DAY ONLY)**

WORKING NUMBER: TCP-11
 SHEET NUMBER: 6361

ISSUE DATE: AUGUST 01, 2017

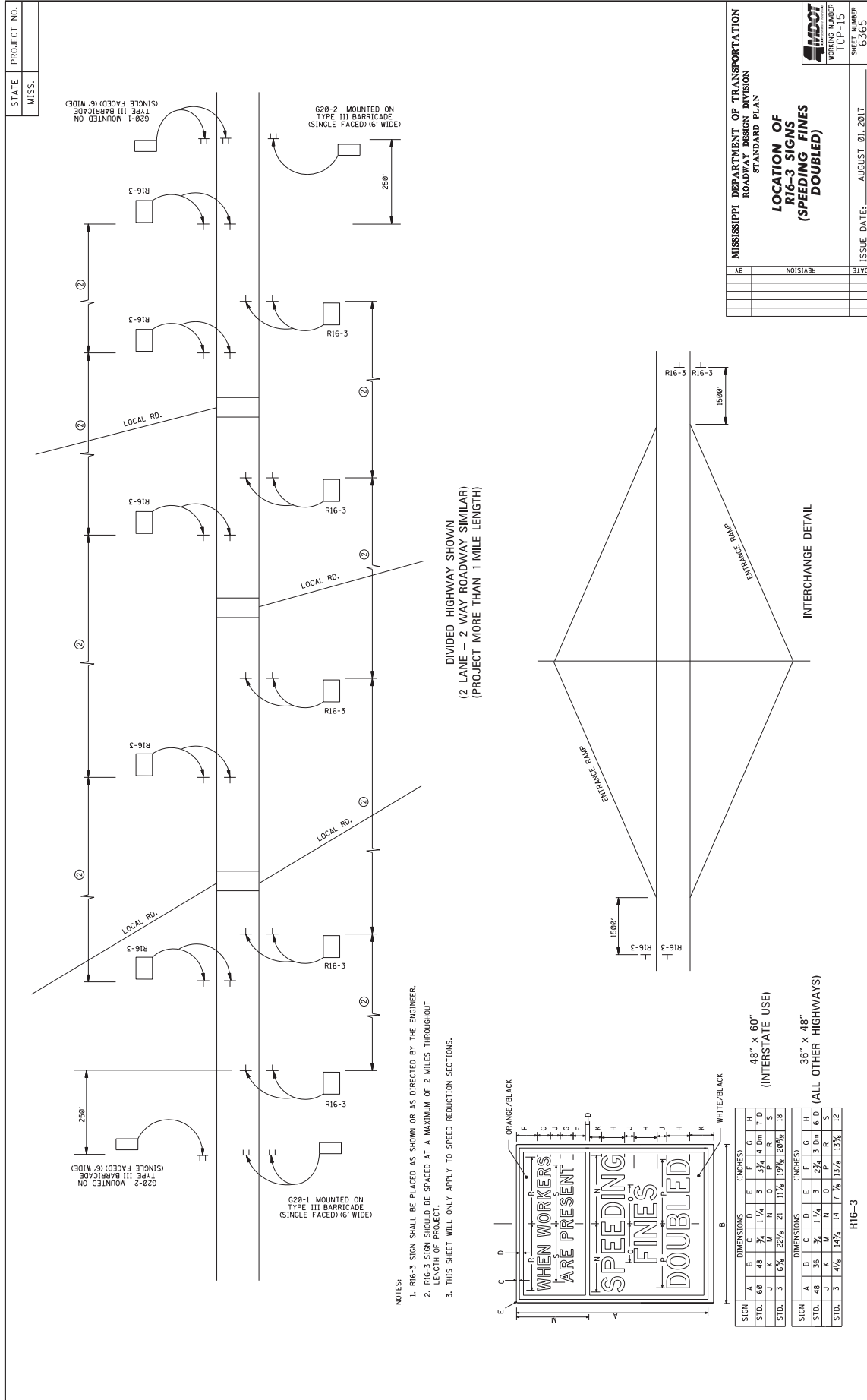


TYPICAL TWO-WAY ARROW INSTALLATION

- CONSIDER EACH SEGMENT OF CONTINUOUS TWO-WAY LEFT TURN LANE SEPARATELY.
- IF SEGMENT IS LESS THAN 350', PLACE ONE SET OF ARROWS IN CENTER OF SEGMENT.
- 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.).

