

## EXHIBIT 2

### MAINTENANCE SPECIFICATION

## **1 MAINTENANCE**

### **1.1 General Maintenance Obligations**

Throughout the Maintenance Term, Maintenance Contractor shall be responsible for and shall carry out Maintenance Services for the Maintenance Elements identified in Attachment 2 within the limits as shown in Attachment 3 or as modified by the Released for Construction Documents as defined in Exhibit 1 to the Design-Build Agreement and as set forth in this Exhibit 2 and the COMA Documents. Maintenance Contractor shall establish and maintain an organization that effectively manages all Maintenance Services in a manner set forth in the approved Maintenance Management Plan and the requirements of the COMA Documents. Maintenance Contractor shall take all necessary actions to achieve the following:

- Coordinate Maintenance Services with other entities with interests or activities within the Project limits, including but not limited to emergency services, public law enforcement, toll operator agencies, towing companies, and regional traffic management center.
- Provide Incident and Emergency response management and reporting.
- Conduct regular patrols of all lanes of the Project to identify conditions that are unsafe or have the potential to become unsafe, conditions that could threaten the infrastructure, and to attend to existing or changing conditions.
- Maintain the Maintenance Elements in a manner appropriate for a facility of the character of the Project and maintain all lanes in accordance with the same standard of maintenance.
- Minimize delay and inconvenience to Users and, to the extent Maintenance Contractor is able to control, users of adjacent and connecting roadways.
- Monitor and observe weather and weather forecasts to proactively deploy resources to minimize delays and safety hazards due to heavy rains, snow, ice, or other severe weather events.
- Minimize the risk of damage, disturbance, or destruction of third-party property during the performance of Maintenance Services.
- Coordinate with and enable TxDOT and others with statutory duties or functions in relation to the Project to perform such duties and functions.
- Perform systematic Project inspections, patrolling, operational work, periodic maintenance, routine maintenance, and Renewal Work in accordance with the provisions of Maintenance Contractor's Maintenance Management Plan and Maintenance Contractor's Maintenance Safety Plan and the COMA Documents.
- Promptly investigate reports or complaints received from all sources.

Maintenance Contractor shall submit an annual report to TxDOT by each anniversary of the Maintenance Term Commencement Date. This annual report shall include the following elements:

- An assessment of the actual Maintenance Services achievements versus the planned goals established in the Maintenance Management Plan, as well as corrective actions and measures to be taken in the ensuing year to ensure that any shortcomings are corrected;
- An assessment of compliance with the various traffic control requirements and limitations contained in Section 3.4 of the COMA and the traffic control plans developed in accordance with Section 2.2 of this Exhibit 2, as well as any corrective measures taken to correct any breach or violation of such requirements and limitations and any corrective measures necessary to prevent such future breach or violation of such requirement and limitations;
- A report of the quality inspections and test performed as part of the Maintenance Management Plan and as required by Attachment 1, the results of such inspections and tests, and occurrences and resolution of nonconformance discoveries.

On or about the effective date of termination of Maintenance Services, the Maintenance Contractor shall submit to TxDOT a complete set of Record Drawings. The Record Drawings and documentation shall be an organized, complete record of drawings and supporting calculations and details that accurately represent what the Maintenance Contractor constructed. Maintenance Contractor shall ensure that the Record Drawings reflect the actual condition of the Maintenance Services construction.

The Maintenance Manager shall be responsible to oversee and perform the Maintenance Services in accordance with the COMA including ensuring proper training of its maintenance personnel and resources available for conducting Maintenance Services. The Maintenance Safety Manager shall be responsible for the health and safety of personnel involved with Maintenance Services and the general public affected by the Project and shall serve as the point of contact for Maintenance Contractor in communication with TxDOT and in coordination activities with other entities during emergency events.

## **1.2 Performance Requirements**

Maintenance Contractor is responsible for performing all activities necessary to satisfy the Performance Requirements set forth in Attachment 1 with respect to the Maintenance Elements. Failure to meet a Performance Requirement, whether through failure to meet the Target for any relevant measurement record, or for any other reason, shall be deemed to be a Defect. Whenever a Defect is identified, either by Maintenance Contractor's inspections, by TxDOT or any third party, Maintenance Contractor shall act to remedy, repair and record the Defect as described herein.

The remedy or repair of any Maintenance Element shall meet or exceed the standard identified in the column entitled "Target" in Attachment 1 and a Maintenance Record shall be created by Maintenance Contractor to verify that this requirement has been met.

The period for "Response To Defects" set forth in Attachment 1 to this Maintenance Specification shall be deemed to commence upon the time when the Maintenance Contractor would reasonably become aware of the Defect.

