

**STATE**

**OF**

**TENNESSEE**

(Rev. 9-7-21)

January 1, 2021

(Rev. 12-15-21)

(Rev. 12-19-22)

(Rev. 6-1-23)

(Rev. 8-21-23)

**Supplemental Specifications – 100SS**

**of the**

**Standard Specifications for Road and Bridge Construction**

**January 1, 2021**

**Subsection 101.03**, (pg. 5), 8-21-23; **Terms**; Revise:

**Change Directive.** ~~An action taken~~A written document issued by the Department, ~~when the Contractor has filed a claim,~~ that ~~allows the Department to compensate the Contractor for completed additional work and/or time~~provides the Contractor with additional compensation, time, or both as determined to be fair and reasonable by the Department and that does not require the consent or signature of the Contractor or Surety. The Change Directive becomes a part of the Contract when properly executed and approved by the Department.

**Subsection 102.09**, (pg. 17), 12-19-22; **Rejection of Proposals**; Revise No. 10:

- 10. The apparent low bidder fails to complete and submit the Department form “Certification Regarding Subcontractor Bid Quotes” (Bidders List) electronically before the close of business (4:30 PM Central Time) within five (5) calendar days after the date on which bids are required to be submitted.

**Subsection 104.03.B & C**, (pg. 23-24), 9-7-21; **Contract Change Notification; B & C**; Revise subsections:

**B. Written Acknowledgement by Engineer**

The Engineer will provide written acknowledgement of the Contractor’s written notice within ten (10) calendar days.

**C. Written Response by Engineer**

The Engineer will provide a written response within the specified number of calendar days based on the requested contract change:

1. For requested changes to the contract time in excess of one hundred eighty (180) days or requested changes that alter the original contract amount by more than \$200,000, the Engineer will respond within thirty (30) days of receiving the Contractor's written notice.
2. For requested changes to the contract time in excess of ninety (90) days but less than or equal to one hundred eighty (180) days, or requested changes that alter the original contract amount by more than \$100,000 but less than or equal to \$200,000, or by more than ten percent (10%) of the original contract, whichever is less, the Engineer will respond within twenty-one (21) days of receiving the Contractor's written notice.
3. For all other requested changes to the contract, the Engineer will respond within fourteen (14) calendar days of receiving the Contractor's written notice.

The written response to the Contractor's written notice will include one of the following:

1. Confirmation that a change is necessary in accordance with **104.02**, and direction on how the Work will proceed.
2. A denial of the request for a change, which will include references to the Contract as to why the condition does not represent a change.
3. A request for additional information stating the specific information needed and the date by which it must be received. The Engineer will respond to the additional information provided within fourteen (14) calendar days.

When a change is necessary, the Engineer will make appropriate adjustments to the Contract price and time, if warranted, in accordance with **108.07**, **109.04**, **109.05.A**, and **109.06**. If the Contractor disagrees with the Engineer's decision or does not agree with the Contract adjustments, the Contractor may pursue the issue as a claim in accordance with **105.16**.

**Subsection 104.03.C**, (pg. 24,25), 8-21-23; **Written Response by Engineer**; Add 3<sup>rd</sup> Paragraph and Revise 4<sup>th</sup> Paragraph:

The Contractor will, upon request, have an opportunity to discuss the Contract change by informal meeting with the Department's Regional representatives associated with the change prior to the issuance of the Engineer's written response. If such a meeting is held, the Contractor shall use the opportunity to present relevant information and respond to any information provided by the Engineer or other Department officials with knowledge of the Work.

When a change is necessary, the Engineer will make appropriate adjustments to the Contract price and time, if warranted, in accordance with **108.07**, **109.04**, **109.05.A**, and **109.06**. If the Contractor disagrees with the Engineer's decision or does not agree with the Contract adjustments, the Contractor may pursue the issue as a Request for Equitable Adjustment~~claim~~ in accordance with **105.16**. At this time, the Department may issue a Change Directive even if the Contractor does not pursue a Request for Equitable Adjustment.

**Subsection 105.16, (pg. 49-55), 8-21-23; Claims for Adjustment and Disputes; Revise Subsection:****105.16 ~~Claims-Request~~ for Equitable Adjustment (REA) and Disputes**

~~The claims process described within~~ This subsection details the optional REA process ~~within the Department~~ for receiving, reviewing, and deciding on ~~claims~~REAs submitted to the Department. If such ~~claims~~REAs cannot be successfully negotiated or resolved within this process, the Contractor has the right to submit a formal claim through the Tennessee Claims Commission as acknowledged in this subsection.

All events or conditions that have a potential or anticipated effect on the Project's progress or schedule and that may result in a REA by the Contractor shall be documented contemporaneously with the event or discovery of the pertinent condition(s), or immediately thereafter. REAs that are submitted without proper documentation will not be reviewed by the Department.

**A. Notice of Intent to File a REA Claim**

If the Contractor has followed the process under 104.03 to Contract Change Notification requesting ~~ing~~ additional compensation, time, or both under **104.02 or 108.07**, ~~has provided notification in accordance with 104.03, and the Contractor disagrees with the Engineer's decision or does not agree with the Contract adjustments made by the Department, has denied the request for a change to the Work,~~ the Contractor may provide notice of intent to file a REA claim. The Contractor shall provide such notice in writing within thirty (30) calendar days of receiving the Engineer's decision as provided in **104.03**.

After ~~submitting filing~~ the notice of intent to file a REA claim, if the subject work is not yet complete, the Contractor shall maintain adequate records related to the REA claim, including records of the disputed labor, equipment and materials, and, ~~if applicable, monthly~~ schedule updates per 108.03 showing ~~critical path~~compensable delays to the completion date. If applicable, Uupdate and disclose this information to the Department monthly. The Department may audit ~~claim~~REA records at any time. Unless the Engineer suspends in writing the affected work, the Contractor shall continue to perform the disputed work. If such notice to file a REA claim is not given, or if the Engineer is not given sufficient opportunity for keeping strict account of the Contractor's actual Work costs, then the Contractor waives any claim for additional compensation under the REA process. Such notice by the Contractor and the Engineer's accounting of the cost shall not, in any way, prove or substantiate the validity of the REA claim. Nothing in this Subsection shall be construed as establishing any REA claim contrary to the terms of **104.02 or 108.07**.

**B. Submission of REA Claim**

Within ~~ninesixty (960)~~ calendar days after submitting the notice of intent to file a REA claim, or within ~~ninesixty (960) calendar days after completion of the completed~~ disputed Work, whichever is later, or within such time agreed upon by the parties in writing, the Contractor shall submit a complete ~~claim~~REA package. The ~~claim~~REA package shall include all documents supporting the ~~claim~~REA and provide sufficient detail to enable the Department to ascertain the basis and amount of the REA claim. If requested by the Contractor, the Department may extend the ~~ninesixty (960) calendar day~~ period in writing. As a minimum, the following information shall be submitted with each REA claim:

1. A ~~claim~~REA certification containing the language shown in Figure 105.16-1 ~~for direct claims by the Contractor, or Figure 105.16-2 for pass-through claims, as appropriate; this figure can be found on the Department's Construction Division website.~~
2. A detailed factual statement of the REA claim for additional compensation, time, or both, providing all necessary dates, locations, and items of work affected by the REA claim, including:;
  - a) Each aspect of the Project affected by matters related to the REA.
  - b) The specific Project locations where Project work has been so affected;

- c) The number of people working on the affected aspects of the Project at the pertinent time(s);
- d) The types and number of pieces of equipment working on the affected aspects of the Project at the pertinent time(s); and-
- e) If applicable, any other request for relief that the Contractor intends to file or has reason to believe that it may file against the Department that would be impacted by the matters related to the REA.

~~—The date on which facts were discovered that gave rise to the claim;~~

- 3. The specific provisions of the Contract that support the REA claim and a statement of the reasons why such provisions support the REA claim;
- 4. If an extension of contract time is sought, a schedule analysis as required by 108.07; and
- 5. If additional compensation is sought, the amount and specifics of the compensation in accordance with the following:
  - a) Compensable Items: Must be compensable under 109.04,
  - b) Compensable Delay related costs: Must be compensable under 109.06; and
  - c) Non-Recoverable Costs: Per 109.07, non-recoverable costs shall not be considered in a REA.
- 6. Any worksheets used to prepare the REA, which indicate the cost components of each item of the REA, including but not limited to the pertinent costs of labor, benefits and insurance, materials, equipment, and compensable subcontractor costs, as well as all documents which establish the relevant time periods, individuals involved, and the Project hours and the rates for the individuals.

The Contractor and its subcontractors and suppliers involved with the REA shall cooperate with any inquiries or requests by the Department for clarification and data supporting the submitted documentation.

#### **B.C. REA Informal Claim Meeting**

~~Upon written request by the Contractor submitted with its notice of intent to file a claim, and w~~Within thirty (30) ~~calendar days of receiving the Contractor's REA submittal~~~~such request, the Department will contact the Contractor in writing to schedule a meeting to~~~~will~~ afford the Contractor an opportunity to discuss the disputed matters informally with ~~the~~ Department ~~official having the authority to resolve the dispute. If the Contractor elects to participate in a meeting, T~~he Contractor ~~shall~~~~may~~ use this opportunity to present relevant information and respond to any information provided by the Engineer or other Department officials with knowledge of the Work. Proceedings in ~~any the Informal Claim~~~~REA M~~meeting are ~~an attempt to mutually resolve a REA claim without litigation~~~~compromise negotiations~~ and are not admissible ~~for any purpose in any proceeding~~~~litigation in accordance with Tennessee Rule of Evidence 408, contemplated in this Subsection 105.16, or any formal administrative hearing.~~

~~If as a result of the Informal Claim Meeting the Department and the Contractor reach an agreement to resolve the claim, the Department will prepare a Change Order setting forth the terms of any additional compensation or time, or both, as agreed, and the Change Order will be processed for approval in accordance with the Department's standard procedures.~~

~~If the Department agrees that the Contractor is due additional compensation, time, or both, but the Department and the Contractor cannot agree on the amount, the Department may at any time after the Informal Claim Meeting issue a Change Directive providing for additional compensation, time, or both, as the Department determines to be fair and reasonable. The Contractor shall perform the Work in accordance with the Change Directive, but such performance shall not constitute a waiver of the Contractor's claim regarding the disputed work. The Contractor may continue to pursue a claim as provided in this section.~~

~~C.A. Submission of Claim~~

~~Within ninety (90) calendar days after submitting the notice of intent to file a claim, or within ninety (90) days of the completed disputed Work, whichever is later, or such time agreed upon by the parties in writing, the Contractor shall submit a complete claim package. The claim package shall include all documents supporting the claim and provide sufficient detail to enable the Department to ascertain the basis and amount of the claim. If requested by the Contractor, the Department may extend the ninety (90) day period in writing. As a minimum, the following information shall be submitted with each claim:~~

- ~~1. A claim certification containing the language shown in Figure 105.16-1 for direct claims by the Contractor, or Figure 105.16-2 for pass-through claims, as appropriate;~~
- ~~2.1. A detailed factual statement of the claim for additional compensation, time, or both, providing all necessary dates, locations, and items of work affected by the claim;~~
- ~~3.1. The date on which facts were discovered that gave rise to the claim;~~
- ~~4.1. The specific provisions of the Contract that support the claim and a statement of the reasons why such provisions support the claim;~~
- ~~5.1. If an extension of contract time is sought, a schedule analysis as required by 108.07; and~~
- ~~6.1. If additional compensation is sought, the amount and specifics of the compensation.~~

**CONTRACTOR'S CLAIM CERTIFICATION**

~~Under penalty of law for perjury or falsification, the undersigned, ( Authorized Representative) \_\_\_\_\_, (title) \_\_\_\_\_, of (company) \_\_\_\_\_, hereby certifies that the claim of \$ \_\_\_\_\_ for extra compensation and \_\_\_\_ Days additional time, made herein for work on this Contract:~~

~~(1) Is true and made in good faith~~  
~~(2) The supporting data is accurate and complete;~~  
~~(3) The claim is fully supported under the Contract between the parties; and~~  
~~(4) The claim amount accurately reflects the Contractor's actual incurred costs or delay.~~

~~I have reviewed the documents submitted and know the facts and information to be true based upon my personal knowledge and belief.~~

~~This claim package contains all available documents that support the claims made herein and I understand that no additional information, other than for clarification and data supporting previously submitted documentation, may be presented by me.~~

~~\_\_\_\_\_ Dated \_\_\_\_\_/s/ \_\_\_\_\_~~  
~~\_\_\_\_\_ Subscribed and sworn before me this \_\_ day of \_\_\_\_\_~~  
~~\_\_\_\_\_~~  
~~\_\_\_\_\_~~

**NOTARY PUBLIC**

~~My Commission Expires: \_\_\_\_\_~~

**Figure 105.16-1: Contractor's Claim Certification**

**PASS THROUGH CLAIM CERTIFICATION**

Under penalty of law for perjury or falsification, the undersigned,  
 (Authorized Representative) \_\_\_\_\_, (title) \_\_\_\_\_ (company),  
 hereby certifies that the claim of  
 \$ \_\_\_\_\_ for extra compensation and \_\_\_\_ Days additional time,  
 made herein for work on this Contract:

(1) ~~Is true and made in good faith~~  
 (2) ~~The supporting data is accurate and complete;~~  
 (3) ~~The claim is fully supported under the Contract between the parties; and~~  
 (4) ~~The claim amount accurately reflects the Contractor's actual incurred costs  
 or delay.~~

I have reviewed the documents submitted and know the facts and information  
 to be true based upon my personal knowledge and belief.

This claim package contains all available documents that support the claims  
 made herein and I understand that no additional information, other than for  
 clarification and data supporting previously submitted documentation, may be  
 presented by me.

Dated \_\_\_\_\_/s/\_\_\_\_\_  
 \_\_\_\_\_  
 Subscribed and sworn before me this \_\_ day of \_\_\_\_\_  
 \_\_\_\_\_

NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_

Dated \_\_\_\_\_/s/\_\_\_\_\_  
 \_\_\_\_\_

The Contractor certifies that the claim being passed through to TDOT is passed  
 through in good faith and is accurate and complete to the best of my knowledge  
 and belief.

Dated \_\_\_\_\_/s/\_\_\_\_\_  
 \_\_\_\_\_  
 Subscribed and sworn before me this \_\_ day of \_\_\_\_\_  
 \_\_\_\_\_

NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_

**Figure 105.16-2: Pass Through Claim Certification**

**D. Department Decision**

When the Contractor properly files a ~~REA claim~~ and allows for reasonable and timely access to the Contractor's ~~relevant~~ books and records, the Department will review the ~~REA claim~~ and render a written decision to the Contractor to either affirm or deny the ~~REA package claim~~, in whole or in part, within sixty (60) calendar days after receipt of the ~~claim REA~~ package or ~~after the informal meeting~~. ~~If more time is needed for review, the Department will notify the Contractor in writing of the additional time required. at such time agreed upon by the parties.~~

The Department will assemble and maintain ~~the REA claim~~ record consisting of ~~the REA all information submitted by the Contractor in support of the claim~~ and all other information considered by the Department in reaching a decision. Once the Department assembles the ~~claim REA~~ record, the submission and consideration of additional information or data, other than for clarification and support of previously submitted documentation, will not be permitted. The Department will provide a copy of the ~~claim REA~~ record and the written decision to the Contractor describing the information considered by the Department in reaching a decision and the basis for that decision.

~~If as a result of the REA documentation or REA Informal Meeting, Informal Claim Meeting the Department and the Contractor reach an agreement to resolve the REA claim, the Department will prepare a Change Order setting forth the terms of any additional compensation or time, or both, as agreed, and the Change Order will be processed for approval in accordance with the Department's standard procedures.~~

~~If the Department agrees that the Contractor is due additional compensation, time, or both, but the Department and the Contractor cannot agree on the amount, the Department may at any time after the Informal Claim Meeting issue a Change Directive providing for additional compensation, time, or both, as the Department determines to be fair and reasonable. The Contractor shall perform the Work in accordance with the Change Directive, but such performance shall not constitute a waiver of the Contractor's claim regarding the disputed work. The Contractor may continue to pursue a claim as acknowledged provided in this Subsection.~~

~~If the Department decides to affirm the claim, an adjustment will be made in accordance with 108.07 and 109.04 as applicable. If the Department denies the REA claim, the Contractor may either accept the Department's decision as final or file submit to the Department a written notice of intent to file a claim with the Tennessee Claims Commission to the Department. The Contractor may file a claim with the Tennessee Claims Commission in accordance with TCA § 9-8-307. appeal to the Department's authorized representative identified in the final decision letter within sixty (60) calendar days from the receipt of the Department's decision.~~

~~If a written appeal is not properly or timely filed, the Engineer's decision is final and binding, and the Contractor waives any further rights to pursuing the claim.~~

~~If the Department fails to render a written decision within sixty (60) calendar days after receipt of the claim package, or within any extended time period as agreed to by the parties, the Department will send written notice to the Contractor that the decision period has ended and that the Contractor's time period for written appeal has begun.~~

**E. Appeal Process**

~~When a claim is appealed in writing, the Department will provide the claim record to the duly authorized representative responsible for review of the appeal. Within fifteen (15) calendar days after the submission of the appeal, either party may submit a written request for a hearing with the duly authorized representative. The duly authorized representative will review the claim and render a decision to affirm, overrule, or modify the Department decision within sixty (60) calendar days or such time agreed upon by the parties after receiving the written appeal.~~



~~The Department will not consider any new information that was not previously made a part of the claim record, other than clarification of the previously submitted documentation. The Contractor shall have sixty (60) calendar days to accept or reject the duly authorized representative's decision. The Contractor shall notify the Department of its acceptance or rejection in writing. If the Contractor accepts the duly authorized representative's decision, the decision will be implemented with a Change Order in accordance with the applicable Contract provisions. If the Contractor disagrees with the decision, the Department may issue a Change Directive to implement the decision, and the Contractor shall perform the Work in accordance with the Change Directive. Performance of the Work in accordance with the Change Directive shall not constitute a waiver of the Contractor's right to pursue a formal claim with the Claims Commission as provided below.~~

~~The Contractor may file a claim with the Tennessee Claims Commission in accordance with TCA § 9-8-307. The parties understand and agree that the Contractor's failure to bring suit within one hundred eighty (180) calendar days of the duly authorized representative's Department's decision, or such other time agreed upon by the parties, shall be deemed an acceptance of the decision and a complete bar to any such claims or causes of action based on the claim.~~

**Subsection 106.06.A.1**, (pg. 61), 12-15-21; **Field Laboratory, Type A**; Revise No. 1:

1. Scales of appropriate capacity and design to weigh the required samples. Scales are to be sensitive to within 0.1% of the sample to be weighed. Provide standard weights for scale calibration. Scale calibration shall be completed annually, by an independent source.

**Subsection 107.13**, (pg. 75), 1-9-23; **Legal Responsibilities of the Contractor**; Add New 3<sup>rd</sup> Paragraph:

The Contractor certifies that it is not currently engaged in, and covenants that it will not, for the duration of the Contract, engage in a boycott of Israel, as that term is defined in Tenn. Code Ann. § 12-4-119. This certification does not apply to a Contract with a value of less than two hundred fifty thousand dollars (\$250,000) or if the Contractor has fewer than ten (10) employees.

**Subsection 107.20**, (pg. 78), 12-19-22; **Certified Payrolls**; Revise Subsection:

As specified by Minimum Wage Scales for Federal-Aid and State Funded Construction contract provisions, submit and certify payrolls for each week in which any contract work is performed. All payrolls shall be submitted electronically through the website using AASHTOWare Project Civil Rights & Labor (CRL) software.

Register for payroll access and develop a method of import prior to the Preconstruction Conference. Ensure each subcontractor, including all Disadvantaged Business Enterprises (DBE), certified Small Business Enterprises (SBE), and DBE or SBE haulers, has registered in CRL for payroll access and developed their method of import prior to commencing Work.

Assume all responsibility for ensuring all payrolls and all subcontractor payrolls are submitted and certified electronically in CRL for each week in which any contract work is performed. If all payrolls are not received in this timeframe, the progress payment shall be withheld until all necessary payrolls have been received.

Once Work begins for the Contractor or subcontractor, if in any week the Contractor or subcontractor does not perform Work, check the box "No Work Until Further Notice" in CRL.