TYPICAL STRIPING AND RAISED PAVEMENT MARKERS AT LEFT TURN LANES
 *NOTE: USE DETAIL STRIPING IF LENGTH < 150' AT THIS LOCATION, OTHERWISE USE CONTINUOUS STRIPING.

STOP LINE-LEGEND, WHITE.
(SEE PLANS FOR LOCATIONS)

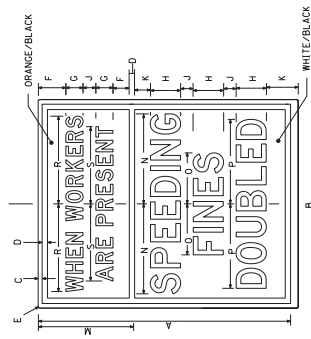


STATE PROJECT NO.
MISS.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
**LOCATION OF
R16-3 SIGNS
(SPEEDING FINES
DOUBLED)**

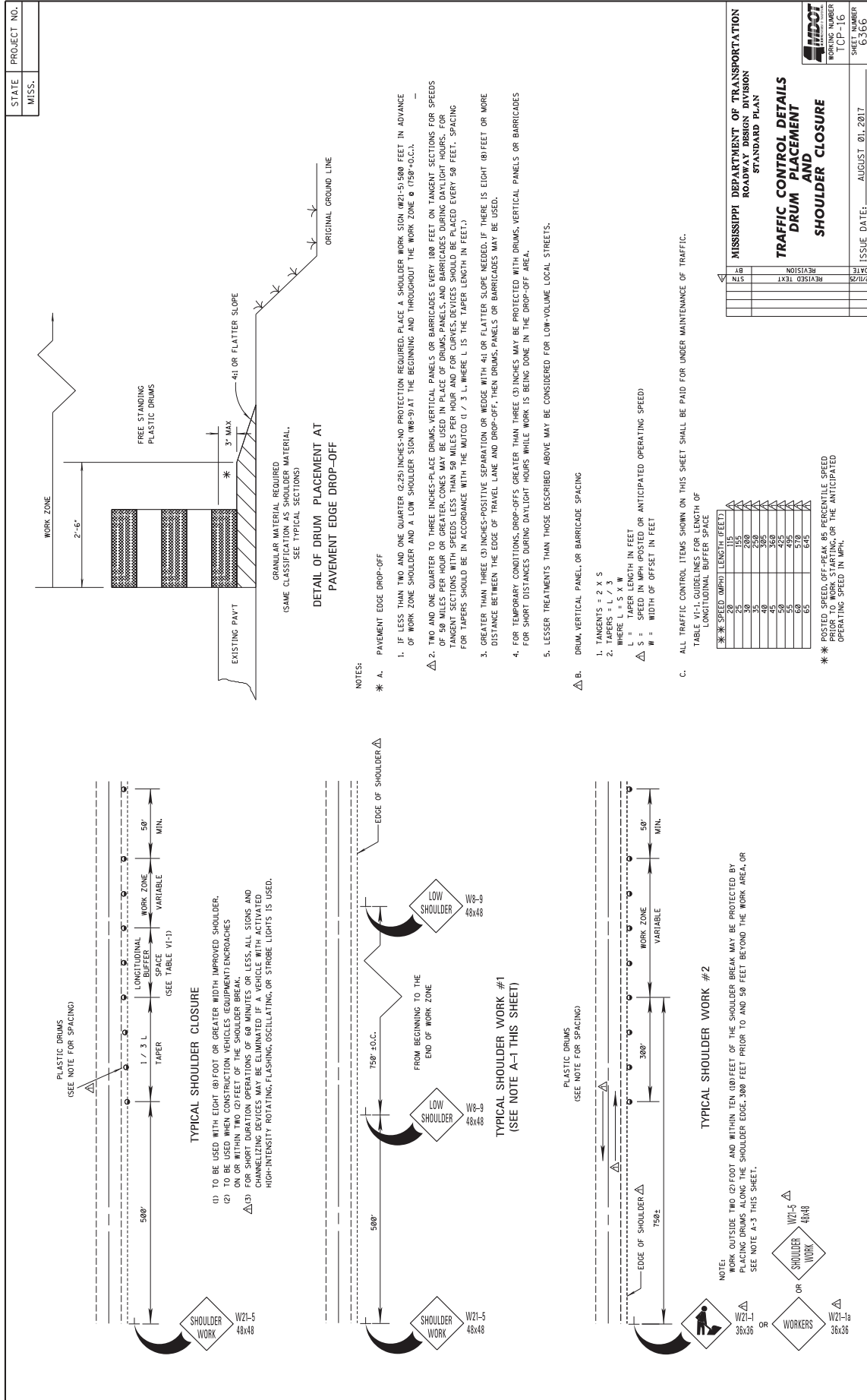
ISSUE DATE: AUGUST 01, 2017
SHEET NUMBER
TCP-15
G-363

