STATE OF TENNESSEE

TENNESSEE DEPARTMENT OF TRANSPORTATION

SCOPE OF SERVICES

FOR

PERFORMANCE BASED MAINTENANCE SERVICES IN REGION 3 SOUTH

RFP # 40100-PBMC0002 REGION 3 SOUTH

Contents

DEFINITIONS

1. Work Plan: A document submitted by the Contractor, for the Department's approval, detailing the Contractor's planned work efforts and the manner in which the Contractor shall achieve the contracted work over each year of the Contract.
2. Asphalt Concrete Pavements (or Flexible Pavements): Flexible TDOT approved materials engineered and constructed to provide a smooth, safe and durable surface for roadways.
3. Asset Group: A Contract prescribed group of common Asset Items that will be measured for the purpose of Contractor performance.
4. Asset Item: A Contract prescribed service, or individual highway item requiring Contract prescribed maintenance service, or other work to be performed in accordance with the Contract.
5. Brush and Trees: Planted or volunteer growth within the right of way. This growth may grow profusely causing sight problems near, off, or on ramps, interchanges, and around signs.
6. Channel Protection: Stone, concrete or other material deposited upon river and stream beds and banks, lake, tidal or other shores to prevent erosion and scour by water flow, wave, or other movement.
7. Clear Zone: A traversable area that starts at the edge of the traffic lane, includes the shoulder, and extends laterally a sufficient distance to allow a driver to stop or return to the road before encountering a hazard or overturning.
8. Composite Pavement: A multi-layer structure where there is a flexible layer (top-most layer) over a rigid layer.
9. Concrete Barriers: Pre-cast and cast-in-place walls that are commonly installed in highway medians to separate traffic.
10. Concrete Pavements (or Hydraulic Cement or Portland Cement Concrete): Rigid TDOT approved materials engineered and constructed to provide a smooth, safe and durable surface for roadways.
11. Contract Engineer: The TDOT employee responsible for the management and administration of all facets of the Contract to assure the Contractor's total performance is in accordance with the contractual commitments and the obligations of the Contractor under the terms and conditions of the Contract.
12. Contract Services Inspector: The TDOT Engineer(s) or representative(s) responsible for overseeing and periodically inspecting the Contractor's work performance and reporting non-performance to the TDOT Engineer.
13. Contract Start Date: The date the Contractor shall start performing the Scope of Services defined in the Contract.

14. Contractor: The individual or firm that has entered into the Contract to provide services to TDOT, inclusive of its personnel, employees and subcontractors.
15. Crossovers / Police Parking Locations: Open (signed) or closed (gated) locations normally in the highway medians constructed between exit interchange, providing staging areas of emergency access to the roadway for authorized vehicles.
16. Curb and Gutter, Curb or Raised Concrete Median: Channeling devices to minimize erosion by routing runoff water to an inlet. These channeling devices generally consist of Portland cement concrete, cut stone, asphalt concrete as well as other TDOT approved configurations.
17. DBH - Diameter at Breast Height: Approximately 54 inches above ground level.
18. Day: Unless otherwise stated, a calendar day.
19. Debris: Any item(s) such as tires, tire carcass (es), bag(s) of garbage, treads, sticks, lumber, boxes, sand, gravel, broken pavement markers, and similar solid materials that are of any size which may cause a motorist to swerve or may cause when hit or thrown by a vehicle as a projectile.
20. Deck: That traveled portion of a bridge which provides support and a travel surface for vehicular and pedestrian traffic.
21. Department: The Tennessee Department of Transportation (TDOT).
22. Drop Inlets 'DI' (Basin): Drainage structures that collect storm water surface runoff.
23. Emergency Response Plan: A document submitted by the Contractor, for the Department's approval, detailing the planned work efforts and the manner in which the Contractor shall achieve Contract required safety measures to weather and non-weather-related Incidents such as accidents, rock falls, tornados, and other times when Emergency Response is required.
24. Emergency Response: The Contractor's response to an unpredicted or predicted event or crisis that must be dealt with urgently under the Contract and requires immediate action by the Contractor twenty-four (24) hours a day, seven (7) days a week including holidays in order to ensure safe and optimized travel for the traveling public on the highway as originally designed and configured.
25. Fencing: Chain link, wooden, farm, and other material that is located along the highway right of way constructed and installed to prevent uncontrolled access of vehicles, pedestrians, and animals onto the highway.
26. Glare Foils: Plastic (or other material) paddles that are commonly mounted on the top of median barrier walls to provide a "glare screen" between opposing lanes of traffic.
27. Graffiti: Any language, symbol, pictures or markings whether painted, chalked, etc. on any structures or roadway which is otherwise visible within the right-of-way. Survey and engineering markings shall not be considered graffiti.

28. Guardrail: A safety barrier constructed of w-rail, tubular, ribbon, cable, and other material types located along the roadway.
29. Handrail: Rails used by pedestrians to hold onto for stability and support at steps or ramps.
30. Hazard: Any situation or condition that causes, or has the ability to cause, an unsafe condition to the traveling public or presents the possibility to cause or is causing damage or safety concerns or risks to public and/or private property.
31. Hazardous Materials: Any substance or agent (biological, chemical, physical) which when spilled, discharged or otherwise released into the environment, has the potential to cause harm to human health or the environment, either by itself or through interaction with any other factors.
32. Heavy Spot Sweeping: Locations where dense concentrations of litter or debris type material have accumulated. Heavy spot sweeping would be for a total requested sweeping of less than 10 lane miles.
33. Hour: A unit of time equal to sixty (60) minutes.
34. Illegal Signs or Structures: Any signs or structures erected and not otherwise authorized by TDOT located within the Right of Way.
35. Immediately: As soon as reasonably practicable, but, in any event, not to exceed sixty (60) minutes including holidays listed herein, unless the TDOT Engineer agrees, in his or her discretion, to a longer response time due to any relevant attendant circumstances.
36. Impact Attenuators: Energy-absorbing devices that minimize the impact of a vehicle striking a fixed object. Impact attenuators are typically located at bridge piers, walls, sign structures, and other fixed objects. Attenuators are generally constructed of collapsible modules or cells configured to absorb energy from a variety of sources.
37. Incident: Any occurrence on the highway requiring the Contractor or Safety Services Patrol (SSP) to respond.
38. Incident Commander (IC): The individual responsible for directing and/or controlling resources by virtue of explicit legal, agency, or delegated authority responsible for the overall management of the response.
39. Incident Command Post (ICP): A pre-designated temporary facility signifying the physical location of the tactical-level, on-scene incident command and management organization.
40. Junction Box: Concrete, Fiberglass, Metal, PVC, or other materials used for storage of wiring connections for securing electrical and/or communication conduit systems.
41. Large Pipes and Box Culverts (> 36ft2): Pipes which include single or multiple pipe and box culverts having a combined flow area of > 36 ft2. Multiple culverts must be contained within a single end wall at each end or they will be considered as separate

pipes. Single or multiple pipes and box culverts with a combined opening > 36 ft2 are classified as structural culverts.

42. Lighting: Luminaries, lamps and lights, breakers, contactors including any posts, installation techniques, and wiring for the same located within the highway right-of-way limits. Wire for lighting, past the first junction box from the pole base will be paid for by LF as a requirement-based service.
43. Liquid Anti-Icing: Pre-treatment and preventive treatment of roadways, ramps and bridges prior to a winter weather event arriving, designed to prevent or reduce ice from forming on the travel surfaces and is done as to meet the needs of the Department.
44. Litter: Paper, cans, bottles, tire shreds, garbage, trash, refuse, rubbish and other similar solid items that have been discarded within or blown into the right of way.
45. Manhole Covers: Protective openings of storm drains, drop inlets or access points.
46. Maintenance: The performance of routine, ordinary and preventive work to maintain the highway system and its assets. Day-to-day maintenance activities are designed to preserve and correct defects of the transportation assets and the highway structures within the state (TDOT) rights of way which otherwise contribute to the safety and comfort of the traveling public. Maintenance is performed to care for and maintain the highway and associated highway assets so that it retains its original intended use and function. This includes maintenance work on any assets exhibiting wear from weather, or work designed to prevent any further deterioration and damage.
    a) Preventive Maintenance: A planned strategy for an existing roadway and its appurtenances that preserves the system, retards future deterioration, and maintains the functional condition of the roadway and its assets by adding longer life to the roadway surface and assets without increasing the structural capacity of the roadway.
    b) Routine/Ordinary Maintenance: Work that is planned to be performed on a routine basis to maintain and preserve the condition of the roadway, highway system, and its assets or to respond to specific conditions and events to restore the roadway, highway system, and its assets to an adequate level of service.
47. Maintenance Quality Assessment (MQA): TDOT's Contract performance evaluation program to evaluate the Contractor's compliance with the Asset Item and Asset Group condition(s) related to the contract performance criteria requirements.
48. Mowing: Tractor and non-tractor cutting of grass and herbaceous and woody vegetation.
49. Mowing cycle: One complete mowing of a designated area.
50. MQA Score, Rating, Evaluation Rating or Percent Passing: The percentage rating, or evaluation, of each Asset Group and each Asset Item that the Contractor must achieve and maintain with regard to Contract Outcomes within the Contract Tolerance and

Criteria specified by the Contract for all Asset Items prior to and during TDOT MQA evaluations throughout the Contract term. Achieving or exceeding this percentage rating, or evaluation, is an indication of passing the MQA evaluation performed under the Contract and/or compliance with the Contract. Passing Asset Items are indicated by a "yes" in the MQA evaluation. Failing to achieve this percentage is an indication of failure to meet the performance standards set forth in the Contract and work/performance not accomplished under the Contract. Failing Asset Items are indicated by a "no" in the MQA evaluation.

51. Multi-Use Trail: Pedestrian walkways and bike paths consisting of gravel or aggregate stone Portland cement concrete, asphalt concrete, or brick materials.
52. Non-performance (deficiency): Failure of the Contractor to meet or accomplish the contract performance criteria or other Contract requirements.
53. Non-Roadway Grass Mowing: The mowing, maintenance and upkeep of grass and sodded areas within Tunnel Support facilities, park and ride lots, and other areas with pedestrian traffic.
54. Object Markers or Delineators: An object typically consisting of reflective materials mounted on a post or other structure to assist motorists and maintenance personnel in roadway alignment or safety.
55. Outcomes: The description of the maintenance condition or state of a Contract required asset item during the Contract term.
56. Parking Lot Maintenance: The assets to be maintained in Parking Lot Maintenance include the asphalt surfaces, and the concrete surfaces associated with Tunnel Support facilities, Traffic Centers, Toll facilities, or park and ride lots.
57. Paved Ditches: Drainage ditches that are lined with either Portland cement concrete or asphalt concrete to prevent erosion and improve water flow capabilities.
58. Paved Shoulders: The asphalt or concrete-paved portion of the inside and outside shoulders on ramps, and roadways. Any shoulder pavement of 3 feet or more is to be considered paved. Where shoulder pavement is less than 3 feet, (on ramps) it will be considered unpaved.
59. Pavement Markers: The reflective markers that are placed either on or in the roadway pavement surface to assist with lane delineation and to direct traffic. Raised markers are placed directly on the roadway pavement surface; whereas recessed markers are placed in a groove cut in the pavement surface so that the top of the marker is flush with the pavement surface.
60. Pavement Markings: The roadway and ramps pavement striping used to delineate traffic lanes and pavement edges. Pavement markings may consist of solid lines or skip lines that are yellow, white, or black. In addition, pavement markings may consist of paint, thermoplastic, or tape.

61. Pavement Words, Symbols, and Arrow markings: Markings used to delineate traffic arrows, word markings, gore markings, stop bars, crosswalks, parking spaces, painted curbs, and all other markings except for pavement marking as defined above. Pavement messages may consist of paint, thermoplastic, or tape.
62. Performance Criteria: Contract criteria which identifies, specifies, and defines Asset Items, Asset Groups, Asset Item Outcomes, Asset Item Tolerance and Criteria, and Timeliness Requirements for the Contractor's performance and compliance with the Contract, and the expected or required specified highway maintenance performance there under.
63. Protect the Queue (PTQ): Routine Maintenance Activities, conducted on Interstates and certain qualifying State Routes, will require the performance of Protect the Queue operations in order to provide advanced notice to motorists approaching a work zone or incident where queues are likely to form, posing an unexpected risk to approaching motorists.
64. Potholes: Steep sided holes of varying sizes in pavement resulting from localized disintegration.
65. Public Information Plan: A document prepared by the Contractor, for the Department's approval, detailing the planned work efforts and manner in which the Contractor shall achieve those prescribed roles, responsibilities, and procedures, regarding public communications under the Contract.
66. Retro-reflectivity Standard: Signs shall meet minimum standards in accordance with Table 2A-3 (2009 MUTCD) or applicable standards in the latest edition of the MUTCD adopted by the TN DOT.
67. Method for Maintaining Minimum Retro-reflectivity for Signs: One or more of the following methods should be used: A) Visual Nighttime Inspection B) Measured Sign Retro-reflectivity.
68. Regulatory Approvals: All local, regional, state and federal agreements, studies, findings, permits, approvals, authorizations, certifications, consents, decisions, exemptions, filings, leases, licenses, registrations, rulings, and other governmental authorizations required to be obtained or completed under any applicable law prior to undertaking any particular activity contemplated by this Contract.
69. Retaining Walls: Structures designed to restrain and hold back a mass of earth.
70. Roadkill: Dead or dying animals that are any size which may cause a motorist to swerve or may cause damage when hit or thrown by a vehicle as a projectile.
71. Roadway Sweeping: The removal and disposal of debris and buildup along the highway, barrier walls, retaining walls, sidewalks, and curbs.

72. Rumble Strip: A road safety feature located on the roadway or ramp paved shoulders that alerts drivers to potential danger by causing tactile vibration and audible rumbling, transmitted through the wheels into the vehicle body.

73. Sample Population: All Sites included in the Contract requirements.

74. Security Fencing: Fencing that is placed around any facilities to protect equipment from unauthorized access and maintain a safe work environment.

75. Signs: Signs consist of all ground (post mounted), and overhead and bridge mounted signs located along the highway and include regulatory and other signs. Signs are defined as follows:

    a) Regulatory Signs: These signs inform highway users of traffic laws or regulations and indicate any legal requirements that would otherwise not be apparent. This category also includes “Warning” signs which are deemed necessary to warn traffic of existing or potentially hazardous conditions on or adjacent to the highway.

    b) Other Signs: These signs are “Informational” or “Guide” signs that are essential for directing motorists; identifying intersecting routes; identifying geographical locations and distances; and directing motorists to towns, cities, and other important destinations.

    c) Specific Service Signs: Specific Service Signs shall be defined as guide signs that provide road users with business identification and directional information for services and for eligible attractions. These Services include gas, food, lodging, camping, and attractions.

76. Sidewalks: Paved paths of Portland cement concrete, or asphalt concrete material, for pedestrian walkways, bridal paths or bike paths.

77. Site: A one tenth (1/10th) mile segment of the Department right-of-way, which may be extended up to 1/10th of a mile, for ramp, connector, and project termini locations as necessary, at the discretion of TDOT.

78. Slopes: The earthen areas located between the edge of the highway and the right of way limits, excluding ditches, landscaping, and brush. Generally, these areas will be grassed or sodded. The front slope begins at the edge of any paved and/or unpaved shoulder. The back slope begins behind the ditch line.

79. Slope Protection: A thin surfacing of stone, concrete or other material deposited upon a sloped surface to prevent its disintegration by rain, wind or other erosion.

80. Small Pipes and Box Culverts (< 36ft2): Cross pipes which include single or multiple pipe culverts having a combined flow area of less than 36 ft2. Multiple culverts must be contained within a single end wall at each end, or they will be considered as separate pipes. Single or multiple cross pipes with a combined opening > 36 ft2 are classified as structural culverts.

81. Sound Barriers: Walls located along the edge of the highway right of way which are used to minimize the level of noise that is emitted from the highway to adjacent properties. Constructed sound barriers can consist of concrete, metal, wood, fiberglass, paraglass (Transparent acrylic material), or composite material.
82. Stormwater facility: Man-made water retention ponds that are created to minimize or detain the amount of drainage and storm water runoff.
83. Storm water Facilities: Publicly owned facilities by which storm water is collected and/or conveyed.
84. Substructure: All parts of a structure that are below the bearings of simple and continuous spans, skewbacks of arches, and tops of footings of rigid frames, together with the back walls, wing-walls, and wing protection railing.
85. Superstructure: The portion of a structure that is generally above the substructure and is not otherwise defined as a substructure above.
86. Timeliness Requirement: The Contract performance Tolerance and Criteria which defines the Contract time limits by which a Contractor shall have remedied, maintained, or restored any failing Asset Item in the Contract.
87. Tolerance and Criteria: The Contract definitions, measurements, specifications, and performance requirements of each Asset Item.
88. Traffic Control Plan: The Contractor's planned work efforts, and the manner in which the Contractor shall provide appropriate traffic control under the Contract while carrying out all asset Contract maintenance services.
89. Transportation Facilities: All transportation assets within the limits of the TDOT right of way, including but not limited to the access highways, ramps, bridges, structures, and multi-use trails (bicycles or walking paths).
90. Transportation Management Center (TMC): The TDOT office center which monitors the day-to-day operation of the highways in Tennessee or the operation of highways in a specified area of Tennessee.
91. Travel way: The roadway surface from the edge of pavement on one side of the roadway to the other edge of pavement on the opposite side of the roadway.
92. Truck/Trailer-Mounted Attenuators (TMAs): Energy-absorbing devices that minimize the impact of an errant vehicle striking a work vehicle or equipment located in an active work zone. Truck/trailer-mounted attenuators are typically attached to a host vehicle of suitable weight, according to the manufacturer's recommendations and specifications. Attenuators are generally constructed of collapsible modules or cells configured to absorb energy from errant vehicles.
93. Under or Edge Drains: Synonymous and longitudinal drains located along the edge shoulder joint or along the edge of the shoulder. These drains are typically oriented parallel to the highway and drain through an outlet to the adjacent highway ditch every

few hundred feet. These drains may be comprised of pipes or prefabricated geo-composite materials. Generally, the drain outlets consist of pipes with diameters ranging between 4 inches and 12 inches.

94. Unpaved Ditches: Drainage ditches that are lined with grass, sod, gravel, riprap, or soil, and maintain or control water flow runoff.
95. Unpaved Shoulders: Shoulders, or portions of shoulders, for roadways and ramps, that do not contain an asphalt, concrete or Portland cement concrete surface.
96. Wall Mounted Traffic Signs: Signs that are mounted on retaining walls that are located along the highway and that include regulatory signs. (Regulatory Signs: See Signs)
97. Warning Lights and Lighting: Includes all types of lights, and luminaries, including any posts, installation techniques, and the associated wiring for the same located within the highway right-of-way limits giving warning notice(s) of any potential hazard to the traveling public or any road maintenance personnel and/or police or emergency responders.
98. Weekly Work Plan: A document submitted by the Contractor, for the Department's approval, detailing the planned weekly Contractor work efforts and the manner in which the Contractor shall achieve the Contract work for the next seven (7) Days to include but not be limited to any Contract asset, or activity, the location where the work is to be performed, and the time of any work operation(s), as well as describing and identifying the use of any lane closures (including the type of lane closure to be utilized).
99. 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.

ACRONYMS

Aquatic Organism Passage AOP

Maintenance Quality Assessment MQA

Manual on Uniform Traffic Control Devices MUTCD

National Bridge Inspection Standard NBIS

Specifications for the National Bridge Inventory SNBI

National Incident Management System NIMS

Pavement Condition Index PCI

Performance Based Maintenance Contract PBMC

Qualified Products List QPL

Specifications for the National Bridge Inventory SNBI

Statewide Information for Travelers SWIFT (aka TDOT Smartway)

Temporary Traffic Control TTC

Tennessee Emergency Management Agency TEMA

Tennessee Department of Transportation TDOT

Tennessee Highway Patrol THP

Traffic Incident Management TIMs

Traffic Management Center TMC

Work Zone Field Manual for Maintenance Operations WZFM

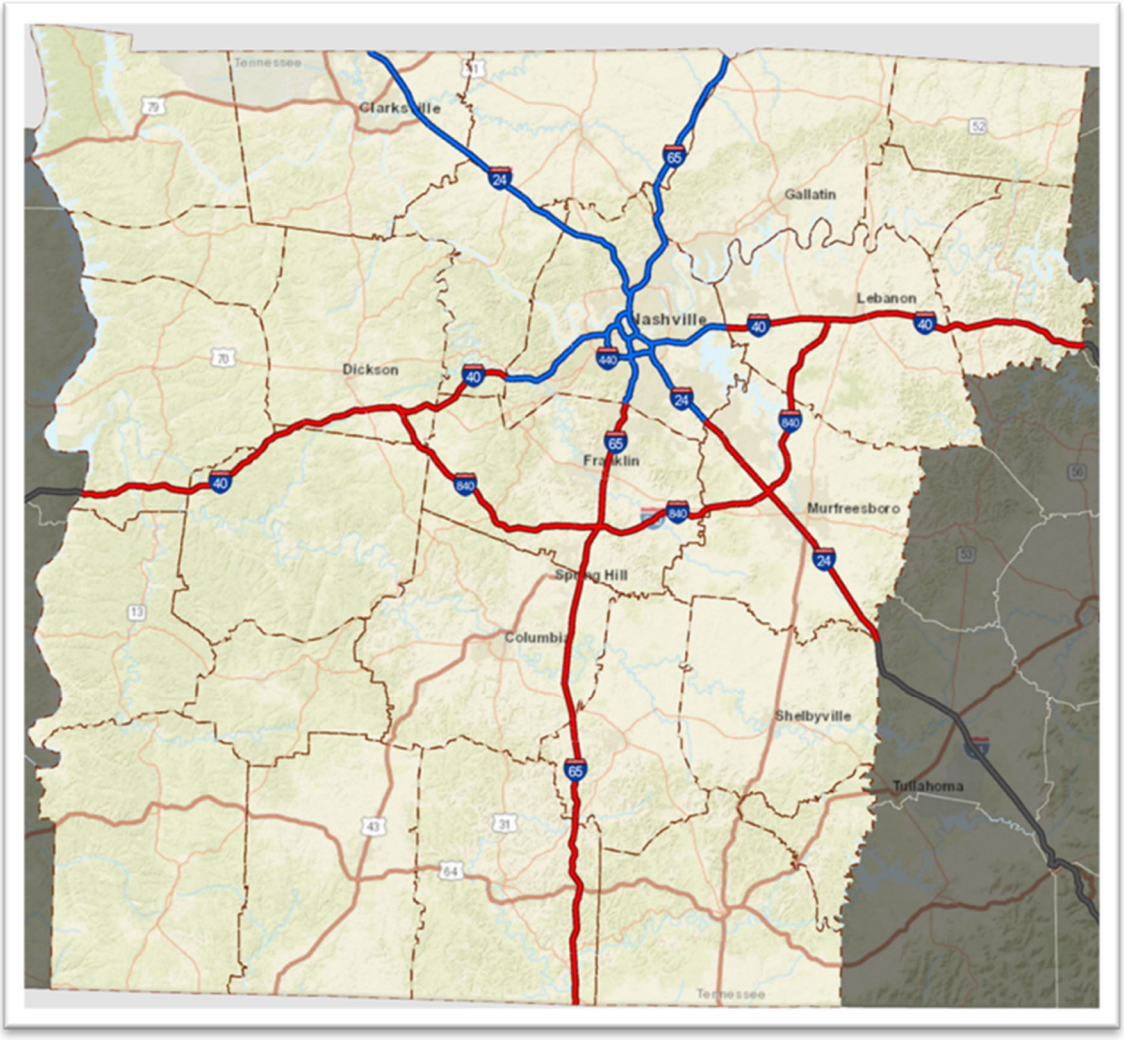
EXHIBIT A – Performance Based Maintenance Contract Scope of Work

1 General

The Contractor shall perform all activities associated with highway, drainage, structures, roadside, vegetation, traffic services, specialty items, emergency response, and incident management activities in accordance with the Contract, its Scope of Services, and the contract performance criteria detailed therein twenty-four (24) hours a day seven (7) days a week unless otherwise directed by the Department.

These comprehensive maintenance services shall include the management and performance of maintenance and repair activities of the interstate highways including all ramps, collector/distributor ramps and frontage roads, bridges, and all roadway appurtenances within the right of way in Bedford, Cheatham, Dickson, Giles, Hickman, Humphreys, Marshall, Maury, Rutherford, Smith, Williamson, and Wilson Counties.

Figure 1 Project Map



Solicitation 2 (Region 3 South Contract):

The performance-based maintenance of various interstate mainline and ramps (I-24, I-40, I-65, I-840) in Region 3 (Bedford, Cheatham, Dickson, Giles, Hickman, Humphreys, Marshall, Maury, Rutherford, Smith, Williamson, and Wilson Counties).

I-24 in Rutherford and Bedford Counties from the Davidson County Line @MM 63.14 to Coffee County Line @MM 96.82

- I-24 Mainline
    - Rutherford: MM 63.14 to MM 96.39
    - Bedford: MM 96.39 to MM 96.82
- I-24 Ramps
    - Interchange Ramps @Exits 64, 66, 70, 74, 76, 78, 80, 81, 84, 89, 97 (see interchange maps)

I-40 in Humphreys, Hickman, Dickson, Cheatham, and Williamson Counties from the Tennessee River @MM 134.93 (East end of bridge) to the Davidson County Line @MM 191.60

- I-40 Mainline (West of Nashville)
    - Humphreys #1: 134.93 (East end of TN River bridge) to MM 148.07
    - Hickman #1: MM 148.07 to MM 159.44
    - Humphreys #2: MM 159.44 to 159.65 (no roadway CL sign)
    - Hickman #2: MM 159.65 to MM 160.00 (no roadway CL sign)
    - Humphreys #3: MM 160.00 to MM 160.59 (no roadway CL sign)
    - Hickman #3: MM 160.59 to MM 163.33
    - Dickson: MM 163.33 to MM 181.19
    - Williamson: MM 181.19 to MM 184.31
    - Cheatham: MM 184.31 to MM 191.60
- I-40 Ramps (West of Nashville)
    - Interchange Ramps @Exits 143, 148, 152, 163, 172, 176, 182, 188 (see interchange maps)
    - Dickson Co. Rest Area (EB & WB) near MM 170

I-40 in Wilson and Smith Counties from the Davidson County Line @MM 222.67 to the Putnam County Line @MM

- I-40 Mainline (East of Nashville)
    - Wilson: MM 222.67 to MM 249.92 (CL sign on road)
    - Smith: MM 249.92 @ CL sign to MM 267.13 (CL sign on road)
- I-40 Ramps (East of Nashville)
    - Interchange Ramps @Exits 226, 229, 232, 235, 236, 238, 239, 245, 254, 258 (see interchange maps)
    - Wilson Co. Parking Area Ramps (EB & WB) near MM 252.2
    - Smith Co. Rest Area Ramps (EB & WB) near MM 267.0

I-65 in Williamson, Maury, Marshall, and Giles Counties from the Alabama State Line @MM 0.0 to the Davidson County Line @MM 74.39

- I-65 Mainline
    - Williamson: MM 52.88 to MM 74.39
    - Maury: MM 35.21 to MM 52.88
    - Marshall: MM 22.42 to MM 35.21
    - Giles: MM 0.00 to MM 22.42
- I-65 Ramps
    - Interchange Ramps @Exits 1, 6, 14, 22, 27, 32, 37, 46, 53, 59, 61, 65, 67, 68, 69, 71 (see interchange maps)
    - Giles Co. Welcome Center Ramps (NB & SB) near MM 3.0
    - Giles Co. Weigh Station Ramps (NB) near MM 5.0

I-840 in Dickson, Hickman, Williamson, Rutherford, and Wilson Counties from I-40 West of Nashville in Dickson County @MM 0.00 to I-40 East of Nashville in Wilson County @MM 76.51

- I-840 Mainline
    - Dickson: MM 0.00 to MM 4.86
    - Hickman: MM 4.86 to MM 6.23
    - Williamson: MM 6.23 to MM 45.08
    - Rutherford: MM 45.08 to MM 65.56
    - Wilson: MM 65.56 to MM 76.51

- I-840 Ramps
    - Interchange Ramps @Exits 1, 7, 14, 23, 28, 30, 31, 34, 42, 47, 50, 53, 55, 57, 61, 65, 67, 70, 72, 76 (see interchange maps)

Summary: 286.55 Centerline Miles (includes 82.0 Urban Centerline Miles)

1,393.14 Lane Miles (includes 537.6 Urban Lane Miles)

With the exception of activities set forth in the EXHIBIT B – Special Provisions and Prescribed Maintenance Activities, this is a performance-based contract and requires diligent inspection, effective management, and efficient performance of maintenance on all components of the transportation facility as identified herein. In performing the duties under the terms of this contract the Contractor is, by extension, representing the Department's work force for the areas and assets specified in this contract. Unless otherwise specifically stated, all maintenance activities within the limits of this contract are to be performed by the Contractor.