**Subsection 108.01, (pg. 79, 80), 12-15-21; Subletting of Contract; Revise Item list:**

- Item 105-01 – Construction Stakes, Lines and Grades
- Item 202-01 – Removal of Asbestos
- Item 203-40 – Rock Anchors, Anchor Blocks, Tie Back Anchors
- Item 209 – Project EPSC
- Item 411-12 - Scoring
- Item 411-33 – Stamped Asphalt
- Item 501-03 – Concrete Shoulder Rumble Strip
- Item 503-01 – Grinding Concrete Pavement
- Item 602-03 – Steel Structures
- Item 602-04 – Steel Structures
- Item 602-10.81 – Heat Straightening
- Item 603-02 – Repainting Steel Structures
- Item 603-05 – Containment and Disposal of Waste
- Item 604-04.01 – Applied Texture Finish (New Structures),
- Item 604-04.02 – Applied Texture Finish (Existing Structures)
- Item 604-04.10 – Graffiti Protection
- Item 604-04.20&.21 – Painting or Staining Concrete Surfaces
- Item 604-04.62 – Clean and Texture Finish Median Barrier
- Item 604-05.31 – Bridge Deck Grooving (Mechanical)
- Item 604.07 – Retaining Wall
- Item 604-42.01 – Underwater Divers
- Item 606-26.05 – Core Drilling for Piles (Abandoned)
- Item 617 – Bridge Deck Sealant
- Item 619 – Polymer Modified Concrete Overlay
- Item 624 – Retaining Wall
- Item 625-01.08,10,11 – Inclinometer, Camera Drilled Shaft Inspections
- Item 705 – Guardrail
- Item 706 – Guardrail Adjusted, Removed and Reset
- Item 707 – Fences
- Item 712 – Temporary Traffic Control
- Item 713 – Highway Signing
- Item 714 – Roadway and Structure Lighting
- Item 716 – Pavement Markings
- Item 721 – Landscape and Irrigation
- Item 724 – Landscape Lighting
- Item 725 – ITS items
- Item 730 – Traffic Signals
- Item 740 – Geosynthetics
- Item 79\* – Utilities
- Item 801 – Seeding
- Item 802 – Landscape Plantings
- Item 803 – Sodding
- Item 805 – Erosion Control
- Item 806 – Project Mowing

**Subsection 108.01, (pg. 79, 80), 12-19-22; Subletting of Contract; Add to & Revise Item list:**

- Item 108-03 – CPM Project Schedule
- Item 203-11 – Scaling and Trimming
- Item 203-40 – Anchors
- Item 406 – High Friction Surface Treatment
- Item 617 – Bridge Deck Sealant and Thin Epoxy Overlay

**Subsection 108.03.A, B, & C**, (pg. 81,82,85,87,88), 9-7-21; **Contract Change Notification;**

**A & B;** Revise Heading,

**C.1.c;** Add new No.vi, **C.3;** Revise last paragraph, **C.4;** Revise last paragraph & add sentence:

**A. Project Durations Less Than 9 Months**

**B. Project Durations 9 Months to 24 Months**

**C.1.c** Narrative report in PDF file format fit to 8.5x11 inch paper and including:...

- vi. The quantity and estimated daily production rate for controlling activities;
- vii. Description of the calendars including identification of workdays per week, holidays, number of shifts per day, and number of hours per shift;
- viii. Description of how the schedule accommodates adverse weather days for each month; and
- ix. Description of execution plan, including number and type of crews, a list of subcontractors' crews, and expected equipment, but not limited to large equipment transport and delivery, transportation permits for oversized/overweight loads, and availability.

**3. Baseline CPM Schedule.**

The Engineer and Contractor will review the draft baseline CPM schedule at a meeting specific for the review of the schedule. The Engineer will accept the draft baseline CPM schedule, provide review comments, or request additional information. Make appropriate adjustments or provide additional information within 14 calendar days. The Engineer's acceptance is based solely on whether the baseline schedule meets the requirements of **108.03**. Review comments made by the Engineer on the initial schedule will not relieve the Contractor from compliance with the Contract. The Contractor is responsible for scheduling, sequencing, and prosecuting the Work to comply with the Contract requirements.

**4. Schedule Updates.**

Submit the updated schedule electronically to the Engineer in accordance with the requirements of this subsection. The Engineer reserves the right to reject any schedule updates because of changes in relationships between activities on the critical path, inadequate or inaccurate narrative updates, or other deficiencies in the schedule updates as required in this subsection.

The Department will measure and pay for CPM Project Schedule in accordance with **108.11** and **108.12** respectively.

**Subsection 108.03.C**, (pg. 84, 87-88), 6-1-23; **Prosecution of Construction, Project Durations Greater Than 24 Months or When Required By Contract**; Revise 1<sup>st</sup> Paragraph, **C.4**; Revise 1<sup>st</sup> and Relocate last Paragraph:

Develop a Critical Path Method (CPM) project execution schedule and subsequent updates as required or as specifically requested by the Engineer. Generate the CPM schedule using Primavera Project Management (P6) scheduling software. The Department will measure and pay for CPM Project Schedule in accordance with **108.11** and **108.12** respectively.

**C.4. Schedule Updates.** Update the CPM schedule on a quarterly (3 months) basis to show current progress. Include the following with each update:

~~The Department will measure and pay for CPM Project Schedule in accordance with **108.11** and **108.12** respectively.~~

**Subsection 108.03.D**, (pg. 88-89), 6-1-23; **Schedule Revisions**; Revise 1<sup>st</sup> Paragraph and Revise No. 2:

The Engineer will determine the progress of the Contract by either the time versus money straight line method or the schedule updates submitted by the Contractor. If actual construction falls behind the plan of operations or schedule by more than 15% or 60 calendar days, whichever is less, submit for approval a revised schedule that reflects timely completion. The Engineer may request a revision of the schedule at any time if a critical circumstance regarding the scheduling, sequencing, or prosecution has changed with planning or progress of the Work. Circumstances that may lead to such a request include the following:

- 2. A difference of 60 calendar days between the actual sequence or duration of work and that depicted in the schedule; or

**Subsection 108.09**, (pg. 95), 12-19-22; **Failure to Complete Work on Time**; Revise **Table 108.09-1**:

**Table 108.09-1: Liquidated Damages for Failure to Complete the Work on Time**

Original Contract Amount (\$)		Daily Charge (\$/day)
0	to 500,000	500.00
> 500,000	to 1,000,000	600.00
> 1,000,000	to 2,000,000	800.00
> 2,000,000	to 10,000,000	1,000.00
>10,000,000	to 20,000,000	1,600.00
>20,000,000		2,500.00

**Subsection 108.11, (pg. 99), 9-7-21; Method of Measurement; Add subsection 108.11:**

**108.11 Method of Measurement**

The Department will measure construction CPM Project Schedule as a percentage of the lump sum price bid for the completion of the work specified in **108.03.C** and partial payment will be made according to the schedule in Table 108.11-1.

**Table 108.11-1: Payment Schedule for CPM Project Schedule**

<b>Estimate Number or Percent of Total Contract Amount of Previous Estimate</b>	<b>Total Percent of CPM Project Schedule Lump Sum Bid Item</b>
Estimate # 1	20%
Estimate # 3	40%
20%	50%
40%	60%
60%	70%
80%	80%
95%	100%

**Subsection 108.11, (pg. 99), 6-1-23; Method of Measurement; Revise Table 108.11-1:**

**Table 108.11-1: Payment Schedule for CPM Project Schedule**

<b>Requirement or Percent of Total Contract Amount of Previous Estimate</b>	<b>Total Percent of CPM Project Schedule Lump Sum Bid Item</b>
Initial Project Schedule	10%
Baseline CPM Schedule	40%
20%	50%
40%	60%
60%	70%
80%	80%
95%	100%

**Subsection 108.12**, (pg. 99), 9-7-21; **Basis of Payment**; Add subsection **108.12**:

**108.12 Basis of Payment**

The Department will make partial payments for CPM Project Schedule on the basis of a percentage of the lump sum price bid in accordance with the schedule shown in Table 108.11-1.

If the Contractor fails to provide monthly schedule updates or address the Engineer's comments regarding the monthly schedule update, within 10 calendar days following the progress estimate pay period cutoff date, the Engineer will withhold payment for CPM Project Schedule and may withhold up to an additional 5% of the monthly estimate payment, until such time as an acceptable update has been provided.

No additional payments will be made for schedule revisions as requested per **108.03.D**.

Such payment is full compensation for meeting all requirements of **108.03.C** and **D**.

**Subsection 108.12**, (pg. 99), 6-1-23; **Basis of Payment**; Add new 2<sup>nd</sup> Paragraph and Revise existing 2<sup>nd</sup> and 3<sup>rd</sup> Paragraphs:

If the Contractor fails to provide an Initial Project Schedule or a Baseline CPM schedule, or address the Engineer's comments regarding the Initial Project Schedule or Baseline CPM schedule, within 10 calendar days following the progress estimate pay period cutoff date, the Engineer will withhold payment for CPM Project Schedule and may withhold up to an additional 10% of that month's estimate payment, until such time as an acceptable Initial Project Schedule or Baseline CPM schedule has been provided and accepted.

If the Contractor fails to provide quarterly CPM schedule updates, or address the Engineer's comments regarding the quarterly schedule update, within 10 calendar days following the progress estimate pay period cutoff date, the Engineer will withhold payment for CPM Project Schedule and may withhold up to an additional 5% of that month's estimate payment, until such time as an acceptable update has been provided and accepted.

No additional payments will be made for Engineer requested schedule revisions as requested per **108.03.D**.

**Subsection 109.06**, (pg. 116), 8-21-23; **Compensable Delay Costs**; Revise 2<sup>nd</sup> Paragraph:

Compensable delay costs will not be paid unless the compensable delay causes completion of the Work to exceed the original or previously adjusted Contract completion date. Compensable delay costs will not be considered for previously negotiated Change Orders or for costs that have already been included in bid items, negotiated prices, or force account payments described in **109.04**; no additional consideration will be given for home office overhead and/or field office overhead. The Department will not pay for delay costs incurred by subcontractors.

**Subsection 109.06.D**, (pg. 117), 8-21-23; **Extended Field Overhead**; Revise 3<sup>rd</sup> Paragraph:

Compute these costs on a calendar day basis using actual costs incurred due to the delay to provide project specific general supervision, field office facilities and supplies, maintenance of field operations, traffic control maintenance, and extended erosion control inspection. If ~~requested by~~ the Contractor and the Department can-not agree on additional field overhead costs, the Department may consider, at its sole discretion, calculating a daily extended field overhead rate as a percentage (in accordance with Table 109.06-1) of the original Contract amount divided by the Contract duration.

**Subsection 109.07**, (pg. 118,119), 8-21-23; **Non-Recoverable Costs**; Revise No. 5 & 6 and Add No. 7 & 8:

5. Attorney fees, claim preparation expenses, and cost of litigation; ~~and~~

6. Consequential and/or incidental damages, including but not limited to, interest of monies in dispute, loss of bonding capacity, any indirect costs or expenses, interest on investment or any resultant insolvency;:-

7. Loss of bidding opportunities; and:-

8. Reduction of bidding capacity.

**S T A T E**

**O F**

**T E N N E S S E E**

(Rev. 12-15-21)

(Rev. 12-19-22)

January 1, 2021

**Supplemental Specifications – 400SS**

**of the**

**Standard Specifications for Road and Bridge Construction**

**January 1, 2021**

**Subsection 403.04**, (pg. 286), 12-15-21; **Preparing Surface**; Revise Paragraph:

Prepare the designated surface as specified in **405.05**. Ensure that the surface is dry when applying tack coat.

**Subsection 403.05.C**, (pg. 286), 12-15-21; **Fog Sealing**; Revise 1<sup>st</sup> Paragraph:

When the Contract requires bituminous material for fog sealing of shoulders, provide emulsified asphalt meeting **403.02** or an item from QPL 40A. Apply diluted emulsified asphalt at a rate of 0.10 to 0.15 gallons per square yard based on a dilution rate of one part emulsified asphalt to one part water. This application may require two equal increments if run-off occurs. Apply fog seal when the ambient air temperature or the surface temperature is a minimum of 50°F.

**Subsection 407.06.B**, (pg. 324), 12-19-22; **Material Transfer Devices (MTDs)**; Revise 2<sup>nd</sup> Paragraph:

The MTD shall have a minimum storage capacity of 15 tons and shall be equipped with mixing augers in the bottom of the storage hopper that are capable of remixing or re-blending the material as the material is removed from the storage hopper. The mixing augers shall be operational and used at all times during placement of the asphalt mixes. The MTD shall have a rear discharge conveyor that swivels ~~a minimum of 150 degrees~~ to allow feeding the paving machine from the front, side or rear.



**Subsection 407.09**, (pg. 326-327), 12-15-21; **Weather Limitations**; Revise No. 2 & 3:

- 2. The bituminous plant mix is placed according to the temperature limitations specified in Table 407.09-1 and when weather conditions otherwise allow the pavement to be properly placed, compacted, and finished. Placement may proceed if either the air or surface temperature is met except for 411-TL, 411-TLD, 411-TLE, and 411-OGFC mixtures.

Measurement of the surface temperature shall be done on pavement that is shaded from direct sunlight unless no shaded location exists. If paving based on the air temperature, stop work once the air temperature falls below the minimum threshold. Do not start paving if the surface temperature does not meet the requirements and the air temperature is forecast to fall below the minimum temperature within 4 hours of starting work.

**Table 407.09-1: Temperature Limitations**

Compacted Thickness	Minimum Air or Surface Temperature (°F)	
	Unmodified mixes (PG 64, 67)	Modified mixes (PG 70, 76, 82)
	≤ 1.5 inches	45
> 1.5 inches to < 3.0 inches	40	50
≥ 3.0 inches	35	45

- 3. For 411-TL, 411-TLD, 411-TLE, and 411-OGFC mixtures, placement shall proceed only when the pavement surface temperature and the air temperature are a minimum of 55° F and rising. Stop paving if the air temperature falls below 55°F immediately. Placement of these mixtures is restricted to the period between April 1 and October 31.

For all other mixtures, do not place bituminous plant mix, with a compacted thickness of 1.5 inches or less, between November 30 and April 1. Do not place bituminous plant mix, with a compacted thickness greater than 1.5 inches, between December 15 and March 16. If the temperature meets the above requirements, outside of normal paving season, a request for a seasonal limitation waiver may be submitted for Departmental consideration. Requests shall be submitted in writing at least one week before the anticipated need.

**Subsection 407.15.A**, (pg. 334), 12-19-22; **Compaction, General**; Revise Table 407.15:

**Table 407.15 – Roller Requirements by Mix Type**

Mix Type	Roller Requirements
307-A, 307-B, 307-BM-2, 307-C, 307-CW (except surface)	3 Rollers (Intermediate roller shall be Pneumatic)
307-AS, 307-ACRL, 411-D, 411-E, 307-CW (surface), 313-Asphalt Treated Permeable Base	3 Rollers (unspecified)
411-TL, 411-TLD, 411-TLE (when lift thickness > 1 inch)	3 Rollers (unspecified)
411-TL, 411-TLD, 411-TLE, 307-CS (when paved as a continuous layer)	2 Rollers (unspecified)
411-OGFC	2 Rollers (both rollers shall be static steel double drum, 10 Ton minimum)
Any mix used for scratch paving	2 Rollers (breakdown shall be pneumatic)

**Subsection 407.15.C**, (pg. 336-337), 12-15-21; **Test Strips**; Revise 1<sup>st</sup> Paragraph:

Construct test strips for all mixtures that require density testing to establish rolling patterns, to accommodate the Department to calibrate nuclear gauges, to verify that the base course or surface course mixture meets the density requirements of the specifications, and for mix design and production verification as required. Adjustments to the roller pattern may be made at the direction of the Engineer for mixtures that do not require density testing.

**Subsection 407.20.C.3**, (pg. 346-347), 12-15-21; **Loss on Ignition (LOI)**; Revise 2<sup>nd</sup> & Remove 4<sup>th</sup> Paragraph:

If the percent of LOI in the aggregate differs by plus or minus 2% from the LOI indicated in the JMF, the Department will make a payment deduction in the price bid for the mix applied to the entire days production, not as a penalty but as liquidated damages. The percent of total payment to be deducted will be 5 times the percent that the LOI exceeds the JMF tolerance of plus or minus 2%.

**Subsection 411.03.B**, (pg. 353), 12-15-21; **Proportioning**; Revise Table 411.03-01:

**Table 411.03-1: Proportions of Total Mixture, Percent by Weight**

Surface Course	Effective Combined Mineral Aggregate	Asphalt Cement
Grading D	93.0 – 94.3	5.7 – 7.0 <sup>(1)</sup>
Grading E <sup>(2)</sup>	93.0 – 94.3	5.7 – 7.0 <sup>(1)</sup>
Grading E (shoulders)	93.5 – 94.0	6.0 – 6.5 <sup>(1)</sup>
Grading TL	92.5 – 94.3	5.7 – 7.5 <sup>(1)</sup>
Grading TLD	93.0 – 94.3	5.7 – 7.0 <sup>(1)</sup>
Grading TLE	93.0 – 94.3	5.7 – 7.0 <sup>(1)</sup>
Grading TLE (shoulders)	93.5 – 94.0	6.0 – 6.5 <sup>(1)</sup>
Grading OGFC	92.0 – 94.0	6.0 – 8.0 <sup>(1)</sup>

<sup>(1)</sup> If the effective combined specific gravity of the aggregate exceeds 2.80, the above proportions may be adjusted as directed by the Engineer. The upper limit for flow values shall not apply to mixes with modified asphalt liquids.

<sup>(2)</sup> The minimum allowable asphalt cement content for 411E low volume mixtures is 5.3%.

**Subsection 411.03.C.1**, (pg. 358), 12-15-21; **Recycled Asphalt Pavement**; Revise 2<sup>nd</sup> Paragraph:

All mixes shall contain at least 80% virgin asphalt, except for 411E Shoulder and 411TLE Shoulder Mixtures, which shall have at least 65% virgin asphalt.

**Subsection 414.03.B**, (pg. 367), 12-19-22; **Micro-Surfacing**; Revise Table 14.03-3:

**Table 414.03-3: Micro-Surfacing**

Test	Requirement
Mixing Time Test, seconds at 77 °F (T-102)	120 min
Mix Time, at 50 and 100 °F	(informational)
Set Time Tests: 30 minutes (T-139)	12 kg-cm min
Early Rolling Traffic Time: 60 minutes (T-139)	20 kg-cm min
Wet Stripping Test, % coating (T-114)	90% min
Wet Track Abrasion Test, loss in g/ft <sup>2</sup> (T-100)	75 max 6 days 50 max 1 hour
Measurement of Excess Asphalt (T-109)	50 grams/ft <sup>2</sup> max Sand Adhesion, 1,000 Cycles at 125 lbs
Classification Compatibility (T-144)	11 pt. min
<del>Loss on Ignition (LOI) Test, 407.03.E.3</del>	<del>(informational)</del>

**Subsection 414.06.B**, (pg. 377), 12-19-22; **Quality Control**; Add Subsection 5:

- 5. Aggregate Gradation.** Prior to the start of production and at a minimum of once per day of production, perform a washed gradation (AASHTO T 27 with AASHTO T 11) of the stockpiled aggregate to ensure the gradation meets the mixture control tolerances of Table 903.12-2.

**Subsection 415.03**, (pg. 382), 12-19-22; **General Requirements**; Revise 1<sup>st</sup> Paragraph:

Coordinate operations so that vertical longitudinal faces do not exceed ~~1-1/4 inches in~~ height requirements indicated by plans in areas to be used by public traffic. Taper transverse faces in a manner approved by the Engineer to avoid creating a traffic hazard. Perform cold planing in the direction of traffic.

**Supplemental Specifications – 500SS**

**of the**

**Standard Specifications for Road and Bridge Construction**

**January 1, 2021**

**Subsection 501.13**, (pg. 399), 12-19-22; **Testing Concrete**; Revise 2<sup>nd</sup> Paragraph:

The Engineer will determine the 28-day compressive strength of the concrete under construction by conducting tests during the progress of work in accordance with **604.15**. The method of making and curing test specimens will be in accordance with AASHTO ~~R 100F-23~~. Furnish the concrete necessary for the Engineer to conduct the field tests and provide a storage facility with watertight tanks of satisfactory size and number to accommodate the cylinder specimens. The Engineer may allow concrete that fails to meet the specified strength to remain in place, but the Department will pay for such concrete at a reduced price as specified in **604.31** to compensate for the loss of strength. Any reduction in payment because of low strength will be in addition to any reduction in payment related to deficiencies in pavement thickness or rideability.

**STATE****OF****TENNESSEE**

(Rev. 12-15-21)

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**Supplemental Specifications – 600SS****of the****Standard Specifications for Road and Bridge Construction****January 1, 2021****Subsection 602.04.A**, (pg. 429), 12-15-21; **Shop Inspection**; Revise A:

Fabricators of steel bridges shall hold the following certifications in accordance with the AISC Certification Program – Bridge QMS Certification:

1. As a minimum, all fabricators shall be certified in the category of Certified Bridge Fabricator – Intermediate Bridge (IBR) with applicable supplemental requirements.
2. Fabricators of advanced type bridges, as defined in the AISC Standard for Steel Bridges, shall be certified in the category of Certified Bridge Fabricator – Advanced (ABR) with applicable supplemental requirements.
3. Fabricators of diaphragms, cross-frames, floor beams, stringers (rolled beams) and laterals shall be certified in the category of Certified Bridge Fabricator – Intermediate Bridge (IBR), as a minimum.
4. Fabricators of bridge bearings, expansion joints, sign structures and other metal highway components as listed in the AISC standard shall hold certification under the AISC Certification Program – Bridge Component QMS Certification (CPT). As an alternative, fabricators of bridge bearing or expansion joints may hold certification under the Bridge QMS Certification in the category of Certified Bridge Fabricator – Intermediate Bridge (IBR).

Subsection 604.03.A.1.a, (pg. 502), 12-19-22; Design and Production Parameters; Revise Table 604.03-1 and 4<sup>th</sup> paragraph:

Table 604.03-1: Composition of Various Classes of Concrete

Class of Concrete	Min 28-Day Compressive Strength (psi)	Min Cement Content (pound per cubic yard)	Maximum Water/Cement Ratio (pound/pound)	Air Content % (Design ± production tolerance)	Slump (inches)
A	3,000	564	0.45	6 ± 2	3 ± 1 <sup>(1)</sup>
D, DS <sup>(2,3)</sup>	4,000	620	0.40	7 <sup>(3)</sup>	8 max <sup>(4)</sup>
L <sup>(3, 45)</sup>	4,000	620	0.40	7 <sup>(3)</sup>	8 max <sup>(4)</sup>
S (Seal)	3,000	682	0.47	6 ± 2	6 ± 2
X <sup>(56)</sup>					

- <sup>(1)</sup> For slip forming, the slump shall range from 0 to 3 inches.
- <sup>(2)</sup> Use Class D concrete in all bridge decks except box and slab type structures unless otherwise shown on the Plans. Use Class DS concrete in bridge decks with polish-resistant aggregate described in 903.03 and 903.24.
- <sup>(3)</sup> Design Class D, Class DS, and Class L concrete at 7% air content. Acceptance range for pumping and other methods of placement is 4.5-7.5%. Sampling will be at the truck chute.
- ~~<sup>(4)</sup> Water reducing admixtures are acceptable; however, do not exceed the maximum water/cement ratio in order to achieve the required slump.~~
- <sup>(45)</sup> The unit weight of air dried Class L concrete (lightweight concrete) shall not exceed 115 pounds per cubic foot as determined according to ASTM C567.
- <sup>(56)</sup> Plan specific requirements

Include chemical admixtures in the concrete mixture based on the ambient air temperature and expected weather conditions.