- NOTES:
- R16-3 SIGN SHALL BE PLACED AS SHOWN OR AS DIRECTED BY THE ENGINEER.
 - R16-3 SIGN SHOULD BE SPACED AT A MAXIMUM OF 2 MILES THROUGHOUT LENGTH OF PROJECT.
 - THIS SHEET WILL ONLY APPLY TO SPEED REDUCTION SECTIONS.



48" x 60"
(INTERSTATE USE)

36" x 48"
(ALL OTHER HIGHWAYS)



DETAIL OF DRUM PLACEMENT AT PAVEMENT EDGE DROP-OFF

GRANULAR MATERIAL REQUIRED (SAME CLASSIFICATION AS SHOULDER MATERIAL - SEE TYPICAL SECTIONS)

NOTES:

* A. PAVEMENT EDGE DROP-OFF

1. IF LESS THAN TWO AND ONE QUARTER (2.25) INCHES-NO PROTECTION REQUIRED. PLACE A SHOULDER WORK SIGN (W21-5) 500 FEET IN ADVANCE OF WORK ZONE SHOULDER AND A LOW SHOULDER SIGN (W8-9) AT THE BEGINNING AND THROUGHOUT THE WORK ZONE & (750'-O.C.).

2. TWO AND ONE QUARTER TO THREE INCHES-PLACE DRUMS, VERTICAL PANELS OR BARRICADES EVERY 100 FEET ON TANGENT SECTIONS FOR SPEEDS OF 50 MILES PER HOUR OR GREATER. CONES MAY BE USED IN PLACE OF DRUMS, PANELS, AND BARRICADES DURING DAYLIGHT HOURS. FOR TANGENT SECTIONS WITH SPEEDS LESS THAN 50 MILES PER HOUR AND FOR CURVES, DEVICES SHOULD BE PLACED EVERY 50 FEET. SPACING FOR TAPERS SHOULD BE IN ACCORDANCE WITH THE MOVD (1/3 L, WHERE L IS THE TAPER LENGTH IN FEET).

3. GREATER THAN THREE (3) INCHES-POSITIVE SEPARATION OR WEDGE WITH 4:1 OR FLATTER SLOPE NEEDED. IF THERE IS EIGHT (8) FEET OR MORE DISTANCE BETWEEN THE EDGE OF TRAVEL LANE AND DROP-OFF, THEN DRUMS, PANELS OR BARRICADES MAY BE USED.

4. FOR TEMPORARY CONDITIONS, DROP-OFFS GREATER THAN THREE (3) INCHES MAY BE PROTECTED WITH DRUMS, VERTICAL PANELS OR BARRICADES FOR SHORT DISTANCES DURING DAYLIGHT HOURS WHILE WORK IS BEING DONE IN THE DROP-OFF AREA.