Outside of the maintenance characteristics and their related activities set forth in SPECIAL PROVISIONS - EXHIBIT B, the Department will not direct specific work as in most traditional maintenance contracts. This performance-based contract requires the Contractor to determine the work needs, perform the work, and continually produce a quality product. The Department is entrusting the Contractor to care for and maintain select roadways, structures, and facilities of Tennessee's state roads and expects the Contractor to take pride in performing a high level of maintenance. The continual quality of the maintenance of the roadways, structures, and facilities will be a direct reflection, under public scrutiny, of the quality and integrity of the Contractor.

Upon Contract execution, the day-to-day management, delivery of services and maintenance activities become the responsibility of the Contractor. The Contractor must oversee, direct, inspect, and ensure the quality and conformance of all work at all times. The Department will periodically randomly and systematically monitor and inspect the Contractor's and subcontractor's performance and compliance with this Contract.

The Contractor shall manage and perform all maintenance and repair activities associated with pavements, bridges, traffic control devices (excluding pavement markings unless related to surface repairs completed by PBMC), drainage structures, roadside vegetation and aesthetics, traffic services, provide emergency response and other services as described in Exhibit A – Performance Based Maintenance Contract (PBMC) Scope of Work. In addition to the comprehensive Flexible Asset Maintenance Scope of Work, the Contractor shall perform Prescribed Maintenance Activities – EXHIBIT B which are performed as scheduled by the Department on a pre-determined or as needed basis. Prescribed Maintenance Activities required under this contract shall include but are not limited Drain Cleaning- Bridge, Pavement, Sweeping, Highway Mowing and Litter, Noise Walls, Rock Catch Areas and Rock Catch Fence, and Guardrail, Cable Barrier, Concrete Barriers, and Attenuators.

The Contractor shall also be responsible for any traffic control, design, shop drawings, and permits required to satisfy the duties required by the terms of this Contract.

1.1 Current Standards and Subsequent Updates

Perform all work in accordance with the most current Department Standards and Specifications, as may be updated throughout the life of the contract. Inspect, manage, and consistently maintain all assets within the project limits as identified in this scope; and produce end results in accordance with Contract Documents in effect at the time of the performance of any Work. Obtain the complete, up-to-date list of Contract Documents from the TDOT Maintenance Division.

Note: The scope of this Contract is not to bring all facilities up to current design standards. However, if an asset must be replaced (to include but not limited to guardrail end units, impact attenuators, sign structures) then that asset shall meet the current design standards.

2 Maintenance Limits

2.1 Interchanges, Crossroads and Ramps

The scope of this contract includes interchanges, crossroads and ramps as defined here:

a) For all ramped interchanges, be responsible for all ramps that connect to the state roadways covered by this contract up to the edge line or edge of pavement parallel to the mainline state roadways, whichever extends farther.

b) For at-grade intersections, be responsible for intersecting roadways up to the ROW line of the roadways covered by this contract.

These limit definitions apply unless agreements exist (if any) between the Department and other entities that indicate otherwise, or unless otherwise shown by the Department through supplemental description.

Within 60 days of the Start Date, submit aerial graphical depictions of the limits of all intersections within the contract limits that can be described by (a and b) above. The graphical depictions shall clearly define and display all areas covered under the scope of this contract. The submittal will be reviewed by the Department for agreement and approval, in writing. If the Department does not agree with the limits shown in the depictions, continue to research, edit, and resubmit until both parties agree to the limits.

2.2 Overpasses, Underpasses, and Approach Roadways

The scope of this contract includes overpasses, underpasses, and approach roadways within the limits of right-of-way of the roadways covered by this contract. This inclusion does not apply to a particular overpass, underpass, or approach roadway if it is maintained by other entities through agreement with the Department, or if shown otherwise by the Department through supplemental description, or if Department policy directs otherwise.

2.3 Open Channel Waterways

The contract includes waterways, canals, ditches, outfalls, and intermittent waterway canals to the right-of-way line including compliance with any permit requirements.

TDOT has an Aquatic Organism Passage (AOP) program for wet stream conveyance through culverts. If applicable, culvert AOP requires stream beds to remain continuous through a culvert. This means the culvert pipe or box structure will be imbedded and the culvert bottom should have rocks and material similar to the stream bed. The contractor is required to file any necessary permits with TDEC or the Corps of Engineers in any wet stream bed.

AOP is not required on stormwater drainage (ditches). The culverts on drainage ditches will not be imbedded and any material within the culvert will be considered foreign debris to be removed. This condition will be rated during MQA assessments.

2.4 Inspection and Management of Stormwater Ponds and Mitigation Areas

Perform the inspection, maintenance, and management of stormwater ponds and mitigation areas associated with the highway corridor according to and in compliance with all permit requirements.

3 Contract Period

The Start Date for the work to be performed under this contract is ninety (90) days from the effective date of the Contract ("Start Date"). The term of the contract shall be for sixty (60) months after the Start Date. At the option of the Department, this contract may be renewed for two (2) additional periods of twenty-four (24) months, contingent upon acceptable contract performance. The Engineer will notify the Contractor in writing if the contract will be renewed for the first renewal period and again for the second renewal period, at least six months prior to the current contract completion date. The Contractor then must reply to the Engineer in writing at least four months prior to said completion date in order to accept the renewal. Failure of the Contractor to reply in writing will be received as a rejection of contract renewal.

4 Reduction in Service

The Department reserves the right, based on budgetary limitations or other reasons determined to be in the best interest of the State, to make a temporary or permanent reduction in the Scope of Work by eliminating items or quantities of work, reducing applicable performance standards, or through any combination thereof. The Department will provide the Contractor with written notice of the proposed reduction in the Scope of Work at least ninety (90) calendar days prior to the effective date. The Department will negotiate an equitable adjustment to the terms of payment and compensation due to the Contractor for contract services. The Department's exercise of its right to a reduction in the Scope of Work under this

Contract shall not entitle the Contractor to any actual, general, special, incidental, consequential, or any other damages irrespective of any description or amount.

5 Invoicing and Compensation

For the comprehensive routine maintenance services set forth in Exhibit A this is a per month unit price. Invoice the Department monthly according to the monthly unit price amount shown in the Routine Maintenance Services Line Item of the price sheet submittal. With each invoice submit a breakdown of all activities and quantities completed by maintenance area for each Maintenance Management System (MMS) activity number. Submit all information in a format acceptable to the department.

For the activities performed per the EXHIBIT B – SPECIAL PROVISIONS and PRESCRIBED MAINTENANCE ACTIVITIES, a monthly invoice shall be submitted for work authorized and completed during the previous month. With each invoice submit a breakdown of all activities and quantities completed by maintenance area for each Maintenance Management System (MMS) activity number. Submit all information in a format acceptable to the department.

The Contractor shall deduct from the monthly invoice all applicable deductions.

When referenced in this Contract, the Annual Contract Amount is the sum of twelve (12) scheduled monthly payments for performance bid item(s) along with the prescribed maintenance activities.

6 Mobilization

The Department will pay an initial Mobilization Fee equally distributed over the first three months' payment. The total Mobilization payment will be made in the amount of 10% of the first 12 months sum for 'Routine Maintenance Services' for Mobilization.

7 Annual Price Adjustments

Assuming all performance and timeliness criteria are met, the first twelve months of the contract period will be paid at the unit prices bid.

Beginning with the initial monthly payment and 12 months thereafter, monthly payments for the subsequent twelve-month period will be adjusted annually based on the unadjusted index (e.g., August 2023 = 301.551) of the Services Category of Table 4 "Consumer Price Index for Urban Wage Earners and Clerical Worker (CPI-W).

The monthly payments 12 months after the start date will be the unit price bid increased or decreased by a percent equal to the percent change in the aforementioned CPI reported between January 2024 and January 2025, or five percent (5%), whichever is less.

8 Liquidated Damages

Liquidated damages for timeliness requirements presented in Table 6 are calculated using the prescribed intermediate contract times. The Contractor is responsible for logging the time of the start of each intermediate contract time and the completion of the task subject to the intermediate contract time. This information shall be made accessible to the Engineer as part of each Monthly Report and on an interim basis as required by the Engineer to assess liquidated damages.

In the event a Department design is required for the repair or replacement of an item covered by an intermediate contract time, that intermediate contract time will be adjusted if there is a delay in providing the design. In addition, for the case of major structural items, the intermediate contract time will be adjusted if the Contractor demonstrates due diligence in the pursuit of materials that are not reasonably available within the applicable intermediate contract time.

Liquidated damages for planned lane closures, shoulder closures, lane narrowing, and holiday and event time restrictions apply. Reference Section 20 and Table 6.

9 Contract Performance and Payment Bonds

Upon award, furnish to the Department, and thereafter continue to furnish to the Department during the term of the Contract, a Payment and Performance Bond guaranteeing the contract obligations for each twelve-month period of the Contract. No later than the date of Contract execution, provide to the Department a Payment and Performance Bond on a form prescribed by the Department in a penal sum equal to the first year's annual Contract amount under the Contract. Annually thereafter, no later than thirty (30) days prior to the contract anniversary date, provide to the Department a Payment and Performance Bond on a form prescribed by the Department in a penal sum equal to the upcoming year's annual Contract amount. Regardless of the number of separate bonds or bond continuations provided by the Surety hereunder, the Surety's liability for each bond or bond continuation will be limited to the amount for the twelve-month period for which the bond or bond continuation is provided for the Work performed during the term of the bond.

Obtain the Payment and Performance Bond from a Surety authorized to conduct business in the State of Tennessee. Each Payment and Performance Bond must be executed only on the forms provided by the Department. Failure to provide any of the required Payment and Performance Bonds to the Department within the aforementioned time frames will entitle the Department to exercise any and all rights it has in law or in equity, including to annul the award, declare the Contractor in default, terminate the Contract, or decline to renew the Contract, all in the Department's sole discretion.

9.1 Continued Acceptability of Surety

Provide Payment and Performance Bonds that remain acceptable to the Department throughout the life of the Contract. In the event that the surety executing any bond, although

acceptable to the Department at the time of execution of the Contract, subsequently becomes insolvent or bankrupt, or becomes unreliable or otherwise unsatisfactory due to any cause that becomes apparent after the Department's initial approval of the company, then the Department may require that the Contractor immediately replace the bond with a similar bond drawn on a surety company that is reliable and acceptable to the Department. In such an event, the Contractor will bear all costs of the premium for the new bond.

9.2 Default by Contractor

In case of default on the part of the Contractor, the Department may charge against the applicable Payment and Performance Bond all costs to which the Department is entitled as a result of Contractor's default.

9.3 Liability for Wrongful or Criminal Act by Contractor

The principal and surety executing the bond shall be liable to the State in any civil action that might be instituted by the Department, or any officer of the State authorized in such cases, for double any amount in money or property the State might lose, or be overcharged, or otherwise be defrauded of by any wrongful or criminal act of the Contractor, their agent or their employees.

9.4 Execution of Contract

Within 10 calendar days, excluding Saturdays, Sundays and State holidays, after receipt of the Contract award, execute the necessary agreements to enter into a Contract with the Department and return the Contract along with a satisfactory and documentation evidencing all required insurance to the Department's Contracts Office that awarded the Contract. The Department will not be bound by any proposal until it executes the associated Contract.

9.5 Failure by Contractor to Execute Contract and Furnish Bond

In the event that the Bidder fails to execute the awarded Contract and to file an acceptable bond within 10 calendar days, excluding Saturdays, Sundays and State holidays, of receipt of the Contract award, the Department may annul the award, causing the Bidder to forfeit the Proposal Guaranty to the Department; not as a penalty but in liquidation of damages sustained. The Department may then award the Contract to the next best value Bidder, re-advertise, or accomplish the Work using alternate resources.

Corporate Surety furnishing the bonds shall be a company authorized to guarantee a bidder's proposal and a contractor's performance and payment obligations under a contract, authorized to do business in the State of Tennessee, and listed on the United States Department of the Treasury Financial Management Service list of approved bonding companies authorized to do business in the State of Tennessee.

10 Applicable Standards and Specifications

It is the intent of the Department for all work to be performed to current Standards, Guidelines and Specifications throughout the Contract duration, as those Standards, Guidelines and Specifications may be updated or amended throughout the life of the Contract. The current Standards, Guidelines and Specifications, which by reference are incorporated and made a part of this Contract.

11 Personnel and Equipment

The Contractor shall provide qualified personnel, including subcontractors, with the appropriate knowledge, skills, and abilities to fully and fairly perform the services required throughout the life of the Contract. Within 20 days of contract execution, provide the Department with a detailed Organizational Chart identifying all essential project personnel. Clearly define the responsibilities and include contact information for each position identified in the organization structure. Update the Organizational Chart at the beginning of each contract year, or as necessary with changes in essential project personnel.

Any replacement of any of the Contractor's key personnel during the course of the Contract is subject to review and prior approval from the Department of new personnel. The Department's review and decision regarding any replacement Contractor's key personnel will be provided to the Contractor no later than fifteen (15) Days from the time Department receives the Contractor's request for the approval of Contractor's key personnel and the replacement personnel resume.

If requested by the Department, the Contractor shall provide a list of current employees monthly. All employees shall be properly trained and certified at commencement of any work performed on this Contract. The Contractor shall provide support and assistance to Department personnel when requested. The Contractor is responsible for hiring, organizing, and directing personnel in a manner that ensures compliance with the Contract at all times. The Contractor shall provide professional, cooperative, efficient, and effective communication, verbal and written, to the Department at all times. If the performance of any of the key personnel gives the Department concern for the Contractor's ability to successfully prosecute the work in conformance with the Contract, the Department may then request the Contractor to replace the key personnel with new key personnel. Any changes to the key personnel's assignment(s) must be approved by the Department.

The Contractor shall present a detailed resume and a thorough description of the details of experience of any potential key personnel to the Department prior to assignment in that position. Should the Department determine certain key personnel are not suitable, the Department will inform the Contractor with written justification as to their concerns regarding the knowledge, skills, or ability of any suggested key personnel. In any case where the key personnel may be temporarily absent, the Contractor shall delegate that key personnel's authority to a qualified backup; such delegation shall be given to an equally qualified employee designee. The Contractor shall maintain, and make available to the Department, a list of

possible backup key personnel. At no time shall the Contractor be without designated key personnel available to fulfill all contractual duties as required. The Contractor may designate more than one backup key personnel for each position.

Identify a person authorized to act on behalf of the Contractor to execute all responsibilities contemplated by the contract. Decisions that affect public health, safety, and/or require engineering judgement necessitate the services of a Professional Engineer registered in the State of Tennessee. Identify at least one (1) individual licensed as a Professional Engineer in the State of Tennessee to perform and/or coordinate these services with appropriately experienced individuals.

The Contractor, at a minimum, shall designate the following specific key personnel to fulfill the corresponding Contract roles and responsibilities:

11.1 Project Manager

The Contractor shall designate one Project Manager. The Contractor's Project Manager shall be exclusive to this contract and must be knowledgeable of highway maintenance principles and practices and have a minimum of five (5) years in documented experience in highway maintenance or construction. The Project Manager shall have supervisory experience demonstrating excellent leadership, management, planning, administration, financial, budgeting, and reporting experience and supervisory authority with similar projects.

This key position shall be TDOT's primary point of contact for written and verbal communication. This key position will supervise all activities in the Contract, will be assigned exclusively to the Contract on a full-time basis, and will be the principal liaison with the Department's designated authority. This position shall have full management and financial authority to develop plans, adjust plans, execute orders and directions without delay and supply promptly such materials, equipment, tools, labor, incidentals, and subcontracts as required at all times to comply with the contract. This position shall be the lead point of contact for the planning, delivery and quality of maintenance work and services, self-policing, and the response and resolution of any and all Contract deficiencies throughout the Contract term. This position shall have full management control and be the lead point of contact for securing and complying with all environmental and Regulatory Approvals and their conditions and requirements. The Project Manager shall be available twenty–four (24) hours a day, seven (7) days a week for immediate contact and response to the Department regarding all issues and concerns that cannot be resolved by the supervisor.

The Project Manager shall be certified in Erosion Control for both Installer level and Inspection level to satisfy all requirements set forth by the Tennessee Department of Environmental Conservation (TDEC). The Project Manager shall be certified in Guardrail Installers Training (GRIT). The Project Manager shall have completed the following courses within one (1) month of assuming this role: Intermediate Work Zone Traffic Control, National Incident Management System (NIMS) 100's, 200's, 700's 800's training, TDOT Level 1 Incident Commander Training.

11.2 Supervisor/Area Manager/Crew Supervisor

There shall be a Supervisor(s) designated by the Contractor that is responsible for ensuring all contract requirements and performance-based outcomes are met on the right of way corridor. The Supervisors shall be exclusive to this Contract and have direct oversight of all daily Contractor activities. The Contractor shall also identify substitute or back up Supervisors. Supervisors must maintain a consistent daily presence along the corridor reporting deficiencies for repair or replacement. The Supervisors must be knowledgeable of transportation maintenance and have a minimum of two (2) years of documented experience in highway maintenance or construction as a Supervisor demonstrating leadership and management with similar size projects. The Supervisors shall be responsible for written and verbal communication with Department designated personnel as necessary to plan and accomplish daily work.

The Supervisors shall have completed the following courses within one (1) month of assuming this role: Intermediate Work Zone Traffic Control, National Incident Management System (NIMS) 100's, 200's,700's, 800's training, TDOT Level 1 Incident Commander Training (is equal to NIMs 100).

11.3 Safety Officer

The Contractor shall designate one (1) Safety Officer who is responsible for ensuring that all health and safety requirements are met at all times and be available to assist with managing incidents/accidents as the Department's representative. The designated Safety Officer may be part-time or in combination with other designated positions, but the safety responsibilities should be separate and clearly indicated. The Contractor shall also designate a backup Safety Officer. The Safety Officer must be knowledgeable of the *TDOT, Work Zone Field Manual for Maintenance Operations*, Occupational Safety and Health Administration (OSHA) regulations, Tennessee Occupational Safety and Health (TOSHA) regulations, Tennessee Department of Environment and Conservation (TDEC) regulations, incident management, severe weather management and response, major and minor crashes, hazardous and non-hazardous materials spills and any other type of related activities. The Safety Officer shall be required to provide effective verbal and written communication to include providing detailed safety and health-related reports. The Safety Officer should be present at all accident/Incident scenes that are at a Level three (3) event or higher. This position shall have a minimum of two (2) years of documented experience as a Safety Officer or a similar position demonstrating leadership and management with similar size projects. The Safety Officer shall have completed the following courses within one (1) month of assuming this role: Intermediate Work Zone Traffic Control, National Incident Management System (NIMS) 100's, 200's 700's, 800's, training, TDOT Level 1 Incident Commander Training, 40HR HAZWOPER Training, ATSSA Traffic Control Supervisor Training, 30HR OSHA Construction Training.

11.4 Incident Management Coordinator

The Contractor shall designate one (1) Incident Management Coordinator who is responsible for ensuring that all health and safety requirements are met at all times and be available to manage incidents/accidents as the Department's representative. The Incident Management Coordinator may be a part-time position or combined with another designated position within the project assigned personnel.

The Incident Management Coordinator shall be located on the project and required to provide effective verbal and written communication to include providing detailed safety and health related reports and detailed incident and accident reports. The Incident Management Coordinator shall be present at all accident/Incident scenes that are at a Level three (3) event or higher. This position shall have a minimum of two (2) years of documented experience as an Incident Management Coordinator or a similar position demonstrating leadership and management with similar size projects. The Incident Management Coordinator shall have completed the following courses within one (1) month of assuming this role: Intermediate Work Zone Traffic Control, National Incident Management System (NIMS) 100's, 200's, 700, 800's training, TDOT Incident Commander Training (Equal to NIMs 100).

11.5 Training

The Contractor or the Contractor's subcontractors shall provide knowledgeable, qualified, and fully trained personnel capable of managing and operating along the right of way satisfying all the requirements of this RFP and resulting Contract. The Contractor shall provide to the Department no later than thirty (30) Days prior to the Contract Start Date and by July 1st of every year of the Contract a detailed plan/report of its employee training program.

11.5.1 Accident/Incident/Emergency Response Course Requirement

Any employee of the Contractor that may be designated to respond to an Accident/Incident/Emergency Response and be the lead liaison at the site shall have completed the following courses within three (3) months of employment: Intermediate Work Zone Traffic Control, National Incident Management System (NIMS) 100, 200, 700 and 800, TDOT Incident Commander Training.

11.5.2 Work Zone Traffic Control Training Requirement

The Contractor shall provide employees who are verified by TDOT as certified in Basic Work Zone Traffic Control and ATSSA Traffic Control Supervisor Course in each of the activities and crews involving the installation, maintenance, and removal of work zone traffic control devices. In addition, the Contractor shall provide an employee that is verified by TDOT as certified in Intermediate Work Zone Traffic Control to provide supervision during those times when work zone adjustments or changes to standard traffic control installations as shown in the *TDOT, Work Zone Field Manual for Maintenance Operations* are needed due to field conditions. These persons must have their certification card with them while on the project site. If proof of certification cannot be provided by the Contractor at any time, the operation may be

suspended, or the Contractor may be deemed in default in accordance with the general terms and conditions.

There are three options available to receive Work Zone Traffic Control (WZTC) training based on an individual's job duties and responsibilities as required by the FHWA Final Rule on Work Zone Safety and Mobility and the Tennessee Department of Transportation.

These options can be accessed at http://www.Tennesseedot.org/business/trafficeng- WZS.asp under the bolded title of Work Zone Traffic Control Training Requirements. Additional information about Tennessee's Work Zone Traffic Control training program may also be accessed on this website. This training must be completed prior to reporting to the work site.

11.5.3 Contractor Training Program Requirement

The Contractor's training program shall consist of a minimum of OSHA and TDOT safety standards, NIMS 100 and 700 training. The Contractor shall submit certifications of training to the Department as each employee/subcontractor employee completes each training class. The Contractor's employees shall be trained within six (6) months of employment with the exception of the initial time period for the specific training for the Project Manager, Supervisor(s), Safety Officer, Incident Management Coordinator, and employees that respond to Incident/Emergency Response.

11.5.4 Personnel Certification Requirement

The contractor shall have (2) project personnel certified in Confined Space satisfying all requirements set forth by OSHA and TOSHA for the project. Contractor shall have two (2) project personnel certified in Erosion Control for "both" Installer level and Inspection level, as to satisfy all requirements set forth by the Tennessee Department of Environment and Conservation (TDEC). Contractor personnel must meet the *TDOT Standard Specifications for Road and Bridge Construction* for certified personnel.

11.6 Equipment

The Contractor shall furnish equipment in good operating condition and operated by properly trained and qualified personnel. The personnel operating the equipment shall be employees of the Contractor and the Contractor shall be responsible for employees during the performance of the contract. The Department of Transportation may refuse delivery or may return any equipment found to be defective and/or inadequately operated.

All trucks provided by the Contractor which are used to perform the Work shall be equipped with warning lights similar to those used by the Department. Communication devices shall be available in each piece of equipment so the operators can communicate with the Contractor's designated supervisor. All equipment shall also be equipped with reverse gear warning devices.

The Contractor shall be responsible for the equipment provided during the performance of all work under the contract. The Contractor shall have no claim against the Department of Transportation for any expense involving damage or loss to the Contractor's equipment.

No staging or storing of operations shall take place on the Right-of-Way of State Property without written permission from TDOT. Equipment staging may be requested at select TDOT property adjacent to or in close proximity to the interstate. Contractor equipment must be separated in a locked fence area with clearly identifiable markings along the perimeter. Other restrictions may apply depending on the location.

The equipment shall conform to all Federal, State and Local laws, regulations, certifications, and ordinances for noise, water, and air pollution controls and all Occupational Safety and Health Administration (OSHA) and Tennessee Occupational Safety and Health Administration (TOSHA) regulations. Should the equipment fail to complete the work as specified, the Contractor shall immediately suspend all work until such time that equipment capable of completing the work is provided.

All equipment contemplated for use shall be subject to inspection and acceptance by the Engineer for mechanical worthiness and appropriateness for the work intended before, during or after work. Engineer decisions relevant to mechanical worthiness and appropriateness shall be final.

Equip support vehicles, including safety trucks, debris transfer vehicles, pick-up trucks, and any other vehicles used in sweeping and drain cleaning operations, with revolving or strobe lights in accordance with MUTCD requirements.

All of the Contractor's equipment shall clearly display the Contractor's name and phone number on each side of the vehicle and be equipped with amber rotating hazard beacons. Do not park equipment on the right of way/State property; equipment may be temporarily stopped on the right-of-way when actively in use for the performance of work.

All of the contractor's equipment shall be capable of automatically providing digital alerts of their location to motorists and commercial vehicles via consumer phone applications, vehicle OEM navigation systems, and commercial vehicle automated data logging systems. Digital alerting shall be activated whenever the contractor's equipment is encroaching either a lane or roadway shoulder and shall reflect the location/movement in real time.

12 Materials

The Contractor shall provide all materials necessary to comply with the Contract Terms and Conditions unless otherwise specified herein. The Contractor's use of any/all materials shall be in accordance with the Department's approved materials or approved lists provided on the TDOT Materials and Tests Qualified Products List and Producer List. The Contractor shall be responsible for maintaining records of all materials used in the execution of this Contract. The Contractor shall obtain approval from the Materials & Tests Division or Traffic Operations Division, as applicable, for any proposed new innovative products prior to their use in performing the services under this Contract.

12.1 Materials Policy

Materials utilized in the maintenance of the contracted sections under the Performance Based Maintenance Contract shall be preapproved by the Department. Preapproval shall be in the form of the Department's Producer List, Department's Qualified Products List, or Approved Exception as detailed below.

Producer List Materials include the following construction materials:

- Aggregates
- Asphalt Cement
- Asphalt Emulsion
- Asphalt Mix
- Bridge Bearing Pads
- Cement (Portland and Slag)
- Ready Mix Concrete
- Precast Concrete
- Prestressed Concrete
- Fly Ash
- Grass Seed
- Reinforced Concrete Pipe
- Corrugated Metal Pipe
- Plastic Pipe (e.g., HDPR, PVD, PPP)
- Reinforcing Steel

The detailed process for the approval of these materials is listed on the Department's Producer List. Any new material needed to be utilized by the contractor must be approved through those normal processes.

The Qualified Products List includes over 45 product categories. Where a list exists, preference for the products on the QPL shall be given. Each list includes a procedure for approval of new products.

12.1.1 Submittal of Request for Materials Exception

For consideration of nonstandard materials/products, submit to the TDOT Materials & Tests Division the following for the material/product:

- Explanation of intent to use alternate materials/products
- Type of material or product not meeting current specification or procedures
  - Difference of materials/products proposed
  - Benefit of proposed materials/products
- History of material/product, (list of projects utilizing, date of usage, quantity, etc.)

- Manufacturer's Certification and Recommendation of placement/usage.

The Department will conduct the initial review within fourteen (14) days. Based on this review M&T will provide a risk and benefits analysis of the proposed material/product back to the (District Manager/Regional Operations Director), Based on this analysis, the (DM/ROD) with concurrence from the Director of Maintenance will accept or deny the use of the materials/product on the PBMC section.

The Materials Exception only applies to the specific project and does not become approved on other projects. Products that are given an exception are expected to make a good faith effort to become approved through the proper process for the QPL, where a list exists. Failure to do so will be regarded as the material/product producer to be non-responsive and further approvals of the product will be denied.