If using ~~chemical admixtures, a Type A, F, or G water reducer, then~~ the allowable slump shall be a maximum of 8 inches. Do not exceed the water cement ratio.

Subsection 604.03.A.1.d, (pg. 504), 12-19-22; Add Subsection d:

**d. Performance Engineered Mixtures (PEM) Design and Production Parameters**

Proportion the concrete based on a water-cement ratio that does not exceed the maximum shown in Table 604.03-3. The fine aggregate shall not exceed 50% by volume calculation of the total aggregate volume. The volume of paste shall not exceed 25%. The Contractor may elect to use PEM as an alternate/option in replacement of Class A concrete.

Document mixture adjustments, for moisture corrections, on the daily concrete report. Ensure that the adjusted mix complies with all the performance criteria specified in Table 604.03-3.

**Table 604.03-3: Composition of Performance Engineered Concrete**

Class of Concrete	Min 28-Day Compressive Strength (psi)	Min Cement Content (pound per cubic yard)	Maximum Water/Cement Ratio (pound/pound)	Air Content % (Design ± production tolerance)
PEM <sub>(1,2,3,4,5)</sub>	3,000 <sup>(1)</sup>	-	0.45	6 ± 2

- <sup>(1)</sup> Or as shown on the Plans or approved shop drawings.
- <sup>(2)</sup> Air Content must be accompanied with the Super Air Meter (SAM) number AASHTO T 395 for data collection only.
- <sup>(3)</sup> Resistance of Concrete to Rapid Freezing and Thawing AASHTO T 161 for data collection only.
- <sup>(4)</sup> Surface Resistivity Indication of Concrete’s Ability to Resist Chloride Ion Penetration AASHTO T 358 for data collection only.
- <sup>(5)</sup> Determining the Reactivity of Concrete Aggregates and Selecting Appropriate Measures for Preventing Deleterious Expansion in New Concrete Construction ASTM R80 for data collection only.

All Standards of Practice for Developing Performance Engineered Concrete Pavement Mixtures AASHTO R 101 are for data collection only.

Include chemical admixtures in the PEM mixture based on the ambient air temperature and expected weather conditions. Dosage rates for any admixtures incorporated into the concrete shall be stated during the mix design submittal process. All admixtures shall be compatible and incorporated into the concrete in accordance with the manufacturer’s recommendations. Concrete mixtures utilizing multiple admixture manufacturers shall prove compatibility in accordance with the Departmental procedures.

**Subsection 604.03.A.2**, (pg. 504-505), 12-19-22; **Mix Design Submittal**; Revise 1<sup>st</sup> and 3<sup>rd</sup> Paragraphs, and Add 6<sup>th</sup> Paragraph:

- 2. Mix Design Submittal.** Submit, for approval, the proposed design in accordance with Departmental procedures at least 14 days prior to use. Develop the design using saturated surface dry aggregate weights. The design shall be prepared in an approved testing laboratory by a TDOT Certified Concrete Mix Design Technician ~~or a Professional Engineer licensed by the State of Tennessee.~~ The TDOT Certified Concrete Mix Design Technician ~~or Professional Engineer licensed by the State of Tennessee~~ shall certify that the information contained on the design submittal is correct and is the result of information gained from the actual trial batch. Build trial batches for design no more than 90 days before submitting the design. The trial batch shall produce an average compressive strength to indicate that the specified 28-day strength can be obtained in the field. Make all strength determinations using equipment meeting the requirements of, and in the manner prescribed by, AASHTO T 22. The design shall provide concrete of the strength specified in all applicable Special Provisions, Plans, and Specifications. The approved mix design will expire at the end of each calendar year or if it does not meet the minimum 28-day strength requirements. Assume responsibility for all costs of concrete design, preparation, and submittal.



Self-consolidating concrete (Classes SCC, SH-SCC, and P-SCC) shall be verified prior to placement either at the ready mix, precast, or prestressed facility. The concrete producer shall notify Regional Materials and Tests a minimum of 1 business day prior to performing a trial batch verification of the submitted design, ~~in the presence of Regional Materials and Tests.~~ The trial batch will ensure that all batched quantities and target admixture dosage rates are acceptable and meet specification prior to design approval. All quantities and identified admixture target dosage rates shall meet the tolerances specified in **604.11**.

Performance engineered concrete (Class PEM) shall be verified prior to placement. The concrete producer shall perform trial batching in the presence of a Headquarters Materials and Tests representative. All quantities and admixture dosage rates shall meet the tolerances specified in 604.11. Gradations shall be submitted with each request.

**Subsection 604.03.A.3, (pg. 506), 12-19-22; Partial Cement Replacement with Fly Ash or Slag Cement; Revise 3<sup>rd</sup> Paragraph, Table 604.03-03, and 4<sup>th</sup> Paragraph:**

When designing Portland cement concrete with Type I or Type II cement modified by the addition of fly ash and/or slag cement, meet the maximum cement replacement rates (by weight) and minimum substitution ratios (by weight) specified in Table 604.03-~~43~~ for the applicable type of modifier.

**Table 604.03-~~43~~: Type I or Type II Cement Modified by Fly Ash or Slag Cement**

<b>Modifier</b>	<b>Maximum Cement Replacement Rate % (by weight)</b>	<b>Minimum Modifier Cement Substitution Rates (by weight)</b>
Slag Cement (Grade 100 or 120)	35.0	1:1
Class "F" Fly Ash	25.0	1:1
Class "C" Fly Ash	25.0	1:1

The Contractor may use ternary cementitious mixtures (mixtures with Portland cement, slag cement, and fly ash) for Class A, Class D, ~~and Class DS,~~ Class PEM concrete provided that the minimum Portland cement content is 50%. The maximum amount of fly ash substitution in a ternary cementitious mixture shall be 20%. The Department will allow Type IS cement with ternary cementitious mixtures. When using a Type IS cement, do not use any additional slag cement as a partial replacement for the hydraulic cement. The Department will allow a maximum of 20% fly ash as a partial hydraulic cement replacement in Class A concrete using only Type IS cement.

**Subsection 604.03.B**, (pg. 507-510), 12-19-22; **Quality Control and Acceptance of Concrete**; Revise 2<sup>nd</sup> and 5<sup>th</sup> Paragraphs, Add Sentence after 5<sup>th</sup> Paragraph, Revise Nos. 7,8,10,11, and 9<sup>th</sup> Paragraph:

The minimum size of a batch shall be 2.5 cubic yards. If less than 2.5 cubic yards is needed, the concrete must be provided by a Volumetric Continuous Mixer as specified in 604.04.C.

The concrete producer shall develop for the Engineer's approval and maintain at the plant a plant-specific Process Control Plan that shall apply to all Department contracts for the calendar year. Communicate all changes made to the Process Control Plan during the year to the Regional Materials and Tests Supervisor. Develop for the Engineer's approval a placement site Process Control Plan stating the procedures for sampling, testing, and inspection of the concrete. Maintain a record of all tests and inspections performed at the facility and placement site. Provide these documents to the Engineer upon completion of the Project for inclusion in the Project records. Provide a binder of current records in accordance with Departmental procedures.~~Keep records current and make them available to the Engineer for review at any time.~~

No water shall be added in the field for Class PEM concrete.

7. Conduct slump (~~AASHTO T 119~~) or slump flow (~~ASTM C1611~~) and air tests (~~AASHTO T 152~~). For Class PEM provide the Super Air Meter (SAM) number for informational purposes only.
8. Conduct yield tests (~~AASHTO T 121~~). If yield varies more than plus or minus 2% from that shown on the design, stop all batching operations until the problem has been identified and corrected or a new concrete design has been obtained. Additionally for Class PEM only, determine Unit Weight by AASHTO T 121.
10. Conduct tests for concrete and ambient air temperatures AASHTO T 309.
11. Provide a daily report to the Engineer that identifies the date, Contract and Project, Item number(s), batch weights, aggregate gradations, moisture corrections, admixtures, slump, air content, temperatures, and similar pertinent information.

The Department or its representative will be responsible for performing all acceptance tests. A TDOT Concrete Field Testing Technician or ACI equivalent will sample and test in accordance with Departmental 604.04 510 procedures. The Department will ensure the Contractors initial curing conditions are properly maintained during the initial curing period as specified in 722.09 and also be responsible for properly curing and transporting all acceptance cylinders are transported according to AASHTO R 100T-23.

**Subsection 604.04.A.1**, (pg. 511), 12-19-22; **Batching Plant, Multi-Aggregate Feed System, and Equipment, General**; Revise 2<sup>nd</sup> Paragraph:

All producers of concrete shall be on the Department's Producer List. ~~and be actively certified by the National Ready Mixed Concrete Association (NRMCA) Plant Certification Program.~~

**Subsection 604.04.B.3**, (pg. 513), 12-19-22; **Truck Mixers and Truck Agitators**; Revise 1<sup>st</sup> Paragraph:

~~Truck mixers shall be certified by the National Ready Mix Concrete Association (NRMCA) Delivery Vehicle Certification Program Option A or Option B. Each truck shall display the NRMCA certification card.~~ Ensure that truck mixers used for mixing and hauling concrete, as well as the truck agitators used for hauling central-mixed concrete, meet all the applicable requirements specified in **604.04.B.1**. Truck mixers shall have a manufacturer's plate indicating the various uses for which the equipment is designed, the gross volume of the drum, and the minimum and maximum speed of rotation of the drum or blades for charging, mixing and agitating. Equip truck mixers with an approved device for recording the number of revolutions of the drum or blades

**Subsection 604.15.A**, (pg. 532), 12-19-22; **Compressive Strength Tests of Concrete, General**; Revise 2<sup>nd</sup> Paragraph:

The frequency of testing for compressive strength to determine when forms may be removed, or when a structure may be put into service, shall be as requested by the Contractor or as deemed necessary by the Engineer in accordance with **604.15.C** or **604.15.D**.

**Subsection 604.15.B**, (pg. 532-533), 12-19-22; **Concrete Acceptance Cylinders**; Revise 1<sup>st</sup>, Remove 2<sup>nd</sup> and Revise 3<sup>rd</sup>, 5<sup>th</sup>, and 6<sup>th</sup> Paragraphs:

The Department will test the specimens for compressive strength according to AASHTO T 22. Provide the necessary concrete for making test specimens and adequate curing and storage facilities specified in 722.09 at no additional cost to the Department. Provide hourly temperature data for each day the specimens were kept in the initial curing environment.

~~Concrete cylinders submitted for testing beyond 28 days shall comply with the design strength requirements specified in 604.03 or the Plans.~~

If the acceptance cylinders fail to meet the specified strengths, the Contractor must provide QC data from ~~companion cylinders that meet or exceed the required strength, and TDOT Materials and Test shall perform a nondestructive test using a Swiss Hammer on the concrete to prove required strength is achieved the batching operation for the suspect concrete delivered and a letter of intent to core the suspect location,~~ and then the Contractor may drill core samples from the hardened concrete as verification of concrete strength instead of using the concrete cylinders. Companion cylinders shall be made from the same sample as the acceptance cylinders. If When these requirements are met, the Contractor may then elect to drill a minimum of two or maximum of three concrete core samples per set of cylinders from the hardened concrete. The ~~Cores~~ contractor shall be obtained the cores in accordance with Departmental procedures. Obtaining the concrete cores and repairing the concrete core holes shall be at no cost to the Department.

The Engineer will not accept ~~concrete cylinders and~~ cores submitted for testing beyond 56 days.

The average compressive strength of all the two cores taken to represent the failing concrete acceptance cylinders will be considered to be the acceptance strength of record for the in-place concrete. Any core that fails to meet the standard for cores in the Departmental procedures will be discarded untested and not considered in the average compressive strength. In accordance with **604.31**, the Engineer will accept at a reduced pay concrete that meets the required strengths specified in **604.03** or the Plans for the respective class.

**Subsection 604.15.C**, (pg. 534), 12-19-22; **Compressive Strength Tests of Concrete, Early Break Cylinders**; Revise 1<sup>st</sup> Paragraph:

Make and cure all test specimens according to AASHTO ~~R 100T-23~~, and the applicable procedures therein defined for Field Cured Specimens, unless otherwise specified by the Engineer. The Department will test the specimens for compressive strength according to AASHTO T 22. Provide the necessary concrete for making test specimens at no additional charge to the Department.

**Subsection 604.15.D**, (pg. 534), 12-19-22; **Compressive Strength Tests of Concrete, Maturity Method**; Add Subsection D:

**D. Maturity Method**

Strength of concrete in-place may be estimated by the Standard Practice for Estimating Concrete Strength by the Maturity Method AASHTO T 325 and Departmental procedures for critical activities. (open pavement to traffic, removing forms, post tension, shipping, cold weather). The Department will break a set of cylinders made from the pour in question to verify the strength-maturity relationship, the concrete will be accepted on the basis of the 28 day strength as defined by the strength-maturity relationship. If the cylinders break within 10% of the estimated strength based on the strength-maturity relationship, the concrete will be accepted on the basis of the 28 day strength as defined by the strength-maturity relationship. If the cylinders break outside of the 10% tolerance, the 28 day cylinders will be broken and the concrete will be accepted per 604.15.B.

**Subsection 604.19**, (pg. 541), 12-19-22; **Removal of Forms and Falsework**; Revise 3<sup>rd</sup> Paragraph:

~~The Contractor may~~ Release and remove falsework and supports under concrete structures only when the following conditions are met:

1. Representative specimens of the concrete, made and cured in accordance with **604.15.C**, attain a compressive strength of 3,000 pounds per square inch- or when Strength Maturity relationship indicates the concrete has achieved 3000 pounds per square inch and has been verified per 604.15.D.
2. The concrete has been in place a minimum of 7 days, not counting days of 24 hours each in which the temperature falls below 40 °F, or 21 calendar days, whichever occurs first.

**Subsection 604.31**, (pg. 557), 12-19-22; **Basis of Payment**; Revise 6<sup>th</sup> & 7<sup>th</sup> Paragraphs and Revise Equation:

Where concrete mixture does not meet the specified strength but is allowed to be included in the permanent construction as specified in **604.20** or ~~excess~~ the acceptance strength of record fails to meet the strengths specified in **604.15**, the Department will use the following equation to determine the percent price deduction for the invoiced price of the defective concrete mixture. payment of contract bid price.

$$PDP = 100 - (3 \times Ds) \times IP \times Q$$

Where:

~~PDP = Percent Price Deduction by the Dollar Payment~~

~~Ds = Percent Below Specified Strength~~

$$Ds = \left[ \frac{(\text{Specified Strength} - \text{Actual Strength})}{\text{Specified Strength}} \right] \times 100$$

~~IP = Invoice Price by the Cubic Yard~~

~~Q = Quantity of Defective Concrete by the Cubic Yard~~

~~The Department will base the percent payment on the unit price of the item as bid, i.e., volume [cubic yards], length [feet], each, or other designated bid unit.~~

~~The price deduction shall only apply to the invoiced delivery cost of the defective concrete mixture. The deduction shall not apply to incidental items associated with the bid items such as labor, reinforcing steel, etc. Supply the Engineer with a certified invoice from the producer for the defective concrete mixture. The certified invoice will be for the cost of the concrete mixture with taxes and fees delivered to the project.~~

~~Payment of the calculated percentage includes cost of incidental items such as reinforcing steel when included in the price bid for the item.~~

**Subsection 607.02.B**, (pg. 579), 12-15-21; **Materials, Pipe Culverts, Cross Drains, Side Drains, & Storm Drains**; Remove 1<sup>st</sup> Sentence:

**B. Pipe Culverts, Cross Drains, Side Drains, & Storm Drains**

~~Where Pipe Culverts (Cross Drains & Median Drains) are specified, provide them in accordance with the following:~~

**Subsection 607.07**, (pg. 582), 12-15-21; **Joining Pipe**: Revise 5<sup>th</sup> paragraph.

HDPE, PP, SRTRP, and PVC pipe shall be joined in accordance with ASTM D3212 and meet the performance requirements for water-tight. Install joints so that the connection of pipe sections, for a continuous line, will be free from irregularities in the flow line.

**Subsection 615.09**, (pg. 624), 12-19-22; **Proportioning and Mixing of Concrete**; Revise 5<sup>th</sup> Paragraph:

Make concrete test specimens for Class P and Class P-SCC, in accordance with AASHTO ~~R 100T-23~~ and ASTM C1758 respectively, to determine the adequacy of the concrete design and the minimum time at which the stress may be applied to the concrete. Cure the test specimens used to determine the time at which stress may be applied in the same manner and under the same conditions as the bridge members. The initial curing of specimens to determine the design strength of the concrete shall be specified above with additional curing water, as provided in AASHTO ~~R 100T-23~~. The compressive strength of the concrete will be ~~determined from the average strength of at least two representative test specimens made and cured as specified above and tested in accordance with AASHTO T 22 estimated using the Maturity Method in accordance with 604.15.D.~~ The frequency of sampling and testing will be in accordance with Departmental procedures.

**Subsection 619.04.A**, (pg. 652-653), 12-15-21; **Volumetric Continuous Mixers**; Revise No. 3 & Ticket List:

3. The volumetric mixing plant shall be operated and calibrated by a Volumetric Mixer Operator with a TDOT Concrete Field Testing Technician Certification or equivalent. In the presence of the Engineer, perform the calibration of gate settings according to the manufacturer's recommendations for the mix design to be used before starting work. The calibration procedure shall account for the moisture content of the aggregates. The yield shall be maintained within a tolerance of plus or minus 1% and verified using a minimum 2 cubic feet container every 50 cubic yards. Recalibrations will be necessary when indicated by the yield checks, and at any other times the Engineer deems necessary to ensure proper proportioning of the materials.

Each load of concrete produced by a volumetric continuous mixing plant shall be accompanied by a Concrete Delivery Ticket. The ticket shall include as a minimum the following:

- a. Date
- b. Contract number
- c. County
- d. Class of concrete
- e. Concrete design number
- f. Number of cubic yards
- g. Load number
- h. Truck number
- i. Maximum water allowed by design
- j. Total water added
- k. Water-cementitious materials ratio
- l. Time loaded
- m. Time discharged
- n. Signature of producer's Volumetric Mixer Operator

**Subsection 619.04.A**, (pg. 653), 12-19-22; **Volumetric Continuous Mixers**; Revise Ticket List:

Each load of concrete produced by a volumetric continuous mixing plant shall be accompanied by a Concrete Delivery Ticket. The ticket shall include as a minimum the following:

- a. Date
- b. Contract number
- c. County
- d. Class of concrete
- e. Concrete design number
- f. Number of cubic yards
- g. Load number
- h. Truck number
- i. Maximum water allowed by design
- j. Total water added
- k. Water-cementitious materials ratio
- ~~l. Time loaded~~
- l. Time discharged
- m. Signature of producer's Volumetric Mixer Operator

**Subsection 622.03.A**, (pg. 665), 12-19-22; **Proportioning and Quality Assurance of Shotcrete, Proportioning**; Revise 3<sup>rd</sup> Paragraph:

Shotcrete shall meet the performance requirements specified in Table 622.03-1 and meet the requirements for cement replacement in 604.03.A.3.

**Subsection 623.02.C.1**, (pg. 673), 12-15-21; **Modular Roadway Expansion Joints, Fabrication and Construction**; Revise No. 1:

1. Construct the expansion joint systems as shown on the shop drawings. Meet the tolerance requirements included in AASHTO specifications. Perform all welding according to AWS specifications and by certified welders only. Ensure that fabricators are certified under the AISC Certification Program – Bridge Component QMS Certification (CPT). As an alternative, fabricators of bridge bearing or expansion joints may hold certification under the Bridge QMS Certification in the category of Certified Bridge Fabricator - Intermediate Bridge (IBR).

**Subsection 623.03.C.2**, (pg. 676, 677), 12-15-21; **Strip Seal Expansion Joints, Fabrication and Construction**; Revise No. 2:

2. Shop drawings shall also supply information regarding material specifications, geometry, a table of variable temperature and dimensions, and a bill of material. The maximum joint opening shall be 4 inches. Construct the expansion joint systems in accordance with the details shown on the shop drawings. Tolerance requirements shall be in accordance with AASHTO Specifications. Perform all welding in accordance with AWS specifications and by certified welders only. Ensure that fabricators are certified under the AISC Certification Program – Bridge Component QMS Certification (CPT). As an alternative, fabricators of bridge bearing or expansion joints may hold certification under the Bridge QMS Certification in the category of Certified Bridge Fabricator - Intermediate Bridge (IBR).



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Supplemental Specifications – 700SS

of the

Standard Specifications for Road and Bridge Construction

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**Subsection 702.02**, (pg. 688), 12-19-22; **Materials, Revise 4<sup>th</sup> Paragraph:**

The Department will make compressive strength test specimens in accordance with AASHTO R 100T-23.

**Subsection 705.06**, (pg. 697-698), 12-19-22; **Installation of Posts; Revise 1<sup>st</sup>, 2<sup>nd</sup>, Nos. 1,2,3, & 4 and 4<sup>th</sup> Paragraphs:**

Before beginning any excavation or driving any guardrail post, determine the location of all underground electrical, drainage, and utility lines in the vicinity, and conduct work ~~so as~~ to avoid damaging these facilities. Dig or drill holes to the depth shown on the Plans and/or the approved Shop Drawings and to a size that will allow proper setting of the posts and sufficient room for backfilling and tamping. ~~Alternatively, the Contractor may d~~Drive posts using approved methods and equipment, provided the posts are erected in the proper position and are free of distortion, burring, or other damage.