Where action is taken to remedy or repair any Defect in any Maintenance Element of the Project, Maintenance Contractor shall create a Maintenance Record that identifies the nature of the remedy or repair. Maintenance Contractor shall include within the relevant Maintenance Record a measurement record in accordance with the requirements set forth in the column entitled "Measurement Record" in the Attachment 1 to this Maintenance Specification.

Should Maintenance Contractor propose any changes to Attachment 1, Maintenance Contractor shall propose for TxDOT's approval such amendments to the inspection and measurement methods and measurement records as are necessary to cause these to comply with this Maintenance Specification.

### **1.3 Maintenance Management Plan**

Within 60 days after issuance of Maintenance NTP, Maintenance Contractor shall prepare and submit, for TxDOT's review and written approval, a Maintenance Management Plan (MMP). Approval by TxDOT of the MMP shall be a condition precedent to Maintenance Contractor's right to commence Maintenance Services. Attachment 4 lists the main content of MMP and other Plans required.

TxDOT shall review the MMP and each update and shall meet with Maintenance Contractor within 30 Days after its submittal to discuss revisions and clarifications or to resolve any disagreements. Within 15 Days after such meeting, Maintenance Contractor shall resubmit the MMP to TxDOT. TxDOT will either approve or disapprove the MMP within 15 Days, with comments, objections, recommendations or disapprovals noted in writing. If TxDOT disapproves the MMP, within ten days after receiving written notice of comments, objections, recommendations or disapprovals from TxDOT, Maintenance Contractor shall submit to TxDOT a revised initial or updated MMP rectifying such matters and, for matters Maintenance Contractor disagrees with, a written notice setting forth those comments, objections, recommendations and disapprovals that Maintenance Contractor disputes, which notice shall give details of Maintenance Contractor's grounds for dispute. If Maintenance Contractor fails to give such notice within such time period, it shall be deemed to have accepted the comments, objections and recommendations and the initial or updated MMP, as applicable, shall thereupon be deemed revised to incorporate the comments and recommendations and to rectify the objections or disapprovals. After timely delivery of any such notice, Maintenance Contractor and TxDOT shall endeavor in good faith to reach agreement as to the matters listed in the notice. If no agreement is reached as to any such matter within 30 days after Maintenance Contractor delivers its notice, either Party may refer the Dispute to the disputes resolution procedures set forth in this Comprehensive Maintenance Agreement.

The MMP shall comply with the COMA Documents, applicable Government Approvals, and applicable Law. The MMP and each update shall show the timing, frequencies and methodology for performing the various Maintenance Services, including Maintenance Contractor's plan and schedule for performing routine maintenance. The duration and number of working days of any Maintenance Services set forth in the MMP that require Lane Closures shall be subject to the written approval of TxDOT.

The MMP shall include detailed processes that explain the Maintenance Contractor's plan for meeting Performance Requirements, measurement procedures, and identifying threshold values at which maintenance is required, inspection procedures and frequencies, and subsequent maintenance to address noted deficiencies for each Maintenance Element of the Project in accordance with Attachment 1. Maintenance Contractor shall update this plan as required, or at least annually and shall submit to TxDOT, for TxDOT's review and approval, by each anniversary of the Maintenance Term Commencement Date.

The MMP shall also include a detailed process by which Defects are handled and processed in conformance with the COMA Documents including:

- Notification - This includes Defect identification, notification triggers (periodic or inspection based), responsible individuals, and entities or individuals to be notified.

- Classification - This includes how Defects are classified (i.e. Maintenance Element component or its function, safety impacts, Governmental Entities/Public concern, etc.).
- Action Plan - This includes developing a detailed plan based on Defect classification type listing all actions necessary to address and close the event. This plan shall identify the Maintenance Contractor's response times to mitigate hazards, permanently remedy, and permanently repair Defects. Response times shall be in accordance with Attachment 1.
- Action - By Defect classification type, this includes a description of how the actions are carried out stating the responsible individuals and the duration it will take to complete such actions in accordance with the requirements of Section 19 of the Technical Provisions.
- Closure - This includes how the Defect is resolved, stating necessary notification and the individuals to be notified for such Defect closure.
- Documentation - This includes how Defects are entered, updated and closed in the MMS.

The MMP shall address impacts to adjacent and connecting roadways, in addition to the general sequence of Maintenance Services and schedule deadlines.

The MMP shall include procedures for managing records of inspection and Maintenance Services, including appropriate measures for providing protected duplication of the records. Inspection and Maintenance Records shall be kept for the Maintenance Term and shall be provided to TxDOT at the time the Project is delivered to TxDOT, at either the expiration of the Maintenance Term or earlier termination of the Agreement. All records obtained during the Warranty Periods shall be kept and provided to TxDOT at the end of the last Warranty Period.

The MMP shall include a schematic clearly illustrating the limits, using auditable sections per Section 1.4.