5. LESSER TREATMENTS THAN THOSE DESCRIBED ABOVE MAY BE CONSIDERED FOR LOW-VOLUME LOCAL STREETS.

* B. DRUM, VERTICAL PANEL OR BARRICADE SPACING

1. TANGENTS = 2 X S
2. CURVES = 1 X S
WHERE L = S X W
L = TAPER LENGTH IN FEET
S = SPEED IN MPH (POSTED OR ANTICIPATED OPERATING SPEED)
W = WIDTH OF OFFSET IN FEET

* C. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.

TABLE V-1. GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE

POSTED SPEED (MPH)	LENGTH (FEET)
25	155
30	200
35	245
40	290
45	335
50	380
55	425
60	470
65	515
70	560
75	605
80	650
85	695
90	740
95	785
100	830

* * * POSTED SPEED, OFF-PEAK 85 PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH.

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MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-105-2

CODE: (IS)

DATE: 07/20/2023

SUBJECT: Control of Work

Section 105, Control of Work, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-105.01--Authority of the Engineer. Delete the first sentence of the second paragraph of Subsection 105.01 on page 31, and substitute the following.

The Engineer has the right to suspend the work wholly or in part and to withhold payments because of the Contractor's failure to correct conditions unsafe for workmen or the general public, for failure to carry out provisions of the Contract, or for failure to carry out orders.

907-105.02--Plans and Working Drawings. Delete the first paragraph of Subsection 105.02 on page 31, and substitute the following.

After the contract is executed by the Executive Director, the Contractor will receive, free of charge, two bound copies of the proposal and contract documents (one executed and one blank) two full scale copies of the plans, five half-scale copies of the Plans, and Electronic Files Identified as Plans. The Contractor shall have one copy of the proposal and contract documents and one half-scale copy of the plans available at all times during work activity on the project.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-108-4

CODE: (SP)

DATE: 10/07/2020

SUBJECT: Subletting of Contract

Section 108, Prosecution and Progress, of the 2017 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. Delete the third sentence of the tenth paragraph of Subsection 108.01.1 on the bottom of page 72.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-109-5

CODE: (IS)

DATE: 11/14/2023

SUBJECT: Measurement and Payment

Section 109, Measurement and Payment, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-109.01--Measurement of Quantities. Delete the sixth full paragraph of Subsection 109.01 on page 88, and substitute the following.

If appropriate based on the specific circumstances of the project, the Contractor may request that material specified to be measured by the cubic yard or ton be converted to the other measure. The Contractor must submit this request to the Engineer. The Engineer will provide an approval or denial in writing. The decision is in the sole discretion of the Engineer. If approved, factors for this conversion will be determined by the District Materials Engineer and agreed to by the Contractor. The conversion of the materials along with the conversion factor will be incorporated into the Contract by supplemental agreement. The supplemental agreement must be executed before such method of measurement is used.

907-109.04--Extra Work.

907-109.04.1--Supplemental Agreement. Delete the second paragraph of Subsection 109.04.1 on page 90.

907-109.04.2--Force Account Agreement. Delete the last sentence of subparagraph (c) in Subsection 109.04.2 on page 91, and substitute the following.

An amount will be added equal to fifteen percent (15%) of the sum thereof, excluding sales tax.

Delete subparagraph (d) in Subsection 109.04.2 on pages 91 & 92, and substitute the following.

- (d) **Equipment.** Equipment used for force account work shall be of sufficient size and type necessary to perform the required work in an economic and expeditious manner. The Contractor must provide the manufacturer, make, model, year, type of fuel and other necessary information to determine proper hourly payment rates. Subject to advance approval of the Engineer, actual transportation cost for a distance of not more than 200 miles will be reimbursed for equipment not already on the project.