If solid rock is encountered while installing guardrail posts to the minimum depth required. The installation of guardrail posts shall meet requirements that are detailed in the Departments Standard Drawings or approved Shop Drawings for drilling post holes.:

- ~~1. Within 18 inches of the ground surface, drill an oversized or elongated hole 24 inches into the rock. Set the post at the roadside edge of the hole, and backfill the hole with the cutting spoils.~~
- ~~a. If using wooden posts, either drill a single oversized hole 23 inches in diameter, or three overlapping holes 10 inches in diameter, to a length of 23 inches.~~
- ~~b. For steel posts, drill a single oversized hole, 20 inches in diameter, or three overlapping holes 8 inches in diameter, to a length of 20 inches.~~



~~2.—Below 18 inches of the ground surface, drill holes 12 inches into the rock or to the depth shown on the Plans. The holes shall be 8 inches in diameter for steel posts, and 12 inches in diameter for wood posts.~~

~~3.—If solid rock is encountered~~ ~~W~~When installing end terminals using tubes, install posts 1 and 2 to full depth or a minimum of 36 inches into the solid rock. Backfill the holes around the steel tube with the cutting spoils.

~~4.—~~See approved shop drawings for additional information concerning post depth and hole size.

Backfill dug holes with selected earth or other suitable materials in layers not to exceed 4 inches in thickness. Thoroughly tamp each layer. After backfilling and tamping is complete, hold the posts or anchors securely in place.

**Subsection 705.06, (pg. 698), 12-15-21; Installation of Posts; Add new 7<sup>th</sup> Paragraph:**

When an underground structure or utility prevents proper post installation for a run of guardrail, posts may be omitted along the run of guardrail only as detailed in the Department's Standard Drawings. A post will not be omitted from any end terminal or transition. If the conditions noted for omitting posts cannot be used, then the use of a guardrail footing or weak post attachment to culvert may be used as detailed in the Department's Standard Drawings

**Subsection 705.10, (pg. 700), 12-15-21; Basis of Payment; Add new 7<sup>th</sup> Paragraph:**

When posts are omitted from a run of guardrail, payment shall be as noted in the Standard Drawings.

- a. For 1 post being omitted, the Department will pay the contract unit price for W Beam Guardrail (Type 2) MASH TL-3.
- b. For 2 or 3 posts being omitted, the Department will pay for the linear feet of nested W Beam rail as detailed in the Standard Drawings at a rate equal of 1.5 times the contract unit price for W Beam Guardrail (Type 2) MASH TL-3.
- c. If a guardrail footing or attachment to culvert was used, the Department will pay for work as noted in the Standard Drawings.

**Subsection 710.06, (pg. 723), 12-19-22; Aggregate Underdrains (with Pipe); Revise 1<sup>st</sup> Paragraph:**

Excavate the trench to receive the pipe at the locations shown on the Plans or as directed by the Engineer. If the Plans do not show dimensions, construct the width of the trench to be not less than ~~the outside diameter of the pipe plus~~ 12 inches. Make the trench deep enough to intercept the water-bearing strata and to allow installation of the pipe and cover material. Unless otherwise shown on the Plans, spread a 2-inch layer of aggregate on the bottom of the trench, compact it, and bring to a uniform grade.

**Subsection 712.02, (pg. 731-732), 12-15-21; Materials; Revise List:**

Aluminum.....	916.02
Paint.....	910.02
Cold Rolled Carbon Steel -16 gauge .....	ASTM A1008
Non-metallic Drums and Barricades .....	QPL
Reflective Sheeting.....	916.06

**Subsection 712.02.B, (pg. 732), 12-15-21; Temporary Pavement Marking Material; Revise 1<sup>st</sup> Paragraph:**

Unless otherwise specified, the material for pavement marking shall be either temporary pavement marking tape listed on the Department’s QPL, or reflectorized paint with raised reflective pavement markers placed as shown on the Plans

**Subsection 712.02.E, (pg. 733), 12-15-21; Portable Impact Attenuators; Revise Heading & 1<sup>st</sup> Paragraph:**

**E. Temporary Work Zone Crash Cushions**

Temporary work zone crash cushions shall be in accordance with the Plans and Specifications, meet the requirements for the appropriate test level, and meet the requirements of and be listed on the Department’s QPL or Standard Drawings.

**Subsection 712.04.B, (pg. 735-736), 12-15-21; THP Troopers and Uniformed Law Enforcement Officers; Revise 2<sup>nd</sup> Paragraph:**

When a THP Trooper is not available, the Contractor may provide a Uniformed Law Enforcement Officer if approved by the Engineer and the Regional Safety Coordinator or Regional Operations Office. All Uniformed Law Enforcement Officers shall provide a marked Federal, State, County, City, or Metropolitan government law enforcement vehicle equipped with blue lights and have the authority to write traffic tickets and make arrests within the project site. The Uniformed Law Enforcement Officer shall maintain a detailed written log of enforcement activities and shall submit the log to the Engineer for verification each month.

**Subsection 712.06**, (pg. 743), 12-15-21; **Temporary Marking; Revise Heading, Add No. 2, & Revise No. 1 & 3:**

**712.06 Temporary Pavement Marking**

Unless otherwise specified, install temporary pavement marking as follows:

1. Provide 4-inch wide pavement marking (line) for center, edge, lane and barrier lines as shown on the Plans for projects that will have traffic maintained overnight. For temporary pavement markings (line) on intermediate layers of pavement, use reflective tape, reflectorized paint, and raised pavement markers, or a combination thereof as shown on the Plans or as required by the Engineer, and install meeting **716, 910.02, 919.04**, or Department's QPL at the end of each day's work. Short, unmarked sections will not be allowed. Preserve established no-passing zones, if any, on the existing pavement; if no-passing zones have not previously been established, establish them before beginning the work. Mark two-lane, two-way highways with 10-foot long center lines applied on 40-foot centers and appropriate no-passing barrier lines.
2. When required, provide temporary pavement markings at intersections for temporary pavement markings on intermediate layers of pavement. The Department will require temporary intersection pavement markings to be reflectorized paint, or removable pavement marking meeting **716, 910.02, 919.04**, and or Department's QPL.
3. Where required on the completed permanent pavement surface, meet **716.03**.

**Subsection 712.09**, (pg. 744, 745), 12-15-21; **Method of Measurement; Revise No. 5, 7, 8 & Add 9:**

5. Warning Lights and Flashing Arrow Boards by the unit, Changeable Message Signs per each for the type designated. Payment will be based on the maximum number in place at one time.
7. Temporary Work Zone Crash Cushion based on the initial installation of each. No additional payment will be made for removal, moving, and reinstalling at other locations on the Project as directed by the Engineer. Payment will be based on the maximum number in place at one time.
8. Temporary pavement marking (line) for edge, center, lane and barrier lines will be measured as listed in the plans, complete in place and accepted, as Painted Pavement Marking (Line) regardless of whether the lines are painted, taped markings, or raised pavement markers, or a combination of the above as shown on the Plans or as required by the Engineer. Only the marked line will be measured for payment.
9. Temporary pavement markings at intersections will be measured as listed in the plans complete in place and accepted as Painted Pavement Marking (Description) or Removable Pavement Marking (Description)

**Subsection 712.10, (pg. 746, 747), 12-15-21; Basis of Payment; Revise Item List & Paragraphs 4, 5, 9, Remove Paragraph 8:**

<i>Item</i>	<i>Pay Unit</i>
Traffic Control	Lump Sum
Portable Barrier Rail	Linear Feet
Temporary Work Zone Crash Cushion	Each
Signs	Square Feet
Flexible Drums	Each
Temporary Barricades (Type)	Linear Feet
Removable Pavement Marking (Description)	Linear Feet
Changeable Message Sign Unit	Each
Arrow Board (Type C)	Each
Barrier Rail Delineator	Each
Temporary Flexible Tubular Delineator	Each

Payment for Temporary Work Zone Crash Cushion will be made at the contract price, complete in place, with total payment based on the maximum number in place at one time as specified in **712.09**.

Payment for Signs (Construction) is full compensation for providing sign panels with proper sheeting and legend, erecting on proper supports, furnishing all mounting hardware, covering when not in use, relocating, handling, and maintaining until Project completion. Vertical Panels will be paid as Signs (Construction).

Payment for Removable Pavement Marking items shall be full compensation for the installation, maintenance, and removal of the marking line when it is no longer required.

**Subsection 716.03.B, (pg. 790), 12-15-21; Application; Revise No. 3 & Add No. 4:**

3. **Temporary Pavement Marking (Line).** When thermoplastic is used on the final pavement surface, the Contractor may use reflectorized paint for the center, edge, lane and barrier lines installed meeting **716.07** and **910** at the end of each day’s work and then install the permanent pavement marking after the paving operation is completed. Short, unmarked sections are not allowed. The Department will not directly measure and pay for temporary markings for the final surface and will consider the costs thereof to be incidental to the item for the permanent thermoplastic pavement markings (line).
  
4. **Temporary Pavement Markings at Intersections.** When required, temporary pavement markings at intersections are to be installed with reflectorized paint meeting **716.07** and **910**. The Department will measure and pay as noted in **712.09** and **712.10**,

**Subsection 716.07.A, (pg. 793), 12-15-21; Application; Revise 11<sup>th</sup> Paragraph:**

When reflectorized paint is required for temporary or final marking, install the paint meeting **910.02** at the end of each day’s work. Do not leave any short, unmarked sections.

**Subsection 717.03, (pg. 799-800), 12-19-22; Basis of Payment; Revise Subsection:**

The Department will pay for Mobilization on a lump sum basis.

The Department will make partial payments for Mobilization based on the amount bid for mobilization and the total original contract amount for all items of work. with the first and second partial pay estimates paid on the Contract. Payment will be made at the rate of 50% of lump sum price for Mobilization on each of these partial pay estimates provided the amount bid for Mobilization does not exceed 5% of the total amount bid for the Contract. If the amount bid for the item of Mobilization exceeds 510% of the total amount bid for the Contract, the Department will pay 2-1/2% of the total amount bid on each of the first partial payment estimates, and that portion exceeding 510% on the last partial pay estimate. Payments will be made according to Table 717.03-1.

**Table 717.03-1: Payment Schedule for Mobilization**

<u>Payment Estimate Number or Completion of Contract</u>	<u>Payment Amount whichever is least</u>	<u>Accumulated Payment whichever is least</u>
<u>Estimate # 1</u>	<u>25% Lump Sum Item or 2.5% Contract Price</u>	<u>25% Lump Sum Item or 2.5% Contract Price</u>
<u>5% of Contract (Excluding previous mobilization payments and stockpile payments per 109.09)</u>	<u>25% Lump Sum Item or 2.5% Contract Price</u>	<u>50% Lump Sum Item or 5.0% Contract Price</u>
<u>10% of Contract (Excluding previous mobilization payments and stockpile payments per 109.09)</u>	<u>25% Lump Sum Item or 2.5% Contract Price</u>	<u>75% Lump Sum Item or 7.5% Contract Price</u>
<u>50% of Contract (Including previous mobilization payments and stockpile payments per 109.09)</u>	<u>25% Lump Sum Item or 2.5% Contract Price</u>	<u>100% Lump Sum Item or 10.0% Contract Price</u>
<u>Last Partial Pay Estimate</u>	<u>Portion Exceeding 10%</u>	<u>Portion Exceeding 10%</u>

If 50% or more of the total original contract amount is completed by the payment of Estimate #1, a payment of 75% of the price bid for Mobilization will be made on Estimate #1. The remainder of the price bid for Mobilization will be paid on the following estimate.

As an exception to the above, where the Work covered by the Contract is limited exclusively to the resurfacing of an existing pavement, including projects involving the milling off of a portion of the existing pavement prior to the laying down of new asphalt cement concrete layer(s), the Department will pay the entire lump sum price for the item of Mobilization, less the retainage provided for in Title 54-5-121, TCA, with the first partial pay estimate paid on the Contract, provided the amount bid for Mobilization does not exceed 5% of the total amount bid for the Contract. If the amount bid for the item of Mobilization exceeds 5% of the total amount bid for the Contract, the Department will pay 5% of the total amount bid for the Contract on the first partial pay estimate, and the portion exceeding 5% on the last partial pay estimate.

**Subsection 722.06.E, (pg. 803), 12-19-22; Interior Utility Services; Revise Subsection E:**

**E. Telephone, ~~Answering Machine,~~ and ~~Internet Facsimile Machine~~**

Provide telephone service with ~~an answering machine, voicemail and two incoming phone lines.~~ Provide internet service with wifi and two data ports for wired connections, a facsimile machine, and two incoming phone lines.

**Subsection 722.09, (pg. 805), 12-19-22; Concrete Cylinder Storage; Revise 1<sup>st</sup> Paragraph:**

Provide a storage facility (shed/building) for temporary storage of concrete acceptance cylinders. The storage facility shall be of sufficient size and construction to protect the concrete cylinders from the elements and damage. Obtain the Engineer's approval of the storage facility location. Department personnel ~~will control~~ shall have access to the storage ~~facility shed/building~~. Equip the storage ~~facility shed~~ with a concrete curing environment consisting of a box or water curing tank with a heating/circulating system of sufficient size to properly cure all acceptance cylinders before transferring for final storage and testing. Provide a temperature measuring device capable of recording the conditions inside the curing environment. The curing ~~environment box or curing tank and heater/circulator~~ shall comply with AASHTO M 201, and proper curing of the cylinders shall be in accordance with AASHTO ~~R 100T-23~~. Temperature data for the curing environment shall be kept for the duration of the projects and made available to the Department upon request. The Department will not accept any concrete without the Engineers approval of the storage facility. The storage facility shall be equipped with a measuring device that will record the minimum and maximum temperatures inside of the curing area.

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**Supplemental Specifications – 900SS**  
**of the**  
**Standard Specifications for Road and Bridge Construction**  
**January 1, 2021**

**Subsection 901.01, (pg. 900), 12-19-22; Hydraulic Cement; Revise List, 2<sup>nd</sup>, and 3<sup>rd</sup> Paragraphs:**

- Portland Cement.....AASHTO M 85
- ~~Blended Hydraulic Cement Portland blast furnace slag cement (Type IS)~~ AASHTO M 240
- ~~Portland pozzolan cement (Type IP) .....~~AASHTO M 240
- ~~Portland limestone cement (Type IL).....~~AASHTO M 240

The maximum allowable equivalent alkalis ~~is 0.60%~~ for ~~all Portland cements~~ is 0.60 % and ~~blended cements when~~ used in ~~roadways concrete riding surfaces~~ with aggregates meeting the requirements of **903.24. This includes Class CP, A Paving, and DS concrete mixtures.**

Use Type I, Type IL, Type IP, or Type IS cement unless otherwise specified. Do not mix different types or sources of cement.

**Subsections Listed, (pg. varied), 12-19-22; Hydraulic Cement 901.01; Revise Following Subsections:**

- 204.06.B, (pg. 156), Revise Materials List:**
- 304.02, (pg. 230), Revise Materials List:**
- 306.02, (pg. 238), Revise Materials List:**
- 309.02, (pg. 252), Revise Materials List:**
- 312.05, (pg. 266), Revise 1<sup>st</sup> Paragraph first sentence:**
- 313.02, (pg. 270), Revise Materials List:**
- 616.03, (pg. 635), Revise Materials List:**
- 619.02, (pg. 650), Revise Materials List:**
- 619.03, (pg. 651), Revise Table 619.03-1:**
- 619.13, (pg. 657), Revise 1<sup>st</sup> Paragraph first sentence:**
- 622.02, (pg. 664), Revise Materials List:**

**Subsection 903.03, (pg. 904-905), 12-19-22; Coarse Aggregate for Concrete; Revise 2<sup>nd</sup>,4<sup>th</sup>,5<sup>th</sup>,6<sup>th</sup> and 7<sup>th</sup> Paragraphs:**

Coarse aggregate for hydraulic cement concrete to be used in the finished riding surfaces of roadways shall meet requirements of 903.24 unless otherwise specified. Coarse aggregate in Portland cement concrete for bridge decks (except decks that will be overlaid with HFST or Asphalt Pavements during the same construction season) and overlays on interstates and four or more lane highways consisting of Size No. 57 shall meet 903.24 unless otherwise specified.

Coarse aggregate in Portland cement concrete pavements for finished riding surfaces of travel lanes including mainline pavements and ramps shall consist of Size No. 467. Ensure that either the Size No. 4 or Size No. 67 fractions meet **903.24**. ~~Ramps using Class A paving concrete or any riding surface travel lane consisting of Size No. 57 shall meet 903.24.~~

Coarse aggregate in two-lift composite pavements shall consist of Size No. 467 in the lower lift, graded as specified in **903.22**, ~~the coarse aggregate for the lower lift does not have to meet the requirements of 903.24~~. Coarse aggregate in the upper lift shall be Size No. 57 or 67 graded as specified in **903.22** and shall meet **903.24** riding surface requirements.

~~Coarse aggregate in Portland cement concrete bridge decks and overlays on interstates and four or more lane highways consisting of Size No. 57 shall meet 903.24~~

The coarse aggregates for travel lanes and bridge decks shall be crushed and consist of stone, slag, gravel, quartzite, gneiss, or combination thereof, ~~with an~~ The absorption of plus 4 material ~~shall not to~~ exceed 5% on any individual aggregate. Do not use uncrushed gravel, pea gravel, or any other uncrushed particles. Crushed gravel, if used, shall consist of siliceous washed particles after processing, of which at least 70% by count of the material retained on the No. 4 sieve contains a minimum of two fractured faces. One face shall be fractured for the approximate average diameter or thickness of the particle.

**Subsection 903.11.C.3, (pg. 920), 12-19-22; Grading OGFC; Remove 2<sup>nd</sup> Paragraph:**

~~Recycled asphalt pavement (RAP) milled from Department or other State Highway Agency projects shall be assumed to contain 75% polish resistant material.~~



**Subsection 903.12.B, (pg. 921-922), 12-19-22; Aggregate for Micro-Surface; Revise 1<sup>st</sup>, 2<sup>nd</sup> Paragraphs, and Table 913.12-2:**

The aggregate shall be crushed slag, crushed granite, or crushed stone (crushed stone as specified in **903.24**) meeting the gradation limits specified in Table 903.12-2 and the physical properties of ASTM D692, except the percent of fractured pieces shall be 100. The aggregate shall meet the quality requirements in **903.25**. The aggregate shall have a minimum sand equivalent, as determined in accordance with AASHTO T 176, of 65. Polish-resistant aggregates will not be required for leveling courses, provided they will be covered with riding surface mixtures. ~~The contractor shall provide a Type A laboratory as defined by 106.06 capable of verifying gradation at the location of stockpiled material where blending occurs~~ **Provide a Type A laboratory as defined by 106.06 capable of verifying gradation at the location of stockpiled material where blending occurs**

If blending aggregates from more than one source, use automated proportioning and blending equipment which has individual bins for each aggregate source used to produce a uniform stockpile meeting the job mix formula gradation. Proportion and blending equipment shall be calibrated at the beginning of production. All aggregate sources shall be polish-resistant as specified in **903.24**. ~~The contractor shall provide a Type A laboratory as defined by 106.06 capable of verifying gradation at the location where blending occurs~~

**Table 903.12-2: Gradation Limits for Aggregate for Micro-Surface Based on Wash Gradation**

Sieve	Design Master Range (Total Percent Passing)	Mixture Control Tolerances
3/8 inch	100	
No. 4	70-98	<del>±6.0</del> ±5.0
No. 8	45-70	±5.0
No. 16	28-50	±5.0
No. 30	19-34	<del>±4.0</del> ±5.0
No. 50	12-25	±4.0
No. 100	7-18	<del>±2.0</del> ±3.0
No. 200	4-15	±2.0

**Subsection 904.03** (pg. 931-934), 12-15-21; **Emulsified Asphalt**; Revise Table 904.03-1(c):

**Table 904.03-1(c): Test Requirements for Emulsified Asphalt**

<b>Practices</b>	<b>AASHTO Test Method</b>	<b>CRS-2P</b>	<b>RS-2</b>	<b>RS-1</b>	<b>CRS-1</b>
Saybolt-Furol Viscosity @ 77 °F, seconds	T59	n/a	n/a	20-100	n/a
Saybolt-Furol Viscosity @ 122 °F, seconds	T59	100-400	75-400	n/a	20-100
Storage Stability Test, 24- h, %	T59	1 Max	1 Max	1 Max	1 Max
5-day Settlement, %	T59	n/a	n/a	n/a	n/a
Particle Charge	T59	Positive	n/a	n/a	Positive
Sieve Test, %	T59	0.1 Max	0.1 Max	0.1 Max	0.1 Max
Residue by	T59	Evaporation	Distillation	Distillation	Distillation
Residue, %	T59	65 Min	63 Min	55 Min	60 Min
Demulsibility, %	T59	40 Min	60 Min	60 Min	40 Min
Distillate, %	T59	n/a	n/a	n/a	n/a
Oil Test, %	T59	n/a	n/a	n/a	3.0 Max
Stone Coating	T59	n/a	n/a	n/a	n/a
Float Test, seconds	T50	n/a	n/a	n/a	n/a
Penetration	T49	75-175	100-200	100-200	100-250
Elastic Recovery, % <sup>(1)</sup>	T301	50 Min	n/a	n/a	n/a
Ductility @ 77 °F, cm	T51	40 Min	40 Min	40 Min	40 Min
Ductility @ 40 °F, cm	T51	n/a	n/a	n/a	n/a
R&B Softening Point, °F	T53	125 Min	n/a	n/a	n/a
Original G*/sind @ 82 °C	T315	n/a	n/a	n/a	n/a

<sup>(1)</sup> Straight-sided mold, 20-cm elongation, 5min hold, 25 °C

**Subsection 914.01**, (pg. 977), 12-19-22; **Non-Reinforced Concrete Pipe**; Revise 2<sup>nd</sup> Paragraph:

Manufacture all non-reinforced concrete pipe to meet the Department’s procedure for the Manufacture and Acceptance of Precast ~~Concrete Products, Drainage Structures, Noise Wall Panels, and Retaining Wall Panels.~~

**Subsection 916.06**, (pg. 988), 12-15-21; **Reflective Sheeting**; Revise Subsection:

Provide reflective sheeting from the Department's QPL conforming to AASHTO M 268 and the supplementary requirements for fungus resistance of AASHTO M 268. The sheeting material shall have a precoated adhesive backing or a heat and pressure activated adhesive backing protected by a removable liner.