13 Utility Conflicts

Special care shall be used in working around or near existing utilities, protecting them when necessary to provide uninterrupted service. In the event that any utility service is interrupted due to Contractor's work, the Contractor shall notify the utility owner immediately and shall cooperate with the owner in the restoration of service in the shortest time possible.

1. Existing fire hydrants shall be kept accessible to fire departments at all times. The Contractor shall adhere to all applicable regulations and follow accepted safety procedures when working in the vicinity of utilities in order to ensure the safety of workers and the public.
2. If applicable to the services to be performed, the Contractor shall be responsible for requesting and obtaining utility location marking. The Contractor shall comply with Tennessee Law by ensuring buried utilities are properly marked. They may do so by contacting 811 via website: www.tenn811.com or by submitting a request on-line or by telephone. Contractor shall perform no work until the site is marked, or until the 811 service indicates that there are no buried utilities at the location. Contractor may not commence work until utilities have been marked at the worksite(s).
3. The Contractor shall promptly notify the Department when the marking has been requested and when it has been accomplished. An email from the Contractor's supervisor to the Engineer, or his designee, shall be sufficient notification.

14 Cooperation Between Contractors

The Contractor shall utilize TDOT Standard Specifications. The Contractor is responsible for monitoring TDOT websites for current and upcoming projects that may exist within, above or below the interstates within the project boundaries. The Contractor is responsible for monitoring TDOT websites for current and upcoming projects that may affect the work on this project. The contractor shall attend any TDOT Region weekly lane closure meeting to review the following week's closures, and present any closures planned for the following week(s).

Active and Proposed Projects gives a listing of interstate projects that are upcoming that might affect this project. The Department makes no guarantee that these projects will occur within the timeframes outlined above nor that these projects will reduce maintenance or repair expenditures incurred by the Contractor.

The Contractor on this project shall cooperate and coordinate with other Contractors/Contractors working within or adjacent to the limits of this project to the extent that the work can be carried out to the best advantage of all concerned. The Contractor shall maintain the surrounding interstate routes in a safe condition and coordinate during all on-going construction projects. The TDOT Engineer shall have final authority of any conflicting action.

The Department makes no guarantee that these projects will occur within the timeframes outlined above nor that these projects will reduce maintenance or repair expenditures incurred by the Contractor.

15 Concurrent Contracting

The Department may award separate contracts for services that are not covered under this agreement (e.g., preventative or restorative maintenance activities, bridge or pavement rehabilitation projects, etc.). When separate contracts are awarded within the limits of this project, the Contractor shall not hinder the work being performed by other Contractors.

The Contractor shall be responsible for coordinating his operations to maximize coordination and minimize interference with other concurrent contracted or state forces efforts. The Contractor is encouraged to make all reasonable efforts to coordinate asset maintenance services with other Contract services that are being provided along the highway to limit the impact of traffic disruptions. Unless otherwise stated, the Contractor shall continue to be responsible for all asset maintenance services that are covered in this Contract.

Any TDOT construction project that begins during the PBMC contract term that extends greater than one construction season (one calendar year) shall cause into effect a payment reduction of 45% of the pro-rata lane mileage to the PBMC contractor's monthly payment for 'Routine Maintenance Services'. The mileage shall be determined from the construction project limits not available to the PBMC contractor for any maintenance services other than incident management response.

Example formula: Monthly unit price bid for 'Routine Maintenance Services' x 103.65 Total Miles – (Deleted Miles x 0.45) / 103.65 Total Miles = Monthly payment with a deleted zone at full month time.

For partial months, when road sections are added or deleted to the contractor's maintenance responsibility, the adjustment will be made at the beginning of the following month.

16 Audit of Contractor's Records.

Upon execution of the Contract, the Department reserves the right to conduct an audit of the Contractor's records pertaining to the project. The Department or its representatives may conduct an audit, or audits, at any time prior to final payment. The Department may also require submittal of the records from either the Contractor or any subcontractor or material supplier. As the Department deems necessary, records include all books of account, supporting documents, and papers pertaining to the cost of performance of the project work.

Retain all records pertaining to the Contract for a period of not less than three (3) years from the date of the end of the original Contract period or subsequent renewal periods, unless a longer minimum period is otherwise specified. Upon request, make all such records available to the Department or its representative(s). For the purpose of this section, records include but are not limited to all books of account, supporting documents, and papers that the Department deems necessary to ensure compliance with the Contract provisions.

If the Contractor fails to comply with these requirements, the Department may disqualify or suspend the Contractor from Bidding on or working as a subcontractor on future Contracts. Ensure that the subcontractors provide access to their records pertaining to the project upon request by the Department.

17 Public Records

The Contractor shall:

1. Keep and maintain public records required by the Department to perform the service;
2. Upon request from the Department's custodian of public records, provide the Department with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost; and
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract term and following completion of the Contract.

Failure to comply shall be grounds for immediate unilateral termination of this Contract by the Department.

18 Traffic Control Services

18.1 General Traffic Control

The Contractor shall maintain traffic in accordance with the 2023 Standard Specifications, Roadway Standard Drawings, the Manual of Uniform Traffic Control Devices (MUTCD), the TDOT WZFM, and the following provisions of this Section 18.

18.2 Traffic Control Plan (TCP)

The Contractor must submit a traffic control plan fourteen (14) Days prior to commencing any scheduled specific activity that is not covered in the Traffic Control Plan which will require restriction or diversion of traffic including lane closures and detours. For any such scheduled specific activities, the Contractor shall prepare, and furnish to the Department for their review and approval, a site-specific traffic control plan for all affected portions of the Transportation Facilities. The information on the request, at a minimum, shall consist of the location, the date and time, the nature of work, the lanes to be closed, the ramp closures, the field point of contact and any detours. The Contractor shall submit this information in a suitable format to the Department. The Contractor is expected to minimize traffic impacts due to scheduled lane closures by repairing or replacing all damaged or missing assets at one time as part of the plan for any work that is scheduled to be accomplished within the boundaries of that lane closure (that the work zone was set up for.) The Contractor shall provide all traffic control for unknown or special events as determined by the Department. The Contractor shall provide traffic control or lane closures for the Safety Rest Areas located within the boundaries of the PBMC project for both emergency and planned events.

As required by the approved TCP, the Contractor shall provide, install, maintain such temporary barrier, temporary pavement markings, lights, signs, and other devices and take such other protective measures as are necessary to prevent accidents, damage or injury to the public, and as required by the Traffic Control Plan and the Manuals, Standards and Procedures.

18.3 Notification of Planned Work

Planned lane closures shall be included in the Weekly Work Plan. In addition, the Contractor shall notify the Project Engineer at least 8 hours before a planned lane closure is installed and provide notification within 30 minutes after the planned lane closure is removed. If the Contractor is found to have installed a lane closure without notifying the Project Engineer, TDOT may require the Contractor to immediately remove the lane closure and may require the Contractor to refrain from installing all planned lane closures until such time as the Contractor can demonstrate to TDOT that the Contractor can fully comply with these notification requirements.

Failure to restore full traffic capacity within the time specified by the Department, or the Contractor's failure to submit a prescribed lane closure approval request, when closing a lane will result in a deduction being assessed and calculated at $1,000 per hour or portion thereof per failure location on the Contractor's next month's invoice. Restoration of full traffic capacity

shall mean the completion of all construction/maintenance work, the removal of all traffic control devices and signs, and the removal of all workers, materials and equipment from the roadway lanes and shoulders.

18.4 Time Restrictions

No road closures are allowed unless authorized by the Engineer. The time restrictions listed below apply to planned lane and shoulder closures only. The Contractor shall not install, maintain or remove any traffic control device required for narrowing or closing a lane or shoulder during the times listed below. Lane closures for emergency response are not subject to these time restrictions. **An intermediate contract time applies to lane narrowing, lane closing, shoulder closing, and holiday and event restrictions. Liquidated Damages for lane narrowing, lane closing, shoulder closing, and holiday and event restrictions are $5,000.00 per hour for this Intermediate Contract Time.**

Road name	Time Restrictions
For Lane Closures	
I-65, I-40, I-24, I-840	5:00am to 8:00pm, Monday through Sunday
For Shoulder Closures	
I-65, I-40, I-24, I-840	6:00am to 9:00am and 4:00pm to 7:00pm, Monday through Friday

All Lane closures are to be submitted to the Region by Monday at 1pm for the following Thursday through Wednesday work. A representative shall be present at the lane closure meeting. Standard Lane Closures Restrictions Monday through Sunday 5am to 8pm. Daytime lane closures are at the Engineers discretion. Reference 104.04 specification.

18.5 Maintenance of Traffic

The Contractor shall maintain work zone traffic control and all traffic control devices according to the requirements contained herein, the State of Tennessee's currently adopted edition of the *Work Zone Field Manual for Maintenance Operations* and the *Manual on Uniform Traffic Control Devices (MUTCD)* defined under the Rules of Tennessee Department of Transportation Chapter 1680-3-1, TDOT Work Zone Standard Drawings and Standard Specifications. Pothole patching operations shall follow guidance provided in the *Work Zone Field Manual for Maintenance Operations*. Determination of activity is required for correct work zone duration. Activities estimated to take 15 minutes or less may utilize procedures for mobile operations. All other operations shall require lane closures and work zone setups according to the following table, at a minimum:

Work Zone Classification	Work Duration	Frequently Used MUTCD Typical Applications
Mobile Work Zone	Activities that move intermittently or continuously and takes less than 15 minutes in one location	TA-22 TA-24 TA-25 TA-26 TA-27 TA-28
*Short-Duration Work Zone	Activities that occupy a location 15 minutes to one hour.	TA-4 TA-29
*Short-Term Work Zone	Activities that occupy a location for more than 1 hour within a single daylight period.	TA-1 TA-2 TA-9 TA-17 TA-21 TA-30 TA-31 TA-33 TA-34
*Intermediate-Term Work Zone	Activities that occupy a location more than one daylight period up to 3 days **or** nighttime work lasting more than 1 hour.	TA-29

*TDOT Standard Drawings and Specifications shall take precedent over WZFM and MUTCD Typical Applications

For each segment of work approved by TDOT, the Contractor shall develop a detailed traffic control plan for each operation within the approved work area, conforming to all standards and designated time restrictions.

Work requiring single or multiple lane closures on controlled access roadways (both static and mobile operations) shall estimate queues based on work duration and number of lanes closed. https://www.tdot.tn.gov/lcdss/ Estimated or observed queues less than one mile in length shall be managed with a single Queue Protection Vehicle as per TDOT 712PTQ Special Provision.

Employees shall not be permitted to cross multiple, same-direction lanes of a controlled access roadway on foot if the lanes are in an unprotected, free-flow condition. The crossing of single lanes of controlled access roadways (e.g.: ramps) is allowable only when traffic is such that there is a gap between moving vehicles that is sufficient for the employee to safely traverse the lane at an average walking pace (approximately 2.5-4.0 MPH according to the CDC). Debris removal from a lane should be accomplished from the adjacent shoulder or by occupying the lane with a suitable vehicle in accordance with the *TDOT, Work Zone Field Manual for Maintenance Operations*. Exceptions to this may only be made in the event of emergencies. Additional information will be provided as detailed operational guidance is developed. All questions should be routed to either the Headquarters or Regional Safety Office for clarification.

18.6 Traffic Volume

The Contractor shall at all times during the term of the Contract be prepared to handle any anticipated and reasonably expected increased volume of traffic during holidays and planned special events.

18.7 Safety

The Contractor shall be responsible at all times for providing a safe highway for the public during the performance of any work under control of the Contractor. Whenever the Contractor's operations require, the Contractor shall furnish, erect, and maintain fences, temporary railing, barricades, signs and other devices and take protective measures as necessary to prevent any avoidable accidents, damage or injury to the public, all as required by the Traffic Control Plan, this Contract and all applicable standards, specifications, and manuals.

18.8 Open Transportation Facilities

The Contractor shall perform its contract duties under the PBMC Contract in a manner that keeps the Transportation Facilities fully open to the public twenty-four (24) hours per day, seven (7) days a week subject only to any closures permitted by the Department's limits of operations, Traffic Control Plan, district lane closure restrictions, emergency closures, and detours. The Contractor shall also comply with the Department's holiday and event traffic restrictions.

18.9 Improper Traffic Control

In each instance where the Contractor is found to have installed any traffic control measures/work zones that do not meet the requirements of the WZFM and MUTCD, lane closure restrictions/requirements or such measures have not been properly maintained, an assessment of $500.00 per occurrence will be deducted from the Contractor's monthly invoice.

If the Contractor is found to have installed any traffic control measures/work zones that are deemed to be an immediate threat to life or property, the Department shall require the Contractor to immediately remove those lane closures. The Contractor thereafter shall refrain from installing all planned lane closures until such time that the Contractor can satisfy to the Department that the Contractor can fully comply with all requirements.

18.10 Lane Restriction

Lane closures and the maintenance of traffic shall conform to the requirements of the WZFM and the MUTCD and any supplement thereof. The Contractor shall abide by all lane closure and restrictions of the individual TDOT Region Lane Restriction policy and procedures where the Contract is applicable.

18.11 Modify Traffic Control

The Department has the right to direct the Contractor to modify, adjust, or remove lane or shoulder closures based upon traffic, weather conditions or public safety.

18.12 Holiday Traffic Control

No scheduled maintenance work shall be done on the following holidays unless approved by the TDOT Engineer. Holiday restrictions will also be from the day before a holiday and the full day immediately following that holiday. For holidays that fall on Monday, Friday of the week before is considered the day before the holiday. For holidays that fall on Friday, the following Monday is considered the day after. These holidays include New Year's Day, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, and any other day(s) designated by the Department.

18.13 Special Events

Lane closures will not be permitted on days that have special events in any locations within the Location of Services, unless otherwise approved in writing by the Department.

19 Asset Maintenance, Repair and Replacement

19.1 General

The Contractor shall manage and perform all maintenance activities on the right of way as described in the Contract. These services include providing all personnel, engineering, equipment, and services necessary to adhere to all Contract requirements and comply with all regulatory authorizations, conditions, and requirements. These activities will be performed on the assets at a frequency that ensures uniform consistent and timely compliance at all times with the performance measures and requirements specified herein. The Contractor shall perform maintenance (including preventive maintenance), repair, and replacement of all Contract assets due to deterioration, incident, or damage. The Contractor is responsible for proactively monitoring all routes and the Contract assets on a daily basis to identify, document,

report, plan and repair deficiencies to continuously achieve Contract Outcomes, Tolerances, and Criteria specified in the contract performance criteria and general maintenance activities.

The Contractor shall not solely rely on the Department to identify Contract asset deficiencies. The Contractor is responsible for promptly and proactively addressing and repairing any noted deficiencies on the assets located within the right of way and the limits of this Contract, to include taking actions to prevent deficiencies from occurring. Any noted deficiencies shall be reported to the Department including those that are outside of the Scope of this Contract.

19.2 Assets and Responsibilities

The following maintenance responsibilities are within the PBMC:

- All Asset Items located within the Transportation Facilities and including the limited access fences of the Transportation Facilities, unless otherwise stated within.
- All bridge mounted signs on the overpass of the PBMC route(s), ramps, and interchanges.
- Any and all other assets which are not specifically excluded in 21.3 below.
- Overpass bridges (on non-PBMC routes) over the transportation facility for emergency repairs and replacements only as a result of incidents or accidents.
- Bridge substructure elements of interstate overpasses (on non-PBMC routes).
- Truck Parking and Emergency Pull-Offs (inclusive of waste management)
- Rest area, Welcome Center, and Weigh Station ramps and adjoining parking lots
- Regulatory, Warning, Informational and Facility (airport, railroad, commuter parking, hospital, rest area, welcome center) signs on the interstate mainline will be the responsibility of the Contractor. The Contractor shall maintain any flashing signs that are not covered by a maintenance agreement with a city or county.

19.3 Excluded Maintenance Responsibilities

The following assets are excluded unless otherwise noted herein:

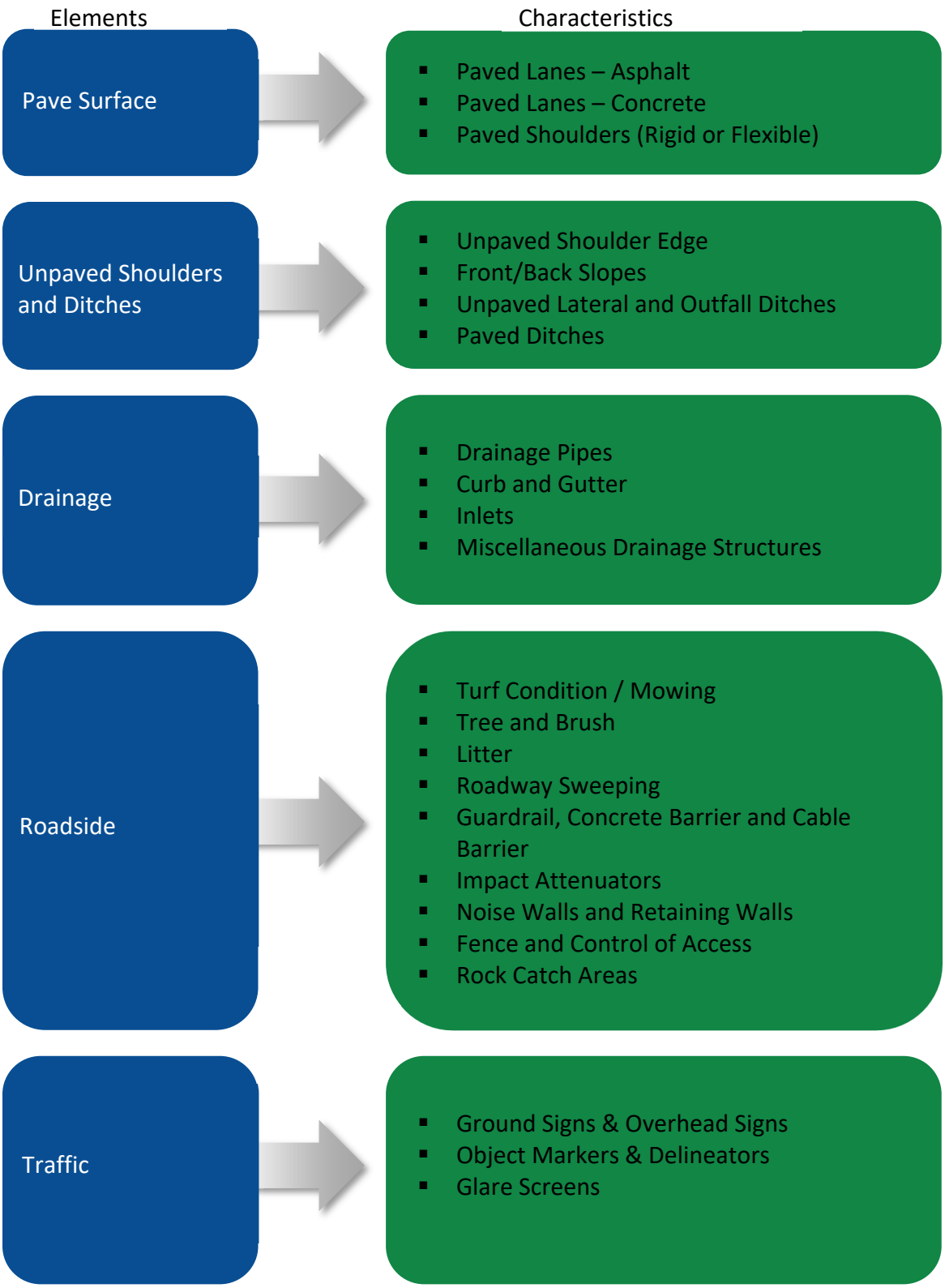
- Pavement Markings, reflective markers and symbols.
- Environmental Sensor Stations (ESS) to include Roadway Weather Information Stations (RWIS) (electronic component only, all other maintenance asset items included).
- Traffic Counters, Highway Advisory Radio (HAR) (electronic components only, all other maintenance asset items included).
- All highway lighting (by others). However, Contractor is responsible for removing pole knockdowns and mitigating the site for safety.

- Snow and Ice Removal
- All ITS equipment; Traffic Cameras, Electronic Variable Speed Limit Signs, Dynamic Message Signs (DMS) and associated electronics, power, and communication infrastructure.
- (HELP) roadside assistance patrols
- All Traffic signals
- The installation and maintenance of Community Gateway Signs and Specific Service Signs (TN LOGO program) are the responsibility of others (except as noted above). Incident damage mitigation is included in this contract.
- Frontage roads.
- Weigh Station and weigh in motion station (building and supporting ancillary assets).
- Open Safety Rest Areas and Welcome Centers, the building and grounds maintenance.
- Superstructures and decks of overpasses (non-PBMC routes) over the Transportation Facility except as noted above.
- TDOT will perform Bridge, Culvert, roadside Sign Structure, and Over Head Sign Inspection in accordance with Department Standards and Specifications. TDOT will also perform structural analyses when, as a result of routine or incident inspection, significant section loss is observed due to deterioration or damage. Nothing in this paragraph relieves the Contractor from its responsibility to make repairs deemed necessary as a result of the inspections.
- Repair or maintenance of Railroad bridges
- Maintenance activities covered by a Municipal Agreement as provided by the Department.
- All activities associated with Outdoor Advertising (ODA), 3rd party Selective Vegetation Removal requests (SVR), and requests by utility companies to control vegetation with herbicides on the highway right-of-way.
- Facilitation of Adopt a Highway segments. The expansion or continuation of this program on any facility segments in no way relieves the Contractor of satisfying the performance criteria contained in this RFP.

19.4 General Descriptions of Performance-Based Maintenance Activities

The following are general descriptions of the performance-based maintenance activities to be performed at a frequency that ensures uniform and consistent compliance with the performance criteria and requirements specified herein unless otherwise specifically excluded or limited. These maintenance activities represented are not all inclusive as other activities are required or may be required to comply with the Contract. Additionally, the following descriptions provide a graphical representation of many of the assets, not all inclusive, for which the Contractor is responsible for performing maintenance activities:

Figure 2: Maintenance Elements and Characteristics



19.4.1 Emergency Repairs

The Contractor is responsible for those emergency repairs and replacements as may be necessary to meet the Contract performance requirements. The Contractor is responsible for developing all related engineering plans which may be necessary for repairs or replacements to meet the Contract performance requirements and the same shall be signed and sealed by a licensed professional engineer in Tennessee, in accordance with current Department Specifications and Guidelines. These repair and replacement plans shall be reviewed and approved by the Department prior to the commencement of the work.

19.4.2 List of Typical Maintenance Activities

Typical Maintenance activities are listed below in Chart 1. The list of activities presented is not intended to be all inclusive as other activities may be needed in order to meet the specified Performance Criteria or other asset activity Contract requirements.

Chart 1 TDOT Maintenance Activities

Activity	Description	UoM for Accomplishment
401	Manual Spot Patching	TONS
402	Crack Repair	POUNDS
403	In-House Resurfacing	TONS
404	In-Place Asphalt	TONS
405	Milling	SQUARE YARDS
406	Subgrade Replacement	TONS
407	Seal Coating	TONS
408	Shoulder Rumble Strips	LINEAR MILES
411	Concrete Pavement Repair	CUBIC YARDS
412	Joint Repair	LINEAR FEET
425	Grading Unpaved Surfaces	LINEAR MILES
426	Reshape Shoulders and Ditch	LINEAR MILES
427	Patching Unpaved Surfaces	TONS
430	Clean and Reshape Ditches	LINEAR FEET
431	Clean Minor Drainage Structures	EACH
432	Repair Linear Drainage Structure	LINEAR FEET
433	Repair Drainage Structure - Each	EACH
435	Machine Mowing	ACRES
436	Slope Mowing	LINEAR MILES
437	Chemical Control of Vegetation	GALLONS
438	Manual Brush Control	PERSON HOURS
439	Landscaped Area and Wildflowers	ACRES
440	Seeding and Mulching	1000 SQUARE YARDS
441	Litter Removal	MILES
442	Erosion Control	PERSON HOURS
445	Fence Repair	LINEAR FEET
446	Mechanical Sweeping	LINEAR MILES
447	Manual Sweeping	PERSON HOURS
448	Mechanical Brush Control	ACRES
450	Structure Cleaning	EACH
451	Minor Structure Repair	EACH
454	Major Structure Repair	EACH
470	Pavement Markings	LINE MILES
471	Specialty Markings	EACH
472	Sign Repair/Replace	SQUARE FEET
473	Sign Height and Plumb Adjustment	EACH
474	Attenuators	EACH
475	Guardrail/Cable Rail	LINEAR FEET
476	Barrier Wall	LINEAR FEET
477	Traffic Control	EACH
478	Delineation Maintenance	EACH
480	Slide and Settlement Repair	PERSON HOURS
482	Accident Cleanup	EACH
489	Disaster Cleanup	PERSON HOURS
492	Tunnel Maintenance	EACH
495	Roadway Inspection/Special Litter	PERSON HOURS

19.5 Emergency Response Services

The Contractor shall respond to both weather and non-weather emergency related highway hazards, and any other emergency incidents which shall include, but not be limited to damage to infrastructure by flooding, tornadoes, etc., major and minor crashes, hazardous materials releases, abandonment of hazardous materials, and terrorist attacks. The Contractor shall provide management, qualified personnel, equipment, materials, and other resources that will be utilized to provide a timely response to each emergency response incident in order to remove the emergency condition and restore full services of the highway. The Contractor shall mitigate any emergency condition which may become a safety hazard to the traveling public, including but not be limited to, objects on the highway, and downed signs or signs not visible from the highway that are considered imperative to maintaining the safety of the traveling public. The Contractor shall provide notification to the Department, of any emergency response services activities involving incident management measures ensuring the safety of motorists, spill mitigation and cleanup, and the handling and disposal of hazardous and nonhazardous waste. The Contractor shall utilize and follow the TDOT Emergency Response Command and Control Standard Operating Procedure (SOP), with utilization of the Incident Process Map, and Weather Process Map, including any supplementary documents. The Contractor shall be prepared to conduct an on-scene assessment, develop an incident action plan to support quick clearance, participate in the on-scene incident management team, and communicate information to the Traffic Management Center, and other Department personnel as necessary. The Contractor shall ensure the safety of motorists, as well as providing and/or managing any spill mitigation and cleanup, handling, and disposal of hazardous, and non-hazardous waste. The Contractor shall coordinate with the Department, the State Police, and any other emergency personnel with respect to emergency incidents and/or occurrences, the submission of Incident reports, the establishment and maintenance of detour routes (Region-3-InterstateIncidentManagementPlan11-24-2017.pdf (tn.gov)) off the highway, and the return to the highway when needed for closure of the interstate and/or limited access primaries, emergency repairs, removal of debris, and evacuation response.

19.5.1 Response Time

The Contractor shall be prepared to respond to any emergency twenty-four (24) hours per Day, seven (7) Days per week. The Contractor shall arrive on-site, within sixty (60) minutes of the initial notification of the incident during the hours of 6:00 am – 6:00 pm Monday through Friday and within sixty (60) minutes of the initial notification of the incident during off peak hours, weekends and holidays. In all instances, the Contractor shall arrive at the site with the necessary personnel, material, equipment, and services prepared to take action as directed by the TDOT Engineer, or designee, and in compliance with the TDOT Work Zone Field Manual (WZFM) and the MUTCD to include utilizing an advanced warning vehicle for advising motorists of the emergency scene ahead. The advance warning vehicle shall be equipped with cones, message board(s), and any other equipment necessary to operate in a safe manner and facilitate quick clearance. The Contractor, upon arriving on-site, shall immediately conduct an on-scene assessment, participate in the on-scene Incident Management Team, develop an on-scene incident action plan to support quick clearance, and notify the Traffic Management

Center (TMC). The Contractor shall have an additional sixty (60) minutes after completing the scene assessment to provide any other additional resources necessary to support incident response, such as additional traffic control as directed by the MUTCD and by the on-scene Incident Commander, debris removal, vehicle removal from travel lanes, (as directed by the Tennessee Highway Patrol) or mitigate environmental spills on the roadside. If no Incident Commander is identified, the Contractor shall install traffic control devices directed by the MUTCD. The Contractor shall actively participate in the on-scene Incident until the incident scene is cleared and traffic is restored.