For equipment authorized by the Engineer for use on the force account work, the Engineer will use the equipment rental rates from the “*Rental Rate Blue Book*” as published on the Equipment Watch website www.equipmentwatch.com for the time period the force account work is authorized to determine payment to the Contractor. The maximum allowable rates

are determined as follows:

1. The hourly equipment rate will equal the FHWA total hourly rate. This rate takes into account adjustment factors for age and region.
2. The hourly estimated operating costs have been included in the FHWA total hourly rate.
3. The idle and standby rates shall be as listed in the "*Rental Rate Blue Book*" as reported by *Equipment Watch*.
4. These rates include the basic machine plus any necessary attachments.

Standby rates shall apply when equipment is not in operation and is approved by the Engineer to standby for later use to complete the work. Idle rates shall apply to equipment located on the project and the engine is burning fuel but no ground engaging or other components are actively engaged in meaningful work. In general, idle or standby rates shall apply when equipment is not in use, but will be needed again to complete the work and the cost of moving the equipment will exceed the accumulated standby cost. If the idle standby cost should exceed the equipment moving cost to or from the work site, the Contractor will be entitled to the moving cost only. Idle or standby rates will be used under the following conditions:

1. The equipment is totally dedicated to the force account work and not used intermittently on other work.
2. Idle or standby cost will be considered only after equipment has been operated on force account work.
3. The sum of idle or standby time and operating time shall not exceed eight (8) hours per day or 40 hours in a week.
4. Idle or standby payment will not apply to days not normally considered to be work days such as holidays, weekends, or days of inclement weather when no other work is taking place.

The Department will not pay for idle or standby time when equipment is inoperable, for time spent repairing equipment, or for the time elapsed after the Engineer has advised the Contractor that the equipment is no longer needed. The Department will determine if it will be more cost effective to pay standby time on approved equipment on site or for multiple mobilizations.

If equipment is needed, which is not included in the *Rental Rate Blue Book* as reported by *Equipment Watch*, the Department and Contractor will agree upon reasonable rental rates in writing before the equipment is used.

All equipment shall be subject to approval from day to day in accordance with the requirements of Subsection 108.05.

907-109.06--Partial Payment.

907-109.06.2--Advancement on Materials.

Delete the next to last paragraph of Subsection 109.06.2 on page 95, and substitute the following.

Materials for which an advanced payment has been allowed must be paid for by the Contractor within 30 days of the estimate on which the advanced payment was first allowed and proof of said payment must be verified by the supplier. If proof of payment is not furnished within the allowable 30 days, the advanced payment will be deducted on subsequent current estimates until such time that proof of payment is furnished.

907-109.07--Changes in Material Costs. After the fifth paragraph of Subsection 109.07 on page 96, change the web address to the following.

https://mdot.ms.gov/portal/current_letting

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-618-4

CODE: (SP)

DATE: 02/01/2018

SUBJECT: Additional Signing Requirements

Section 618, Maintenance of Traffic and Traffic Control Plan, of the 2017 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 441, add the following:

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

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO SPECIAL PROVISION NO. 907-701-4

DATE: 11/05/2024

SUBJECT: Hydraulic Cement

907-701.04--Blended Hydraulic Cement.

907-701.04.1--Types of Blended Hydraulic Cement. After the last paragraph of Subsection 907-701.04.1 on page 1, add the following.

Blended cement Types IL meeting the “HE” high early strength requirement listed in AASHTO M 240, Table 3 shall have the “(HE)” suffix added to the type designation.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-701-4

CODE: (IS)

DATE: 11/21/2023

SUBJECT: Hydraulic Cement

Section 701, Hydraulic Cement, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-701.01--General. In the first sentence of the second paragraph of Subsection 701.01 on page 718, change “mills” to “plants.”

In the second sentence of the sixth paragraph of Subsection 701.01 on pages 718 and 719, change “shall” to “will.”

907-701.02--Portland Cement.

907-701.02.1--General. Delete Subsections 701.02.1.1, 701.02.1.2, 701.02.2, 701.02.2.1, and 701.02.2.2 on pages 719 and 720, and substitute the following.

907-701.02.1.1--Types of Portland Cement. Portland cement shall be either Type I, Type II, or Type III conforming to AASHTO M85 or Type III (MS). Type III (MS) is defined as a Type III cement conforming to AASHTO M85 having a maximum tricalcium aluminate (C₃A) content of 8%.