For all signs with a SILVER-WHITE and ORANGE background when used on temporary barricades and channelizing drums, provide reflective sheeting that meets or exceeds AASHTO M 268, Type B.

For all permanent panel signs with a SILVER-WHITE, YELLOW, RED, GREEN, BROWN, or BLUE background, provide reflective sheeting that meets or exceeds AASHTO M 268, Type D.

For overhead permanent signs attached to sign structures which overhang travel lanes and are not illuminated with sign lighting, provide reflective sheeting that meets AASHTO M 268, Type D.

For all other sign types, provide reflective sheeting that meets or exceeds AASHTO M 268, Type B.

For FLOURESCENT ORANGE background, provide reflective sheeting that meets or exceeds AASHTO M 268, Type B.

**Subsection 916.07**, (pg. 988,989), 12-15-21; **Legends, Borders, and Accessories**; Revise Subsection:

Provide letters, numerals, symbols, borders, and route markers conforming to the MUTCD.

**A.** Type "A" Class I (Demountable)

Provide silver-white letters, numerals, symbols, borders, and route markers of a pre-coated pressure sensitive or a tack-free heat-activated adhesive reflective sheeting permanently adhered to the sign panel.

For all permanent panel signs, provide reflective sheeting that meets AASHTO M 268, Type D.

Mechanically apply the reflective sheeting to the properly prepared sign panel with the equipment and in a manner prescribed by the sheeting manufacturer. Letters, numerals, symbols, borders, and route markers shall be 0.032 inch thick aluminum sheet of 3003 H14 Alloy or approved composite material. Properly degrease and etch aluminum, or treat with a light, tight, amorphous chromate type coating.

Supply each letter, numeral, symbol, and route marker with mounting holes, and secure to the sign surface with corrosion-resistant screws, bolts, or rivets.

**B.** Type "A" Class 2 Cut-Out (Direct Applied Reflective Sheeting Copy)

Provide silver-white cut-out letters, numerals, symbols, borders, and route markers of a pre-coated pressure sensitive or a tack-free heat-activated adhesive reflective sheeting.

For all permanent panel signs, provide reflective sheeting that meets AASHTO M 268, Type D.

For all other sign types, provide reflective sheeting that meets or exceeds AASHTO M 268, Type B.

**Subsections Listed**, (pg. varies), 12-19-22; **Replace Reflective with Retroreflective 916.06; Revise Following Subsections:**

**916.05.H**, (pg. 986), **Revise 2<sup>nd</sup> Paragraph:**

**916.05.H.3**, (pg. 986), **Revise 1<sup>st</sup> Paragraph:**

**916.05.I, .1, .2**, (pg. 987), **Revise Heading, 1<sup>st</sup>, 2<sup>nd</sup> Paragraphs:**

**916.06**, (pg. 988), **Revise Heading, 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup> Paragraphs:**

**916.07.A**, (pg. 989), **Revise 1<sup>st</sup> and 2<sup>nd</sup> Paragraphs:**

**916.07.B**, (pg. 989), **Revise 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> Paragraphs:**

**916.08**, (pg. 989-999), **Revise 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> Paragraphs:**

**919.04**, (pg. 1012), **Revise Heading, 1<sup>st</sup> Paragraph, List:**

**919.05.A, .B**, (pg. 1012-1013), **Revise Heading, 1<sup>st</sup> Paragraphs:**

**712.02**, (pg. 732), **Revise Materials List:**

**712.02.B, .G**, (pg. 732-733), **Revise 1<sup>st</sup> Paragraphs:**

**712.04**, (pg. 734), **Revise 2<sup>nd</sup> Paragraph:**

**712.04.H.2.a(2), .2.e**, (pg. 740-741), **Revise 1<sup>st</sup> Paragraphs:**

**712.06.1, .2**, (pg. 743), **Revise 1<sup>st</sup> Paragraphs:**

**713.04.A**, (pg. 749), **Revise 1<sup>st</sup> Paragraph:**

**713.04.F**, (pg. 753), **Revise 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> Paragraphs:**

**713.06.3**, (pg. 754), **Revise 1<sup>st</sup> Paragraph:**

**716.01**, (pg. 784), **Revise 1<sup>st</sup> Paragraph:**

**716.02**, (pg. 784), **Revise Materials List:**

**716.03.B.2.b**, (pg. 789), **Revise 8<sup>th</sup> Paragraph:**

**716.03.B.3, .4**, (pg. 790), **Revise 1<sup>st</sup> Paragraph:**

**716.04**, (pg. 790-791), **Revise Heading, 7<sup>th</sup> Paragraph:**

**716.05**, (pg. 791-792), **Revise Heading, 1<sup>st</sup> Paragraph:**

**716.06**, (pg. 792), **Revise 2<sup>nd</sup> Paragraph:**

**716.07.A**, (pg. 795), **Revise 11<sup>th</sup> Paragraph:**

**716.08**, (pg. 797), **Revise Last Paragraph:**

**716.08.G**, (pg. 797), **Revise Heading:**

**910.02.C.2.e**, (pg. 969), **Revise Heading:**

**Revise Index** (pg. 1053 & 1056), **Revise:** Reflective Pavement Markers, Reflective Sheeting, & Snowplowable Reflective Pavement Markers.

**Subsection 918.01.B & D**, (pg. 1003, 1004), 1-30-23; **Grass Seed, Seed Groups**;  
Revise Tables 918.01-1, 2, 3, & 6:

**Table 918.01-1: Group A (February 1-July 1)**

Kind of Seed	Quantity, Percent by Weight
Kentucky 31 Fescue	80
<del>Korean Lespedeza</del> White Clover	15
Annual Rye Grass	5

**Table 918.01-2: Group B (June 1-August 15)**

Kind of Seed	Quantity, Percent by Weight
Kentucky 31 Fescue	75
<del>Korean Lespedeza</del> White Clover	15
German Millet	10

**Table 918.01-3: Group B1 (April 15 - August 15)**

Kind of Seed	Quantity, Percent by Weight
Bermudagrass (hulled)	70
<del>Annual Lespedeza</del> White Clover	30

**Table 918.01-6: Temporary Seeding**

Seed Group (Season)	Kind of Seed	Percent by Weight
<b>Group D</b> (January 1 – May 1)	Annual Rye Grass	33-1/3%
	<del>Korean Lespedeza</del> White Clover	33-1/3%
	Spring Oats	33-1/3%
<b>Group E</b> (May 1 – July 15)	Sorghum-Sudan Crosses <sup>(1)</sup> or German Millet <sup>(2)</sup>	100%
		100%
<b>Group F</b> July 15 – January 1	Cereal Rye	66-2/3%
	Annual Rye Grass	33-1/3%

<sup>(1)</sup> Dekalb Sudan SX11, Lindsey 77F, TN Farmer’s Co-op GHS-1 or GHS-2A.

<sup>(2)</sup> German Millet, GaHi-1

**Subsection 921.09, (pg. 1022), 12-19-22; Grout; Revise Subsection:**

~~Mix grout in small quantities as needed, and do not retemper or use grout after it has begun to set. Unless otherwise specified or directed, provide grout consisting of one part Portland cement and two parts sand by volume, mixed with sufficient water to form a grout of proper consistency.~~ Submit grout mix designs to the Department's Materials and Tests. Grout designs shall use hydraulic cement meeting Portland cement conforming to the requirements of 901.01 or an appropriate alternative from the Department's Qualified Products List, and Use sand conforming to the requirements of 903.02. Use water that has been approved by the Engineer.

When non-shrinking or non-shrinking fast-setting grout is specified, either formulate it by incorporating an admixture, or use a pre-mixed grout. ~~Obtain the Engineer's approval of the formulation and the admixture or the premixed grout.~~ Mix and use the grout in accordance with the manufacturer's recommendations. ~~These special grouts will be classified~~ Grouts will be reviewed as follows:

~~Type I — Non-shrinking Grout~~

~~Type II — Non-shrinking, Fast-setting Grout~~

**A. Non-Structural Grout**

Grout specified without a strength requirement will be non-structural and shall have its design submitted per Departmental procedures. Mix grout in small quantities as needed, and do not retemper or use grout after it has begun to set. Unless otherwise specified or directed, provide grout consisting of one part Portland cement and two parts sand by volume, mixed with sufficient water to form a grout of proper consistency.

**B. Structural Grout**

Grout specified with a strength requirement will be structural grout and shall have its design submitted per Departmental procedures.

**S T A T E**

**O F**

**T E N N E S S E E**

(Rev. 12-15-20)

January 1, 2021

**SPECIAL PROVISION**

**REGARDING**

**TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD**

**SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION**

**Description**

Any and all references concerning the January 1, 2015 Standard Specifications for Road and Bridge Construction shall be interpreted as the January 1, 2021 Standard Specifications for Road and Bridge Construction.

**STATE****OF****TENNESSEE**

(Rev. 12-15-20)

(Rev. 2-13-23)

January 1, 2021

**SPECIAL PROVISION****REGARDING****TRAFFIC QUEUE PROTECTION****Description**

This work consists of providing Traffic Queue Protection when Work activities are performed on control-access or limited access facilities. Pursue efforts for the protection of traffic queues caused by project Work and clearly demonstrate adequate good faith efforts. The queue protection trucks are expected to alert motorists (inside or outside of project limits) of all stopped traffic caused by Work activities or incidents within the project limits.

**Equipment**

For projected queues of less than 1 mile, provide a minimum of one (1) queue protection truck for each traveling direction where traffic flow is reduced. One (1) additional queue protection truck shall be onsite in reserve.

For projected or observed queues of greater than 1mile, two (2) Queue Protection Trucks shall be operational.

The queue trucks deployed shall meet the following minimum requirements:

1. A truck mounted attenuator that meets the requirements of and be listed on the Department's Qualified Products List.
2. Four (4) strobe lights (with auto-dimmers) positioned rear facing
  - a. Two (2) mounted under rear bumper
  - b. Two (2) mounted at cab level
3. One (1) standard cab mounted light bar.
4. A truck mounted message board with a full matrix display and a minimum panel size of 72" W x 35" H mounted as per manufacturer specifications and in accordance with Sections 2L.04 and 6F.60 of the MUTCD for Portable Changeable Message signs



5. All Queue truck operators shall have the following mandatory training:
  - a. Four Hour National Traffic Incident Management (TIM) Responder Training for Queue Truck Operators, or
  - b. Approved equal training program developed by ATSSA, or
  - c. The National Safety Council.

### **Maintenance of Traffic**

The following procedures will be followed until free flow traffic conditions are present: (“free flow” is defined as the absence of a temporary lane or shoulder closure or absence of a temporary shift of traffic lanes with no queue present).

1. The queue protection trucks shall be positioned approximately 1/2 to 1 mile upstream from the back of the slow moving traffic. During use of the 2 or more queue protection trucks, the trucks should not be any closer than 1/2 mile from the other truck.
2. The queue protection trucks shall be positioned on the shoulder and clear of the traveled way so as not to impede traffic, and shall reposition as the length of the queue changes
3. The use of the 2 queue protection trucks shall be to relocate as needed to maintain approximately 1/2 to 1 mile distance from the back of the slow moving traffic Queue protection trucks that do not adjust position during the course of the operation and fail to provide adequate queue protection will be considered as not meeting specification and will not be paid for that day.
4. The 2nd queue protection truck shall be held in reserve, on site, and support the primary truck if conditions prevent repositioning by reverse or if the primary truck is otherwise unable to effectively manage the queue. This truck shall not be paid for idle time.
5. The queue protection trucks and operators shall be onsite and ready to be utilized during planned lane closures and other project activities expected to cause a queue.
6. Queue length estimates and traffic conditions shall be reported to the Engineer or designee at the following periods:
  - a. At 30 minute intervals.
  - b. At significant changes.
  - c. When free flow traffic is achieved.

### **Method of Measurement**

The Department will measure, by the day, the Queue Protection Truck, for each truck providing queue protection. Idle or standby time shall be included in the bid price. A day is defined as a work shift. A work shift will be considered 12 hours or less depending on the project schedule.

**Basis of Payment**

The Department will pay for accepted quantities, complete in place, at the contract prices as follows:

<b>Item No.</b>	<b>Description</b>	<b>Unit</b>
712-08.12	QUEUE PROTECTION TRUCK	DAY

Such payment will be full compensation for all work specified including labor, materials, equipment, tools, and incidentals to complete the work.

If at any time the Department determines that a queue protection truck is not pursuing the efforts for the protection of traffic queues caused by project Work and not clearly demonstrating adequate good faith efforts, the Engineer shall not pay for the Queue Protection Truck for that day.

**S T A T E**

**O F**

**T E N N E S S E E**

(Rev. 2-17-15)

January 1, 2021

**SPECIAL PROVISION**

**REGARDING**

**UNBALANCED BIDS**

The Department will review all unit prices submitted by the apparently lowest responsible bidder and will decide whether any of the unit prices are excessively above or below a reasonable cost analysis value determined by the Engineer.

In the event any unit prices are determined to be unbalanced and contrary to the interest of the Department, the right is reserved to reject such bid at the discretion of the Department or to award the Contract and limit progress payments on units of work performed on any excessively priced items to costs that are satisfactorily documented by the Contractor plus 20 percent, until 85 percent of the Contract has been completed. Upon completion of 85 percent of the Contract, the Contractor will be reimbursed in accordance with **Subsection 109.08** of the Standard Specifications for the accepted quantities of work performed on the excessively priced items.

**S T A T E**

**O F**

**T E N N E S S E E**

Rev: October 10, 2016

January 1, 2021

**SPECIAL PROVISION**

**REGARDING**

**EMPLOYING AND CONTRACTING WITH ILLEGAL IMMIGRANTS**

The State shall endeavor to do business only with those contractors and subcontractors that are in compliance with the Federal Immigration and Nationality Act. This policy shall apply to all State Contractors including subcontractors. This policy statement is issued to establish implementation guidance to procuring state agencies and contractors reflecting the requirements of *Tennessee Code Annotated* §12-3-309 regarding the employment of illegal immigrants in the performance of state contracts.

1. The Contractor hereby attests, certifies, warrants, and assures that the Contractor shall not knowingly utilize the services of an illegal immigrant in the performance of this Contract and shall not knowingly utilize the services of any subcontractor who will utilize the services of an illegal immigrant in the performance of this Contract. The Contractor shall reaffirm this attestation, in writing, by submitting to the State a completed and signed copy of the “Attestation form” provided by the Department, semi-annually during the period of this Contract.
2. Prior to the use of any subcontractor in the performance of this Contract, and semi-annually thereafter, during the period of this Contract, the Contractor shall obtain and retain a current, written attestation that the subcontractor shall not knowingly utilize the services of an illegal immigrant to perform work relative to this Contract and shall not knowingly utilize the services of any subcontractor who will utilize the services of an illegal immigrant to perform work relative to this Contract.
3. The Contractor shall maintain records for its employees used in the performance of this Contract. Said records shall include a completed federal Department of Homeland Security Form I-9, *Employment Eligibility Verification*, for each employee and shall be subject to review and random inspection at any reasonable time upon reasonable notice by the State.

The Contractor understands and agrees that failure to comply with this section will be subject to the sanctions of *Tennessee Code Annotated* § 12-3-309 for acts or omissions occurring after January 1, 2007. This law requires the Chief Procurement Officer, Department of General Services, to prohibit a contractor from contracting with, or submitting an offer, proposal, or bid to contract with the State of Tennessee to supply goods or services for a period of one year after a

contractor is discovered to have knowingly used the services of illegal immigrants during the performance of this contract.

For the Purposes of this policy, “illegal immigrant” shall be defined as a non-citizen who has entered the United State of America without federal government permission or stayed in this country beyond the period allowed by a federal government-issued visa authorizing the non-citizen to enter the country for specific purposes and a particular time period.

**S T A T E**

**O F**

**T E N N E S S E E**

September 10, 2020

January 1, 2021

**SPECIAL PROVISION**

**REGARDING**

**PROHIBITION ON CERTAIN TELECOMMUNICATION AND VIDEO**

**SURVEILLANCE SERVICES OR EQUIPMENT**

Installation of telecommunication and video surveillance equipment, services or systems shall contain no components from providers as listed in Title 2 Code of Federal Regulations (CFR) Part 200.216.

The prohibition on certain telecommunication and video surveillance services or equipment regulation in Title 2 CFR 200.216 shall apply to this contract. Take all necessary and reasonable steps in accordance with Title 2 CFR 200.216 to ensure that no prohibited telecommunication and video surveillance services or equipment are included in any of the work in this contract. As defined in Title 2 CFR 200.471, the regulation provides clarity that the telecommunications and video surveillance costs associated with Title 2 CFR 200.216 are unallowable for services and equipment from the providers.

It is prohibited from installing equipment, services, or systems that use covered telecommunications equipment or services from providers described in section 889 of the National Defense Authorization Act for Fiscal Year 2019 (NDAA 2019).

As described in section 889 of the NDAA 2019, "covered telecommunications equipment or services" means:

- Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);
- Video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);
- Telecommunications or video surveillance services provided by such entities or using such equipment; or
- Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country. The term "covered foreign country" means the People's Republic of China.

Any prohibited equipment installed must be removed and replaced at the contactor's expense with acceptable equipment.

**STATE**

**OF**

**TENNESSEE**

(Rev 9-3-13)

January 1, 2021

**SPECIAL PROVISION**

**REGARDING**

**AIR QUALITY FOR MOWING**

**Description.** The contractor will be required, absent an immediate safety issue determined by the Engineer, to cease mowing operations in the non-attainment counties listed below on Air Quality Action or Alert days within those counties. The appropriate TDOT representative will direct the contractor to suspend mowing operations upon the notification that an Action/Alert day forecast has been issued. Forecasts are issued by AIRNOW the day before the Action/Alert Day in the afternoons at the following web address:

<http://airnow.gov/index.cfm?action=airnow.fcsummary&stateid=50>

This will be the only authority for notifications used by TDOT. TDOT notification to the contractor will be made by the Close of Business (COB) the day prior to the Action/Alert Day.

The cessation of mowing operations will apply to any Action/Alert day forecast notification. The cessation of mowing operations shall remain in place until the Action/Alert day forecast is terminated. On these days, the contractor may mow outside of the non-attainment counties if the contract includes mowing in additional counties not listed below. Also, no trimming operations with weed trimmers will be allowed during these Action/Alert days. All working days that the contractor must cease mowing operations shall be added to the total number of days the contractor has to complete the disrupted mowing cycle.

**Basis of Payment.** All costs associated with the cessation of work caused by an Air Quality Action or Alert days will be compensated, on a per day basis, at the unit price bid for Item Number 717-10.01, INVOLUNTARY WORK SUSPENSION.

Payment will be made only when the contractor is actively mowing in one of the listed counties when an Air Quality Action/Alert day in that county has been declared and he is directed to cease mowing operations.

No payment will be made for any Air Quality Action/Alert day that occurs after mowing operations have been completed for a cycle. In addition, no payment will be made if after mobilizing for a mowing cycle an Air Quality Action/Alert day is declared before the contractor commences mowing operations.

<b><u>Non-Attainment Area</u></b>
<b>Counties</b>
<b>CHATTANOOGA REGION</b>
Hamilton
<b>CLARKSVILLE REGION</b>
Montgomery
<b>NASHVILLE REGION</b>
Davidson
Rutherford
Sumner
Wilson
Williamson
<b>KNOXVILLE REGION</b>
Anderson
Jefferson
Knox
Loudon
Roane (only areas around TVA Plant)
<b>MEMPHIS REGION</b>
Shelby
<b>GREAT SMOKY MTNS.</b>
Blount
Cocke (only areas within Park)
Sevier



**S T A T E**

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**T E N N E S S E E**

(Rev. 02-03-15)

(Rev. 10-19-15)

(Rev. 6-21-21)

January 1, 2021

**SPECIAL PROVISION**

**REGARDING**

**FULL DEPTH AND PARTIAL DEPTH CONCRETE PAVEMENT REPAIR**

**Description**

This work shall consist of performing full depth or partial depth concrete pavement repair in reasonably close conformity with the design set out on the plans or established by the Engineer. The standard specification **501** shall apply except as revised.

**Materials**

Coarse aggregate shall be crushed stone, crushed slag, or washed gravel meeting the requirements of **903.03** and the grading requirements of **903.22** for size #57 aggregate; all other materials shall conform to **501.02**.

Chemical admixtures shall meet the requirements of **921.06** and be approved by the Department.

Partial Depth patching material shall be a concrete mixture meeting the requirements below or an approved non-shrink grout or epoxy concrete from the Department's Qualified Products List (QPL).

Dowel bars and tie bars shall be epoxy coated in accordance with ASTM D 3963, **907.02**, and listed on the Department's QPL. The bar sizes shall be determined from the Standard Drawings. Epoxy used to adhere dowel and tie bars shall be approved by the Department.

**A. Proportioning**

A workable concrete mix utilizing size Type I cement, #57 aggregate and natural sand conforming to **501.02**, and having a slump not greater than 2 1/2 inches shall be required. The slump may be increased to a maximum of 6 inches when using an approved high range admixture. The mixture shall have a maximum water to cement ratio of 0.40 including admixtures. The percentage of air entrained in the mix shall be five percent, with a tolerance of plus three or minus two percentage points.

The mixture shall have a minimum compressive strength of 2000 psi within 8 hours. Obtain the minimum compressive strength prior to opening the pavement to traffic.

**B. Sampling and Testing**

The concrete shall be tested in accordance with **501**. Prior to the start of the project and before any concrete is placed, batch, and mix a one-cubic yard trial batch of mix. The trial batch shall be made using the same equipment and procedures as is to be used on the project. The Department will test the trial batch for slump and air content and test cylinders shall be made. A minimum strength of 2000 psi in 8 hours shall be required on the test cylinders. If the trial batch does not produce the required results, adjustments shall be made by the Engineer and a new trial batch shall be required. During the progress of the work, if the Engineer deems necessary, additional trial batches may be required. No direct payment will be made for the trial batching.