19.5.2 Agencies/Departments

The Contractor shall provide support to all other Agencies/Departments responding to incidents including, but not limited to, the Tennessee Highway Patrol, Local Police, Local Fire/EMS departments, and the TMC. All Contractor incident response services will be provided in accordance with the National Incident Management System (NIMS) guidelines. All Contractor and Sub-Contractor personnel will be trained in accordance with the NIMS guidelines. The Contractor shall participate in any post incident analysis called for by any stakeholders.

19.5.3 TMC Support

The Contractor shall support the TMC at all times by providing thirty (30) minute updates or as directed on every emergency incident. The Contractor is responsible to provide all aspects of traffic control related to any Incident and/or emergency, including, but not limited to, management of the entire detour route(s) necessary to maintain traffic flow off, along and returning to the routes defined in the Location of Services found in TDOT 'Region 3 Interstate Incident Management Plan 2021_REV'.

19.5.4 Roadway Closures

The Contractor shall immediately notify the TDOT Engineer, and TMC, of any roadway closures and re-openings. A summary of any lane closures, and any incident responses by the Contractor, shall be submitted to the Department within twenty-four (24) hours of any occurrence. The Department may require meetings with the Contractor after any roadway closures and responses in order to identify and discuss any performance deficiencies, and the manner in which to correct them. These meetings may include but are not limited to the following representatives: Tennessee Highway Patrol, county or city police, fire and rescue, towing companies, and the Contractor.

19.5.5 Additional Personnel and Equipment

The Contractor shall provide any additional personnel and specialized equipment necessary to resolve all emergency response incidents. The Contractor shall have a plan in place that provides the required resources to resolve all emergency response incidents twenty-four (24) hours per day, seven (7) days per week without prior notice. Equipment availability shall include, but not limited to, advance warning vehicles, TMA(s), loaders, motor graders, backhoes, cranes, bobcats, dump trucks, sand trucks, Signage for Work Zones and Incident Response, etc., with operators, as may be requested by the state police, the department and/or

local authorities, necessary to respond to any and all emergency response incidents within the scope of this Contract.

In each Area of Operations, the Contractor shall provide, at a minimum, two skilled highway maintenance workers and two unskilled laborers during assigned maintenance activities and other non-emergency activities, when not engaged in Emergency response. Failure to maintain an adequate staffing level may result in a formal vendor complaint from the Department.

19.5.6 Emergency Response Plan

The Contractor's Emergency Response Plan shall provide for an incident response support procedure to provide for the timely response and coordination of the handling of hazardous materials within the right-of way in accordance with the terms outlined in the TDOT, Tennessee Department of Environment and Conservation (TDEC), Tennessee Emergency Management Agency (TEMA), interim agreement for emergency response (executed by TDOT May 12, 2005), and any other subsequent agreements that substantially reflect any of the terms outlined in the interim agreement.

The Contractor shall at all times comply with any and all local, state, and federal laws, Department policy and any other updated agreements dealing with any incidents, evacuation, and/or handling and disposal of hazardous materials. TDOT will endeavor to keep the Contractor abreast of any other updated agreements and to supply them with copies of the same.

The Contractor shall coordinate with any hazardous materials mitigation efforts deployed by any responsible party or responding agency or organization to protect the Department's interest. The Contractor shall re-establish any areas damaged by any hazardous materials clean-up operations not otherwise re- established by the responsible party or responding agency or organization.

19.5.7 Arrival Time

If the Contractor does not arrive on-site with the required equipment prepared to support and take any necessary action within the specified time periods as set forth in the Performance Criteria in Table 8 $2,500.00 per hour or the pro-rated portion for a partial hour (pro-rated time will be every fifteen (15) minutes) per incident will be deducted from the Contractor's monthly payment for the additional time it takes the Contractor to respond appropriately. In addition, if the Department must respond due to the lack of the Contractor's responsiveness or the Contractor's unresponsiveness, the Contractor shall be responsible for all costs incurred by the Department and such costs will be deducted from the Contractor's monthly invoice. A formal Procurement Complaint Form will be sent to the Contractor and a copy will be placed in the Contractor's in-office records.

19.6 Waste Disposal and Use of Hazardous Materials

The Contractor shall dispose of, or cause the disposal of, all waste, residue, debris, materials and supplies (including paints, herbicides and chemicals), grass and foliage clippings, dead animals and all other waste materials produced, generated, stored or utilized by the Contractor

under this Contract in accordance with all applicable federal, state and local laws, regulations and ordinances; and shall promptly respond to and remediate any release of such materials. Except for releases otherwise identified, the Contractor's responsibility for the cleanup, containment, removal, transportation, storage, or disposal of any Hazardous Materials shall be limited to its responsibilities set forth in the Emergency Response Plan as well as providing and removing suitable sand or other approved materials used to soak up all fluid spills including vehicle fuel spills upon the request of any person duly authorized to conduct any cleanup activities.

20 Subcontracting Restrictions

The Contractor shall self-perform Contract services, with its own work force, for at least 20% of the total annual contract value of the resulting Contract. This 20% required amount shall not include Contractor profit, overhead, administration, legal, or management costs of the Contract (excluding onsite personnel).

21 Force Account

When the Engineer directs the Contractor to perform work by force account, the Contractor shall be compensated in the manner described in the 2021 Standard Specification/January 1, 2021, Section 109.04 (C).

22 Emergency Response and Third-Party Damage

Response, inspection, repairs, and replacement required as a result of natural disaster, catastrophic or emergency response, collision to a TDOT asset, such as but not, limited to bridges, barriers, retaining walls, noise walls, and overhead sign structures will be considered part of the contract responsibilities. The Contractor will not receive any additional compensation from the Department except (1) as otherwise outlined herein and (2) qualifying FHWA funds the Department receives as a result of the Contractor seeking qualifying FHWA reimbursement. The Department authorizes the Contractor to pursue claims of any emergency reimbursement in response to the disaster. It is the Contractor's responsibility to provide all information needed to pursue such claims in a timely manner.

The sequence of reimbursement for damages will be as follows:

1. Pursuit of claims against the individual or entity which caused damages, or their insurers;
2. If eligible, compensation from FHWA for qualifying reimbursements. Reference the FHWA Emergency Relief Manual https://www.fhwa.dot.gov/reports/erm/er.pdf;

It is the Contractor's responsibility to make damage repairs at its own expense, with exception to the cap set forth below. The cap set forth below will not include any amounts reasonably obtainable under items 1 and 2 above, and any damage repairs caused by the Contractor. In addition, administrative, indirect, and legal expenses borne by the Contractor in pursuit of

damage reimbursement will not be considered eligible expenses against the cap. Prior to making claim for reimbursement from the Department, the Contractor shall demonstrate due diligence in the pursuit of all damage reimbursement and supply documentation thereof to the Department. Delay in reimbursement from any third party will not constitute justification for reimbursement from the Department. If due diligence is adequately demonstrated and the cap is exceeded within the twelve-month period beginning with the Start Date of each year, the portion of work over the cap will be reimbursed through supplemental agreement by change order.

Failure to provide timely and detailed information for the pursuit of eligible compensation from the FHWA shall result in the Contractor bearing all cost for the damage repairs at its own expense and such costs will not apply toward the annual Cap.

In the event the Department chooses to take responsibility for system restoration, the Contractor will be notified in writing and the amount of reimbursements obtained in items 1 and 2 above will be retained by the Department. The Department may generally exercise this right under declared States of Emergency in which mobilization of state forces may be needed to supplement or replace Contractor forces.

In the event of an act that is officially declared by the State of Tennessee or appropriate Federal Entity as an “act of terrorism”, the Contractor will not be liable for damage beyond the extent of the amounts obtained in items 1 and 2 above.

For all FHWA qualifying reimbursements, it is the Contractor’s responsibility to generate and keep the necessary documentation for the qualifying reimbursement. The Department will assist in this reimbursement process by processing and forwarding to the FHWA all necessary documentation paperwork as provided by the Contractor.

The Contractor shall promptly notify the Department of damage caused by third parties to real or personal property within the project limits. When a third party causes damage to any of the Department’s facilities, the Contractor shall make corrective measures to the facility at no additional cost to the Department. The Department authorizes the Contractor to pursue claims against the responsible party for reimbursement of all Contractor expenses recognized by the responsible party or their agent. The Contractor shall cooperate with Department in providing all necessary information to the Department with respect to the cost of such repair, regardless of whether any separate or additional compensation is owed to the Contractor in connection with undertaking any such repair.

This section does not apply to any Contract maintenance activities that are otherwise required as the result of the normal deterioration of assets.

Failure to provide timely and detailed information for the pursuit of eligible compensation from the FHWA shall result in the Contractor bearing all cost for the damage repairs at its own expense and such costs will not apply toward the annual Cap.

In the event the Department chooses to take responsibility for system restoration, the Contractor will be notified in writing and the amount of reimbursements obtained in items 1 and 2 above will be retained by the Department. The Department may generally exercise this

right under declared States of Emergency in which mobilization of state forces may be needed to supplement or replace Contractor forces.

In the event of an act that is officially declared by the State of Tennessee or appropriate Federal Entity as an “act of terrorism”, the Contractor will not be liable for damage beyond the extent of the amounts obtained in items 1 and 2 above.

For all FHWA qualifying reimbursements, it is the Contractor’s responsibility to generate and keep the necessary documentation for the qualifying reimbursement. The Department will assist in this reimbursement process by processing and forwarding to the FHWA all necessary documentation paperwork as provided by the Contractor.

22.1 Emergency Response and Third-Party Damage Cap

For an emergency repair or replacement activity of a single asset or group of contiguous assets which is the result of a single incident or unforeseeable condition that is not the result the Contractor’s actions or inactions did not otherwise contribute to or cause the need for such emergency repair or replacement, the Contractor financial risk for such repair and/or replacement activity is capped at $75,000.00 per repair and $ 225,000 per contract year of contract term of the reasonable non-reimbursable cost(s)/expenses for labor, materials and equipment necessary to complete the emergency repair or replacement (these costs/expenses exclude any administrative, engineering, management, inspection, traffic controls, profit and overhead costs). Any single-incident damage less than $40,000 shall not be additive to the annual non-reimbursable cap.

The Contractor must notify the Department within twenty-four (24) hours when the Contractor first estimates that the repair or replacement will exceed $75,000.00. Such notification must include a detailed scope of the labor, equipment, as well as materials, and an estimated schedule to complete along with associated unit costs for all work completed to date (and/or proposed scope and unit costs for all work remaining).

Prior to the Contractor’s expenditures reaching $75,000.00 for such repair/replacement, TDOT may, at the Department’s discretion, either authorize the Contractor to proceed and agree to pay the additional estimated amount for the proposed scope and unit costs to complete the repair/replacement, or stop the Contractor from doing any further work and contract out the remaining work to a separate Contractor, or elect to self-perform the remaining work, or any combination thereof.

If the Department issues a stop work order, the Contractor shall be responsible for any costs incurred by the Department to complete the work up to $75,000.00 less the reasonable costs of the Contractor’s completed work at the time of stop work order issuance. The Contractor shall remain responsible for all traffic control and other Contract maintenance activities until the emergency work is completed.

If the Contractor does not receive a decision from the Department prior to the Contractor reaching the $75,000.00 threshold in actual expenditures and the Contractor has otherwise complied with the notification procedures of this paragraph, the Contractor may invoice the

Department for those actual costs incurred beyond $75,000.00 as detailed and supported in the Contractor's notification.

This section does not apply to any Contract maintenance activities that are otherwise required as the result of the normal deterioration of assets.

23 Third-Party Claims

The Contractor shall notify the Department of any damage caused by third parties to any real or personal property included in the Transportation Facilities within one (1) hour of initial discovery via mail. The damage may include, but shall not be limited to, any accident or incident to the Transportation Facility caused by a third party.

When an incident occurs causing damage to any of the Department's facilities that falls within the Contractor's responsibility under this Contract, the Contractor shall pursue claims against any responsible party for reimbursement of actual expenses incurred in making such repairs/restorations to the Transportation Facilities (including overhead, administrative costs and traffic control costs supporting the incident response and any repairs/restorations). The Department hereby assigns, transfers and sets over to the Contractor any and all sums of money due or owing to the Department, and any claims, demands, rights of action, choses in action and causes of action of any kind whatsoever which the Department has or may have against any third party(s) for the costs of incident response and repair and/or damages incurred by the Contractor, in connection with the Contractor's repair of any damage caused by any third party(s) to any real or personal property included in the Transportation Facilities and otherwise required to be undertaken by the Contractor in accordance with the terms and obligations of this Contract.

The Department agrees to cooperate to the extent necessary to assist the Contractor in recovering any damage or loss caused by any third party(s) to any real or personal property included in the Transportation Facilities. The Contactor shall cooperate with the Department in providing all necessary information to the Department with respect to the costs of any incident response and any costs for repairs/restorations, regardless of whether any separate or additional compensation is owed to the Contractor in connection with undertaking any such repair/restoration. Damaged assets that result in any assignment of claims and any monies collected from a third-party claim shall be repaired or replaced. The Contractor shall submit a full report listing the full third-party claims for any incident response costs and any costs for damage repairs/restoration, the current status of the repair/restoration, and the amount billed and collected. The Contractor agrees that with regard to any third-party claims assigned which they pursue pursuant to the Contract, the Department shall not be responsible for any of the costs or attorney's fees incurred in pursuing any of those claims assigned herein.

24 Tort/Damage Claims

Claims made to the Department as a result of any work performed by the Contractor (or work otherwise required to be performed under the Contract), or any claims of negligence of the Contractor in performing the Contract, or otherwise, will be referred to the Contractor. The Contractor shall be responsible for resolution of any and all such claims dealing with the Contractor's performance under this Contract. The Contractor shall hold the Department and the Commonwealth of Tennessee harmless and shall indemnify the same with regard to any acts of negligence on the part of the Contractor in performing this Contract or operating under the Contract thereto while maintaining the Department's Transportation Facilities. The Contractor shall report any and all tort claims on the Customer Service log required to be kept under the terms of this Contract. Failure to properly respond to any claim under the terms of this Contract and to appropriately resolve any property or negligence claims may constitute unsatisfactory performance on the part of the Contractor for which the Department may withhold payment to the Contractor in the amount of $1,000 per claim (or such lesser amount determined in the discretion of the TDOT Engineer) until the claim is resolved and may be a basis upon which the Contract may ultimately be terminated by the Department. The Contractor shall start his tort/damage resolution claims process within seventy-two (72) hours after the first notification of any claim and the resolution of Contractor-covered insurance claims shall be completed within thirty (30) days unless otherwise approved by the TDOT Engineer (due to the circumstances involved as reasonably determined in the discretion of the TDOT Engineer). The Contractor shall submit a claim acknowledgment letter to the appropriate party/claimant within seventy-two (72) hours after the first notification of the claim with a copy of said letter being submitted to the TDOT Engineer. Unless otherwise approved by the TDOT Engineer, the Contractor shall submit a resolution letter to the appropriate party/clamant within thirty (30) Days after the first notification of any claim, (with a copy of said letter being submitted to the TDOT Engineer).

If the Contractor has completed its evaluation of the claim and reasonably determines that restitution or payment of the claim should not be offered to any third-party claimant, then the Contractor shall provide a copy of the claim denial letter and all supportive information to the TDOT Engineer and the TDOT Maintenance Operations Division.

If the Department identifies a pattern or practice that indicates the Contractor is not taking reasonable steps to investigate and/or resolve claims, the Department will notify the Contractor. If the Contractor does not adequately address the concerns raised by the Department within thirty (30) Days, it will be considered Contract non-compliance, and the Department may take action to terminate the Contract for cause.

25 Planning and Reporting

All Contractor work plans and reports shall be submitted to the Department in the appropriate form and content and approved by the Department. The Contractor shall consult and coordinate with all appropriate Department staff, as necessary, in preparing any plans and reports, as well as establishing any submittal dates if those dates and times are not specified

herein. The Contractor shall provide all work plans and reports in hard copy, electronic format, and the appropriate software format as specified by the Department.

All required Contractor plans and reports shall be signed and certified as being true and accurate by the Contractor's Chief Executive Officer or delegated authority. If the authority is delegated, such delegation shall be in writing and provided to the Department prior to submittal of such plans and reports.

To ensure 100% compatibility with SWIFT / TDOT Smartway and potentially MMS and the Department IT environment, the Contractor must have an MS Windows operating system with the most current compatible Windows operating system installed on their computer. The Contractor shall change formats and software when needed as directed by TDOT.

25.1 Annual Plans

25.1.1 Annual Work Plan

Not later than thirty (30) Days before the Contract Start Date, and by July 1st of every year thereafter, the Contractor shall deliver to the Department an Annual Work Plan in the form and content satisfactory to the Department covering the initial twelve (12) months from the Contract Start Date. The Annual Work Plan shall describe the initial and proposed work efforts as well as the manner in which the Contractor shall achieve the work. Work activities shall at a minimum be reported by asset type, activities, and location/lane/route/mile marker, unit of measure, quantities, county, and district. The list of assets and time period(s) of the year for work in the scheduled work plan should include, but not be limited to, (1) reshaping, and restoring material losses of paved surfaces and edge of pavement drop offs, (2) repairing, patching, joint sealing, crack sealing, repairing slides and slope failures, drainage channels and side slopes, (3) repair of curb, gutter, underdrains, drop/curb inlets, storm water facilities, culverts, and (4) repair of bridge rails, bearing assemblies, deck components, signs, guardrails, etc. The Contractor shall develop an associated budget to ensure the desired maintenance outcome is achieved. The budget shall be incorporated as part of the work plan submission(s). The Contractor shall at all times manage the maintenance program including, but not limited to, all performance of work determinations, all locations of resources, all work assignments, and the management of all resources.

The required plan shall include a spreadsheet-based Work Plan of proposed quantities to be performed, reported week by week, and organized by month. This Work Plan shall include each activity for each asset to be performed. The activities will be detailed in the unit of measurement provided by the Department. The Work Plan shall include the appropriate level of staffing per work activity. The Department will base its approval of the staffing level based upon the Department's Best Practices Manual and industry standards. The Work Plan shall be a quantified depiction of the actual work which the Contractor plans to conduct throughout the year to meet the requirements of the Contract. A restatement of the Contract requirements submitted as an Annual Work Plan will be determined unacceptable and rejected upon receipt by the Department.

25.1.2 Emergency Response Plan

No later than thirty (30) Days prior to the Contract Start Date and by July 1st of every year thereafter, the Contractor shall develop and submit an Emergency Response Plan. The Emergency Response Plan shall detail how the Contractor shall respond to both weather and non-weather emergency-related incidents that include, but are not limited to, response to infrastructure damage by any flooding, tornadoes, rockslide, etc., any major and minor vehicle crashes, any hazardous materials releases, any abandonment of hazardous materials, and any terrorist attacks.

The Emergency Response Plan shall include at a minimum the Contractor's management structure, response time, equipment, and other resources that will be utilized by the Contractor for each emergency response scenario required. The Emergency Response Plan shall include a detailed account of the Contractor's planned public and Department notifications, incident management, measures ensuring the safety of motorists, spill mitigation and cleanup, handling and disposal of hazardous and non-hazardous waste, coordination with the Department, the Tennessee Highway Patrol and other emergency personnel with respect to emergency incidents and/or occurrences, submission of incident reports, establishment and maintenance of detour routes when needed for closure of the interstate, emergency repairs, removal of debris and evacuation response.

25.1.3 Annual Traffic Control Plan

No later than thirty (30) Days prior to the Contract Start Date and updated by July 1st of every year thereafter, the Contractor shall submit a Traffic Control Plan that shall outline the methods the Contractor intends to use for traffic control while carrying out any and all of the asset maintenance services. Such services shall be in accordance with the Tennessee Work Area Protection Manual. The Contractor shall include any anticipated increased volume of traffic during holiday and planned events and shall provide a full explanation of how any increase in traffic will be handled. The Contractor shall be required to submit this information in a suitable format to the Department.

25.1.4 Customer Service Resolution Plan

The Contractor shall provide a Customer Service Resolution Plan outlining the best method and approach for dealing with the public and Incident responses. The Contractor shall provide the Customer Service Resolution Plan to the Department sixty (60) days before the Contract Start Date and supply the Department with any updates by July 1st of every year thereafter.

25.1.5 Public Information Plan

The Department and the Contractor shall jointly develop and implement a Public Information Plan within thirty (30) Days of the Contract Start Date and update the Public Information Plan as needed. The first draft shall be developed by the Contractor. The plan shall require that all information regarding the Contract and the services provided shall be disseminated through the Department's Community Relations office. The Contractor shall not issue press releases or otherwise communicate directly with the media (except as otherwise provided in the Public Information Plan) without the Department's approval. The Public Information Plan shall

prescribe roles, responsibilities and procedures regarding public communications. This will include the dissemination of information regarding the Contractor's contracting approach, providing information to the TDOT Engineer, and the issuance of activity update bulletins.

25.1.6 Training Program Plan

No later than thirty (30) Days prior to the Contract Start Date, and by July 1st of every year of the Contract, the Contractor shall provide a detailed plan/report of its employee training program. The Contractor's training program shall consist at a minimum of OSHA and VOSH safety standards, Traffic Control training (Tennessee Work Area Protection Manual), and Incident-First Response training.

25.1.7 Tort/Damage Claims Process Plan

The Contractor shall provide a Tort/Damage Claims Process Plan outlining the method, approach, detailed processes and procedures for dealing with any claims of negligence of the Contractor performing the Contract. The plan shall provide each step of the Contractor's processes from the time the Contractor receives a claim until final resolution of the claim. The Contractor shall include standard forms and letters that are used to receive information from the claimant, and for the resolution of the claim. These procedures shall include all of the requirements of section 25, "Tort/Damage Claims" of the Contract. The Contractor shall provide the Tort/Damage Claims Process Plan and the same must be agreeable to the Department before the Contract Start Date. The Contractor shall supply the Department with any updates by July 1st of every year thereafter.

25.2 Monthly Reporting

25.2.1 Activities, Accomplishments and Expenditures

The contractor shall prepare a monthly summary report on the Contractor's accomplishments in TDOT work units (see section 21.4.2 - TDOT activity codes) and expenditures in a spreadsheet, and any nonconformance/deficiency status reports for items in the monthly plans that have not been completed. This information shall be delivered each month with the monthly invoice, in an agreed upon electronic format and in such detail as otherwise directed by the Department.

25.2.2 Customer Service and Incidental Services

The Contractor shall maintain a service log which shall detail complaints or requests from the Department and the disposition of such complaints or requests received from the Department. The Contractor shall also maintain a customer service log for all other complaints or requests. The Contractor's service log and the customer service log shall be made available to the Department for review on the tenth (10th) Day of each month, or upon request. The Contractor shall contact each customer within twenty-four (24) hours and have resolution of each customer service request or complaint within the specified contractual timeliness requirements. In some cases, the TDOT Engineer may direct the Contractor to respond immediately due to the urgency, or the best interest of the Department.

Work Request from the TDOT call center - If a Call Back Response has been indicated the Contractor has 4 calendar days to respond to the requestor that the work order has received and assessed initial request. Once contact with requestor has been made (or attempted) this will be logged into the Completion section of work request module. Date Called as well as Call Made By shall be kept as record of contact.

25.2.3 Third-Party Damage Reporting:

The Contractor shall submit a report listing all third-party damage repairs/restoration, the current status stage of the repair/restoration, and the amount billed and collected. The Contractor shall provide the first report within sixty (60) Days of the Contract Start Date and update the report every month thereafter throughout the term of the Contract. The Third-Party Damage report shall be submitted to the Department for review on the tenth (10th) Day of each month.

25.2.4 Monthly Highway Lighting Outage Report

An electronic and hard copy monthly log will be maintained in the field office by the Contractor and provided to TDOT with each monthly invoice. The report shall capture highway lighting outages referenced by MP with the date of observation.

Note: the contractor is responsible for mitigating and removing any pole knockdown hazards caused by third-party damage.

25.3 Weekly Work Reporting

25.3.1 Work Plan

No later than 5:00 pm on the Wednesday prior to the start of the following week, the Contractor shall provide a list of activities in the Weekly Work Plan for the next week's work to the designated TDOT Engineer or other designated representative. The list of activities in the Weekly Work Plan shall include the asset, the activity, to and from location of where work is to be performed, and the time of any work operation(s), as well as indicate any proposed lane closures including the type of any such lane closure. It shall be clearly identified in the Comments column whether the work is the result of Department notification, customer reported complaint, Contractor identification or from the Annual Work Plan. Entries into SWIFT / TDOT Smartway shall be made by the Contractor regarding planned lane and shoulder closures in the Weekly Work Plans and shall follow the Department's most current guidelines for submission of the same.

The Contractor shall perform a Total Project Pothole Location Ride weekly. The Contractor shall provide documentation of the weekly ride findings to include the areas identified (in each direction of travel), the date identified, the scheduled repair date, and the actual repair/accomplishment date. Logs shall be submitted to the TDOT Engineer on Tuesdays and Fridays each week. (Also see Exhibit B, Section 31)

The Contractor shall perform a Total Project Guardrail Damage Location Ride weekly. The Contractor shall provide documentation of the weekly ride findings to include the areas

identified (in each direction of travel, the date identified, the scheduled repair date, and the actual repair/accomplishment date. Logs shall be submitted to the TDOT Engineer on Fridays each week.

26 Maintenance Quality Assessment Program

TDOT will conduct and maintain a Maintenance Quality Assessment (MQA) rating as required for all elements and characteristics. TDOT will use the criteria established in 'TDOT MQA Manual V. 1.4' to evaluate the level of maintenance attained by the contractor.

The Department will perform a complete MQA rating four (4) times per year using the evaluation procedures and criteria outlined in the TDOT MQA Manual V. 1.4. The Department will randomly generate (0 .10 mile) locations to be rated each 3-month period. The sample segments will be statistically generated on a 90% confidence rate with a +- 5% error. In addition to mainline roadways, the MQA evaluation locations may also fall on collector/distributor segments, on/off ramps, interchanges, and any other roadway section within the maintenance boundaries. Mainline segments are directional in travel (N, S, E, W) from the median barrier or median ditchline to the right of way limits. The Department will calculate the MQA scores using both characteristic and element weights.

Two (2) business days in advance of scheduled MQA evaluation, the Department will invite the Contractor to accompany the Department MQA team in their review. The Contractor may accompany the Department's MQA team with a maximum of two trained MQA team members.

If the Contractor does not attend the MQA evaluation, they cannot contest the MQA scores. Upon encountering any disagreement associated with an MQA evaluation, the parties will attempt to resolve the dispute in the field. If no resolution can be reached in the field, both parties will document the dispute and elevate the issue to the TDOT Engineer. Failure to reach resolution of the dispute at this level will result in further escalation through the Region Director and finally up to the Director of the Maintenance Division whose decision is final.

The Contractor may dispute characteristic ratings only. Any such dispute shall be made in writing to the Engineer within ten (10) calendar days of notification of the final condition assessment results. This written dispute will be forwarded through the TDOT Engineer to the Director Maintenance Division. The Director Maintenance Division will respond to the written dispute within fourteen (14) business days with a resolution which shall be final and conclusive. The amount of the payment calculated in accordance with the procedures outlined herein will continue notwithstanding any time that elapses during dispute resolution. If through dispute resolution, any element rating is revised, the partial payment will be re-calculated and the amount of the change in the partial payment amount will be returned to the Contractor in the next month's partial payment following resolution.

Beginning from the time the dispute is elevated to the TDOT Engineer, the Department is allowed a total of ten (10) business days to resolve the dispute. If the ten (10) business days elapse before the dispute is resolved or if the dispute is resolved in favor of the Contractor, the disputed MQA characteristic will be changed to reflect the Contractor's evaluation for the

disputed MQA sample point. After all disputes are resolved, the Department will recalculate official MQA scores accordingly.

27 Performance Criteria and Withholding ***

27.1 Performance Criteria

The performance criteria and target ratings are shown in Tables 1 – 7. Each table represents an "element" of the overall Maintenance Quality Assessment (MQA). Next to each element name, the weight of that element within the overall Maintenance Quality Assessment is shown in parentheses. This element weight will be used to determine withholding that may be required at the MQA level. Each row within each table represents an "characteristic" of that element. Each characteristic has associated performance criteria that will be used to determine the performance rating for that characteristic. Next to the characteristic name, the weight of that characteristic within the element is shown in parentheses, which weight will be used to determine withholding that may be required at the element level.