907-701.02.2--Blank.

907-701.02.2.1--Blank.

907-701.02.2.2--Blank.

Delete Subsection 701.04 on pages 720 and 721, and substitute the following.

907-701.04--Blended Hydraulic Cement.

907-701.04.1--Types of Blended Hydraulic Cement. Blended hydraulic cements (blended cements) shall be of the following types and conform to AASHTO M 240:

- Type IL – Portland-limestone cement
- Type IP – Portland-pozzolan cement
- Type IS – Portland blast-furnace slag cement

Blended cement Types IL, IP, and IS meeting the “MS” sulfate resistance requirement listed in AASHTO M 240, Table 3 shall have the “(MS)” suffix added to the type designation.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-702-4

CODE: (IS)

DATE: 09/11/2018

SUBJECT: Bituminous Materials

Section 702, Bituminous Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-702.04--Sampling. Delete the sentence in Subsection 702.04 on page 722, and substitute the following.

Sampling of bituminous materials shall be as set out in AASHTO R 66.

907-702.07--Emulsified Asphalt. Delete the last sentence in Subsection 702.07 on page 724, and substitute the following.

Asphalt for fog seal shall conform to the requirements of Subsection 907-702.12, Table V.

907-702.12--Tables. Delete Table V in Subsection 702.12 on page 729, and substitute the following.

**TABLE V
SPECIFICATION FOR FOG SEAL**

Test Requirements	LD-7		CHPF-1		Test Method
	Min.	Max.	Min.	Max.	
Viscosity, Saybolt Furol, @ 25°C, Sec.	10	100	-	100	AASHTO T 72
Storage Stability Test, 24 hr, %	-	1	-	1	AASHTO T 59
Settlement, 5 day, %	-	5	-	-	AASHTO T 59
Oil Distillate, %	-	1	-	-	AASHTO T 59
Sieve Test, % *	-	0.3	-	0.1	AASHTO T 59
Residue by Distillation, %	40	-	40	-	AASHTO T 59
Test on Residue from Distillation					
Penetration @ 25°C, 100g, 5 sec	-	20	40	90	AASHTO T 49
Softening Point, °C	65	-	-	-	ASTM D 36
Solubility in trichloroethylene, %	97.5	-	-	-	AASHTO T 44
Elastic Recovery @ 25°C, %	-	-	40	-	AASHTO T 301
Original DSR @ 82° (G*/Sinδ, 10 rad/sec)	1	-	-	-	AASHTO T 111

* The Sieve Test result is tested for reporting purposes only and may be waived if no application problems are present in the field.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-703-2

CODE: (SP)

DATE: 11/29/2022

SUBJECT: Gradation

Section 703, Aggregates, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-703.03--Coarse Aggregates for Hydraulic Cement Concrete.

907-703.03.2--Detail Requirements.

907-703.03.2.4--Gradation. In the table in Subsection 703.03.2.4 on page 734, add 100 for the percent passing by weight on the 1½-inch sieve for Size No. 67 aggregates.

Delete Note 2 under the table in Subsection 703.03.2.4 on page 734, and substitute the following.

Note ² – 100 percent shall pass the 1-inch sieve for Size 67 used in Class F and Class FX concrete.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-714-4

CODE: (SP)

DATE: 07/28/2025

SUBJECT: Miscellaneous Materials

Section 714, Miscellaneous Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-714.01--Water.

907-714.01.1--General. Delete the last sentence of the second paragraph in Subsection 714.01.1 on page 794.

907-714.01.2--Water for Use in Concrete. Delete Subsection 714.01.2 on page 794, and substitute the following:

Water from municipal sources is permitted be used as mixing water in concrete, mortar, and grout without Department testing. Water from non-municipal water sources used in mixing of concrete, mortar, and grout which does not meet the requirements in Subsection 714.01.1 shall be tested for conformance as required in AASHTO M157, Table 1 and Table 2.