The Engineer will perform tests for slump and air content as often as deemed necessary to maintain uniform, quality concrete.

**C. Acceptance**

The concrete shall be tested and accepted in accordance with **501** and Standard Operating Procedure 1-1. Perform quality control tests for slump and air content as often as deemed necessary to maintain uniform, quality concrete.

**Equipment**

Equipment and tools necessary for handling materials and performing all parts of the work shall conform to **501.04**.

**Construction Requirements**

The construction shall conform to the requirements of **501** in so far as the requirements do not conflict with the requirements herein specified or unless otherwise directed by the Engineer.

Full depth and partial depth concrete pavement repair shall be performed as shown on the plans. If the depth of the partial depth concrete pavement repair (Spall Repair) exceeds one third of the slab thickness, the pavement area to be repaired shall be removed and replaced full depth, to the dimensions shown on the plans for Concrete Pavement Replacement, or as directed by the Engineer.

**A. Sawing**

The perimeter of full depth concrete repairs shall be sawed full-depth prior to lifting. The non-joint perimeter of partial-depth concrete repairs shall be sawed at least 2 inches below the surface prior to removal.

**B. Removal**

Full depth repair slabs or portions of slabs shall be removed by lifting, unless the slab is deteriorated such that lifting is not possible. An adequate lifting machine will be required to minimize damage to the sub-base. Any soft base material shall be removed and replaced with specified materials and methods. All loose base material shall be compacted. The method of removal shall not spall or damage any existing concrete pavement.

For partial depth repairs, the area adjacent to the spall area shall be sounded to determine the limits of partial depth repair. The hammer for chipping shall be a maximum of 30 lbs. Lighter, 15 lb hammers are preferable for better depth control.

The exposed faces of concrete shall be sandblasted free of loose particles, oil, dust, traces of asphaltic concrete and other contaminants before placing patching materials.

The sandblasted faces shall be airblasted using clean dry, oil-free air at a minimum of 2.6 CY per minute and at least 90 PSI nozzle pressure.

Patching material for partial depth repairs may be mixed on site in small mobile drums or paddle mixers. Follow all manufacturer recommendations for proprietary materials.

**C. Joints**

For partial-depth repair, an approved compressible insert shall be placed in joints to ensure that concrete does not span the joint. The insert must extend at least 1 inch below the bottom of the patch and at least 3 inches beyond the patch limits. Sawing the joint shall be completed, as needed, to allow installation.

Joints shall be constructed for full depth repair and shall conform to **501.15**. Dowel and tie bar holes shall be drilled in the locations shown on the Plans or reference drawings. After drilling, the hole shall be cleaned either pneumatically or with a wire brush. A sufficient amount of epoxy shall be inserted at the back of the drill hole and the bar inserted with a twisting motion to assure uniform distribution of epoxy. Excess epoxy shall be removed.

**D. Finishing and Curing**

After vibrating the concrete in place, the full depth patch shall be finished using a vibratory screed parallel to the centerline such that it meets the existing grade and profile.

Final surface texture shall match the surrounding pavement unless grinding is planned.

Curing shall be completed in accordance with **501.18.C**.

Partial depth repairs shall be vibrated, without dragging the vibrator, to eliminate voids. Finishing shall progress from the center outwards to the edges.

**E. Opening to Traffic**

Traffic shall not be allowed on the newly placed concrete until a test cylinder break of at least 2000 psi is attained.

**F. Sealing Joints**

After the patch has gained sufficient strength, clean, saw, and seal the joints according **501.20** and manufacturer's recommendations.

**Unsatisfactory Work**

Repaired areas which do not produce a relatively smooth riding surface, show excessive shrinkage, cracking, do not produce an adequate bond to the adjacent slab or is lower than existing grade and profile shall be removed and replaced at no additional cost to the Department.

Repaired areas which do not produce a relatively smooth riding surface and are higher than existing grade and profile may have corrective grinding performed with equipment meeting **604.27.C** at no additional cost to the Department.

**Method of Measurement**

The Department will measure Full Depth Portland Cement Concrete Pavement Repair by the cubic yard in accordance with **109**.

The Department will measure Partial Depth Portland Cement Concrete Pavement Repair (Spall Repair) by the square yard in accordance with Section **109**.

Spall Repair areas that the depth of the repair exceeds one third of the slab thickness will become a full depth repair area and shall only be measured by the cubic yard as Full Depth Portland Cement Concrete Pavement Repair.

The Department will measure Sawing Concrete Pavement (Full Depth) by the linear foot.

The Department will measure Load Transfer Dowels and the Transverse Dowel Bars by each installed.

No measurement for payment will be made for removing and disposing of the existing Portland cement concrete pavement, for removing and disposing of soft base material, drilling holes, grouting, joint materials, etc., required in conjunction with the specified concrete pavement repair; and the cost for this work shall be included in the price bid for other items.

**Basis of Payment**

The Department will pay for accepted quantities, complete in place, at the contract prices as follows:

502-03.20	FULL DEPTH PCC PAVEMENT REPAIR	C.Y.
502-03.21	PARTIAL DEPTH PCC PAVEMENT REPAIR	S.Y.
502-04.01	SAWING CONCRETE PAVEMENT (FULL DEPTH)	L.F.
502-04.02	LOAD TRANSFER DOWELS	EACH
502-04.03	TRANSVERSE DOWEL BARS	EACH

Such payments will be full compensation for performing all operations, furnishing all materials, equipment, tools, labor, and incidentals necessary to complete the work.

**STATE**

**OF**

**TENNESSEE**

(Rev. 09-30-2015)

(Rev. 10-19-2015)

(Rev. 6-21-21)

January 1, 2021

**SPECIAL PROVISION**

**REGARDING**

**FULL DEPTH AND PARTIAL DEPTH CONCRETE PAVEMENT REPAIR**

**(CLASS X-HIGH EARLY STRENGTH)**

**Description**

This work shall consist of performing full depth or partial depth concrete pavement repair in reasonably close conformity with the design set out on the plans or established by the Engineer. The standard specification **501** shall apply except as revised.

**Materials**

Coarse aggregate shall be crushed stone, crushed slag, or crushed gravel meeting the requirements of **903.03** and the grading requirements of **903.22** for size #57 aggregate; all other materials shall conform to **501.02**.

The cement used in this construction shall be a Type I, Type III, or a rapid setting cement listed on the Department's Producer List.

Chemical admixtures shall meet the requirements of **921.06** and be approved by the Department.

Partial Depth patching material shall be a concrete mixture meeting the requirements below or an approved non-shrink grout or epoxy concrete from the Department's Qualified Products List (QPL).

Dowel bars and tie bars shall be epoxy coated in accordance with ASTM D 3963, **907.02**, and listed on the Department's QPL. The bar sizes shall be determined from the Standard Drawings. Epoxy used to adhere dowel and tie bars shall be approved by the Department.

**A. Proportioning**

A workable concrete mix with a minimum 28 day compressive strength of 3000 psi. The concrete mix will utilize an approved cement, #57 aggregate and natural sand conforming to **501.02**, and having a slump not greater than 2 inches shall be required. The slump may be increased to a maximum of 6 inches when using an approved high range admixture. The mixture shall have a maximum water to cement ratio of 0.40 including admixtures. The

percentage of air entrained in the mix shall be five percent, with a tolerance of plus three or minus two percentage points.

The mixture shall have a minimum compressive strength of 2500 psi within 6 hours. However, the time frame of 6 hours may be reduced depending on the mode of operation. Submit to the Engineer in writing the time frame in which the minimum compressive strength will be attained. Obtain the minimum compressive strength prior to opening the pavement to traffic.

## **B. Sampling and Testing**

The concrete shall be tested in accordance with **501**. Prior to the start of the project and before any concrete is placed, batch, and mix a one-cubic yard trial batch of mix. The trial batch shall be made using the same equipment and procedures as is to be used on the project. The Department will test the trial batch for slump and air content and test cylinders shall be made. A minimum strength of 2500 psi within the designated time frame shall be required on the test cylinders. If the trial batch does not produce the required results, adjustments shall be made by the Engineer and a new trial batch shall be required. During the progress of the work, if the Engineer deems necessary, additional trial batches may be required. No direct payment will be made for the trial batching.

The Engineer will perform tests for slump and air content as often as deemed necessary to maintain uniform, quality concrete.

## **C. Acceptance**

The concrete shall be tested and accepted in accordance with **501** and Standard Operating Procedure 1-1. Perform quality control tests for slump and air content as often as deemed necessary to maintain uniform, quality concrete.

## **Equipment**

Equipment and tools necessary for handling materials and performing all parts of the work shall conform to **501.04**.

## **Construction Requirements**

The construction shall conform to the requirements of **501** in so far as the requirements do not conflict with the requirements herein specified unless otherwise directed by the Engineer.

Full depth and partial depth concrete pavement repair shall be performed as shown on the plans. If the depth of partial depth concrete pavement repair (Spall Repair) exceeds one third of the slab thickness, the pavement area to be repaired shall be removed and replaced full depth, to the dimensions shown on the plans for Concrete Pavement Replacement, or as directed by the Engineer.

**A. Sawing**

The perimeter of full depth concrete repairs shall be sawed full-depth prior to lifting. The non-joint perimeter of partial-depth concrete repairs shall be sawed at least 2 inches below the surface prior to removal.

**B. Removal**

Full depth repair slabs or portions of slabs shall be removed by lifting, unless the slab is deteriorated such that lifting is not possible. An adequate lifting machine will be required to minimize damage to the sub-base. Any soft base material shall be removed and replaced with specified materials and methods. All loose base material shall be compacted. The method of removal shall not spall or damage any existing concrete pavement.

For partial depth repairs, the area adjacent to the spall area shall be sounded to determine the limits of partial depth repair. The hammer for chipping shall be a maximum of 30 lbs. Lighter, 15 lb hammers are preferable for better depth control.

The exposed faces of concrete shall be sandblasted free of loose particles, oil, dust, traces of asphaltic concrete and other contaminants before placing patching materials.

The sandblasted faces shall be airblasted using clean dry, oil-free air at a minimum of 2.6 CY per minute and at least 90 PSI nozzle pressure.

Patching material for partial depth repairs may be mixed on site in small mobile drums or paddle mixers. Follow all manufacturer recommendations for proprietary materials.

**C. Joints**

For partial-depth repair, an approved compressible insert shall be placed in joints to ensure that concrete does not span the joint. The insert must extend at least 1 inch below the bottom of the patch and at least 3 inches beyond the patch limits. Sawing the joint shall be completed, as needed, to allow installation.

Joints shall be constructed for full depth repair and shall conform to **501.15**. Dowel and tie bar holes shall be drilled in the locations shown on the Plans or reference drawings. After drilling, the hole shall be cleaned either pneumatically or with a wire brush. A sufficient amount of epoxy shall be inserted at the back of the drill hole and the bar inserted with a twisting motion to assure uniform distribution of epoxy. Excess epoxy shall be removed.

**D. Finishing and Curing**

After vibrating the concrete in place, the full depth patch shall be finished using a vibratory screed parallel to the centerline such that it meets the existing grade and profile.

Final surface texture shall match the surrounding pavement unless grinding is planned.



Curing shall be completed in accordance with **501.18.C**.

Partial depth repairs shall be vibrated, without dragging the vibrator, to eliminate voids. Finishing shall progress from the center outwards to the edges.

**E. Opening to Traffic**

Traffic shall not be allowed on the newly placed concrete until a test cylinder break of at least 2500 psi is attained.

**F. Sealing Joints**

After the patch has gained sufficient strength, clean, saw, and seal the joints according **501.20** and manufacturer's recommendations.

**Unsatisfactory Work**

Repaired areas which do not produce a relatively smooth riding surface, show excessive shrinkage, cracking, do not produce an adequate bond to the adjacent slab or is lower than existing grade and profile shall be removed and replaced at no additional cost to the Department.

Repaired areas which do not produce a relatively smooth riding surface and are higher than existing grade and profile may have corrective grinding performed with equipment meeting **604.27.C** at no additional cost to the Department.

**Method of Measurement**

The Department will measure Full Depth Portland Cement Concrete Pavement Repair by the cubic yard in accordance with **109**.

The Department will measure Partial Depth Portland Cement Concrete Pavement Repair (Spall Repair) by the square yard in accordance with Section **109**.

Spall Repair areas that the depth of repair exceeds one third of the slab thickness will be become a full depth repair area and shall only be measured by the cubic yard as Full Depth Portland Cement Concrete Pavement Repair

The Department will measure Sawing Concrete Pavement (Full Depth) by the linear foot.

The Department will measure Load Transfer Dowels and the Transverse Dowel Bars by each installed.

No measurement for payment will be made for removing and disposing of the existing Portland cement concrete pavement, for removing and disposing of soft base material, drilling holes, grouting, joint materials, etc., required in conjunction with the specified concrete pavement repair; and the cost for this work shall be included in the price bid for other items.

**Basis of Payment**

The Department will pay for accepted quantities, complete in place, at the contract prices as follows:

Item No.	Description	Unit
502-03.25	FULL DEPTH PCC PAVEMENT REPAIR HIGH EARLY	C.Y.
502-03.26	PARTIAL DEPTH PCC PAVEMENT REPAIR HIGH EARLY	S.Y.
502-04.01	SAWING CONCRETE PAVEMENT (FULL DEPTH)	L.F.
502-04.02	LOAD TRANSFER DOWELS	EACH
502-04.03	TRANSVERSE DOWEL BARS	EACH

Such payments will be full compensation for performing all operations, furnishing all materials, equipment, tools, labor, and incidentals necessary to complete the work.

**STATE**

(Rev. 2/20/2020)  
(Rev. 2/8/2021)  
(Rev. 3/14/2022)

**OF****TENNESSEE**

January 1, 2021

**SPECIAL PROVISION****REGARDING****GUARDRAIL REPAIR / REPLACEMENT****SCOPE OF WORK**

The Contractor shall be responsible for repairing concrete barrier wall, bridge ends, pier protections, replacing damaged glare foils, removing and/or replacing metal beam guardrail, terminal anchors, post, and miscellaneous hardware in kind or to current standards at all designated sites within the Region specified in the Special Notes for this contract. In addition, entire guardrail sections may be removed and replaced to current standards, if the major portion of the section is damaged beyond repair and directed by the Engineer. Guardrail, concrete, and glare foil on bridges will be included within this contract. The previously specified work shall include all labor, equipment, materials and incidentals needed to perform the work successfully.

Estimated quantities are for bid purposes only and quantities shown may be increased, decreased or eliminated depending on actual need and/or as directed by the Engineer.

**MATERIALS, SPECIFICATIONS, AND DESIGN REQUIREMENTS**

The Contractor shall be responsible for providing updated and approved manufacturers' drawings, component shop drawings, specifications, and parts catalogues for each approved guardrail system found on the QPL as well as installation and training documentation for each system if offered by the manufacturer to the Engineer at the preconstruction conference. Product specifications and drawings may be obtained by contacting the manufacturer. A listing of the currently accepted guardrail systems by manufacturer may be obtained by referring to the Material & Tests Divisions, Qualified Products List (QPL). Only qualified manufacturer's products which appear on the QPL shall be installed under the terms of this contract.

All repair work shall be done in accordance with the currently adopted TDOT version of the MUTCD, the currently approved Standard Drawings for safety appurtenances, manufacturer's shop drawings, and the January 1st, 2021 edition of the Standard Specifications for Road and Bridge Construction with all its supplements and modifications within this Special Provision.

Materials used to construct earth pads for tangential energy absorbing guardrail terminals shall conform to the requirements of Sections 303 and 903.05 of the Standard Specifications.

Concrete and steel bar reinforcement used for the execution of work for this contract shall meet the requirements of Section 604 of the Standard Specifications. All concrete used shall meet "CLASS A" requirements for classification, proportioning, and quality assurance. The contractor shall provide the Concrete Design and Concrete Process Control Plan at the Preconstruction meeting. Should the Concrete Design and/or Concrete Process Control Plan expire within the timeframe of the contract, the contractor must resubmit the required documents before any concrete related work is performed.

However, pre-packaged concrete may be used at sites requiring ¼-cubic yard or less if approved by the Engineer.

Materials used in the replacement or repair of damaged guardrail shall conform to the requirements of Section 909 of the Standard Specifications.

**Damaged Materials**

Any and all damaged material produced as a result of the repair/replacement work shall become the property of the Contractor and shall be removed from the right-of-way and disposed of at the Contractors expense.

**EQUIPMENT**

All equipment necessary for the satisfactory performance of this work shall be on hand before construction will be permitted to begin.

**PROGRESS OF WORK**

**Initial Callout**

The Engineer will issue the Initial Callout on the effective start date of the Contract and provide a list of all known damaged guardrail sites. Work shall begin on the initial callout within fourteen (14) calendar days of the receipt date of the callout. See Special Provision 108B. The initial list of damaged guardrail sites shall be repaired or replaced within the following timeframe:

**Table 1 (Initial Callout)**

<b>Number of Locations</b>	<b>Calendar Days</b>
1-50	30
51-100	60
101-150	90

The Contractor shall provide a plan of operation for the Initial Callout according to subsection 108.03.A of the Standard Specifications within seven (7) days of the receipt of the Initial Callout. Should the progress of work not be maintained as described in the provided plan of operation and to the satisfaction of the Engineer by midway of the initial timeframe in Table 1, the Regional Director will initiate a letter to the contractor requesting progress schedule updates. Failure to maintain the approved progress schedule may result in the work being performed by others at the contractor’s expense in accordance with Subsection 107.12 of the Standard Specifications.

**Emergency Callout**

In the event damaged guardrail creates a major hazard to the traveling public, the Engineer will issue an Emergency Callout. The Emergency Callout will consist of one (1) site. The work at the one site shall begin within two (2) calendar days. Identification of Emergency Callout sites will be at the discretion of the Engineer.

**Routine Callout**

Callouts will be issued at the discretion of the Engineer and may be issued concurrently with multiple active callouts. As additional damaged guardrail locations are identified by the Department, the locations will be provided to the contractor and shall be repaired or replaced within thirty (30) calendar days of contractor receipt.

Once work begins at a specific site, a continuous operation shall be maintained. A Continuous Operation is defined as the uninterrupted performance of work on successive calendar days until the completion of a specific site (see Section 101.03 of the January 1, 2021 Standard Specifications for the definition of Calendar Day). Each

damaged guardrail site repair shall be complete before moving to the next site unless approved by the Engineer. Failure to promptly perform the work may result in the work being performed by others at the contractor's expense in accordance with Subsection 107.12 of the Standard Specifications.

Damaged guardrail discovered when traveling from one designated site to another may be repaired if approved by the Engineer. Typically, these sites should only be repaired if severely damaged and non-functional at the Engineer's discretion.

A repair site will consist of work to be performed in a section of guardrail. A section of guardrail is defined as one continuous run of guardrail (regardless of length) between two end terminals on one side of the roadway or median. There may be more than one repair or replacement site in a single section of guardrail, e.g., posts, rail, and an end terminal not immediately adjacent to the posts and rail being repaired or replaced (resulting from two separate vehicular impacts).

The contractor shall provide their work schedule to the Engineer one week in advance to allow for inspection scheduling except on Emergency Callouts.

## **CONSTRUCTION REQUIREMENTS**

All construction methods used to perform work under this contract shall conform to Sections 303, 705, and 706 of the Standard Specification for Road and Bridge Construction dated January 1, 2021 with addenda, and as modified in the Special Notes and this Special Provision.

In accordance with Section 705.06 of the Standard Specification the Contractor shall be responsible for notifying each utility owner of the plan of operation by calling 1-800-351-1111, and ensuring that utilities within the designated project limits have been properly located and marked prior to beginning work.

The Department reserves the right to perform any guardrail repair within the limits of this contract whenever the Department determines that such work is in the public's interest and safety. Sections of guardrail within construction or maintenance work zones may be temporarily suspended from the terms of this contract.

The Contractor will be relieved of maintenance for a site when the repair or replacement is completed, accepted, and serving its intended purpose. Repairs or replacements completed by the Contractor with defective materials or substandard workmanship, pending final acceptance of the site, shall be corrected by the Contractor without additional compensation.

### **Guardrail Adjustment, Removal, and Resetting**

Substandard or impacted metal beam guardrail sections may require re-alignment, re-setting, removal, or some combination of the three in order to bring the section back into current specification. When required these items of work are paid according to the following definitions. **Re-align Guardrail** shall be defined as the length in feet of impacted or substandard undamaged guardrail which has been restored to its original functional position within  $\pm 6$  inches horizontally and  $\pm 2$  inches vertically without having to disassemble and/or replace any of the components over the impacted repair length. **Reset Guardrail** shall be defined as the undamaged length in feet of impacted or substandard guardrail which has been restored to its original functional position by removing the original components, repairing the impacted ground, and resetting them in place. **Remove Guardrail** shall be defined as the length in feet of guardrail which is removed and not replaced and includes removal of all components of the system and the repair of impacted ground from the removal process. Measurement for these items of work shall include the lengths of terminal and in-line type anchors where applicable.

### **Steel Beam Guardrail**

Existing blockouts that are 7.5 inches deep may be replaced with any of the 7.5 inch blockouts on the TDOT Qualified Products List regardless of the type of blockout material and provided the blockout depths remain constant in any given run of guardrail (terminal to terminal).

### **Guardrail End Treatments**

Damaged trailing end guardrail terminals on divided roadways shall be replaced with Guardrail Terminal Anchor (Type 13), if feasible.

All end treatment replacements on the National Highway System with a posted speed limit at or above 45 mph shall be replaced with MASH Test Level 3) approved terminals that meet the requirements of and is listed on the Department's QPL or Standard Drawings. The minimal end treatment replacement on the National Highway System below 45 mph, shall meet the requirements of and is listed on the Department's QPL or Standard Drawings.