#### **1.4 Auditable Sections**

Maintenance Contractor shall implement the Texas Reference Marker (TRM) System used by TxDOT to establish performance sections for records in accordance with the MMP. Maintenance Contractor shall use the existing TRM System established on existing section of Project. Maintenance Contractor shall coordinate with TxDOT 60 days prior to Maintenance Term Commencement Date to establish the TRM System on newly constructed sections of roadway.

Maintenance Contractor shall prepare drawings identifying the Auditable Sections and shall submit to TxDOT for approval as a condition precedent to commencing Maintenance Services. The drawings shall identify the boundaries of each Auditable Section and shall cross reference to an inventory describing each Maintenance Element of the Project contained within each Auditable Section.

#### **1.5 Incident and Emergency Management Plan**

As part of the MMP, Maintenance Contractor shall prepare and implement an Incident and Emergency Management Plan (IEMP) to address Incident and Emergency response, including:

- Descriptions of contact methods, personnel available, and response times for any Emergency condition requiring attention during off-hours.
- Procedures to identify Incidents and notify Emergency Services providers;

- Procedures for establishing traffic control for Incident management activities in a timely manner;
- Procedures for removal of stalled, broken down, wrecked or otherwise incapacitated vehicles from the travel lane, including coordination with Emergency Services and towing services to clear the Incident and return lane availability within one hour of notification, at the User's expense;
- Procedures to institute all measures for cleanup of objects foreign to the roadway surface where lane availability cannot be restored within one hour of notification; and
- Procedures to identify and contain all hazardous material spills and appropriate disposal of such materials.

Where an Incident or Emergency has an effect on the operation of the Project, Maintenance Contractor shall clear obstructions and repair damage to the Project under the supervision of the relevant Emergency Services if necessary, such that the Project is returned to normal operating standards and safe conditions as quickly as possible.

Where liquid or soluble material spills are involved, Maintenance Contractor shall take all necessary measures to minimize pollution of watercourses or groundwater in accordance with the Hazardous Materials Management Plan.

Where structural damage to structures is suspected, Maintenance Contractor shall cause that a suitably qualified bridge engineer or specialist inspector is available to evaluate the structure and to advise on temporary repairs and shoring needed to provide safe clearance of the Incident or Emergency.

Where such an Incident or Emergency involves a personal injury, Maintenance Contractor shall not remove any vehicle or other item that may assist a potential investigation by Emergency Services until authorized to do so by such agency or agencies.

## **1.6 Snow and Ice Control Plan**

As part of the MMP, Maintenance Contractor shall prepare and implement a Snow and Ice Control Plan (SICP) that contains detailed operational procedures for performing snow and ice control work throughout the Maintenance Term. The SICP shall comply with all applicable Law, codes, and regulations governing the operation of equipment on public highways.

The SICP shall address the following:

- Weather Forecasting
- Advance preparation procedures
- Call-out procedures
- Response protocol
- Operational requirements
- Training
- Recordkeeping/Reporting
- Environmental management
- Anti-icing and de-icing chemical storage
- Anti-icing and de-icing materials, including salt and alternative substances

- Equipment.

Maintenance Contractor shall annually update and submit the SICP to TxDOT for its review and approval, and shall incorporate any changes in strategy, equipment levels, etc., designed to rectify faults identified by Maintenance Contractor, and TxDOT in Maintenance Contractor's snow and ice removal operations during the preceding winter season.

### **1.7 Renewal Work**

The MMP shall include Maintenance Contractor's proposals for Renewal Work.

Within 60 days after the issuance of Maintenance NTP, as part of the MMP, the Maintenance Contractor shall submit the first Renewal Work Submittal to TxDOT for review and approval. The Renewal Work Submittal shall include the timing, scope, and nature of work that Maintenance Contractor proposes during each year. Maintenance Contractor shall set forth, by Maintenance Element:

- The estimated Useful Life;
- The description of the Renewal Work anticipated to be performed at the end of the Maintenance Element's Useful Life;
- A brief description of any Renewal Work anticipated to be performed before the end of the Maintenance Element's Useful Life including reasons why this work should be performed at the proposed time; and
- Renewal Work Schedule.

Maintenance Contractor shall develop a Renewal Work Schedule in accordance with the requirements set forth in Section 2 of the Technical Provisions for developing a Project Schedule.

Maintenance Contractor shall submit a hardcopy of the Renewal Work Schedule on full-size (11" x 17") color plot sheets, as well as an electronic version of the Renewal Work Schedule in its native format for each submittal of the Renewal Work Schedule along with a narrative.

Float shall not be considered as time for the exclusive use of or benefit of either TxDOT or the Maintenance Contractor but shall be considered as a jointly owned, expiring resource available to the Project and shall not be used to the financial detriment of either Party. Any method utilized to sequester Float calculations will be prohibited without prior approval of TxDOT. Any schedule, including the Renewal Work Schedule and all updates thereto, showing an early completion date shall show the time between the scheduled completion date and the applicable deadline as "Project Float."