907-714.01.3--Water for Use in Chemically Stabilized Based. Delete the first sentence of first paragraph in Subsection 714.01.3 on page 794, and substitute the following:

Water used in the construction of bases that contain cement, lime, or other chemical additive shall be as set out in Subsection 714.01.1. Water from municipal sources is permitted to be used without testing for conformance to the requirements below. If water is not from a municipal source, it shall not contain impurities in excess of the following limits:

Delete Subsection 714.01.6 on page 795, and substitute the following.

907-714.01.6--Blank.

907-714.05--Fly Ash.

907-714.05.1--General. Delete the first sentence of the fifth paragraph in Subsection 714.05.1 on page 797.

Delete Subsection 714.06 on page 798, and substitute the following.

907-714.06--Slag Cement.

907-714.06.1--General. The slag cement source must be approved for listing in the Department's

APL prior to use. The acceptance of slag cement shall be based on certified test reports, certification of shipment from the supplier, and tests performed on samples obtained after delivery in accordance with the Department's *Materials Division Inspection, Testing, and Certification Manual* and Department SOP.

The Contractor shall provide suitable means for storing and protecting the slag cement against dampness and contamination. Separate storage silos, bins, or containers shall be provided for slag cement. Slag cement that is partially set, caked or contains lumps shall not be used.

The State Materials Engineer shall be notified in writing of the nature, amount and identity of any processing or other additions made to the slag cement during production.

Slag cement from different mills shall not be mixed or used alternately in any one class of construction or structure without written permission from the Engineer; except that this requirement will not be applicable to cement treatment of design soils or bases.

No additional cementitious materials, such as blended hydraulic cement, fly ash, metakaolin, or others, shall be added to or as a replacement for hydraulic cement when used with slag cement in the production of concrete. The replacement of hydraulic cement with slag cement shall be in accordance with the applicable replacement content specified in Subsection 701.02.2.

907-714.06.2--Specific Requirements. Slag cement shall meet the requirements of AASHTO M 302, Grade 100 or 120. Slag cement shall contain no chlorides.

907-714.13--Geotextiles.

907-714.13.11--Tables. Delete Table 1 in Subsection 714.13.11 on page 813, and substitute the following.

Table 1 - Geotextiles

Type Designation	I ¹	II ¹	III	IV	V	VI		VII		VIII	IX
	Sediment Control		Drainage	Paving	Separation & Drainage	Separation, Stabilization & Reinforcement		Separation, Stabilization & Reinforcement		High Strength	
Physical Property ²						Woven	Non-Woven	Woven	Non-Woven		Test Method
Grab Strength (lb)	50	90	110	90	200	280	180	450	280	----	ASTM D 4632
Elongation (%)	----	50% max @ 45 lb	20% min	50% min @ break	50% min	50% max	50% Min	50% max	50% Min	----	ASTM D 4632
Seam Strength (lb)	----	----	70	----	180	240	160	400	240	----	ASTM D 4632
Puncture Strength (lb)	----	----	40	----	80	110	75	180	115	----	ASTM D 6241
Trapezoidal Tear (lb)	----	----	40	----	80	100	70	150	100	----	ASTM D 4533
Asphalt Retention (gal/yd ²)	----	----	----	0.2	----	----	----	----	----	----	ASTM D 6140
Permittivity (sec ⁻¹) min	0.05	0.05	0.5	----	0.2	0.2	0.2	0.2	0.2	----	ASTM D 4491
AOS Woven (mm) max	0.60	0.60	0.6	----	0.6	0.43	----	0.43	----	----	ASTM D 4751
AOS Non-Woven (mm) max	0.84	0.84	0.43	----	0.43	----	0.43	----	0.43	----	
Tensile Strength after UV (% Retained)	70% @ 500 hr	70% @ 500 hr	50% @ 500 hr	----	50% @ 500 hr	50% @ 500 hr	50% @ 500 hr	50% @ 500 hr	50% @ 500 hr	----	ASTM D 4355
Melting Point °(F)	----	----	----	325	----	----	----	----	----	----	ASTM D 276
Minimum Ultimate Tensile Strength ³ (lb/in)	----	----	----	----	----	----	----	----	----	660	ASTM D 4595

Notes: 1- All property values, with the exception of apparent opening size (AOS), represent minimum average roll values in the weakest principal direction. Values for AOS represent the maximum average roll values, 2 - Values not identified in this table should meet manufacturer certification for the use and application, 3- Machine direction

Delete Subsec

907-714.15--Geogrids.