27.2 Evaluation Procedures

An initial Maintenance Quality Assessment has been performed by the Department and provided to the prospective contractors prior to the submission of Proposals.

Ongoing MQA condition assessments will be made by the Department every three months (quarterly) of the contract. The first assessment will begin three months following the Start Date. Each assessment will be completed incrementally and will occur randomly throughout the project limits.

Linear samples, in lengths of 0.10 miles, will be made in sufficient quantity to ensure 90% confidence that the samples represent the condition assessment throughout the entire project limits. Should a sample site not be accessible by construction activity or other limiting features, an alternative site will be randomly selected. Any traffic control required will be provided by the Department to safely access sample segments. Gross deficiencies will be brought to the Contractor's attention as soon as is practicable during or each assessment.

The first withholding, if necessary, will occur prior to the next assessment period and partial payment will reflect the initial assessment. Throughout the remainder of the contract, assessments will occur once in every 3-month period and withholding calculated and, if necessary, assessed in the following month.

27.3 Maintenance Quality Assessment (MQA) Rating

The characteristic ratings will be weighted in accordance with Tables 1 – 6 to determine element ratings. Element ratings will then be weighted in accordance with Tables 1 – 6 to determine an overall MQA rating. MQA withholding will be based on the overall MQA target of 80, each element target of 75 and each characteristic target of 70.

If in three consecutive assessments, the overall MQA rating is more than 5 points below the applicable overall MQA target, the Department shall have the right to declare the Contractor in default of contract.

If, in four consecutive assessments, any element is more than 15 points below the applicable target for that element, the Department shall have the right to declare the Contractor in default of the contract.

27.4 Phased Performance Targets

Some MQA characteristics and elements do not currently meet the minimum performance target and require a work backlog to attain the minimum score. As a result, the contractor is not required to attain the minimum target score on those elements and elements until a later calendar year. These select elements and characteristics are clearly indicated in (Exhibit B, Tables 1-6) as a performance target followed by a calendar year in parentheses.

The contractor will provide separate pricing for the phased 'backlog' work in the Itemized unit prices for 'PHASED MAINTENANCE SERVICES' in Exhibit B.

27.5 Non-Performance Withholding

An example of the calculation of withholding is provided in the tables following this section.

Non-Performance Withholding will be determined at the MQA, element, and characteristic levels if any such ratings are below their respective targets for the calendar year in which the condition assessment is conducted.

All withholding will be assessed and deducted from the next monthly partial payment. In the event that the withholding exceeds the unit price bid, then the remainder of the withholding will be deducted from the subsequent monthly partial payment(s).

- Non-Performance Withholding at the overall MQA level will be assessed at a rate of 2.5% of the unit price bid for each point below the overall MQA level target for that calendar year.
- Non-Performance Withholding at the element level will be assessed at a rate of 1.25% of the unit price bid for each point below the element level target for that calendar year.
- Non-Performance Withholding at the characteristic level will be assessed at a rate of 0.625% of the unit price bid for each point below the applicable characteristic level target for that calendar year.

The unit price bid is the bid per month as indicated on the Itemized Proposal Sheet for "Routine Maintenance Services", whichever bid alternate is exercised by the Department, and as adjusted in accordance with the Project Special Provision "Annual Price Adjustments."

27.6 Disposition of Non-Performance Withholding

An example of the disposition of Non-Performance Withholding is provided following the example for non-performance withholding. This example is based on the baseline assessment conducted during July – August 2023 (second assessment of the contract). The example demonstrates overall, element and characteristic withholding summations.

In the event the contract is not renewed at the end of the initial 60-month contract period, any withholding attributable to the last assessment of the initial contract period will be forfeited by the Contractor. In the event the contract is renewed, the withholding attributable to the last assessment of the initial contract period may be re-captured by the Contractor in accordance with the provisions herein.

Each Non-Performance Withholding will be reserved at least until the next condition assessment is complete and the corresponding Non-Performance Withholdings are calculated, and in accordance with the provisions below:

27.6.1 Characteristic Non-Performance Withholding

If the subsequent assessment indicates that the Characteristic rating meets the target in effect for that period in which the subsequent assessment is conducted, the entire withholding attributable to that element will be paid to the Contractor with the next partial payment.

If the Characteristic rating does not meet the target in effect for that period in which the subsequent assessment is conducted, that Characteristic's withholding will be forfeited. In addition, a new Non- Performance Withholding will be assessed until the following condition assessment is complete and the corresponding Non-Performance Withholdings are calculated and withheld.

27.6.2 Element Non-Performance Withholding

If the subsequent assessment indicates that the Element rating meets the target in effect for that period in which the subsequent assessment is conducted, the entire withholding attributable to that Element will be paid to the Contractor with the next partial payment. If the Element rating does not increase from the previous assessment, regardless of the element ratings, then that Element's entire withholding will be forfeited. In addition, a new Non-Performance Withholding will be assessed at least until the following condition assessment is complete and the corresponding Non-Performance Withholdings are calculated and withheld.

If the Element rating increases from the previous assessment but still does not meet the target in effect for that period in which the subsequent assessment is conducted, regardless of the element ratings, then a portion of that Element's withholding will be paid to the Contractor with the next partial payment and a portion of the Element's withholding will be re-assessed at least until the following condition assessment is complete and the corresponding Non-Performance Withholdings are calculated and withheld. The portion that remains withheld will be determined as outlined in "Non-Performance Withholding" above.

27.6.3 Overall MQA Non-Performance Withholding

If the subsequent assessment indicates that the MQA rating meets the target in effect for that rating period in which the subsequent assessment is conducted, the entire withholding attributable to the MQA will be paid to the Contractor with the next partial payment.

If the overall MQA rating does not increase from the previous assessment, regardless of the characteristic and element ratings, then the entire MQA withholding will be forfeited. In addition, a new Non-Performance Withholding will be assessed at least until the following condition assessment is complete and the corresponding Non-Performance Withholdings are calculated and withheld.

If the MQA rating increases from the previous assessment but still does not meet the target in effect for that rating period in which the subsequent assessment is conducted, regardless of the characteristic and element ratings, then a portion of the MQA withholding will be paid to the Contractor with the next partial payment and a portion of the MQA withholding will be re-assessed at least until the following condition assessment is complete and the corresponding Non-Performance Withholdings are calculated. The portion that remains withheld will be determined as outlined in "Non-Performance Withholding" above.

Figure 3: Withholding Calculation Example

Monthly Bid	$ 100.00
Characteristic Deduction Rate	0.625%
Withholding $ per Characteristic Point Below 70	$ 0.625

Element Name	Characteristic Name	Region	Characteristic Weight	Characteristic Total	Characteristic Passed	Characteristic Score	Minimum Score	Deficient Score	Deficient Pts.	Characteristic Deduction
Paved Lanes	Paved Lanes – Asphalt	3	0.8	224	185	82.59	70			
Paved Lanes	Paved Lanes - Concrete	3	0.1	61	47	77.05	70			
Paved Lanes	Paved Shoulders (Rigid or Flexible)	3	0.1	247	229	92.71	70			
Unpaved Shoulders and Ditches	Unpaved Shoulder Edge	3	0.5	252	130	51.59	70	18.41	9.21	$ 5.75
Unpaved Shoulders and Ditches	Front / Back Slope	3	0.1	266	218	81.95	70			
Unpaved Shoulders and Ditches	Lateral and Outfall Ditches (Unpaved Ditches)	3	0.3	191	179	93.72	70			
Unpaved Shoulders and Ditches	Paved Ditches	3	0.1	52	18	34.62	70	35.38	3.54	$ 2.21
Drainage Structures	Curb and Gutter	3	0	9	9	100.00	70			
Drainage Structures	Pipes	3	0.7	47	33	70.21	70			
Drainage Structures	Miscellaneous Drainage Structures	3	0.1	85	20	23.53	70	46.47	4.65	$ 2.90
Drainage Structures	Inlets	3	0.2	72	45	62.50	70	7.50	1.50	$ 0.94
Roadside	Brush and Trees	3	0.5	264	240	90.91	70			
Roadside	Guardrail / Cable Rail / Concrete Barrier	3	0.4	173	112	64.74	70	5.26	2.10	$ 1.32
Roadside	Impact Attenuators	3	0	15	15	100.00	70			
Roadside	Control Access Fence	3	0.1	129	94	72.87	70			
Roadside	Noise Walls and Retaining Walls	3	0	8	8	100.00	70			
Vegetation / Aesthetics	Graffiti	3	0	267	253	94.76	100			
Traffic	Ground Signs & Overhead Signs	3	0.8	162	111	68.52	70	1.48	1.19	$ 0.74
Traffic	Pavement Markings	3	0	256	248	96.88	70			
Traffic	Words and Symbols	3	0.1	85	76	89.41	70			
Traffic	Object Markers and Delineators	3	0.1	102	72	70.59	70			
									Total Characteristic Deduction	$ 13.86

Monthly Bid	$ 100.00
Element Deduction Rate	1.250%
Withholding $ per Characteristic Point Below 70	$ 1.250

Element Name	Element Weight	Element Score	Minimum Element Score	Deficient Score	Deficient Pts.	Element Deduction
Paved Lanes	0.3	83.23	75			
Unpaved Shoulders and Ditche	0.15	66.37	75	8.63	1.29	$ 1.62
Drainage Structures	0.2	61.11	75	13.89	2.78	$ 3.47
Roadside	0.15	81.36	75			
Traffic	0.2	69.86	75	5.14	1.03	$ 1.29
					Total Element Deduction	$ 6.38

Deduction Rate	Monthly Bid	Deduction per point
2.500%	$ 100.00	$ 2.500

Column	Region	Overall Score	Minimum	Deficiency	Deduction
Total Score	3	73.32	80	6.68	$ 16.70

Total Characteristic Deduction	$ 13.86
Total Element Deduction	$ 6.38
Total Overall Deduction	$ 16.70
Grand total Deduction	$ 36.94
Payment	$ 63.06

27.6.4 Pavement Rating Criteria

TABLE 1 PAVEMENT ELEMENT (0.30) Element Target: 75%			
CHARACTERISTIC	OUTCOME	PERF. TARGET (%)	TOLERANCE & CRITERIA
Flexible Pavement Travel Lane Repair (0.45)	Safe, durable, smooth	70	No potholes greater than 6 inches in diameter and 1.25 inch or greater in depth. No permeable base exposed. No more than 50 cumulative feet of unsealed longitudinal joints larger than 0.25 inches.
Rigid Pavement Travel Lane Repair (0.45)	Safe, durable, smooth	70	No potholes greater than 6 inches in diameter and 1.25 inch or greater in depth. No more than 25% of the joint material is missing or detached. No more than 10% of the surface area with spalling greater than 1 inch deep. No vertical deviation (settlement or heaving) greater than 1 inch in depth.
Paved Shoulders (Flexible or Rigid) (0.10)	Safe, smooth	70	No potholes greater than 6 inches in diameter and 1.25 inch or greater in depth. No more than 50 continuous linear feet of the rumble strips are missing, filled with debris, or damaged in a manner rendering them ineffective. No travel-lane edge differentiation greater than 2” for 25 continuous feet or greater than 4" at any location. No more than 25% of the joint material is missing or detached. (Between lane and shoulder) No settlements or heaving greater than 2 inches.

27.6.5 Unpaved Shoulders and Ditches Rating Criteria

TABLE 2 UNPAVED SHOULDERS AND DITCHES ELEMENT (0.15) Element Targets: 75%			
CHARACTERISTIC	OUTCOME	PERF. TARGET (%)	TOLERANCE & CRITERIA
Unpaved Shoulder Edge (0.50)	Safe Smooth	70 (7/2025)	No drop-offs greater than 2” within one foot (1’) of the edge of pavement for 25 continuous feet or 100 cumulative feet, or 4 inches anywhere along the shoulder template. No shoulder build-up exceeds 2 inches across the design template for 25 continuous feet
Front / Back Slopes (0.10)	Stable with minimal erosion.	70	No erosion greater than 6 inches in depth.
Lateral and Outfall Ditches (Unpaved Ditch) (0.30)	No blockage or erosion.	70	No more than 50 cumulative linear feet of ditch with >50% of cross sectional blocked, or any single blockage of 100%. No erosion greater than 1’ below original ditch line.
Paved Ditch (0.10)	Structurally sound, open and draining	70 (1/2025)	No more than 50 cumulative linear feet of ditch with >50% of cross sectional blocked, or any single blockage of 100%. No undermining or erosion is present at either end or along the parallel edges that exposes any soil area beneath the paved ditch and threatens the structural integrity. No settlement or misalignment greater than 2 inches. No more than 10% of the surface area has cracking exceeding 0.5 inches in width.

27.6.6 Drainage Structures Rating Criteria

TABLE 3 DRAINAGE STRUCTURES ELEMENT (0.20) Element Targets: 75%			
CHARACTERISTIC	OUTCOME	PERF. TARGET (%)	TOLERANCE & CRITERIA
Pipes and Culverts (< 20 ft.) (Blocked / Damaged) (0.70)	Open Drains No Erosion	70	Not more than 25% of the structure is obstructed or blocked. Eroded area at the inlet or outlet is not wider or longer than 1.5 times the pipe diameter and greater than 6 inches deep. End protection has no deteriorations, erosions, washouts or buildups adversely affecting the natural flow of water. No metal pipes with crushed ends or rusted through. No indications of asphalt or concrete roadway over drainage pipe is cracking, sinking, or rising.
Misc. Drainage Structures includes flumes, spillways, trench drains, edge drains, weep holes, piped slope drains and other misc. drain structures (Block/Damaged) (0.10)	Functional and free of obstructions	70 (1/2025)	Not more than 25% of the pipe or structure is obstructed or blocked. End protection is free of deteriorations, erosions, washouts or buildups adversely affecting the natural flow of water. Underdrain rodent screen is in place.

Inlets (0.20)	Free of obstruction	70 (1/2025)	Grates and Outlets not blocked 25% or greater. Grates are present, in place and not broken No eroded area within 1 foot of the structure that is greater than 6 inches deep or below the base elevation of the concrete apron. Surface damage is not greater than 0.5 SF. No cracking of the concrete apron greater than 0.25” over 10% of the apron area. No unsealed concrete joint separations greater than 0.25”.

27.6.7 Roadside Rating Criteria

TABLE 4 ROADSIDE ELEMENT (0.15) Element Targets: 75%			
CHARACTERISTIC	OUTCOME	PERF. TARGET (%)	TOLERANCE & CRITERIA
Brush & Trees (0.40)	Unobstructed sight distance & vertical clearance.	70	No trees or woody growth are overhanging the pavement or shoulder on roadways. No obstructions of sight distance or sign visibility (see TDOT MQA Manual V1.4 for distances). Trees or woody growth do not meet the lateral clearance criteria. (see manual for distances). No dead trees or leaning trees that present hazards to the travel lanes No woody vegetation around headwalls. Noise Walls: • No woody vegetation / branches greater than 4 inches in diameter overhanging wall within 10 feet vertical. • No woody vegetation leaning against or in contact with the wall greater than 4 inches in diameter. .

Guardrail/ Cable Rail / Concrete Barrier (0.30)	Functional Repairs per current Standards	70	No NON-FUNCTIONING damage guardrail: damaged end sections, or rail has penetrations or tears, loss of any tension in cable rail or cross-sectional loss of concrete barrier. SEE TIMELINESS REQUIREMENTS No loss of concrete barrier cross-sectional area as a result of vehicle crash.
Control Access Fence (0.10)	Limit access, structurally sound and continuous	70	No compression of the fence greater than 1/3 of its original height as measured from the natural ground to the top of the fence fabric. No opening in the fence fabric greater than 2 square feet. No open gate in the limited access fence within the sample area.
Roadway Sweeping (0.10)	Free of any accumulation of sand or aggregate particles	70	No material accumulation exceeding 0.25 inches in depth for more than 10 continuous linear feet in the paved shoulder or paved lanes. No material accumulation exceeding 0.75 inches in depth for more than 10 continuous linear feet in curb and gutter and concrete barrier. No material accumulation exceeding 4 inches at any point in curb and gutter or along concrete barrier.

Retaining Walls / MSE Walls (0.10)	Safe Clean Functional Stable	70	• Concrete elements have no spalls ≥2 inches deep. • Weep holes are clean and free of foreign material and properly functioning. • Less than 10% of the surface is covered by live vegetation. • No branches greater than 2 inches in diameter overhanging wall.

27.6.8 Traffic Rating Criteria

TABLE 6 TRAFFIC ELEMENT (0.20) Element Targets: 75%			
CHARACTERISTIC	OUTCOME	PERF. TARGET (%)	TOLERANCE & CRITERIA
Ground Signs & Overhead Signs (0.80)	90% of the Signs in the sample area are present, visible, retroreflective, and legible.	70 (1/2025)	Visibility Warning lights on signs, where required, are functional. Signs convey the intended message without fading or surface accumulations. Sign panels shall meet sign Retroreflectivity standards that are at or above minimum levels in Table 2A-3, per the 2009 MUTCD effective April 1, 2025. (Note: Retro conditions were not assessed in the baseline MQA, but are made available online) Surface has less than 10% of the area damaged affecting sign function. No partial or whole of a single word missing. No sign rotation causing the sign message to become unreadable. Height Roads with curb and gutter: 7 feet minimum height measured from top of curb to bottom of sign (measure from sidewalk if present). Roads without curb and gutter: 5 feet minimum height measured from edge of driving lane to bottom of sign. Installation Sign installation including panels and posts are leaning no more than 1 inch per foot. No missing or improperly installed connecting hardware, nuts, or bolts.

			Sign support is not damaged and/or bent. A slip base or breakaway support is not covered with soil or is no more than 4 inches above the finished ground as measured at the center. U-channel steel posts heavier than 3 pounds per foot are not installed on a slip base or breakaway support. Note: Signs shielded by barrier walls or guardrail do not require breakaway support.
Object Markers & Delineators (0.10)	Present Functional	70	No more than 30% of the object markers or post-mounted delineators lean more than 45 degrees. No more than 30% of the required markers and delineators are missing or no more than 2 continuous markers are absent.

27.6.9 Bridge Maintenance Rating Criteria

TABLE 7 BRIDGE MAINTENANCE ELEMENT Element Target: N/A			
CHARACTERISTIC	OUTCOME	PERF. TARGET (%)	TOLERANCE & CRITERIA
Bridge Deck[1]	Safe Clean Functional Joints intact	N/A	• Perform all routine/ordinary maintenance per NBIS/SNBI inspection reports including sweeping. • Riding surface has no spalls ≥ 1½ inches deep. No steel reinforcement shall be visible from spalls. • Joints are clean and joint material is present and functioning as designed. • Drainage system (e.g., drains, scuppers, trough etc.) is clean and functioning as designed. Railings are intact and connections are tight.
Bridge Superstructure[2]	Safe Clean Functional	N/A	• Perform all routine/ordinary maintenance per NBIS/SNBI inspection reports and including clearing of all obstructions. • No trees or brush between parallel bridges on the Interstate. No trees or brush within 25 feet of bridge • Bridge components are free of vegetation. • Bearing assemblies are clean and lubricated. • The bearing assemblies and the end 5 feet of longitudinal superstructure elements are free of foreign material (grass, stones, limbs,

[1] Bridge Deck includes and not limited to the bridge roadway surface, approach slabs, curbs, sidewalks, parapets, railing system, drainage system, lighting, expansion joints

[2] Bridge Superstructure includes and not limited to beams, girders, diaphragms, bracings, truss members, bearing devices

			trash, sand dirt, etc.)
Bridge Substructure[3]	Safe Clean Functional	N/A	• Perform all routine/ordinary maintenance per NBIS/SNBI reports and including sweeping, clearing of all obstructions. • No damage (≥1½ inch deep spalls) caused by vehicular impact is evident. • Bridge components are free of vegetation. • Horizontal surfaces, including bridge seats and bearing areas, are free of foreign material (grass, stones, limbs, trash, sand, dirt, etc.) • Weep holes are clean and free of foreign material and properly functioning. • Slope Pavement shall be clean of debris and vegetation. No broken sections.
Approach Slabs (Pavement on bridge ends)	Safe Smooth	N/A	• No transitional vertical deviation between roadway pavement and approach slab greater than 2” • Riding surface has no spalls ≥ 1½ inches deep. No steel reinforcement shall be visible from spalls. • No more than 10% of the joint material is missing or detached.

[3] Bridge Substructure includes and not limited to abutments, backwalls, seats, piers, columns, wingwalls, Weep Holes

NBIS Pipes and Culverts (> 20 feet)	Safe Clean Functional Stable	N/A	• Perform all routine/ordinary maintenance per NBIS inspection reports. • Opening ≥ 75% open • Free of debris and vegetation. • Any erosion and scour at inlet and outlet ends have been stabilized. • End walls/wing-walls are clear of vegetation and debris. • Concrete elements have no spalls ≥2 inches deep. • Weep holes are clean and free of foreign material and properly functioning. • There are no construction joints or cracks opened greater than ¼ inch.
Channel and Slope Protection	Safe Clean Functional Stable	N/A	• Perform all routine/ordinary maintenance to include removing channel drift, stabilizing, erosion, cutting, removing and disposing of vegetation, brush and trees that are on, adjacent to, or under bridges • Drainage systems are clean and functioning as designed. • Any erosion and/or scour has been stabilized. • Remove woody growth or aggressive vine growth that covers the slope protection, or any growth that extends from or contributes to slope protection failure at bridges (i.e. woody growth that separates the slope protection panels). • Riprap is sufficient and appropriately placed to minimize scour, no unsealed joints or cracks greater than 1 inch between panel sections, and no slabs are undermined. • No washouts or ruts greater than 5 inches deep and 1 foot wide and no more than 5% of bank length within ROW is found to have an existing sediment loss.

28 Liquidated Damages

Liquidated damages for timeliness requirements presented in Table 8 are calculated using the prescribed intermediate contract times. The Contractor is responsible for logging the time of the start of each intermediate contract time and the completion of the task subject to the intermediate contract time. This information shall be made accessible to the Engineer as part of each Monthly Report and on an interim basis as required by the Engineer to assess liquidated damages.

In the event a Department design is required for the repair or replacement of an item covered by an intermediate contract time, that intermediate contract time will be adjusted if there is a delay in providing the design. In addition, for the case of major structural items, the intermediate contract time will be adjusted if the Contractor demonstrates due diligence in the pursuit of materials that are not reasonably available within the applicable intermediate contract time.

Liquidated damages for planned lane closures, shoulder closures, lane narrowing, and holiday and event time restrictions apply. Reference Table 8. Also see Section 27.6 Disposition of Non-Performance Withholding.

28.1 Timeliness Targets

Table 8 provides timeliness requirements for certain activities. These timeliness requirements are not used in the withholding calculations but are enforced through liquidated damages as indicated throughout the "Scope of Work". However, if the timeliness requirement for any one activity is not fulfilled in at least 80% of the occurrences in each of three successive assessment periods, the Contractor may be deemed in default of contract.

TABLE 8

TIMELINESS PERFORMANCE CRITERIA

Characteristics (General terms and conditions)	OUTCOME	PERF. TARGET (%)	TOLERANCE & CRITERIA
Debris / Large Litter/Roadkill Removal &Litter Removal as directed by DOT or other customers	Roadway free of obstruction	100	• Roadkill and Debris within the travel lane shall be removed within 2 hours of notification or discovery and promptly and properly disposed at an approved disposal landfill or other facility. Remove debris from the shoulder or right of way within 24 hours. • Large Litter Routes shall be ridden and inspected on the first and last day of the week. • Failure to promptly and properly remove and dispose of debris or dead animals shall result in liquidated damages of $500 per day per incident.
Customer Response	Timely Efficient Effective Productive Follow-up	100	• The Contractor shall contact the customer within 24 hours following initial customer inquiry. • The Contractor shall conduct follow-up contact with the customer within 72 hours of initial inquiry. • All customer concerns/requests must be resolved to the Department's satisfaction within 2 weeks of the initial inquiry. • Contractor shall use TDOT's work request

			system for work tracking.
Pavement Repairs	Timely Efficient Effective Productive Durable Safe	100	• An intermediate contract time of 2 days from notification or discovery will apply to the temporary repair of all pavement failures. In the event that the Contractor fails to repair such failures within 2 days, liquidated damages in the amount of $500 per day, or portion thereof, will be deducted from the monies due to the Contractor. • A permanent patch must be performed within sixty (60) Days (or as soon a hot-mix material is available in cold weather months). Permanent pavement repairs shall be repaired with the use of asphaltic hot-in-place or Portland cement concrete as appropriate. In the event that the Contractor fails to repair such failures within 2 days, liquidated damages in the amount of $500 per day, or portion thereof, will be deducted from the monies due to the Contractor. • Emergency call (see emergency response) outs shall be completed until all lanes are restored. Emergency shall be defined by damaged vehicles, HELP request, or THP call.
Guardrail/Guiderail / Impact Attenuators	Timely Efficient Effective Safe	100	SEE GUARDRAIL DAMAGE CRITERIA IN SECTION 37 • Failure to repair EMERGENCY damage within 72 hours following notification or discovery shall result in liquidated damages in the amount of $1,000 per day, or portion thereof, will be deducted from the monies due to the Contractor. • Failure to repair FUNCTIONAL damage, non-functioning guardrail, guiderail, and terminal end sections within14 days following notification or discovery shall result in liquidated damages in the amount of $1,000 per day, or portion thereof, will be deducted

			from the monies due to the Contractor. • Failure to repair MODERATE damage guardrail within 30 days following notification or discovery shall result in liquidated damages in the amount of $1,000 per day, or portion thereof, will be deducted from the monies due to the Contractor. • Failure to repair attenuator within 14 days following notification or discovery shall result in liquidated damages in the amount of $1,000 per day will be deducted from the monies due to the Contractor. Failure to provide traffic safety mitigation the same day as discovery will result in a $1,000 per day penalty.
Signs	Timely Efficient Effective Safe	100	• Damaged overhead signs and sign structures that pose imminent risk to the public must be mitigated immediately. Contractor shall inspect structures immediately and determine whether to remove them or not. • Damaged but functional overhead signs repaired/replaced within 30 days following notification or discovery. • Non-functional Stop, Do Not Enter, Wrong Way and Yield signs must be repaired/replaced within <u>8 hours</u> following notification or discovery. Failure to repair non-functioning Stop, Do Not Enter, Wrong Way and Yield signs within 8 hours following notification or discovery shall result in liquidated damages in the amount of <u>$500 per hour</u>, or portion thereof, will be deducted from the monies due to the Contractor. • All other signs, including posts, that are damaged or missing must be repaired/replaced within <u>five (5)</u> days following notification or discovery. Failure to repair damaged signs within 5 days shall result in liquidated damages in the amount of

			$500 per day will be deducted from the monies due to the Contractor.
Emergency Maintenance Repairs	Timely Efficient Effective Safe	100	• The Contractor shall initiate corrective measures within 2 hours after notification or discovery, liquidated damages in the amount of $2,500 per hour, or the pro-rated portion for a partial hour (pro-rated time will be every fifteen (15) minutes) per incident will be deducted from the Contractor's monthly payment for the additional time it takes the Contractor to respond appropriately.
Incident Management	Timely Efficient Effective Safe	100	• The Contractor shall be prepared to respond with an initial responder to any emergency twenty-four (24) hours per Day, seven (7) Days per week. The Contractor shall arrive on-site, within sixty (60) minutes of the initial notification of the incident. • Failure to properly respond to incidents/events according to goals established herein shall result in liquidated damages in the amount of $500 per hour, prorated, per incident/event.
Graffiti	Timely Efficient Effective Safe	100	• Remove or cover graffiti within 36 hours upon discovery. • Failure to remove or cover hate speech graffiti within 24 hours shall result in liquidated damages of $1,000 per day • Failure to remove or cover graffiti within 36 hours shall result in liquidated damages of $1,000 per day.
Bridge Maintenance	Timely Efficient Effective Safe	100	• Failure to timely complete repairs identified in Bridge Inspection Review Committee meeting will result in liquidated damages of $1,000 per day per delinquent Work Order. • Failure to mitigate or make temporary safety repairs resulting from Incidents will result in liquidated damages of $1,000 per day per

			location (clock starts at the moment contractor leaves the location without proper traffic control).
			• Failure to replace or repair damaged bridge barrier or railing;
			  • Secure the site within 24hrs of notification or discovery. Failure to complete permanent repairs within 15 days. will result in liquidated damages of $2000 per day per location.
			  • Failure to complete permanent repairs within 15 days will result in liquidated damages of $1000 per day per location.
			• Failure to timely complete urgent or emergency repairs identified outside of the Bridge Inspection Review Committee meeting will result in liquidated damages of $2,000 per day per location.
			• Failure to respond and remove bridge drift within one week of notification or observation will result in liquidated damages of $1,000 per day per occurrence.