The Contractor shall furnish the Department the manufacturer's crash tested drawings, component shop drawings, and Specifications. These must be available to the Engineer upon request. These units shall be installed as per the manufacturer's specifications. Installer shall be certified by manufacturer prior to installation.

All bid prices for the above terminals shall include an appropriate hazard marker for the nose piece if present and the labor, equipment, and materials required to install it.

### **Concrete Barrier**

Concrete barrier wall shall be reconstructed in accordance with Section 711 of the Standard Specifications. Damaged sections of concrete barrier wall shall be smoothly sawed from top to bottom in a plane perpendicular to the length of the wall and removed. Sections removed for replacement shall have a minimum length of four (4) feet and shall be at least four (4) feet from the nearest joint. If the damaged section is located within a separately poured glare screen, only the glare screen shall be removed and replaced. In these areas, the glare screen shall be removed one foot wider than the damaged sections or to the construction joint of the barrier wall and saw cut for vertical sides.

Longitudinal reinforcement shall be replaced in kind. Longitudinal reinforcing bars shall be inserted into the undamaged concrete barrier by drilling holes a maximum of 1/4-inch larger than the bar diameter, cleaned properly, and secured with epoxy grout. Embedment length shall be not less than 20 bar diameters.

When sawing does not occur at a joint, tie bars shall be inserted along the centerline of the sawed face on six (6) inch centers beginning six (6) inches from the top of the wall. Tie bars shall be installed by the method described above and shall have a length of at least 40 bar diameters.

The exposed surface of concrete barrier repairs shall be given the same finish (texture coating) as the exposed surface of the wall being repaired in accordance with Subsection 604.21.

Failure to supply the required approved documents and promptly perform the concrete work may result in the work being performed by others at the contractor's expense in accordance with Subsection 107.12 of the Standard Specifications.

### **Guardrail at Bridge Ends or Pier Protection**

The guardrail attachments of concrete bridge ends and pier protections shall be reconstructed in accordance with Section 604 of the Standard Specifications. The damaged concrete wall sections shall be removed a minimum of one (1) foot wider than the damaged area or to a construction joint. Damaged sections of the guardrail attachments shall be smoothly sawed a minimum depth of 1 1/2 inches so as not to damage the reinforcing steel.

Damaged reinforcing steel requiring embedment shall be as detailed in Concrete Barrier above. In areas where the reinforcing steel may remain the concrete shall be removed 1 ½ inches beyond the reinforcing steel.

Replaced portions of concrete bridge ends, pier protections and barrier wall shall be finished in the same manner and color as the existing structure in accordance with Sections 604 or 711 of the Standard Specifications. The replacement in-kind includes texture coating surfaces.

Nothing in the general notes or special provisions shall relieve the contractor of his responsibilities toward the safety and convenience of the general public and the residents along the highway. In the event the guardrail operation causes an unsafe situation for the traveling public, the Engineer has the authority to stop work and set working times that must be followed by the contractor to rectify the safety concern.

### **Earth Pads**

Earth pads installed in conjunction with tangential energy absorbing guardrail terminals shall be constructed per Standard Drawings S-GRT-2P and S-GRT-2R or as directed by the Engineer.

### **Environmental**

The contractor shall take all appropriate steps to ensure that environmental features (streams, wetlands, or springs) are not impacted by the work conducted under the terms of this contract without the approval of the Engineer and the TDOT Environmental Permits Section.

### **Quality Assurance Testing**

Random verification of post installations will be conducted under this contract for all guardrail posts installed region wide by all Contractors for the term of this contract. The Contractor will be required to remove posts as directed by Regional Materials & Tests staff for inspection. Costs for removing and reinstalling posts will be paid for under Item Number 706-10.72, Pull and Reinstall Guardrail Post for Verification, Each. If a new replacement post is required due to damage to the pulled post, it will be paid for under Item No. 706-03.01, Posts Furnished, Each. A mobilization payment will be made for each call-out performed exclusively for post verification.

### **TRAFFIC CONTROL**

The Contractor shall establish and maintain traffic control work zones and all traffic control devices according to these notes, the State of Tennessee currently adopted edition of the Manual on Uniform Traffic Control Devices (MUTCD) defined under the Rules of Tennessee Department of Transportation Chapter 1680-3-1, and the Standard Specifications.

Arrow boards utilized for traffic control under this contract shall be "Type B" flashing boards as defined in the MUTCD or an approved equivalent (see Std. Dwg. T-WZ-FAB1).

All ramp and lane closures including traffic control for mobile operations must be requested by the Contractor and approved in advance by the Engineer. All requests shall be made a minimum of seven (7) days in advance of the anticipated work for callouts. Since lane closures are scheduled and approved in advance, if the Engineer determines that work cannot commence as scheduled, call-out time should be suspended until a future lane closure can be scheduled and approved.

All work including the set-up and removal of traffic control work zones shall only be allowed as scheduled and approved by the Engineer. The approved working schedule shall be determined using the table below based on the roadway classification and AADT for the work required in each roadway segment. No scheduled work or closures of any type shall be allowed during holidays or holiday weekends as specified in section 104.04 of the Standard and Supplemental Specifications.

Roadway Classification	Roadway AADT	Working Hours
Interstate and Access Controlled Highways*	AADT ≥ 25,000	8:00 PM – 6:00 AM
	AADT < 25,000	8:00 PM – 6:00 AM
		9:00 AM – 3:00 PM
Multi-lane Highways (# of lanes >2)*	AADT ≥ 25,000	8:00 PM – 6:00 AM
	10,000 ≤ AADT < 25,000	8:00 PM – 6:00 AM
		9:00 AM – 3:00 PM
AADT < 10,000	No Working Restrictions	
Two Lane Highways (One lane in each direction)*	AADT ≥ 25,000	8:00 PM – 6:00 AM
	5,000 ≤ AADT < 25,000	8:00 PM – 6:00 AM
		9:00 AM – 3:00 PM
AADT < 5,000	No Working Restrictions	
*Work requiring the use of shoulder closures(only) will be allowed between 9AM -3PM		

Signs and channelizing devices for lane closures shall be erected immediately before work begins each day and shall be removed at the end of work each day to permit traffic to have unrestricted use of all traffic lanes when work is not in progress.

**Truck Mounted Attenuator with Mounted Message Board**

The following truck shall be utilized on all Interstate and Access Controlled Highways with AADT ≥ 25,000 AADT.

1. A truck mounted attenuator that meets the requirements of and be listed on the Department’s Qualified Products List. The attenuator truck cab & chassis must meet and/or exceed manufacturers recommended gross vehicle weight (GVW) requirements.
2. Four (4) strobe lights (with auto-dimmers) positioned rear facing
  - a. Two (2) mounted under rear bumper
  - b. Two (2) mounted at cab level
3. One (1) standard cab mounted light bar.
4. A truck mounted message board with a full matrix display and a minimum panel size of 72” W x 35” H mounted as per manufacturer specifications and in accordance with Sections 2L.04 and 6F.60 of the MUTCD for Portable Changeable Message signs
5. All Queue truck operators shall have the following mandatory training:
  - a. Four Hour National Traffic Incident Management (TIM) Responder Training for Queue Truck Operators, or
  - b. Approved equal training program developed by ATSSA, or
  - c. The National Safety Council.

**COMPENSATION**

**Method of Measurement**

Re-Aligned, Reset, and Removal of guardrail will be measured by the Linear Foot. Each repaired section of guardrail will be measured separately. No measurement for payment will be made for excavation or backfilling performed in connection with removing or installing post or terminal anchors.

Glare Foils will be measured for payment by the unit per each.



Concrete Barrier Wall Repair, Bridge End Repair, or Pier Protection Repair will be paid for by the cubic yard of concrete measured in place.

Guardrail End Terminals will be paid per each for complete assemblies complete and in place.

W Beam guardrail will be paid per lineal foot complete and in place.

Truck Mounted Attenuator with Message Board will be paid per day and shall include providing the truck as defined above including driver. A day is defined as a work shift and includes all incidentals.

**Basis of Payment**

Guardrail elements which are to be installed on a curve with a radius of 150 feet or less shall be shop curved and will be paid for as Radius Rail Item No. 706-06.03.

Payment for reset guardrail, including but not limited to W-Beam, Thrie Rail, Box Beam, and Weak Post Systems, shall include the removal and resetting of the guardrail including the furnishing of all labor, tools, equipment and incidentals to satisfactorily complete the work.

Payment for the removal of guardrail and post(s) shall include the complete removal of all guardrail elements including rails, posts, anchors, footings, and miscellaneous hardware.

Damaged guardrail parts requiring removal prior to replacement with new guardrail components will be paid under the items for new guardrail items. No additional payment will be made under the removal item.

Payment for the replacement of damaged guardrail end terminals shall be for a complete new unit. This work shall include the complete removal of the damaged unit from the right-of-way, all required rails, posts, anchors, footings, miscellaneous hardware, and decals as directed by the Engineer. No additional payment will be made for the removal of the damaged end terminal.

All work necessary to construct Earth Pads, for guardrail end terminals, shall be paid for under item 705-04.11 per ton. This item shall include the delivery and placement of stone, grading of stone, erosion control, and final stabilization items necessary to complete the work as detailed in Standard Drawing S-GR-38A.

Payment for Concrete Barrier Wall Repair, Bridge End Repair, or Pier Protection Repair will be made at the contract unit price bid per cubic yard of concrete measured in place and shall include sawing, removal, and disposal of the damaged portion of the structure. These items of work shall also include furnishing and installation of guardrail attachments, steel bar reinforcement and tie bars as described above, finishing, texture coating if required, and all costs of forms, labor, materials, and incidentals necessary for the complete performance of the work. Payment for concrete repairs shall be a minimum of one half (0.5) cubic yard per site. No payment will be made for concrete repairs, until all formwork has been removed, the required finish has been applied, and all debris at the site has been removed. Prior to payment for the initial estimate, the contractor shall be required to provide the Engineer the Concrete Design and Concrete Process Control Plan.

Payment for the repair or replacement of Glare Foils will be made at the contract unit price per each and shall include full compensation for all labor and incidentals required to complete this item of work in accordance with these Specifications.

All cost for temporary traffic control, excluding lane closures, shall be included in unit prices bid on other items of work. Payment will be made for each lane closure at the contract unit price per each and shall include full compensation for all flagmen, traffic control devices, and other equipment and materials required to complete this item of work in conformance with the requirements described above and subject to the following:

- a) Only one lane closure payment will be made for lane closures erected at a single work site for the duration of the callout.
- b) Only one lane closure payment will be made for repair operations performed within a continuous highway section one quarter mile or less in length. On divided highways each directional roadway will be considered independently in establishing the length of the continuous highway section.
- c) No lane closure payment will be made if the lane is not properly closed and deemed necessary by the Engineer. Lane closures will be identified by the Engineer per callout
- d) A maximum of four (4) lane closures per site may be used for concrete work.

The Department will pay for Emergency Callouts per each site. The payment shall include one Mobilization for each Emergency Callout. Payment for Emergency Callout mobilization will be paid under Item Number 717-01.04, Mobilization (Emergency Call-Out) The Work for each Emergency Callout shall be paid for at the contract unit cost for the items associated with the work.

The accepted quantities of work will be paid for at the contract unit price for each item shown on the plans or as tabulated in the general notes. The price shall be full compensation for repairing concrete barrier wall, bridge ends, pier protections, glare foil, metal guardrail, terminal anchors, posts, and miscellaneous hardware in kind or to current standards in accordance with the plans, tabulated quantities in the general notes, or as directed by the Engineer, including the furnishing of all labor, tools, equipment, and incidentals to satisfactorily complete the work.

**STATE**

**OF**

**TENNESSEE**

(Rev. 10-19-2015)  
(Rev. 10-5-2021)

January 1, 2021

**SPECIAL PROVISION**

**REGARDING**

**ROADWAY SWEEPING**

**General.** The work shall consist of the removal by mechanical sweeping, or other approved means, of dirt and debris such as tire and metal fragments, hub caps, rocks, etc. accumulated on the roadway along curbs, gutters, median barriers, bridge curbs and gore areas and ramps at interchanges.

The Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with these specifications and terms of the contract.

**Control of Work.** The Engineer, or his appointed representative, will decide all questions, which may arise as to the quality and acceptability of the work performed and his decision will be binding on the parties. If at any time the required equipment fails to meet acceptable standards, the Engineer shall notify the Contractor and suspend payments immediately.

**Equipment.** The Contractor shall furnish all equipment necessary to perform the work within the specified time. The use of mechanized vacuum or broom sweepers is required for this contract. Air flow vacuum sweepers shall have a blower capacity of not less than 17,000 CFM and broom mechanical sweepers shall have a minimum 100 HP @ 2,500 RPM diesel engine. All sweepers shall have a minimum 26,000 GVD and 10 foot sweeper path. All sweeping equipment shall be designed and operated with a water spray system to ensure that dust does not create a traffic hazard. All sweepers shall be equipped with a centrifugal dirt separator at the air return outlet of the hopper. All of the Contractor’s equipment shall clearly display the Contractor’s name and phone number on each side of the vehicle.

All sweeping equipment shall conform to all Federal, State and Local laws, regulations and ordinances for noise, water and air pollution controls and all Occupational Safety and Health Administration (OSHA) regulations.

All equipment shall be inspected and approved by the Engineer prior to the work beginning.

Hand brooms and other small tools may be required to remove any dirt and debris not removed by the power sweepers.

**Work Schedule.** Work may be performed between the following hours:

Roadway Classification	Roadway AADT	Working Hours
Interstate and Access Controlled Highways*	AADT ≥ 25,000	8:00 PM – 6:00 AM
	AADT < 25,000	8:00 PM – 6:00 AM 9:00 AM – 3:00 PM
Multi-lane Highways (# of lanes >2)*	AADT ≥ 25,000	8:00 PM – 6:00 AM
	10,000 ≤ AADT < 25,000	8:00 PM – 6:00 AM 9:00 AM – 3:00 PM
	AADT < 10,000	No Working Restrictions
Two Lane Highways (One lane in each direction)*	AADT ≥ 25,000	8:00 PM – 6:00 AM
	5,000 ≤ AADT < 25,000	8:00 PM – 6:00 AM 9:00 AM – 3:00 PM
	AADT < 5,000	No Working Restrictions

\*Work requiring the use of shoulder closures(only) will be allowed between 9AM -3PM

Due to discrepancy in COVID-19 AADT data, the contractor shall utilize 2019 AADT data.

The weekday hours of operation may be extended to if working in the non-peak direction of traffic flow (except Friday PM) as directed by the Engineer. Weekend operations shall be restricted to daylight hours.

Weekdays are defined as beginning 8:00 p.m. Sunday and ending 3:00 p.m. Friday. The Engineer may temporarily suspend work activities during periods of inclement weather, during special events or in Maintenance and Construction work zones.

**Traffic Safety.** Traffic flow around the work in progress shall be maintained. All work shall be accomplished with the traffic flow instead of opposing traffic. All traffic control work zones shall be established by the Contractor in accordance with the requirements of the State's currently adopted edition of the Manual on Uniform Traffic Control Devices (MUTCD). The Contractor shall furnish shadow vehicles as recommended in Chapter 6 (Fig. 6H-4, 6H-17, and 6H-35) of the MUTCD for shoulder, two-lane, and multi-lane mobile traffic control work zones. All optional truck or trailer mounted attenuators for the shadow vehicle(s) in Figures 6H-4, 6H-17, and 6H-35 of the MUTCD are required for the sweeping operation. **All shadow vehicles in a sweeping operation shall be equipped with truck or trailer mounted attenuators.** A work vehicle (sweeper) cannot be utilized as a shadow vehicle.

The sweeping unit and the shadow vehicle(s) shall be equipped with flashing amber lights. Shadow vehicles shall be equipped with a Type C, 48" x 96" flashing arrow panel in accordance with Standard Drawing T-WZ-FAB1. Traffic control will be considered incidental to the work being performed and the cost thereof will be included in the price bid for linear mile of sweeping.

**Dump Sites.** All accumulated debris and rock materials swept or picked up by the Contractor will be removed from right-of-way to a Class IV dump site facility with the Contractor being responsible for all fees where applicable. The Contractor shall supply the Engineer with copies of dump tickets for each cycle prior to any payments being made.

**Method of Measurement.** Sweeping will be measured by the number of linear miles swept and cleaned free of all accumulated debris and foreign objects from the area between the edge of the traveled lanes and the face of the curb, barrier wall, bridge, guardrail, or outside edge of the paved shoulder. Sweeping of the described areas for a distance of one mile, measured along the centerline of said roadway, shall be deemed as one linear mile of sweeping.

**Basis of Payment.** The accepted quantities of linear miles swept will be paid for at the contract unit price per linear mile.

**STATE**

**OF**

**TENNESSEE**

(Rev. 10-08-2015)  
(Rev. 09-06-2016)  
(Rev. 09-11-2018)  
(Rev. 10-02-2019)  
(Rev. 10-09-2020)  
(Rev. 09-30-2021)

January 1, 2021

**SPECIAL PROVISION**

**REGARDING**

**REMOVAL AND DISPOSAL OF LITTER**

**Description.** This work shall consist of removal and disposal of litter from the entire highway rights-of-way where accessible (fence to fence where applicable), including shoulders and excluding the travel lanes on designated interstate and state routes.

**Definitions.**

**Litter.** Any object or group of objects foreign to the right-of-way which has been discarded or abandoned and is or may become visible from the edge of the roadway or shoulder as a result of mowing, vegetation management, maintenance operations, or traffic. Examples under this definition include but are not limited to paper, plastic, bottles, cans, wood, tires, portions of tire, and metal products.

**Continuous Operation.** The uninterrupted performance of work on successive working days until the completion of all of the items of work specific to litter removal in the contract are approved by the Engineer.

**Working Day.** A calendar day, exclusive of State recognized holidays, which weather or other conditions not under the control of the Contractor, will permit litter operations to proceed for at least five (5) hours of the day with the normal working force engaged in performing the controlling item or items of work which are normal to progress at the time, as determined by the Engineer.

**Equipment.** The contractor shall furnish all necessary equipment for the satisfactory performance of the work. All vehicles used on the project will be equipped with at least two 6" diameter flashing amber lights, visible in both directions and with a covering device to prevent the litter from being blown from the vehicle.

**Work Schedule.** The litter removal for each section of road shall be accomplished on a schedule that will assure that the spacing between the beginnings of each cycle is constant

throughout the entire life of the contract. For example, if there are twenty-six (26) cycles to be accomplished they are to be started and completed every two weeks. The maximum cycle time allowed for sections with fewer than twelve (12) cycles shall be thirty (30) calendar days. For contracts which require fewer than twelve (12) cycles the Engineer will notify the Contractor in writing at least five (5) working days prior to the beginning of each litter cycle. Work shall begin on the date specified by the Engineer and shall be a continuous operation. Each litter cycle shall begin at the same location and proceed as established in the preconstruction conference or as directed by the Engineer (see Section 105.06 of the January 1, 2021 Standard Specifications). The contractor shall supply sufficient resources to accomplish the work during the allotted cycle time.

**Time and Frequency Litter.** The number of litter cycles will be indicated in the Special Notes and will correspond to the mowing schedule. One litter cycle will be reserved for winter pick-up (if needed) and scheduled at the discretion of the Engineer. In addition, the Engineer may eliminate an entire cycle or require a partial litter cycle at certain locations. A litter cycle will be considered complete when litter has been removed from the right-of-way specified in the Special Notes and all quantities associated with litter removal have been accepted as complete by the Engineer.

Litter removal operations on controlled access roads in Davidson, Hamilton, Knox, and Shelby shall not be performed during rush hour traffic from 6:00 A.M to 9:00 A.M and 3:00 P.M to 6:00 P.M. However, the contractor shall be allowed to work in the direction opposite to rush hour traffic during these times.

Litter removal shall be performed only during the hours of daylight Monday through Friday, or as directed by the Engineer. If work is performed on Saturday and/or Sunday, the Contractor will be charged a Working Day.

**Litter Removal and Disposal.** All litter shall be bagged and removed daily from the right-of-way. All litter accumulated each cycle by the Contractor will be removed from the right-of-way to a Class I dumpsite facility. All fees associated with disposal of litter removed from the state right-of way shall be included in the unit price bid for litter (item no. 719-02). The Contractor shall supply the Engineer with copies of dump tickets for each load deposited at the qualified dumpsite facility.

**Acceptance of Work.** The Department may accept a portion of the project before the entire project is completed. Such portion(s) shall be of reasonable length as determined by the Engineer, and shall be clean and free of litter when the inspection is made.

**Additional Work.** The Contractor may be required to remove litter in areas not specifically detailed in the Special Notes under the direction of the Engineer. Additional work shall be limited to the counties and systems which are designated in the Special Notes. Payment will be made at the contract unit price for litter removal (item no. 719-02).

**Traffic Control.** The Contractor shall maintain work zone traffic control and all traffic control devices for litter removal operations according to the requirements contained herein, the State of Tennessee's currently adopted edition of the Manual on Uniform Traffic Control Devices (MUTCD) defined under the Rules of Tennessee Department of Transportation Chapter 1680-3-1, and the Standard Specifications. Although Traffic Control may be included in the cost of other items, the contractor will be responsible for submitting certifications per Materials & Tests Division Standard Operating Procedures.

**Warning Signs.** The Contractor shall furnish portable signs in accordance with the "Manual on Uniform Traffic Control Devices" to notify the traveling public of litter operations. The Contractor shall place these signs on the highway during litter operations and remove them immediately after the operation ceases. Signs at the beginning point shall be forty-eight inches (48") by forty-eight inches (48") in size; diamond-shaped with black letters on an orange background with a black border with eight-inch high letters. These signs shall be dual mounted, one on each shoulder, for both directions of travel.

**Safety Requirements.** The Contractor shall comply with OSHA standards, including the use of Class 3 reflective shirts or vests at all times.