907-714.15.1--General. A geogrid is defined as a geosynthetic formed by a regular network of connected elements with apertures greater than 0.25 inch to allow interlocking with surrounding soil, rock, and other surrounding materials to function primarily as reinforcement.

Geogrid shall be manufactured from an expanded strain hardened monolithic polymer sheet composed of one or more synthetic polymers and shall be mildew resistant and inert to biological degradation and naturally encountered chemicals, alkalis and acids. The geogrid shall contain stabilizers and/or inhibitors, or a resistance finish or covering to make it resistant to deterioration from direct sunlight, ultraviolet rays, and heat.

Geogrid manufacturers shall participate in and be in compliance with the American Association of State Highway Transportation Officials (AASHTO) National Transportation Product Evaluation Program's (NTPEP) Geosynthetics audit program. Geogrid shall meet the requirements of Table II for the application and type shown on the plans and shall be selected from the Department's Approved Lists.

907-714.15.1.1--Geogrid for Retaining Walls and Reinforced Soil Slopes. Geogrid for retaining walls and reinforced soil slopes shall be creep tested in accordance with AASHTO R69 and meet Long Term Design Load, Minimum Ultimate Tensile Strength, and open area criteria listed in Table II. Manufacturers shall perform at least one long-term creep test for no less than 10,000 hours in accordance to ASTM D 5262 for each polymer or composition of polymers from which the geogrid is produced. The long-term design load that shall be reported for design use, shall be that load at which no more than 10% strain occurs over a 100-year design life of the geogrid, as calculated in accordance with AASHTO R69. Long-term design loads shall be reported unfactored, and the AASHTO strength reduction factors (Durability and Installation, and safety factors) will be considered by the Department's Geotechnical Branch on a site specific design basis.

907-714.15.1.2--Geogrid for Subgrade Stabilization. Geogrid for subgrade stabilization shall meet Minimum Ultimate Tensile Strength and open area criteria listed in Table II.

907-714.15.2--Marking, Shipment, and Storage. Each roll or container of geogrid shall be visibly labeled with the name of the manufacturer, trade name of the product, lot number, and quantity of material. In addition, each roll or container shall be clearly tagged to show the type designation that corresponds to that required by the plans. During shipment and storage the geogrid shall be protected from direct sunlight, and temperatures above 120°F or below 0°F. The geogrid shall either be wrapped and maintained in a heavy duty protective covering or stored in a safe enclosed area to protect from damage during prolonged storage.

907-714.15.3--Manufacturer Certification. The Contractor shall furnish the Engineer three copies of the manufacturer's certified test reports indicating that the geogrid furnished conforms to the requirements of the specifications and is of the same composition as the originally approved by the Department.

907-714.15.4--Acceptance Sampling and Testing. Final acceptance of each shipment will be

based upon results of tests performed by the Department on verification samples submitted from the project, as compared to the manufacturer's certified test reports. The Engineer will select one roll or container at random from each shipment for sampling. As sample extending full width of the randomly selected roll or container and being at least five (5) square yards in area will be obtained and submitted by the Engineer. All material samples shall be provided at no cost to the State.

**TABLE II
GEOGRIDS**

Physical Properties	Type Designation						Test Method
	I	II	III	IV	V	VI	
Long Term Design Load ¹ , pounds per foot, Machine Direction	250	500	750	1500	2500	3500	AASHTO R69, ASTM D5262
Minimum Ultimate Tensile Strength ² , pounds per foot, Machine Direction	500	1000	1500	3000	5000	7000	ASTM D6637
Open Area, percent	70	70	50	50	50	50	Direct Measurement

¹ Minimum design criteria requirement.

² Minimum Average Roll Value (MARV).