Homeless Encampment	Public Safety		• Homeless encampments shall be cleaned up within 48 hours of homeless removal. Vegetation clean-up shall be done within 7 days. Any cleanup not done within the prescribed timeframes shall result in liquidated damages of $500 per day per occurrence.

EXHIBIT B – Special Provisions and Prescribed Maintenance Activities

29 Bridge

29.1 NBIS Inspection

TDOT will perform the regular federally mandated safety inspections on Bridge and NBIS Culverts (20 feet length longitudinal with roadway), in accordance with the National Bridge Inspection Standards, Specifications for the National Bridge Inventory, and Department policies. These inspections are typically conducted every twenty-four (24) months.

TDOT will also perform regular inspections on designated major (Cantilever or Butterfly) Roadside Sign Structures and Overhead Sign Structures in accordance with Department Standards and Specifications. These inspections are typically conducted every sixty (60) months. These bridge and structure inspection reports will be made available to the Contractor and shall be used by the Contractor to identify and generate any maintenance items needed for those associated structures.

29.2 Maintenance Responsibility:

The contractor shall perform minor Priority Repair, and Routine Maintenance, as defined in the sections below.

The Contractor will NOT be required to perform non-routine bridge maintenance as defined in the sections below.

29.2.1.1 Critical Finding

Repairs must begin immediately to repair critical damage to the structure and to protect the safety of the traveling public. Typically, this work is initiated immediately, and work will not be the responsibility of the contractor, however the contractor is expected to provide immediate safety mitigation and temporary traffic control during mitigation until permanent repairs are initiated.

29.2.2 Categorizing Prompt Action Requests

To categorize each deficiency, a Prompt Action request is submitted by the inspection Team Leader. The request is reviewed by the Regional Bridge Inspection Staff for priority assignment based on severity, effect on load carrying capacity, and safety.

Use the criteria listed in the Bridge Inspectors Reference Manual, Bridge Inspection Program Procedures Manual, the AASHTO Manual for Bridge Element Inspection, and sound engineering judgement to assign each Prompt Action request to one of the following categories:

- Critical Finding
- Priority Maintenance
- Routine Maintenance

For deficiencies assigned as critical or priority findings, the Region Bridge Maintenance Engineer will notify the Contractor of any mitigation or temporary traffic control needs.

29.2.3 Priority Maintenance

Priority Maintenance includes any repairs required to correct deficiencies or defects to protect the integrity of the structure or maintain a desired level of performance. This work is not as critical as Critical Finding work orders but requires more immediate action than a routine maintenance work order. Priority Maintenance work orders shall be completed within **180 days** of issuance. Typical examples are:

- Excessive settlement of the approach slab or approach roadway adjacent to the structure which affects transition on to the structure.
- Excessive erosion at the end bent that may affect bridge approach roadway.
- Missing regulatory or warning signs (e.g., delineators, narrow bridge, etc.)
- Spalls with exposed rebar in the top of a concrete deck.
- Unsound patches with rust staining in prestressed concrete members.

29.2.3.1 Critical Findings that are not Contractor responsibility

- Crack widths exceeding or equal to 1/2”.
- Excessive amount of scour – since previous inspection or close to Scour Critical depth (based on plans) or Scour Plan of Action (PoA) trigger.
- Spalled prestressed girder with exposed/deteriorating strands.
- Condition that may result in a reduction in the load carrying capacity.
- Spalled reinforced concrete girder with exposed/deteriorating main rebar with section loss and more than one bar affected at same location on girder.
- Spalled concrete cap at girder bearing area resulting in any loss of bearing area.
- Spalled cap with extensive spalls and areas of exposed rebar.
- Spalled/cracked columns with extensive spalls and areas of exposed rebar.
- Bearing loss/undermining due to scour on concrete spread footing (<30% bearing area).
- Beams/girders/steel piles with active corrosion and 25% section loss.
- Secondary members (diaphragms, bracing, etc.) with 25% or more section loss.
- Bolted Field Splice: Missing bolts or active corrosion and 10% section loss.
- Active measurable section loss in the tension zone on FCM’s.
- Unmitigated crack in a secondary steel member.
- Cracked welds on steel grid deck.

29.2.4 Routine Maintenance Needs

Routine maintenance needs are defined as minor to moderate deficiencies to primary or secondary bridge elements or non-structural upkeep such as debris removal, deck and drainage systems cleaning, and removal of vegetation. Routine Maintenance work orders shall be completed within **one year** of work order issuance. Routine maintenance needs include, but are not limited to, the list provided below.

General Items:

- Cracked AWS not causing traffic hazard.
- Leaking or damaged expansion joints.
- Clogged deck drains.
- Loose fasteners, but still functioning as intended.
- Debris on bridge deck or cap/bridge seats.
- Drift not causing excess substructure pressure/scour.
- Excess vegetation around bridge area.
- Masonry members out of alignment or with unsound patching.
- Restriction of movement for bearings.
- Minor settlement.
- Minor scour.

Concrete:

- Exposed coarse aggregate due to abrasion in concrete deck.
- Cracking/unsound patches/delamination/minor spalls in concrete members.
- Exposed rebar in concrete members without measurable section loss.
- Loose coarse aggregate due to abrasion in concrete members.

Steel:

- Failed paint system on steel members.
- Gouges in steel flanges that do not warrant a Priority Maintenance or Critical Find.

In order to minimize traffic impact, make every practical effort to quickly and efficiently complete maintenance and repairs that require any closure of a lane within the lane closure guidelines.

The Contractor will maintain the safety, integrity, and aesthetics of the bridge structures as detailed in (Exhibit A - Table 7) and perform routine maintenance activities as necessary. The Contractor will maintain all elements of bridge structures. The Contractor shall perform all routine/ordinary maintenance, based on established TDOT parameters, timelines, and schedules as specified by current Department standards, specifications and herein. Routine bridge maintenance is defined as preventive maintenance and minor repairs. These tasks are divided into the applicable routine maintenance activities. The Contractor will perform routine

bridge maintenance, overhead sign structure, including collision damage repair, on the state right-of-way, defined as follows:

Non-routine Maintenance is defined as major repairs and rehabilitation.

The Contractor <u>will not</u> be required to perform non-routine bridge maintenance defined as follows:

29.2.5 Major Maintenance Repair:

The restoration of a structure, including all its appurtenances, to its original condition (or as subsequently improved) insofar as practical. Major repairs include any activity intended to correct deteriorated members. Conditions requiring major repairs include loss of section, deterioration, spalling or scour that affect the strength of the member. Engineering analysis is often performed to determine the extent of the lost strength. These conditions will have "poor", "serious", or worse condition ratings for primary structural members. The contractor is NOT responsible for Major Maintenance Repair.

29.2.6 Rehabilitation:

The improvement or betterment of a structure, including all its appurtenances, to a condition meeting or exceeding current design standards, insofar as practical. Examples of rehabilitation include widening a bridge to meet lane/shoulder width requirements, replacement of substandard bridge rails, raising a bridge to meet clearance requirements, strengthening a bridge to increase load carrying capacity to accepted limits, and upgrading the operational equipment of a movable span. The Contractor is NOT responsible for Rehabilitation.

29.2.7 Bridge Work Orders in First and Final Contract Years:

In the first year of the contract, expect to take responsibility for any and all Critical Finding and Priority Maintenance Bridge work identified during the 15-day period before this contract's execution date. Also expect to take responsibility for all Critical and Priority Bridge Work identified during the six (6) month period before this contract's execution date. The contractor is expected to complete these inherited Bridge Work within their prescribed time frame.

During the final year of the contract, complete all Critical Finding and Priority Maintenance Bridge Work Orders generated prior to the final 15 days of the contract, and complete all Critical and Priority Work Orders generated prior to the final six (6) months of the contract.

29.2.8 Performance Criteria (Bridge Maintenance)

The Department will periodically perform quality assurance reviews by inspecting bridge repairs and maintenance activities recently completed by the Contractor. In this Performance Criteria chart, one "location" is defined as a collection of all areas on a bridge needing or receiving attention due to a common reason.

Table 1: Bridge Maintenance Performance Criteria

BRIDGE MAINTENANCE		
Deficiency Identification	Time Allowed/Criteria	Deduction
a) Failure to timely complete repairs identified in Bridge Inspection Review Committee meeting.	Per Critical Finding, Priority Maintenance or Routine Maintenance process Procedures, Manuals, Codes, etc.	$1,000 per day per delinquent Work Order
b) Failure to make temporary safety repairs resulting from Incidents	Must secure public safety from hazards and establish proper traffic control before leaving the site	$1,000 per day per location (clock starts at the moment contractor leaves the location without proper traffic control).
c) Failure to replace or repair damaged bridge railing	Secure the site within 24 hours of notification or discovery. Complete permanent repairs within 7 days.	$2000 per day per location. $1000 per day per location.
d) Failure to timely complete urgent or emergency repairs identified outside of the Bridge Inspection Review Committee meeting.	Complete permanent repairs within 30 days of notification or discovery.	$2,000 per day per location.

The Department may award separate contracts for services that are not covered under this agreement (e.g., bridge rehabilitation projects). When separate contracts are awarded within the limits of this project, the Contractor shall not hinder the work being performed by other contractors. Unless otherwise stated the Contractor shall continue to be responsible for all asset maintenance services that are covered in the rehabilitation agreement.

30 Drain Cleaning

30.1 Scope

Work on this project includes the following:

1) Annually cleaning of drains and pipes as designated on the work locations listed below and disposal of accumulated foreign matter from the rights-of-way once during the course of the contract or as directed by the Engineer.

30.2 Drain & Pipe Cleaning

The drains to be cleaned in this project include median barrier wall box inlets, drop box inlets, catch basins, bridge end drainage box inlets, curb box inlets, etc., that have removable grates. All of these are usually larger and deeper drains, some of which are trapped. Drains with two grates serving the same collection box are counted as one drain. The Contractor shall remove (and replace) the grate for access, vacuum the throat and chamber area to remove all sediment, drift, and other debris, and wash out the catch basin to verify adequate drainage as determined by the Engineer. The Contractor shall provide any water required for the cleaning process. Lateral/longitudinal drains of a trench design shall be cleaned using water flushing and suction of debris for the length of the drain. This project will require that wall scupper drains are cleaned. The wall scupper drains are slots under barrier rails and through bridge parapet walls. The Contractor shall remove all sediment, drift, and other debris from the slots.

The Contractor shall inspect for any drain-related pipe malfunction by injecting sufficient water into the drain to verify adequate pipe drainage during the drain cleaning operation. All non-functioning drainage pipes detected during the drain cleaning operation above shall be cleaned at the same time as drain cleaning using Item Nos. 611-07.13 and 611-07.14. Pipe cleaning shall be limited to only the pipes connected to each drain's drainage system. The Contractor shall provide appropriate equipment that will cause no damage to the pipe while clearing/snaking the pipe. Should the Contractor be unable to correct the drainage pipe problem, he will be paid for the portion of pipe cleaned.

Drain Cleaning work will be performed as a mobile operation under Item Nos. 611-07.10, 611-07.11 and 611-07.12. Each drain shall be cleaned within a fifteen (15) minute timeframe from arrival to departure of the designated drain. The Contractor shall attempt to clean all drains designated in this contract under the mobile operation. If a drain cannot be cleaned within the fifteen (15) minute timeframe, the Contractor and inspector shall document the location and move on to the next drain location along the route.

Should the drain or drainage pipe require more than fifteen (15) minutes to clean, a heavy drain cleaning may be required as determined by the Engineer. The Contractor shall return at a later date, as defined by the Engineer, to perform a heavy drain cleaning under Item No. 611-07.20 and will include all drain types listed in this contract. Heavy drain cleaning shall be performed as

a static operation using a lane closure and will follow all drain cleaning operations as described above until adequate drainage has been verified by the Engineer. Any non-functioning pipes associated with heavy drain cleaning will be cleaned using Item Nos. 611-07.13 and 611-07.14 under the same lane closure.

Individual locations with multiple adjacent drains shall be treated as one location regarding the fifteen (15) minute mobile operation requirement. Should these locations require more than fifteen (15) minutes to clean, a heavy drain cleaning shall be performed.

Drain and pipe cleaning shall be performed in continuous segments for each direction of a route until the route is completed or as directed by the Engineer.

Additional Cleaning & Responsibilities. When cleaning drains over parking lots, public use areas, pedestrian use areas, or other areas where debris may be deposited, additional work may be required to remove all debris deposited in such areas as directed by the Engineer. No additional payment will be made for this work. Public and/or privately owned property disturbed or damaged as a result of this work is the liability of the Contractor.

An emergency cleaning may also be required if conditions arise that present unsafe conditions to the motoring public. The drain and pipe cleaning performed will be paid at a rate equal to 1.5 times the unit bid price for Item Nos. 611-07.20, 611-07.13, and 611-07.14. and may require a lane closure. The Contractor will have five (5) calendar days to begin emergency work upon being notified.

Drain summaries are provided below to assist the Contractor in gauging the level of work effort.

Table 10 Drain Locations

REGION 3 SOUTH				
COUNTY	**ROUTE**	**FROM**	**TO**	**Drains**
Rutherford	I-24	M.M. 63.14	M.M. 82.10	838
Williamson	I-65	M.M. 52.88	M.M. 74.39	1,235
Williamson	I-840	M.M. 6.23	M.M. 45.08	319
			Total Drains	**2,392**

30.3 Payment

Routine annual drain cleaning shall be included in the Contractor's total price for Routine Maintenance Services. The Contractor shall be responsible for all costs or charges incurred in the operation and maintenance of the equipment during the term of the contract including, but not limited to; fuel, oil, equipment repairs, communication equipment, overhead, mobilization, traffic control and administrative fees, etc.

The Contractor shall include pricing for the annual cycles within their monthly unit price for 'Routine Maintenance Services'.

31 Pavement

31.1 Routine Maintenance Services (Temporary Pavement Repairs, Asphaltic or Portland Cement Concrete)

Paved lanes and paved shoulder services shall require the contractor to perform maintenance that is a result of aging and expected routine wear of asset items, i.e., temporary and emergency pothole patching. Temporary and Emergency repairs shall be performed within the travel way, rumble strip, and paved shoulder. **Temporary and Emergency repairs shall be in accordance with maintenance best practices which includes removal of all loose debris, water and foreign material and placement of compacted material that is smooth and even with adjacent surface.**

The use of high endurance **cold-mix patching** material shall in all cases be considered to be temporary patching. 'Temporary Pavement Repairs' are to be considered part of the Routine Maintenance Services and inclusive within the monthly unit price for 'Routine Maintenance Services'.

An intermediate contract time of 2 days from notification or discovery will apply to the temporary repair of all pavement failures. If the Contractor fails to repair such failures within 2 days, liquidated damages in the amount of $500 per day, or portion thereof, will be deducted from the monies due to the Contractor. Emergency call outs shall be completed prior to end of shift for the day. Emergency shall be defined by damaged vehicles, HELP request, or THP call.

31.1.1 Permanent Asphalt Pavement Repairs

A permanent patch as noted below must be performed within sixty (60) Days (or as soon a hot-mix material is available in cold weather months). Paved lanes and paved shoulder repair services shall require the Contractor to address permanent pavement repairs with the use of asphaltic hot-in-place or Portland cement concrete as appropriate. All permanent patching shall be in warranty by the Contractor for a period of one year after work completion. Any patch that fails to remain stable and in-place shall be replaced/repaired within 2 days of notification or observation. In the event the Contractor fails to repair/replace such failures within 2 days, liquidated damages in the amount of $500 per day, or portion thereof, will be deducted from the monies due to the Contractor. No additional payment shall be provided to the Contractor for replacing failed permanent patching during the warranty period.

Tier 1 Permanent Pavement Repairs (as described below) are included in the scope for 'Routine Maintenance Services', and no additional payment will be provided for Tier 1 routine pavement repairs.

Tiers 2 and 3 are NOT in scope of 'Routine Maintenance Services' and shall be a separate unit price bid item as described below.

The Contractor will be required to assess the condition of all paved areas and submit to the Department a monthly condition assessment report with recommendations for permanent pavement repairs including locations and quantity estimates separated in the appropriate Tier format outlined below for Departmental review and potential approval. The Department will

review and consider each location request and cost estimates before the Contractor may initiate the permanent repairs. The Department reserves the right to reject all pricing for Tier 2 and 3 Permanent Pavement Repairs and award the work to others.

31.1.1.1 Payment

This contract contains tier items for which the price may vary depending on the quantity utilized at each project site. Payment will be made on a per ton basis in place and accepted for a Tier 2, or Tier 3 project location. The description of the tier items are as follows:

Tier 1 A **project** location requiring:

Manual or Mechanical patching with hot mix asphalt from less than **4 Tons** of cumulative patching item

Tier 2 A **project** location requiring:

4 Tons to less than **30 Tons** of cumulative asphalt patching item

Tier 3 A **project** location requiring:

30 to **300 Tons** of cumulative asphalt patching item

Payment for items in Tier 2 and 3 will be made under the appropriate line item for the applicable asphalt tonnage placed and accepted inclusive of replacing pavement markings. All Tier 1 patching is to be inclusive with the Contractor's unit price for Routine Maintenance Services. No separate payment will be issued for Tier 1 patching. The Engineer shall make the final tier determination on each project. Payment will be made based on the bid prices for tier materials or items used at each separate site.

A **project location** is defined as the area bounded by the traffic control setup. If the Contractor **remobilizes**, by loading traffic control equipment or other equipment on transporters to be carried to another separate location, it will constitute a different project location. The TDOT Engineer will have final authority of acceptance on each project location and final approval of all quantities and work.

Payments made under these items will be full compensation for all material and work listed in the tier schedule.

Payment will be made under:

Pay Item	Pay Unit
Permanent Pavement Repairs – (Tier 2)	Ton
Permanent Pavement Repairs – (Tier 3)	Ton

31.1.2 Portland Cement Concrete Patching

The work covered by this provision consists of the partial and full depth patching of spalls in existing Portland cement concrete pavement by sawing and removing the broken, damaged or disintegrated concrete pavement from the spalled areas of the pavement surface and patching the areas with approved patching materials at locations approved by and as directed by the Engineer in accordance with this provision. All Portland cement concrete patching shall be in warranty by the Contractor for a period of one year after work completion. Any patch that fails to remain stable and in-place shall be replaced/repaired within 2 days of notification or observation. In the event the Contractor fails to repair/replace such failures within 2 days, liquidated damages in the amount of $500 per day, or portion thereof, will be deducted from the monies due to the Contractor. No additional payment shall be provided to the Contractor for replacing failed Portland cement patching during the warranty period.

Tier 1 Patching Concrete Pavement (as described below) is included in the scope for 'Routine Maintenance Services', and no additional payment will be provided for Tier 1 repairs.

Alternate methods and materials for patching concrete spalls may be submitted by the Contractor for approval by the Engineer.

The Contractor will be required to assess the condition of the concrete pavement and submit to the Department a monthly condition assessment report with recommendations for permanent concrete pavement repairs including locations and quantity estimates for Departmental review and potential approval. The Department will review and consider each location request and cost estimates before the Contractor may initiate the permanent repairs.

Materials:

The pavement shall not be opened to traffic until concrete is appropriately cured, per the manufacturer's recommendation.

The Contractor shall submit to the Engineer the proposed method and material to be used in performing the repair for approval. Material shall be listed as approved material from the TDOT

Approved Products List. The Contractor may submit additional equal materials subject for further evaluation and approval of the Engineer.

The material shall be mixed and installed, handled and stored, and cured in accordance with the manufacturer's instructions.

Construction Methods:

When the Contractor is working under a lane closure, concrete patching operations shall be conducted in one lane at a time.

The surface within the repair areas shall be cleaned so as to be free of oil, dust, dirt, deteriorated concrete and other contaminates immediately before placement of the patching material.

Like kind material shall be used on all concrete patching unless otherwise approved by the Engineer.

Tier 1 A **project** location requiring:

Patching Concrete Pavement from less than 210 SF of cumulative patching area.

Tier 2 A **project** location requiring:

Patching Concrete Pavement greater than 210 SF of cumulative patching area.

Payment for items in Tier 2 will be made under the appropriate line item for the applicable square footage in place and accepted inclusive of replacing pavement markings.

All Tier 1 patching concrete pavement is to be included in the Contractor's unit price for Routine Maintenance Services. No separate payment will be issued for Tier 1 patching concrete pavement. The Engineer shall make the final tier determination on each project. Payment will be made based on the bid prices for tier materials or items used at each separate site.

A **project location** is defined as the area bounded by the traffic control setup. If the Contractor **remobilizes**, i.e., loads traffic control equipment or other equipment on transporters to be carried to another separate location, it will constitute a different project location. The TDOT Engineer will have final authority of acceptance on each project location and final approval of all work.

31.1.2.1 Payment

Tier 2 Patching Concrete pavement will be paid for as the actual number of square feet of existing concrete which has been patched and accepted. The actual length and width of each completed patch will be measured along the surface of the patch.

Payments will be full compensation for all work covered by this provision for furnishing all labor, materials, tools, equipment and incidentals for doing all work including traffic control involved in sawing concrete pavement, removing deteriorated concrete, cleaning surfaces, epoxying, furnishing, placing, finishing, and curing concrete patch.

Payment will be made under:

Pay Item	Pay Unit
Tier 2 Patching Concrete Pavement	Square Foot

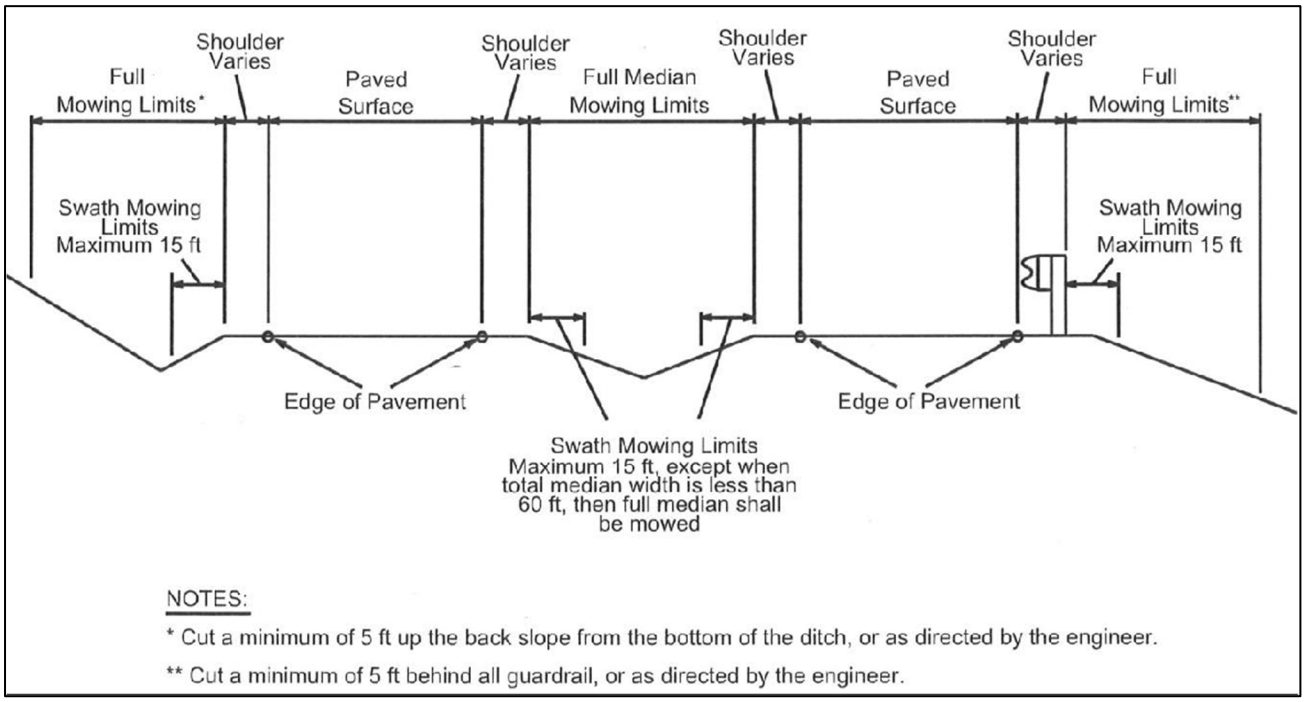
32 Mowing & Litter

32.1 Mowing

This work shall consist of mowing vegetation and litter/debris removal within the TDOT project Right-of Way and include all ramps, medians, and gore areas on routes as specified herein and additional mowing paid for using item 806-01. Mowing shall be performed in accordance with the current TDOT mowing practices and is to be included in the Contractor's monthly unit price for 'Routine Maintenance Services'. Vegetation shall be mowed in such a way as to exhibit a uniform appearance and height, without skips or uncut areas. The Contractor shall be expected to give special attention to mowing gore areas, infield areas, medians, curves and intersections in a manner to assure safe sight distance. The Contractors is to include all efforts and equipment resources necessary for the specific area, turf or terrain.

The Contractor is expected to mow four (4) swath and one (1) full mowing limit cycles each season. All interchanges are mowed with each cycle whether Full or Swath mowing.

Figure 41: Full Mowing Limits



1) TDOT shall provide at least a 10-day notice to the Contractor of the authorized mowing cycle start date. Mowing cycle shall be completed, weather permitting, within 20 working days of beginning the cycle. If the Contractor's work does not meet the completion target, the Contractor shall promptly take, and cause his Subcontractors to take, such action as is necessary to remedy the delay, and shall submit promptly to the Department for approval a supplementary schedule or corrective action plan demonstrating the manner in which the delay will be remedied. Any increase in cost incurred in remedying a delay which is not excusable under the contract shall be borne

by the Contractor. If the Contractor fails to remedy the delay within 2 days, liquidated damages in the amount of $500 per day, or portion thereof, will be deducted from the monies due to the Contractor. Certification of each mowing cycle completion shall be submitted with each monthly invoice.

2) Safety: Mowing operations shall ensure sight distance requirements (safety) are maintained at all times and shall supersede any standard mowing practice. Sight distance guidelines are provided.

3) Lowest Cut Limit: Vegetation shall be cut to a height between four (4) and six (6) inches. Mowing to a cut less than four (4) inches is prohibited. Such mowing, including scalping may damage or kill the desirable turf species. Areas denuded, reduced in vegetation density or scalped due to improper Contractor mowing practices shall be reseeded at the Contractor's expense, in accordance with the current Road and Bridge Specifications.

4) Maintain roadway mowing 5' behind guardrail and between guardrail in the median where double runs on rail or cable rail exist, unless otherwise specified by landscaping areas.

5) Mowing shall be in accordance with the TDOT approved mowing patterns and must not exceed the mowing limits. The Contractor shall review and confirm clarity to the TDOT (in writing) for strict adherence to the approved mowing pattern prior to each mowing season.

6) Where landscaping has been established, mowing shall conform to the established contours with smooth flowing transitions.

7) Roadside trimming shall occur around all traffic appurtenances including, but not limited to guardrail, signposts, light standards and ITS devices. Vertical trimming shall be pre-approved by the Engineer and shall result in a neat appearance.

8) Non-Mowable Slope: Any slope steeper than or equal to 3:1, or other slopes with fragile or damaged soils or inadequate vegetative cover, as identified by the Engineer shall not be traversed by the tractor.

9) All litter and debris removal shall occur in advance of each mowing cycle with all litter and debris disposed of properly. Collected litter shall be disposed of in an approved land fill at the end of each day by the Contractor at the Contractor's expense.