Notification to the Engineer shall be made immediately of any personal injury, accidents involving contractor's equipment, or accidents involving the motoring public.

While equipment is not in use, it shall be parked or stored off the pavement or shoulder of the highway in an inconspicuous place more than thirty (30) feet from edge of pavement or as directed by the Engineer.

The Contractor shall be required to have the company name and phone number on all work zone support vehicles on the left and right sides in a location that is visible to the public. The lettering for the company name and phone number shall consist of a reflectorized material with a minimum height of three inches (3") or five inches (5") in height if non- reflectorized.

**Method of Measurement.** Litter pickup and disposal will be measured by the centerline mile. Measurement will be made longitudinally along the centerline of the project including bridges, and such single measurement shall include removal and disposal of all litter on interchanges; State maintained crossroads and service roads within the lateral limits of the rights-of-way excluding the travel lanes.

**Basis of Payment.** Removal and disposal of litter will be paid for at the contract unit price per centerline mile which shall be full compensation for mobilization and performance of the work in accordance with the stipulations, provisions and requirements contained herein.

All costs for traffic control as defined above shall be included in the unit bid price for litter removal Item No. 719-02.

**STATE**

**OF**

**TENNESSEE**

(Rev. 01-08-2015)  
(Rev. 09-06-2016)  
(Rev. 06-26-2017)  
(Rev. 10-02-2019)  
(Rev. 09-25-2020)  
(Rev. 10-09-2020)  
(Rev. 09-30-2021)

January 1, 2021

**SPECIAL PROVISION**

**REGARDING**

**RIGHTS-OF-WAY MOWING**

**Description.** This work shall consist of mowing of the rights-of-way for vegetation control in accordance with the Plans, Specifications and as directed by the Engineer. A mowing cycle shall be one complete mowing of the areas along state highways and interstates designated within this contract and shall be completed within twenty (20) working days that are suitable for mowing.

**Definitions.**

**Continuous Mowing Operation.** A Continuous Mowing Operation is an operation conducted for a minimum of five (5) hours per day over a twenty (20) working day cycle which consists of one or more mechanical mowers working independently or in coordination to cut vegetation on state rights-of-way deemed Mowable Acres by the Engineer.

**Working Day.** A calendar day, exclusive of State recognized holidays, which weather or other conditions not under the control of the Contractor, will permit a continuous mowing operation with the normal working force engaged in performing the controlling item or items of work which are normal to progress at the time, as determined by the Engineer.

**Mowable Acres.** All areas within rights-of-way where mechanical mowers and finish mowers can cut vegetation and safely traverse slopes without significant damage to existing ground.

**Mowing.** The work associated with cutting or trimming vegetation primarily consisting of, but not limited to, grasses and invasive weeds to provide a consistent and aesthetically pleasing standing vegetation height of four (4) inches.



**Swath Mowing.** The work associated with cutting one fifteen (15) foot wide swath of vegetation parallel to the edge of pavement on each shoulder and one fifteen (15) foot wide swath of vegetation parallel to the edge of pavement in each direction within the median. For medians less than sixty (60) feet, the entire median will be mowed (see sheet 7 for Typical Mowing Diagram).

**Mechanical Mower.** A commercial quality piece of equipment which is capable of mowing vegetation in excess of two (2) acres per hour at least five (5) hours per day.

**Finish Mower.** A commercial quality piece of equipment specifically designed to address mowing of vegetation around roadside obstacles or areas not accessible to conventional mowers in an attempt to prevent damage and provide a consistent vegetation height by means other than a mechanical mower. The cost associated with this work shall be included in the unit price bid for mowing 806-01, swath mowing 806-02.13 or sidewalk finish mowing 806-02.14. Finish mowers do not meet the requirements for mechanical mowers as described in this special provision and cannot be utilized for continuous mowing operations on state highways or interstates.

**Hand Trimming.** The work associated with cutting or trimming vegetation in proximity to roadside obstacles or in areas not accessible to mechanical mowers in an attempt to prevent damage and provide a consistent vegetation height by means other than a mechanical mower.

**Roadside Obstacles.** Items located within the right of way, both natural and man-made which may include but are not limited to trees, signposts, delineator posts, light posts, steel beam guardrail, and associated posts, cable barrier rail, barrier walls, retaining walls, utility poles, catch basins, fallen rock, bridge end abutments, mailboxes, established/planted trees and shrubs, landscaped beds, and wildflower areas.

**General.** All mowing operations shall be performed to the satisfaction of the Engineer. Standing vegetation shall be cut to a height of four (4) inches while maintaining a consistent vegetation profile within all mowing limits adjacent to the roadway. The Contractor shall mow only those areas that are designated as mowable acres, including, if present, a minimum of five (5) feet up the back slope from the bottom of the ditch, and five (5) feet behind all guardrails as shown in The Typical Mowing Diagram on sheet 7. The actual dimensions and mowing limits shall be discussed at the pre-construction conference. Vegetation including small trees, shrubs, and bushes with a stem diameter of up to two (2) inches which are inside of and encroaching upon the established mowing limits shall be cut by the Contractor using a mower or hand trimming methods as directed by the Engineer. Areas that were recently cleared or chipped will be included in mowable acres. Extreme care shall be taken not to damage the trees, plants, and shrubs, which are designated by the Engineer to remain. Hand trimming may be required as directed by the Engineer for areas of vegetation inside the designated mowable acres which are not accessible to mechanical mowers. As work progresses, mowing and trimming shall be conducted in such a manner to provide a consistent standing vegetation height in all mowing limits adjacent to the roadway (see sheet 7 for Typical Mowing Diagram). The Contractor shall mow as close as practicable to all roadside obstacles. Hand trimming is required atop earth berms, within all rip rap areas, and around all roadside obstacles.

Guardrail and cable barrier rail located on interstates will be sprayed by TDOT personnel except for those located in the following counties: Davidson, Hamilton, Knox, and Shelby. Spraying by TDOT does not relieve the Contractor from hand trimming if needed. The Contractor shall not apply herbicides on state rights-of-way.

The Department reserves the right to perform spot mowing with its own forces on all State right-of-way as necessary. Minor quantity adjustments may be made due to the Tennessee Department of Transportation's Wildflower Program, Adopt a Plot Program, designated research areas, environmental no-mow areas, and Adopt A Highway Program.

**Time and Frequency Mowing.** A notice to begin work will be issued to the Contractor at least five (5) working days prior to the date the mowing cycle is to begin. Work shall begin on the date specified in the notice. Mowing operations shall proceed in the same route sequence as performed during litter operations. The contractor shall submit a planned mowing sequence, hand trimming sequence and schedule to the Engineer for approval before each mowing cycle begins. Any deviations from the approved mowing sequence or schedule may be allowed at the discretion of the Engineer. A failure to begin mowing operations on the date specified in the notice will result in the assessment of liquidated damages (see SP108B). The mowing cycle shall be twenty (20) working days suitable for mowing unless otherwise documented in the Special Notes.

The number of mowing cycles will be indicated in the Special Notes, but may be increased or decreased by one mowing cycle to coincide with extreme weather conditions. Also, the Engineer may require a partial mowing cycle at certain locations.

Mowing shall be performed during daylight hours Monday through Friday. Work may be allowed on Saturday at the discretion of the Engineer. If the approved mowing schedule is not maintained, the Engineer may require work to be performed on Saturday and/or Sunday. If work is performed on Saturday and/or Sunday, the Contractor will be charged a Working Day.

**Mowing Operations.** Work shall begin for each mowing cycle on the date specified in the notice to begin work. Once a mowing cycle begins, the Contractor shall maintain a Continuous Mowing Operation until the mowing is complete. A mowing cycle will be considered complete when all mowing and hand trimming is completed to the satisfaction of the Engineer. Hand trimming shall be performed in the same sequence as mowing operations.

Hand trimming is to be completed within the twenty (20) working day cycle. Failure to complete hand trimming within five (5) working days of the termination of mechanical mowing represents a failure to maintain a continuous mowing operation.

When mowing within twelve (12) feet of the edge of pavement or shoulder, mechanical mowers shall not discharge vegetation and debris toward the roadway. When mowing is required in proximity to the roadway, any vegetation or debris deposited on the roadway as a result of the mowing operation will be removed immediately from edge of pavement to edge of pavement, or between curb and gutter, whichever applies. Any cost associated with the removal of vegetation clippings, foreign objects, or gravel that is deposited on the roadway, the shoulder, or in a curb and gutter section as a result of the mowing operation shall be included in the unit price bid for mowing (item no. 806-01) swath mowing (item no. 806-02.13) or sidewalk finish mowing (item no. 806-02.14).

Swath mowing shall follow as closely as practical to the boundary between the shoulder of the roadway and the point at which vegetation begins. In cases where a continuous swath cannot be maintained on ramps, at bridges, and when encountering assets of the state, the swath shall deviate away from the edge of pavement then terminate, or the swath shall deviate away from, then back to the edge of pavement in as tight a space as practical. Any vegetation that cannot be cut by the mower between the edge of pavement and the edge of the swath shall be cut using hand trimming, and the cost shall be included in the unit price bid for swath mowing (item no. 806-02.13). All interchanges and ramps will be mowed completely during a Swath mowing operation.

The Contractor shall mow in the direction of traffic when less than thirty (30) feet from the paved surface.

**Equipment.** Prior to beginning work, the Contractor shall provide the Engineer with a schedule of equipment which will be used to accomplish work under the terms of the contract. The Contractor shall certify to the Engineer that the equipment to be used on this project is suitable for mowing along public highways. All equipment used for mowing operations shall be utilized as described by the manufacturer's recommendations and maintained in safe operating conditions. Mowing on slopes that exceed the equipment manufacturers specifications shall not be allowed. Any equipment that the Engineer determines to be unsuitable for use or hazardous to highway users shall not be used. The Contractor shall provide sufficient equipment and accessory items necessary for efficient operation and the completion of the mowing cycle in the designated time. Any special equipment requirements will be noted in the Special Notes. Zero-turn mowers are considered finish mowers and can be utilized for mowing around roadside obstacles but do not meet the requirements for continuous mowing operations under the terms of this special provision. The cost associated with this work shall be included in the unit price bid for mowing (item no. 806-01, swath mowing (item no. 806-02.13), or sidewalk finish mowing (item no. 806-02.14)

All rotary mowers must be equipped with safety chains to prevent damage to property caused by flying debris propelled out from under the mower. No disc type mowers will be allowed. Chains shall be a minimum of 5/16 inch in size, and links spaced side by side around the mower's front, sides, and rear. Chains shall be spaced at no less than twelve (12) strands of chain per foot and shall be laced horizontally one row from the bottom with 1/4" steel cable secured by cable clamps on each end. When sitting on level ground, at a level deck height of seven (7) inches, the chains shall be long enough to drag the ground. Flaps or semi-rigid guards will not be allowed as a substitute for chains. Maximum cutting widths for rigid frame rotary mowers shall be 120 inches (10 ft.). Maximum cutting widths for all other mower types shall not exceed 180 inches (15 ft.) without the approval of the Engineer.

**Safety Requirements.** Mechanical mowers and finish mowers shall be equipped so as to conform to prevailing Occupational Safety Health Act (OSHA) Standards, including flashing amber lights and slow-moving equipment emblems.

The Contractor shall comply with OSHA standards, including the use of Class 3 reflective shirts or vests at all times.

Notification to the Engineer shall be made immediately of any personal injury, accidents involving contractor's equipment, or accidents involving the motoring public.

While equipment is not in use, it shall be parked or stored off the pavement or shoulder of the highway in an inconspicuous place more than thirty (30) feet from edge of pavement or as directed by the Engineer. Under no circumstances shall mechanical mowers or finish mowers be parked or stored in medians. When batwing mowers are being moved from one site to another under their own power with the mowers raised, the mower shall be disengaged.

Handheld, pushed, or riding trimmers using string or blades are not considered mechanical mowers and cannot be considered as part of a continuous mowing operation under the terms of this special provision.

The Contractor shall be required to have a mechanical leaf blower on site to address any vegetation or debris deposited on state routes. The cost associated with this work shall be included in the unit price bid for mowing 806-01 or swath mowing 806-02.13.

The Contractor shall be required to have the company name and phone number on all tractors and work zone support vehicles on the left and right sides in a location that is visible to the public. The lettering for the company name and phone number shall consist of a reflectorized material with a minimum height of three inches (3") or five inches (5") in height if non- reflectorized.

**Equipment Cleaning.** The Contractor will be required to clean any piece of equipment moved into Tennessee if the equipment is moving from an area infested with invasive species of concern listed below:

- Cogon Grass

Prior to moving equipment into Tennessee, the Contractor shall notify the Engineer of the location of the equipment's most recent operation. The Contractor shall not move any equipment that last operated in an area infested with an invasive species of concern into Tennessee without having cleaned such equipment of seeds, soil, vegetative matter, and other debris that could contain or hold seeds. If the Contractor cannot verify the location of its most recent operation, then the Contractor shall assume that the location is infested with invasive species of concern.

Prior to moving from an area identified as infested with invasive species of concern to, or through Tennessee, the Contractor shall clean such equipment of seeds, soil, vegetative matter, and other debris that could contain or hold seeds, and shall notify TDOT prior to moving any equipment subject to the cleaning requirements set forth above. The Contractor shall advise TDOT of its cleaning measures and make the equipment available for inspection. TDOT shall have two (2) days, excluding weekends and state holidays, to inspect and approve for use equipment after it has been made available. After satisfactory inspection, the Contractor may move the equipment as planned. Equipment shall be considered clean when a visual inspection does not disclose seeds, soil, vegetative matter, and other debris that could contain or hold seeds. The Contractor shall not be required to disassemble equipment.

**Traffic Control.** The Contractor shall maintain traffic and all traffic control devices for mobile mowing operations according to the requirements contained herein, the State of Tennessee's currently adopted edition of the Manual on Uniform Traffic Control Devices (MUTCD) defined under the Rules of Tennessee Department of Transportation Chapter 1680-3-1, and the Standard Specifications. Although Traffic Control may be included in the cost of other items, the Contractor will be responsible for submitting certifications per Materials & Tests Division Standard Operating Procedures. Under no circumstances shall a mower cross the pavement edge line without complying with Mobile Operations requirements found in the MUTCD.

**Warning Signs.** The Contractor shall furnish portable signs in accordance with the "Manual on Uniform Traffic Control Devices" to notify the traveling public of the operations of mowing equipment. The Contractor shall place these signs on the highway during the operation of mowers and remove them immediately after the operation ceases. Signs at the beginning point shall be 48" by 48" in size; diamond-shaped with black letters on an orange background with a black border with eight- inch high letters. These signs shall be dual mounted, one on each shoulder, for both directions of travel.

**Damage to Property.** The Contractor shall carry on the operation in such a manner that does not damage the existing ground areas, trees, shrubs, guardrail, utilities, delineators, or other structures. The Contractor shall not mow during wet conditions where turf damage or ruts would occur. In the event damage occurs to the right-of-way because of mowing operations, the Contractor shall replace or repair same, at own expense, in like kind, and as directed by the Engineer. Notify the Engineer immediately when any property damage occurs. If damaged property resulting from the Contractor's operations has to be repaired or replaced by the Department, the cost of such work shall be deducted from monies due to the Contractor.

The Contractor shall take all necessary precautions to prevent damage to passing vehicles and to both public and private property. This shall include roadside obstacles, vehicles and any other property which may be damaged by the mowing operation. Payment for work may be withheld until the damaged property has been repaired or replaced.

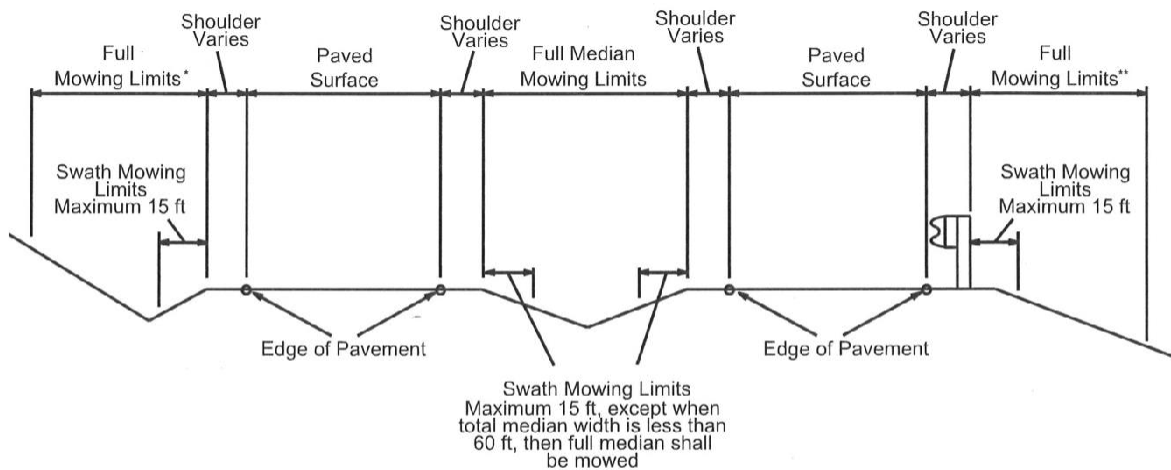
The Contractor shall respond to all claims of damage from the public within seventy-two (72) hours after notification of damage. Failure to settle claims for damages in a timely manner may result in actions by the Department to preclude the Contractor from performing work on future projects.

**Additional Work.** The Contractor may be required to mow in areas not specifically detailed in the Special Notes under the direction of the Engineer. Additional work shall be limited to the counties and systems which are designated in the Special Notes. Payment for additional work will be made at the contract unit price for mowing (item no. 806-01), swath mowing (806-02.13), or sidewalk finish mowing (item no. 806-02.14).

**Method of Measurement.** Mowing shall be measured by the acre based on the quantities shown in the Special Notes for each mowable area. Each mowing cycle or partial cycle will be measured separately. A mowing cycle includes the mowing of all tabulated areas shown in the Special Notes one time.

**Basis of Payment.** The accepted quantities of mowing will be paid for at the contract unit price per acre. All costs for traffic control as defined above shall be included in the unit bid price for mowing Item No. 806-01, swath mowing Item No. 806-02.13, or sidewalk finish mowing (item no. 806-02.14).

**TYPICAL MOWING DIAGRAM**  
**(NOT TO SCALE)**



**NOTES:**

\* Cut a minimum of 5 ft up the back slope from the bottom of the ditch, or as directed by the engineer.

\*\* Cut a minimum of 5 ft behind all guardrail, or as directed by the engineer.

S T A T E

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T E N N E S S E E

(Rev. 9-7-22)

January 1, 2021

**CERTIFICATION REGARDING**  
**DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS**  
**PRIMARY AND LOWER TIER COVERED TRANSACTIONS**

The prospective Primary and/or Lower Tier participant certifies, by signing and submitting this proposal, to the best of its knowledge and belief, that it and its principals:

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

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

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

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

Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal; and

Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

Where the prospective Primary and/or Lower Tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

(Exceptions to the above are to be submitted on a separate sheet with the bid proposal)

For any exception noted, indicate to whom it applies, initiating agency, and dates of action. Providing false information may result in criminal prosecution or administrative sanctions.

**STATE****OF****TENNESSEE**

| (Rev. 5-1-95)

January 1, 2021

**SPECIAL PROVISION****REGARDING****LABOR (STATE PROJECTS ONLY)**

The contractor will be required to comply with the provisions of Title 12, Chapter 4, Part 4, Tennessee Code Annotated, relative to payment of prevailing wages and also the following rules and regulations as established by the Tennessee Department of Labor:

- (1) Classify all laborers and mechanics conformably with schedule of classification in the contract.
- (2) Apprentices may be employed only under a bona fide apprenticeship program, registered with the Bureau of Apprenticeship, U.S. Department of Labor.
- (3) Wages rates must be posted in a prominent place on the site of construction and must be made available to all mechanics and laborers employed on the project at all times.
- (4) Pay all laborers and mechanics unconditionally and not less often than once each week the full wages earned.
- (5) Pay hourly rates which are not less than those listed for the class of labor being employed.
- (6) Pay overtime compensation as required by any applicable federal or state laws, rules or regulations.
- (7) Make no deductions from wages other than those authorized by law.
- (8) The contractor shall submit each week in which any contract work is performed a certified copy of all payrolls to the contracting agency. The address and social security number of each employee shall be shown the first time the employee appears on a payroll, and on any subsequent payroll when the employee's address changes.

The certifications will affirm that the payrolls are correct and complete, that the wage rates contained therein are not less than those determined by the Commissioner of Labor, and that the classifications set forth for each laborer and mechanic conform with the work performed. The contractor will make his employment records available for inspection by representatives of the contracting agency and the Department of Labor, and will permit such representatives to interview employees during working hours on a project.

Failure to submit payrolls within one week or to resubmit corrected payrolls within one week after notification may be reason to withhold progress payments.



The rates of pay for each classification of labor employees on this project as set out by the Labor Department of the State of Tennessee and made a part of this proposal contract, shall remain unchanged for the life of this contract.

Watchman and clerical employees are not to be covered by the Wage Scale, therefore, may be paid at or above the National Wage and Hour Law Rates.

**STATE**

**OF**

**TENNESSEE**

(Rev. 9-7-22)

January 1, 2021

**SPECIAL PROVISION**

**REGARDING**

**NON-DISCRIMINATION IN EMPLOYMENT**

Bidders are cautioned as follows:

By signing this bid, the bidder will be deemed to have signed and agreed that all persons, firms or corporations supplying goods, material, equipment or service of any kind to the State of Tennessee will not discriminate against any employee or applicant for employment on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability and further, that while under contract with the State will show proof upon request that all employment practices including, but not limited to, promotion, rates of pay, transfers, recruitment, recruitment advertising, terminations, layoffs and training and apprenticeship programs are not discriminatory in nature.

Each contractor shall be required to post in conspicuous places, available to all employees and applicants for employment, notices of non-discrimination.