Table 12: Required Mowing Frequency Tables (To be included in routine maintenance services unit pricing per month).

REGION 3 SOUTH									
ROUTE NO.	**COUNTY**	**TERMINI**	**BEGIN MM**	**END MM**	**LENGTH (MILES)**	**AREA (Acres)**	**NO. OF CYCLES**	**TOTAL (ACRES)**	**SWATH / FULL**
I-24	RUTHERFORD	DAVIDSON CL TO MM 81.7 (INCLUDES I-840 INTERCHANGES)	63.14	81.7	18.56	151.02	4	604.08	SWATH
I-24	RUTHERFORD	DAVIDSON CL TO MM 81.7 (INCLUDES I-840 INTERCHANGES)	63.14	81.7	18.56	225.31	1	225.31	FULL
I-24	RUTHERFORD	MM 81.7 TO BEDFORD CL	81.7	96.39	14.69	504.49	5	2522.45	FULL
I-24	BEDFORD	RUTHERFORD CL TO COFFEE CL	96.39	96.82	0.43	3.27	4	13.08	SWATH
I-24	BEDFORD	RUTHERFORD CL TO COFFEE CL	96.39	96.82	0.43	13.70	1	13.70	FULL
I-40	HUMPHREYS	BENTON CL TO HICKMAN CL (INCLUDES FULL WIDTH OF MEDIAN)	134.93	148.07	13.14	119.45	4	477.80	SWATH
I-40	HUMPHREYS	BENTON CL TO HICKMAN CL	134.93	148.07	13.14	127.26	1	127.26	FULL
I-40	HICKMAN	HUMPHREYS CL TO HUMPHREYS CL	148.07	159.44	11.37	82.69	4	330.76	SWATH
I-40	HICKMAN	HUMPHREYS CL TO HUMPHREYS CL	148.07	159.44	11.37	112.87	1	112.87	FULL
I-40	HUMPHREYS	HICKMAN CL TO HICKMAN CL	159.44	159.65	0.21	1.53	4	6.12	SWATH
I-40	HUMPHREYS	HICKMAN CL TO HICKMAN CL	159.44	159.65	0.21	3.30	1	3.30	FULL
I-40	HICKMAN	HUMPHREYS CL TO HUMPHREYS CL	159.65	160	0.35	2.54	4	10.16	SWATH
I-40	HICKMAN	HUMPHREYS CL TO HUMPHREYS CL	159.65	160	0.35	3.63	1	3.63	FULL
I-40	HUMPHREYS	HICKMAN CL TO HICKMAN CL	160	160.59	0.59	4.29	4	17.16	SWATH
I-40	HUMPHREYS	HICKMAN CL TO HICKMAN CL	160	160.59	0.59	7.65	1	7.65	FULL
I-40	HICKMAN	DICKSON CL TO HUMPHREYS CL	160.59	163.33	2.74	18.36	4	73.44	SWATH
I-40	HICKMAN	DICKSON CL TO HUMPHREYS CL	160.59	163.33	2.74	22.21	1	22.21	FULL

I-40	DICKSON	HICKMAN CL TO WILLIAMSON CL (INCLUDES I-840 INTERCHANGE)	163.33	181.19	17.86	156.35	4	625.40	SWATH
I-40	DICKSON	HICKMAN CL TO WILLIAMSON CL (INCLUDES I-840 INTERCHANGE)	163.33	181.19	17.86	198.44	1	198.44	FULL
I-40	WILLIAMSON	DICKSON CL TO CHEATHAM CL	181.19	184.31	3.12	9.36	4	37.44	SWATH
I-40	WILLIAMSON	DICKSON CL TO CHEATHAM CL	181.19	184.31	3.12	15.00	1	15.00	FULL
I-40	CHEATHAM	WILLIAMSON CL TO DAVIDSON CL	184.31	191.6	7.29	43.26	4	173.04	SWATH
I-40	CHEATHAM	WILLIAMSON CL TO DAVIDSON CL	184.31	191.6	7.29	55.51	1	55.51	FULL
I-40	WILSON	DAVIDSON CL TO SMITH CL	222.67	249.92	27.25	213.25	4	853.00	SWATH
I-40	WILSON	DAVIDSON CL TO SMITH CL	222.67	249.92	27.25	306.90	1	306.90	FULL
I-40	SMITH	WILSON CL TO PUTNAM CL	249.92	267.13	17.21	122.60	4	490.40	SWATH
I-40	SMITH	WILSON CL TO PUTNAM CL	249.92	267.13	17.21	143.95	1	143.95	FULL
I-65	GILES	ALABAMA SL TO MARSHALL CL	0	22.42	22.42	271.95	4	1087.80	SWATH
I-65	GILES	ALABAMA SL TO MARSHALL CL	0	22.42	22.42	362.60	1	362.60	FULL
I-65	MARSHALL	GILES CL TO MAURY CL	22.42	35.21	12.79	145.88	4	583.52	SWATH
I-65	MARSHALL	GILES CL TO MAURY CL	22.42	35.21	12.79	194.50	1	194.50	FULL
I-65	MAURY	MARSHALL CL TO WILLIAMSON CL	35.21	52.88	17.67	207.68	4	830.72	SWATH
I-65	MAURY	MARSHALL CL TO WILLIAMSON CL	35.21	52.88	17.67	276.90	1	276.90	FULL
I-65	WILLIAMSON	MAURY CL TO DAVIDSON CL (INCLUDES I-840 INTERCHANGE)	52.88	74.39	21.51	306.90	5	1534.50	FULL
I-840	DICKSON	I-40 TO HICKMAN CL (INCLUDES FULL WIDTH OF MEDIAN) (I-40 INTERCHANGE NOT INCLUDED)	0	4.86	4.86	43.77	4	175.08	SWATH
I-840	DICKSON	I-40 TO HICKMAN CL (I-40 INTERCHANGE NOT INCLUDED)	0	4.86	4.86	97.71	1	97.71	FULL
I-840	HICKMAN	DICKSON CL TO WILLIAMSON CL (INCLUDES FULL WIDTH OF MEDIAN)	4.86	6.23	1.37	12.30	4	49.20	SWATH
I-840	HICKMAN	DICKSON CL TO WILLIAMSON CL (INCLUDES FULL WIDTH OF MEDIAN)	4.86	6.23	1.37	29.04	1	29.04	FULL

I-840	WILLIAMSON	HICKMAN CL TO RUTHERFORD CL (I-65 INTERCHANGE NOT INCLUDED)	6.23	45.08	38.85	870.96	4	3483.84	SWATH
I-840	WILLIAMSON	HICKMAN CL TO RUTHERFORD CL (I-65 INTERCHANGE NOT INCLUDED)	6.23	45.08	38.85	1068.53	1	1068.53	FULL
I-840	RUTHERFORD	WILLIAMSON CL TO I-24 (INCLUDES FULL WIDTH OF MEDIAN) (I-24 INTERCHANGE NOT INCLUDED)	45.08	52.4	7.32	139.43	4	557.72	SWATH
I-840	RUTHERFORD	WILLIAMSON CL TO I-24 (I-24 INTERCHANGE NOT INCLUDED)	45.08	52.4	7.32	175.93	1	175.93	FULL
I-840	RUTHERFORD	I-24 TO WILSON CL (INCLUDES FULL WIDTH OF MEDIAN) (INCLUDES I-24 INTERCHANGE)	52.4	65.56	13.16	299.41	4	1197.64	SWATH
I-840	RUTHERFORD	I-24 TO WILSON CL (INCLUDES I-24 INTERCHANGE)	52.4	65.56	13.16	341.12	1	341.12	FULL
I-840	WILSON	RUTHERFORD CL TO I-40 (INCLUDES FULL WIDTH OF MEDIAN)	65.56	76.51	10.95	224.65	4	898.60	SWATH
I-840	WILSON	RUTHERFORD CL TO I-40	65.56	76.51	10.95	297.10	1	297.10	FULL

Total Swath	**12,576.00**
Total Full Mow	**7,937.67**
Total Acres	**20,513.67**

General Mowing Standards:

All mowing operations shall be performed in accordance with the patterns for Full Mowing and Swath Mowing limits as referenced in Figure 41 typical section and in accordance with all supplements and references contained within.

TRACTORS: The use of a tractor for mowing shall mean the cutting of those areas accessible to tractors and where ground topography allows a tractor to safely traverse. The tractor mowers shall mow only in the direction of traffic. Tractors shall also be grouped together in a gang type mowing operation where it is possible, and vegetation shall be mowed in such a way to exhibit a uniform appearance without skips or areas where tires have rolled vegetation down leaving it uncut. Uncut areas or skips which are required to be mowed shall be corrected in a self-policing manner by the Contractor at all times. In addition, such corrections shall be made by the Contractor within no less than 24 hours of discovery or notification by the Department. Care shall be taken **not** to mow any no-mow turf species, wildflower plantings, planted trees and shrubs. The Contractor shall be responsible for replacing in kind any such plants damaged by the Contractor at the Contractor's expense. Such plantings by the Contractor shall be done in accordance with TDOT planting requirements as provided and approved by the Engineer. The Contractor is also responsible for the damage to state property and the replacement of traffic signs, delineator posts, utility boxes, guardrail, etc., if any such assets or property are damaged as a result of the Contractor's mowing operations. The Contractor shall repair damaged property at the Contractor's expense.

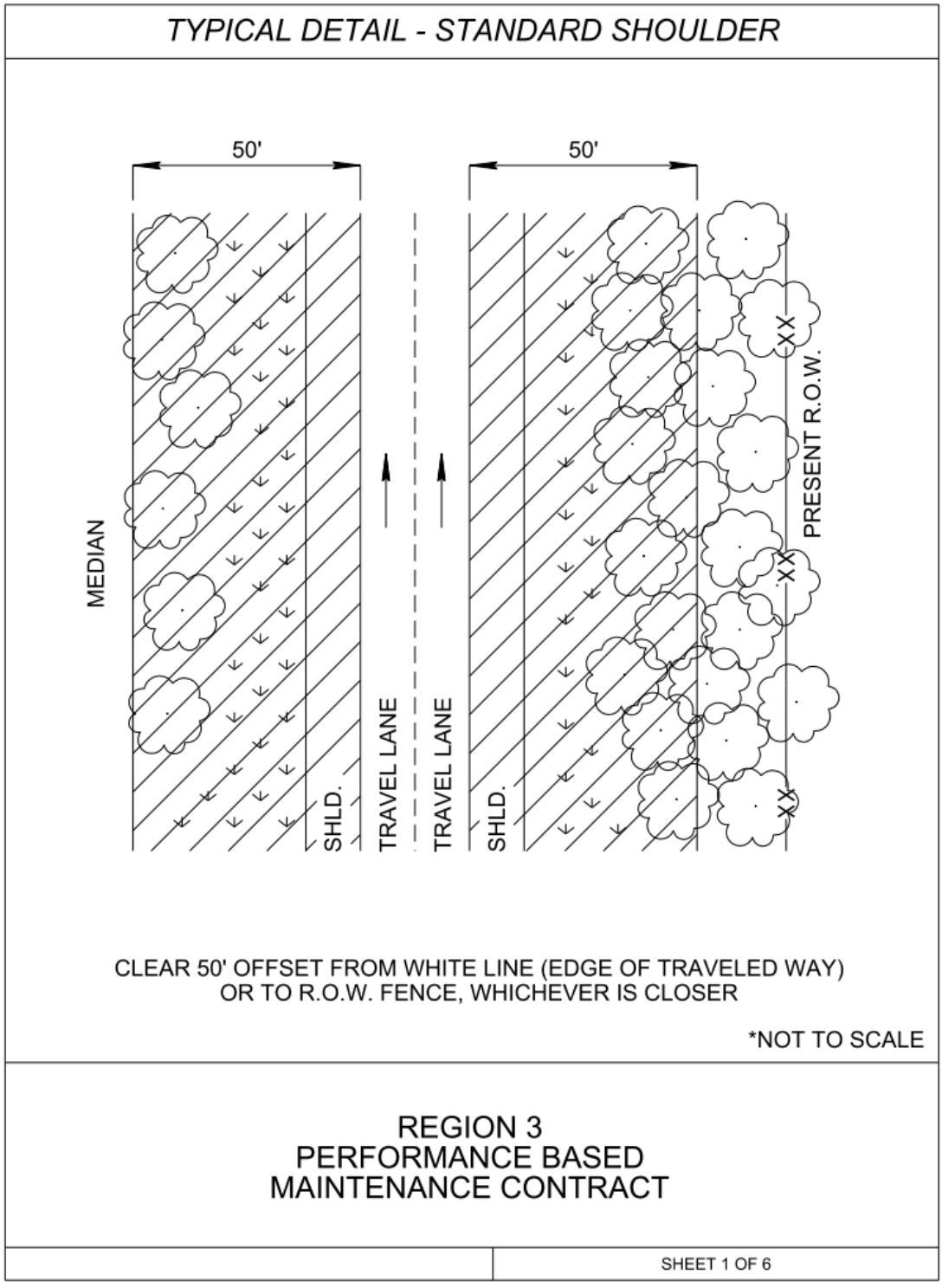
1. BLADES/CUTTING EDGES: All blades on mowing equipment shall be sharp to provide a clean cut. Rough cuts due to dull blades may result in poorly groomed turf. The Contractor, at the Contractor's own expense, shall re-mow those areas that do not leave a uniform appearance.
2. NON-TRACTOR: The use of non-tractor type equipment for mowing shall mean the cutting of those areas that cannot be mowed or trimmed by tractor due to inaccessibility or where the terrain topography is too dangerous (as determined by the Department) to be traversed by tractor mowers. Non-tractor mowing shall be performed in those areas where access of equipment is limited and boom axes and/or handheld tools (such as "grass trimmers", push mowers, etc.) are required to present a neatly trimmed and uniform appearance. These areas include, but are not limited to, the trimming of narrow or raised medians, all bridge structures, delineators, signs, guardrails, cracks in pavement behind guardrail and other obstructions. Non-tractor mowing shall be performed no later than two (2) days after the area has been tractor-mowed.

The Contractor's personnel shall remove vegetation debris from the travel roadways, gutter, and drainage structures after each mowing, and non-tractor mowing operation.

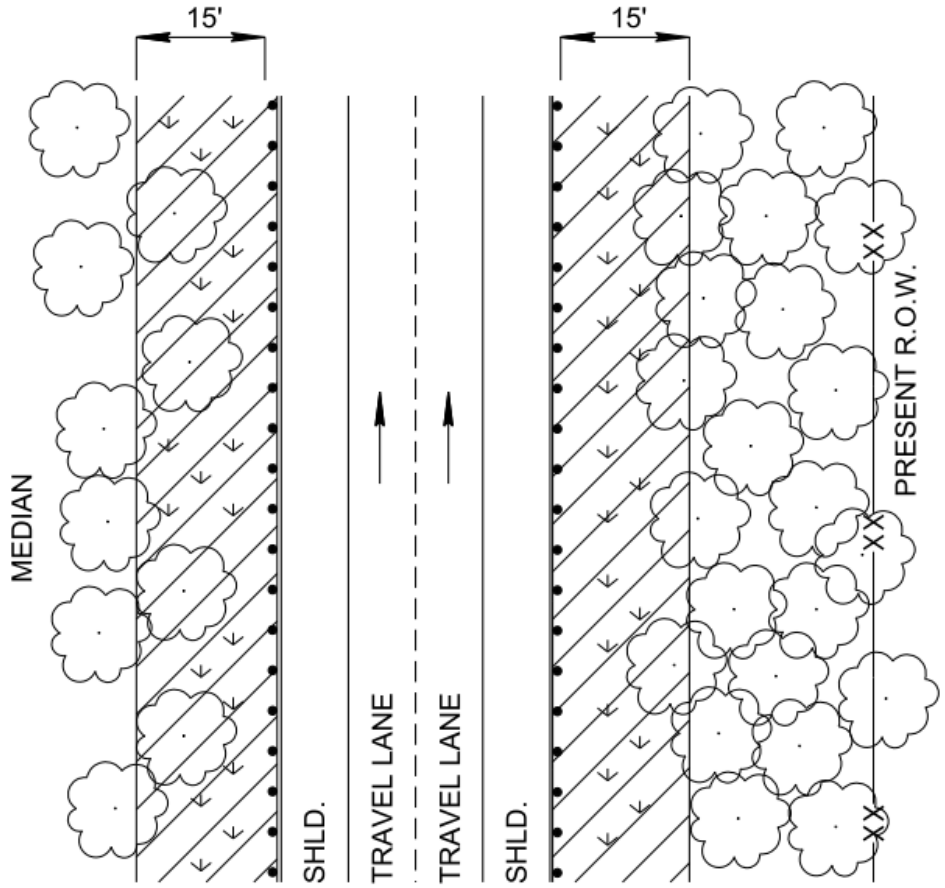
The Contractor shall mow all areas to, from and around any utility meters or other electronic components for easy accessibility.

1. **Woody Vegetation**: The Contractor shall maintain the heavy woody vegetation (tree and brush) cutting pattern limits presently established on the right-of-way by the Department. At a frequency of no less than annually, the Contractor shall keep heavy vegetation from repopulating by either chemical application or heavy machine mowing methods in these areas, including but not limited to along the right-of-way fence, drainage ditches, and front and back slopes. Also note 'Typical Detail' provided in this section.
2. Traffic Control Requirements for Mowing
    a. 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) as identified in the Rules of Tennessee Department of Transportation Chapter 1680-03-01, 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.
    b. 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. If for any reason any equipment should be in the travel lane, a shadow vehicle with crash attenuator shall be used.
    c. Operations may be restricted when, in the opinion of the Engineer, the continuance of the work would seriously hinder traffic or is unsafe.
    d. Move equipment or materials on or across the traveled way in a safe manner which will not unduly interfere with traffic. There shall be no reduction in the total number of available traveled ways. Schedule and arrange the work to ensure the least inconvenience and the utmost safety to the traveling public and to the Contractor's and Department's forces.

Figure 5: Woody Vegetation Detail's



TYPICAL DETAIL - BEHIND GUARDRAIL

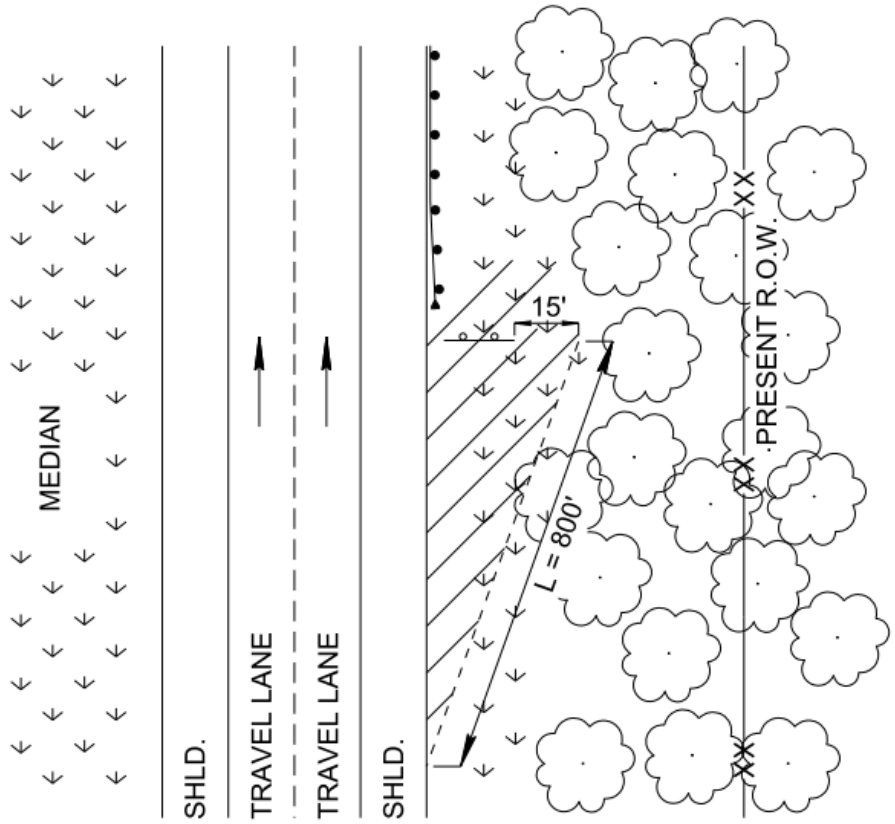


CLEAR 15' BEHIND GUARDRAIL
OR TO R.O.W. FENCE, WHICHEVER IS CLOSER

*NOT TO SCALE

REGION 3
PERFORMANCE BASED
MAINTENANCE CONTRACT

TYPICAL DETAIL - SIGNAGE

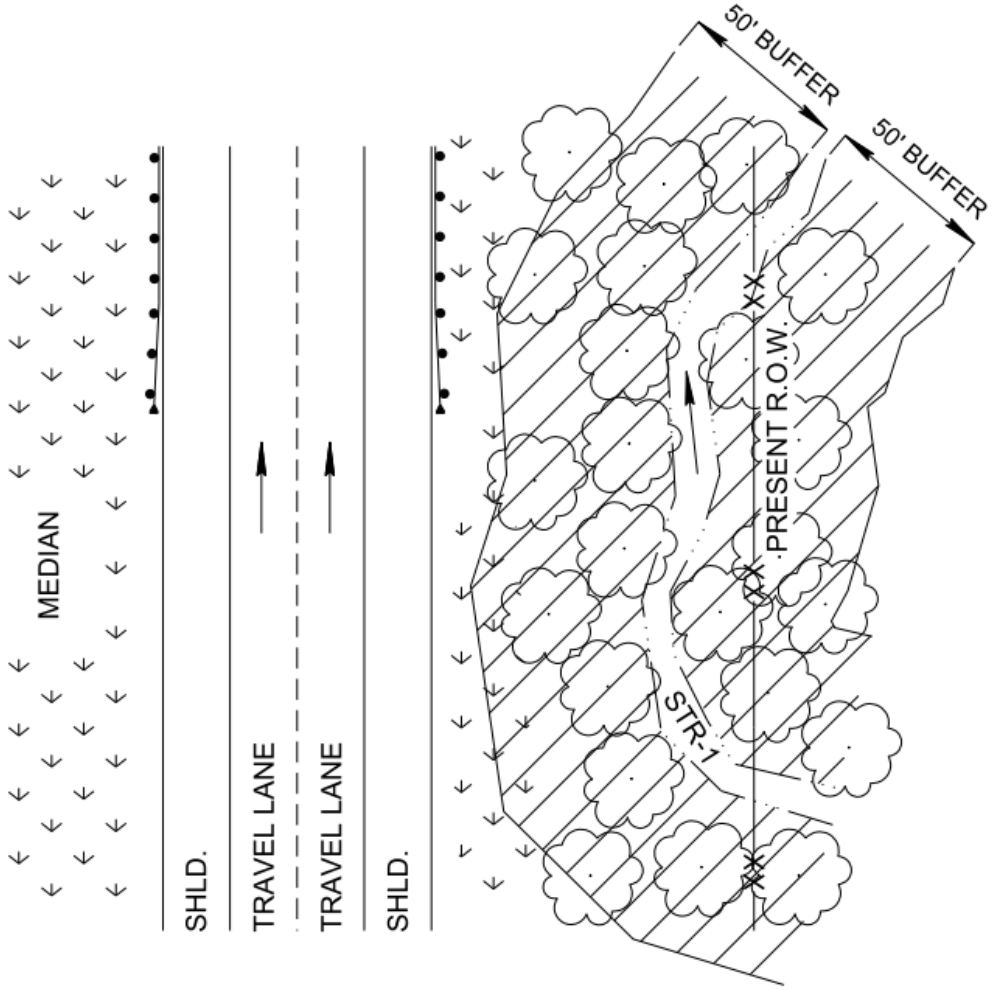


VEGETATION SHOULD BE REMOVED TO PROVIDE A CLEAR LINE OF SIGHT TO ROADWAY SIGNS. VEGETATION OVERHANGING SIGNAGE SHOULD ALSO BE CLEARED. THE REQUIRED DISTANCE FOR THE MINIMUM SIGHT LINE (L) IS BASED ON THE MOTORIST'S ABILITY TO PROCESS A SIGN'S MESSAGE AND MAKE AND APPROPRIATE DECISION.

*NOT TO SCALE

REGION 3
PERFORMANCE BASED
MAINTENANCE CONTRACT

TYPICAL DETAIL - STREAM BUFFER (PARALLEL)



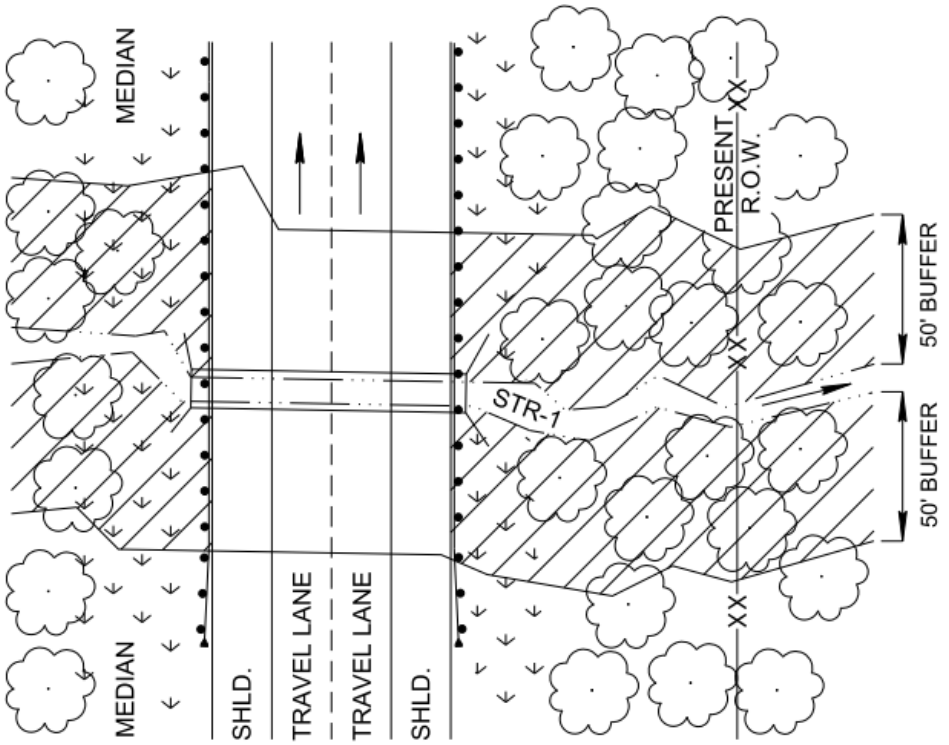
NO VEGETATION SHALL BE CLEARED WITHIN
THE 50' STREAM BUFFER

*NOT TO SCALE

REGION 3
PERFORMANCE BASED
MAINTENANCE CONTRACT

SHEET 4 OF 6

TYPICAL DETAIL - STREAM BUFFER (PERPENDICULAR)

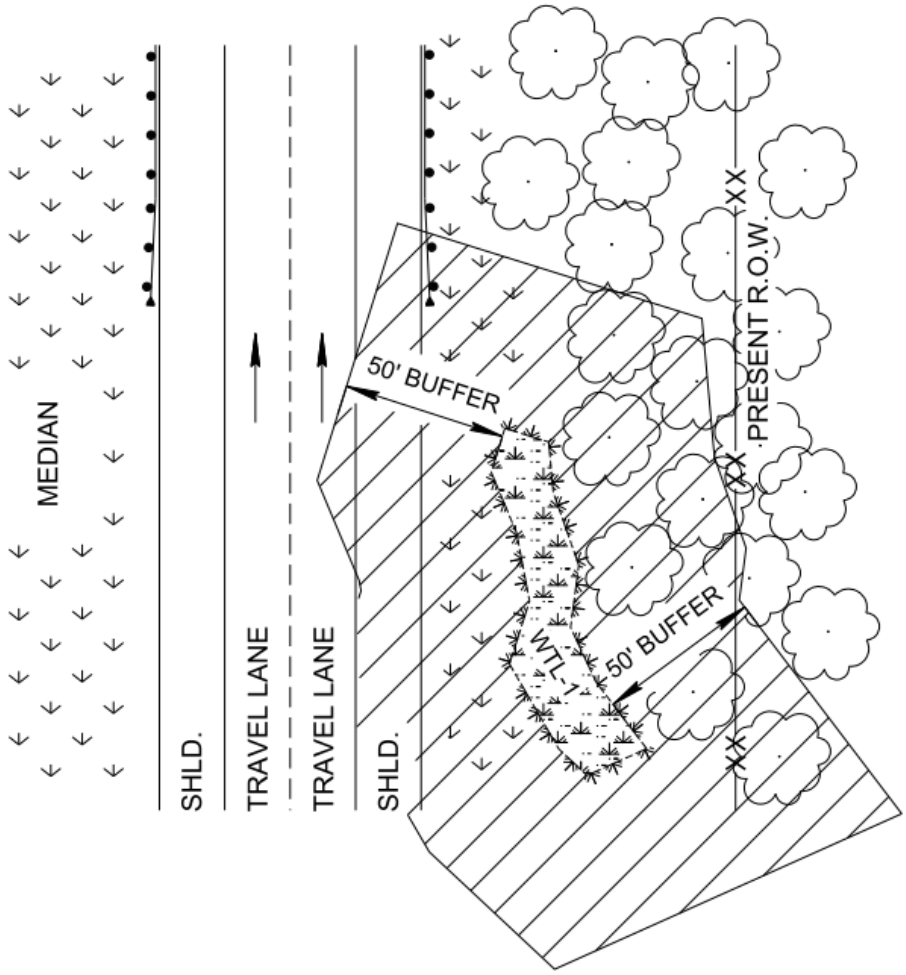


NO VEGETATION SHALL BE CLEARED WITHIN
THE 50' STREAM BUFFER

*NOT TO SCALE

REGION 3
PERFORMANCE BASED
MAINTENANCE CONTRACT

TYPICAL DETAIL - WETLAND BUFFER



NO VEGETATION SHALL BE
CLEARED WITHIN
THE 50' WETLAND BUFFER

*NOT TO SCALE

REGION 3
PERFORMANCE BASED
MAINTENANCE CONTRACT

SHEET 6 OF 6

32.2 Litter / Debris Removal

Litter – Litter includes all types of paper and plastic products, small metal containers, small debris blown from vehicles, etc.

Debris – Any items such as tires, tire carcasses, bags of garbage, treads, sticks, lumber, boxes-plastic-cardboard-or other material of construction, sand, gravel, etc., and similar solid foreign materials that are of any size that may cause a motorist to swerve or may cause damage when hit or thrown by a vehicle as a projectile.

Litter Removal – Removal of litter from roadway and roadside areas is performed for aesthetic and safety reasons. It is desired to present a pleasing appearance to the motoring and pedestrian traffic, but it is more important to provide safety.

A shadow vehicle or mobile operation traffic control is required when litter and vegetation removal occur adjacent to median barrier wall and median guardrail in locations with paved shoulders that are less than ten (10) feet in width. More extensive traffic control may be required as directed by the Engineer.

Litter and debris may consist of paper, boxes, bottles, cans, tires, recaps, rubber pieces, mattresses, appliances, lumber, metal pieces, hubcaps, vehicle parts, brush, trimmed vegetation on paved surfaces, dead animals, memorials, and other items not considered normal to the right-of-way, etc. It is not intended for small objects such as cigarette butts, chewing gum wrappers and similar sized items to be removed under this work.

32.3 Litter Removal

Litter removal cycles total (including mowing cycles) shall be performed within the limits of the highway right-of-way from fence to fence. Certification of litter cycle completion shall be submitted with each monthly invoice. Liquidated damages in the amount of **$500 per day** shall be assessed for failure to complete and certify each litter cycle with the monthly invoice.

Litter removal shall occur in advance of all mowing operations. Litter Removal shall be a component of each mowing cycle. The Contractor shall provide equipment and personnel to collect, remove and dispose of any and all litter from the mowing area PRIOR to any mowing. The Contractor's personnel shall also pick up and dispose of any litter that is discovered during or after mowing operations and shall take all actions necessary to prevent damage to mowing equipment or the traveling public during mowing operations.

The number of total litter cycles is not solely dependent on the number of mowing cycles. Litter removal is to occur in accordance with the litter cycle schedule Table 10.

It is expected that all litter and debris activity will be accomplished by manual means; however, these Specifications are not intended to be restrictive or limit other techniques that achieve the specified and desired quality.

1. A written request may be submitted to the Engineer for the use of specialized mechanical equipment designed for removal of litter and debris. The Engineer, prior to any equipment being used, must approve the request. The Engineer may require additional safety devices or precautions if special equipment is allowed to be used. ATV's (all-terrain vehicles) may be used during litter pickups, as long as rutting or damage to the soil or vegetative cover does not occur. All rules, regulations, and safety guidelines must be strictly followed when using ATVs (all-terrain vehicles) to include but not limited to the following:
    a. Only Class I and Class II all-terrain vehicles will be allowed for use under this contract.
    b. ATV's must have strobe lights mounted so they are visible from all sides. ATVs shall not use the travel lane, all operations shall remain on grassed shoulders, away from the traveled way.
2. Do not cross the median on Interstates or other divided highways. Enter and exit at the existing interchanges. Crossing highway traffic away from existing interchanges or intersections or crossing the median with all-terrain vehicles will be considered an immediate default to the contract.
3. All litter and debris must be deposited into trash bags prior to being placed into disposal vehicles. The color of the bag will be designated by the Engineer. Larger pieces such as ladders, tires, mattresses, etc., may be directly deposited into disposal vehicles.
4. Conduct litter removal activities during daylight hours only.
5. All litter, as collected, shall be containerized and kept, at all times, off the traveled portions, shoulders, and rights-of-way, including emergency lanes. Collected litter shall be disposed of in an approved land fill at the end of each day by the Contractor at the Contractor's expense.

Table 13: Prescribed Litter Cycle Tables

REGION 3 SOUTH							
ROUTE NO.	**COUNTY**	**TERMINI**	**BEGIN MM**	**END MM**	**LENGTH MILES**	**NO. OF CYCLES**	**TOTAL MILES**
I-24	RUTHERFORD	DAVIDSON CL TO BEDFORD CL (INCLUDES I-24/I-840 INTERCHANGE)	63.14	96.39	33.25	12	399.00
I-24	BEDFORD	RUTHERFORD CL TO COFFEE CL	96.39	96.82	0.43	12	5.16
I-40	HUMPHREYS	BENTON CL TO HICKMAN CL	134.93	148.07	13.14	6	78.84
I-40	HICKMAN	HUMPHREYS CL TO HUMPHREYS CL	148.07	159.44	11.37	6	68.22
I-40	HUMPHREYS	HICKMAN CL TO HICKMAN CL	159.44	159.65	0.21	6	1.26
I-40	HICKMAN	DICKSON CL TO HUMPHREYS CL	159.65	160.00	0.35	6	2.10
I-40	HUMPHREYS	HICKMAN CL TO HICKMAN CL	160.00	160.59	0.59	6	3.54
I-40	HICKMAN	HUMPHREYS CL TO HUMPHREYS CL	160.59	163.33	2.74	6	16.44
I-40	DICKSON	HICKMAN CL TO WILLIAMSON CL (INCLUDES I-840 INTERCHANGE)	163.33	181.19	17.86	6	107.16
I-40	WILLIAMSON	CHEATHAM CL TO DICKSON CL	181.19	184.31	3.12	6	18.72
I-40	CHEATHAM	WILLIAMSON CL TO DAVIDSON CL	184.31	191.60	7.29	6	43.74
I-40	WILSON	DAVIDSON CL TO SMITH CL	222.67	249.92	27.25	6	163.50
I-40	SMITH	WILSON CL TO PUTNAM CL	249.92	267.13	17.21	6	103.26
I-65	GILES	ALABAMA SL TO MARSHALL CL	0.00	22.42	22.42	6	134.52
I-65	MARSHALL	GILES CL TO MAURY CL	22.42	35.21	12.79	6	76.74
I-65	MAURY	MARSHALL CL TO WILLIAMSON CL	35.21	52.88	17.67	6	106.02
I-65	WILLIAMSON	MAURY CL TO DAVIDSON CL (INCLUDES I-840 INTERCHANGE)	52.88	74.39	21.51	12	258.12
I-840	DICKSON	I-40 TO HICKMAN CL (INCLUDES FULL WIDTH OF MEDIAN) (I-40 INTERCHANGE NOT INCLUDED)	0.00	4.86	4.86	6	29.16
I-840	HICKMAN	DICKSON CL TO WILLIAMSON CL (INCLUDES FULL WIDTH OF MEDIAN)	4.86	6.23	1.37	6	8.22
I-840	WILLIAMSON	HICKMAN CL TO RUTHERFORD CL (I-65 INTERCHANGE NOT INCLUDED)	6.23	45.08	38.85	6	233.10
I-840	RUTHERFORD	WILLIAMSON CL TO FLORENCE RD OVERPASS	45.08	52.44	7.36	6	44.16
I-840	RUTHERFORD	FLORENCE RD OVERPASS TO WILSON CL (I-24 INTERCHANGE NOT INCLUDED)	52.44	65.56	13.12	12	157.44
I-840	WILSON	RUTHERFORD CL TO I-40	65.56	76.51	10.95	6	65.70

TOTAL MILES 2124.12

32.4 Debris Removal

Debris removal (all paved surfaces and clear recovery areas) patrols shall occur on a twice a day basis Monday through Friday. Hazardous debris to the motorist in the roadway or clear recovery area shall be removed within two hours upon notification or observation.

6. Any dead animals within the RW shall be removed twice daily with debris removal patrol or upon notification.

   Non-official signage is considered debris and shall be removed upon observation.

   Other intermediate removal may occur upon observation and conditional needs as directed by the Engineer.

   Should any additional litter removal be necessary outside of the prescribed cycles as indicated on **Error! Reference source not found.**, additional payment for other 'Additional Litter Cycles' will be paid by the unit bid price of per 'Cycle. No 'Additional Litter Cycles' per cycle will be paid for unless authorized in advance by the Engineer.

7. Spot Litter control will be paid for by the unit bid price of per 'centerline mile'. No 'Spot Litter' will be paid for unless authorized in advance by the Engineer.

32.5 Payment

Routine Mowing and Litter cycles shall be included in the contractor's monthly unit price for 'Routine Maintenance Services'. Any 'Additional mowing cycles' are paid in the month following the cycle for work completed and accepted. The Contractor shall be responsible for all costs or charges incurred in the operation and maintenance of the equipment during the term of the contract including, but not limited to; fuel, oil, equipment repairs, communication equipment, overhead, mobilization, traffic control and administrative fees, etc.

The Contractor shall include pricing for the required base cycles on the monthly unit price for 'Routine Maintenance Services Pricing' schedule.

Additional Unit Price Schedule: The Contractor shall provide unit cycle pricing for each additional cycle on the Additional Maintenance Pricing Schedule.

Pay Units

- Additional Mowing per Cycle
- Additional Litter per Cycle
- Spot Litter per centerline mile
- Spot Mowing per acre

Price must include all material, equipment and labor for repairs and maintenance.

Work will only begin once the notice to proceed is given for additional cycles activity.

Payment shall be full compensation for furnishing all materials, labor, tools, equipment, traffic control, and incidentals necessary for the satisfactory completion of the work performed.

Payments shall be calculated by the Contractor and verified by the Engineer according to the number of units completed.

Litter pick-up and trimming shall be included in Additional Mowing Cycles.

Accompany all invoices for payment of Additional Mowing Cycles with copies of disposal receipts and a litter activity report, approved by the Engineer, capturing litter activities for the same time/work period. No acceptance of litter or mowing activities will be made without an accurate litter activity report approved by the Engineer.

Submit to the Engineer a detailed invoice that reflects the locations and total Units completed for compensation. The submitted invoice shall utilize milepost designations from point to point of all Units completed for the Engineer's verification.

33 Sweeping

33.1 General Scope of Work

The contractor shall be responsible for the Sweeping Operations along the locations identified which shall also include mechanical sweeping on shoulders, medians, ramps, and bridge decks using item number 719-01. Sweeping performance will continue to be assessed by the MQA sweeping criteria. Sweeping operations also include, but are not limited to, all sweeping, dumping, and trash and debris pick-up and removal. Sweeping operations do not include removal of waste in drains, unless debris is deposited by sweeping operations. The contractor shall also be responsible for additional Sweeping services resulting from inclement weather. The contractor shall furnish all labor, materials, tools, equipment, traffic control, water, and incidentals necessary to perform all work requirements in a safe, effective, and timely manner, as necessary to perform the requirements of this contract. Work shall be performed with equipment in good operating condition with properly trained and qualified personnel that are capable of meeting the sweeping operations stringent requirements.

Large Debris Removal will be required in that the mechanical sweeping equipment cannot remove due to the debris size and quantity. This includes hand work by personnel and equipment utilization such as a skid steering bucket loader, shovels, dump truck, etc. necessary to perform large debris removal. Large debris includes, but not limited to, dead animals, loose tire rubber, auto parts, signs, paper, boxes, ladders, appliances, trees and limbs, bedding, etc. Removal of large debris shall be done immediately in front of the mechanical sweeping operation during normal sweeping cycles.

33.2 Requirements

The regular and routine removal, disposal, and reporting work to be performed under these specifications shall include but not limited to:

Perform sweeping operations along all outside and median paved shoulders for full length and width of the shoulder in addition to along all concrete median-barrier walls and median concrete shelves for the full length of the wall. Multiple passes may be required depending on width.

At all paved gore areas where interchange ramps converge and diverge from the through traffic lanes shall be swept for the full width of the gore.

Sweep shoulders of all overpass bridge decks at ramped interchanges. Sweep medians on bridge decks that have barrier walls or curb and gutter sections or turn lanes.

All ramp shoulders (inside and outside) identified below shall be swept from the ramp converge/diverge to intersecting roadway.

Additional sweeping may be required. The Engineer will provide a list of these to the contractor when sweeping areas have been identified.

Perform all hand work required to accomplish an efficient cleaning operation. The Engineer shall have the right to identify for the Contractor those areas where hand work shall be performed.

Perform all sweeping in frequency noted below, with the same section of roadway swept in the sequence of each cycle, unless approved by the Engineer. The Contractor shall not begin a new cycle until the current cycle, of the same type, has been completed and approved by the Engineer.

Perform all sweeping as a continuous operation as described in these Specifications. Sweep only in the direction of traffic.

Travel in the direction of normal roadway traffic unless separated from the through-traffic by construction barriers approved by the Engineer. Do not cross the median on Interstates or other divided highways. Enter and exit at the existing interchanges.

Move equipment or materials on or across the traveled way in a manner so as not to unduly interfere with traffic. There shall be no reduction in the total number of available traveled ways. Schedule and arrange the Work to ensure the least inconvenience and the utmost in safety to the traveling public and to the Contractor's and the Engineer's forces.

During mechanical sweeping operations, the Contractor shall use water to prevent dust blowing into the traveled way.

Emergency Service requirements may be needed. Emergency Services may include but are not limited to correcting damages due to accidents or vandalism. These events shall be inclusive in the contractor's monthly unit price for Routine Maintenance Services.

All routine cycles described in Table 14 shall be included in the Unit Monthly Price for 'Routine Maintenance Services'. Certification of each sweeping cycle completion shall be submitted with each monthly invoice. Liquidated damages in the amount of $500 per day shall be assessed for failure to complete and certify each sweeping cycle with the monthly invoice.

33.3 Frequency

Table 14: Required Sweeping Frequency (To be included in the monthly unit pricing for 'Routine Maintenance Services).

REGION 3 SOUTH									
COUNTY	**ROUTE**	**TERMINI**	**MEDIAN (L.M.)**	**NO. OF CYCLES**	**SHLDRS (L.M.)**	**NO. OF CYCLES**	**RAMPS (L.M.)**	**NO. OF CYCLES**	**Total (L.M.)**
Rutherford	I-24	Davidson CL to MM 82.1	38.1	24	38.1	12	18.7	12	1596.00
Rutherford	I-840	I-840/ SR-1 Interchange (Exit 55)					4.6	12	55.20
Rutherford	I-840	I-840 Exit 50 to Exit 61			22	12	4.28	12	315.36
Williamson	I-840	MM 6.23 to 45.8			52.31	12	16.7	12	828.12
Williamson	I-65	MM 53. to MM 59	6	24	6	12	1	12	228.00
Williamson	I-65	Davidson CL to I-840 (Includes I-840/I-65 Interchange Ramps)	30.46	24	30.46	12	13.91	12	1263.48
Wilson	I-40	Davidson CL to MM 236	26.60	24	26.60	12	17.00	12	1161.60
							Total L.M.		**5447.76**

33.4 Prescribed Additional Sweeping (as directed):

Perform additional roadway sweeping as directed by the Engineer.

33.5 Traffic Control

At a minimum, abide by the MUTCD, current edition, for traffic control guidance for Mobile Operation on Shoulder(s) and or Mobile Operation on Multilane Road(s). All traffic control is the responsibility of the Contractor. On Interstate roads, do not simultaneously perform work on both the inside shoulder and outside shoulder on either direction of traffic flow when the work is within twelve (12) feet of the travel way, unless such areas are separated by at least two (2) miles of distance.

Travel lane closure shall be permitted under this contract in accordance with the requirements of the MUTCD. The length of a lane closure shall not exceed two (2) miles in length excluding the length of the tapers unless the prior approval of the Engineer has been obtained. The Engineer may extend the length of a lane closure based on field conditions; however, the length of a work zone should be held to a minimum length required to accomplish the work.

33.6 Removal, Disposal and Reporting

1. Remove all litter and debris from the right of way at the end of each working day and dispose of at locations provided by the Contractor.
    a. The Contractor shall dispose of all foreign matter and debris accumulated by cleaning operation off the highway rights-of-ways at a state licensed disposal facility approved to accept such waste.
    b. The Contractor shall supply the Engineer with copies of the facility license and all dump tickets before any payments are made.
    c. The Contractor is responsible for all disposal site fees.
    d. Disposal, storage or stockpiling of litter or debris on the right of way is prohibited.
    e. Locations for disposal and costs associated with use of such locations will be the responsibility of the Contractor.
2. Handling, hauling, and disposal of litter and debris shall be in accordance with applicable Federal, State, and/or local laws and ordinances. Conform to all Federal, State and/or applicable local laws, regulations, and ordinances for noise, water and air pollution controls.
3. Immediately clean any and all drainage structures that are adversely affected by sweeping operations at no cost to the Engineer.
4. Secure all vehicles, such as pickups or dump trucks, utilized to remove and dispose litter and debris to inhibit further distribution or loss of litter along the roadway. Cover all open-top vehicles and secure with tarpaulins. These vehicles must be operated in accordance with local and state laws governing waste hauling equipment.

33.7 Reporting Requirements for 'Additional Sweeping'

1. The Contractor shall maintain a daily log of completed work and will verify the completion of the Contractor's work with the Engineer upon completion of a cycle.
2. Should the equipment used fail to complete the work as specified, the Engineer may suspend work until such time that equipment capable of completing the work is provided. Calendar days will be charged to this project during its suspension.
3. In the event a road rehabilitation or improvement project is under construction or will be under construction where contract services are scheduled, that portion of the interstate may be temporarily deleted at the direction of the Engineer. The section(s) of roads deleted from the list may be added back to the list at the first available Cycle following completion of said project. Prior to re-entering any such road into the cycle, a field inspection shall be made by the Engineer and the Contractor to determine what cleaning will be required. There will be no additional compensation by the Engineer for initial cleaning of a re-entered road following rehabilitation or construction.

The Engineer reserves the right to change the cleaning schedule in order to address areas of concern or to repair identified problems.

33.8 Payment

Price for additional sweeping shoulder mile will be provided on the Unit Pricing Schedule.

33.8.1 Method of Measurement

Additional Sweeping will be measured by the number of linear shoulder miles swept and cleaned free of all accumulated debris and foreign objects from the area between the edge of the traveled lanes or ramps and the face of the inside curb, barrier wall, bridge, guardrail, entire gore areas, or outside edge of the paved shoulder. Sweeping of the described areas for a distance of one mile, measured along the curb or shoulder of said roadway, shall be deemed as one linear shoulder mile of sweeping including all curbs, shoulders and median barrier wall.

Additional Sweeping shall be paid in the month following the cycle for work completed and accepted while Emergency Services shall be paid as invoiced. The Contractor shall be responsible for all costs or charges incurred in the operation and maintenance of the equipment during the term of the contract including, but not limited to; fuel, oil, equipment repairs, communication equipment, overhead, mobilization, traffic control and administrative fees, etc.

The Contractor will be responsible to promptly respond when declared event circumstances are warranted. Work will only begin once the notice to proceed is given for this activity.

Payments shall be full compensation for furnishing all materials, labor, tools, equipment, traffic control, and incidentals necessary to satisfactorily complete the work described.

Payment for completed work will be made contingent upon the inspection results from the Engineer. The Contractor's invoice shall reflect line items for:

- Additional Sweeping – Shoulder Mile

Invoices must also include the Daily Log, Route Number and Mile Posts for the shoulder miles swept. Invoices must show unit cost and date of completion.

33.8.2 Hours of Operation

Sweeping shall be performed between the hours of 9:00pm and 6:00am.

Perform no work on holidays or on weekends in which a holiday falls on an adjacent Monday or Friday. Perform no work on weekends where the Engineer expects a high volume of traffic.

Suspend operations if weather conditions are such that cleaning operations cannot be carried out in a safe and effective manner.

a. If operations are suspended, notify the Engineer immediately.

b. The Engineer shall have the right to order the suspension of cleaning operations whenever, in the Engineer's judgment, weather conditions make cleaning operations unsafe and/or cleaning operations cannot be carried out in a safe and effective manner.

The Contractor must also confirm the schedule or inform the Engineer of any changes to the schedule each morning work is to be performed. Completion of work includes Department Inspections and any work required to correct deficiencies.

34 Pavement Markings & Pavement Markers

Reporting Measurement Unit:

Routine pavement markings and reflective pavement marker responsibilities will be retained by TDOT and are not a part of this contract. However, the contractor is required to replace markings, symbols and markers eradicated by the contractor's own actions or third-party damage. The contractor is NOT responsible for pavement markings and markers damaged by TDOT snow removal activities.

35 Noise Wall

Noise wall is defined as an exterior structure constructed of piles and precast concrete panels or brick designed to protect sensitive land uses from noise pollution and mitigate roadway noise sources.

Damaged noise wall shall be mitigated to prevent any hazard upon notification or observation. Noise wall damage shall be repaired within 180 days of notification or observation.

Damage consists of but not limited to: observed leaning or missing panels, impact from fallen trees, or third-party damage.

Any noise wall tree and brush criteria are applicable to MQA assessments for 'Tree and Brush'. There are no other MQA criteria applicable to Noise Walls.

36 Rock Catch Areas and Rock Catch Fence

Rock Catch Fence shall be free of vegetation either by removal or herbicidal spray. Herbicides shall be in compliance with the 'Integrated Vegetation Management Fact Sheet / US EPA'.

Rock catch areas shall not have an accumulation of rock debris greater than 50% of the ditch catch depth and at no time higher than the shoulder break point elevation.

The contractor shall provide a certified condition inspection report (in an approved format) to the Engineer within the first month after the Start Date and every six months thereafter on the condition of all rock catch areas within the project limits to include photographs. Liquidated damages in the amount of $500 per day shall be assessed for failure to provide a certified report within the first month after the Start Date and every six months thereafter.

The report shall include any corrective measures taken to avoid blocking roadside ditches, shoulders, or rock that presents a potential hazard of ramping additional rock falling that may project onto the paved areas.

Any emergency hazard shall be mitigated immediately upon observation or notification and rock removal conducted within 24 hours. All paved shoulder and travel lane closure restrictions with associated penalties apply to this activity.

37 Guardrail, Cable Barrier, Concrete Barrier, and Attenuators

1. All damaged rail that poses a safety hazard must be repaired or mitigated in accordance with current TDOT policy, standards and specifications.

   Damaged guardrail shall be marked by traffic control devices until repairs are completed.

   Non-standard guardrail runs with greater than 80% non-functioning damage will be entirely removed and replaced with current standards for entire section.

   Repair or replace Emergency damage within 72 hours.

   Repair or replace Non-functioning damage within (14) days.

   Repair or replace Moderate damage within 30 days.

   Repair or replace Minor damage when other damage occurs within the same section of the guardrail.

37.1 Repair Definitions:

Emergency Damage includes:

- Exposed blunt-end guardrail or concrete structures to include median barriers, pier protection, and bridge end posts that are facing the traveled way and/or create a spearing hazard;
- Frequently impacted sites as determined by the Engineer; or
- Large sections of missing guardrail greater than 100 L.F in length, including sections protecting extreme elevation changes, horizonal curves, and bodies of water.

Non-functioning Damage of guardrail includes:

  - A rail beam has been torn loose;
  - A beam is crushed more than 9” out of line; or
  - Two or more posts have been separated or one or more posts is broken.

Non-functioning damage of an end treatment includes:

  - One or more broken posts;
  - Rail that has been torn loose;
  - Crushed bulb or face plate; or
  - A damaged cable assembly.

- Non-functioning damage of concrete barrier includes any loss of cross-sectional height.

- Non-functioning damage to cable rail includes any damage from a vehicular hit that causes the cable to lose tension.
- Non-functioning damage to an attenuator includes obvious malfunctions, such as container splits, compression of the device, misalignment, any impact or evidence of compromised functionality, etc.

Moderate Damage includes:

- Traffic damage such as dents, surface scarring or tearing or misalignment that will not affect guardrail function on a subsequent traffic hit.

Minor Damage includes:

- Slight dents, rust, or slight misalignment that is aesthetic and does not affect guardrail function.

37.2 Timeliness Requirements

In accordance with TDOT Policy, the contractor is required to respond within 4 hours from notification or discovery to assess and mitigate for safety all non-functioning damaged guardrail and attenuators. Damaged guardrail and attenuators shall be marked by traffic control devices until repairs are completed.

An intermediate contract time of 72 hours from notification or discovery will apply to the repair of all Emergency damaged guardrail, cable barrier, concrete barrier, and impact attenuators. In the event that the Contractor fails to repair emergency damaged guardrail within 72 hours, liquidated damages in the amount of $1,000 per day, , will be deducted from the monies due to the Contractor.

An intermediate contract time of 14 days from notification or discovery will apply to the replacement of all damaged, non-functioning guardrail. In the event that the Contractor fails to replace non-functioning guardrail within 14 days, liquidated damages in the amount of $1,000 per day, or portion thereof, will be deducted from the monies due to the Contractor.

An intermediate contract time of 14 days from notification or discovery will apply to the replacement of all damaged, non-functioning impact attenuators. In the event that the Contractor fails to replace non-functioning impact attenuators within 14 days, liquidated damages in the amount of $1,000 per day, or portion thereof, will be deducted from the monies due to the Contractor.

An intermediate contract time of 30 days from notification or discovery will apply to all moderate damage guardrail. In the event that the Contractor fails to repair or replace damaged but functional guardrail within 30 days, liquidated damages in the amount of $500 per day will be deducted from the monies due to the Contractor.

Repair or replace Minor Damage when other non-functional or moderate damage occurs within the same continuous section of the guardrail.

Note: Non-standard guardrail runs with greater than 80% non-functioning damage will be removed and replaced with current standards for the entire section run.

38 Ground Signs

TDOT has initiated a contract, CNX313, to replace ground signs with new sheathing at or above the minimum levels of retroreflectivity standards in Table 2A-3, per the 2009 MUTCD. This project is anticipated to be completed by March 31, 2025. The contractor will not be required to meet MQA retroreflectivity standards in compliance with Table 2A-3 of the 2009 MUTCD for existing and new ground signs until April 1, 2025. After April 1, 2025, all MQA ground sign standards including retroreflectivity shall be in effect with the scheduled MQA cycles.

Note; the contractor is responsible for damaged signs beginning with the contract 'start date'. All other MQA criteria for signs other than retroreflectivity will be in effect on January 1, 2025.

The inventory of ground signs, their retroreflectivity readings and the number of sign facings to be upgraded/replaced are provided on the project RFP website.