Not later than 120 days before each anniversary of the Maintenance Term Commencement Date thereafter, Maintenance Contractor shall prepare and submit, for TxDOT's review and approval, either: (a) a revised Renewal Work Submittal for the upcoming year or (b) the then-existing Renewal Work Submittal, accompanied by a written statement that Maintenance Contractor intends to continue in effect the then-existing Renewal Work Submittal without revision for the upcoming year (in either case, referred to as the "updated Renewal Work Submittal"). Maintenance Contractor shall make revisions as reasonably indicated by experience and then-existing conditions respecting the Project, changes in technology, changes in Maintenance Contractor's planned means and methods of performing the Renewal Work, and other relevant factors. The updated Renewal Work Submittal shall show the revisions, if any, to the prior Renewal Work Submittal and include an explanation of reasons for revisions. If no

revisions are proposed, Maintenance Contractor shall include an explanation for the lack of revisions.

TxDOT shall review the updated Renewal Work Submittal and meet with Maintenance Contractor within 30 Days after its submittal to discuss revisions and clarifications or to resolve any disagreements. Within 15 Days after such meeting, Maintenance Contractor shall resubmit the updated Renewal Work Submittal to TxDOT. TxDOT will either approve or disapprove the Renewal Work Submittal within 15 Days, with comments, objections, recommendations or disapprovals noted in writing. If TxDOT disapproves the Renewal Work Submittal, within ten days after receiving written notice of comments, objections, recommendations or disapprovals from TxDOT, Maintenance Contractor shall submit to TxDOT a revised initial or updated Renewal Work Submittal rectifying such matters and, for matters with which the Maintenance Contractor disagrees, a written notice setting forth those comments, objections, recommendations and disapprovals that Maintenance Contractor disputes, which notice shall give details of Maintenance Contractor's grounds for dispute. If Maintenance Contractor fails to give such notice within such time period, it shall be deemed to have accepted the comments, objections and recommendations and the initial or updated Renewal Work Submittal, as applicable, shall thereupon be deemed revised to incorporate the comments and recommendations and to rectify the objections or disapprovals. After timely delivery of any dispute notice by Maintenance Contractor, Maintenance Contractor and TxDOT shall endeavor in good faith to reach agreement as to the matters listed in the notice. If no agreement is reached as to any such matter within 30 days after Maintenance Contractor delivers its notice, either Party may refer the Dispute to the dispute resolution procedures set forth in this Comprehensive Maintenance Agreement.

All portions of the initial or updated Renewal Work Submittal that have been agreed to by the Parties shall govern. Until resolution of any portion of the initial or updated Renewal Work Submittal that is in Dispute, the treatment of that portion in the immediately preceding approved Renewal Work Submittal shall remain in effect and govern.

As part of the annual report described in Section 1.1 of this Exhibit 2, Maintenance Contractor shall deliver to TxDOT a written report of the Renewal Work performed in the immediately preceding year. The report shall describe: (a) by location, the Maintenance Element, as listed in the Renewal Work Submittal, and any other Project component for which Renewal Work was performed; (b) the type of Renewal Work performed; (c) each specific item replaced; (d) any warranty information associated with any replacement item; (e) the dates of commencement and completion of such Renewal Work; and (f) such other information as is reasonably requested by TxDOT.

## **1.8 Maintenance Management System**

Maintenance Contractor shall implement a computer based Maintenance Management System (MMS), compatible with TxDOT MMS, to record inventory, failures, repairs, maintenance activities, inspections performed and record of all Noncompliance Events.

The MMS shall include relevant Maintenance Element information including but not limited to, location to the nearest tenth mile, using the posted reference marker number, Geographic Information System (GIS) data and control number for bridge class structures, asset description, date of installation, type of failure, date-time of failure, date-time of response to the site and date-time returned to service, preventive maintenance work, scheduled work, work repair code, time of failure, to time of repair. The MMS shall be configured to report work by TxDOT "function code" shown in Attachment 7, Maintenance Element, reference marker, and unit of measurement, as the same described in the MMS User Manual, to categorize the Maintenance Services performed by the Maintenance Contractor.

The MMS system shall be able to record all complaints/service requests and Maintenance Contractor shall report weekly to TxDOT, on a format approved by TxDOT, information on any complaints or service requests received by the Maintenance Contractor. This information will include the following:

- The date and time of the complaint;
- The location and nature of the problem;
- Injuries and police involvement, including agency, name and badge number;
- Who made the complaint; and
- Date and action taken to address the complaint.

The MMS system shall be able to record all accidents/Incidents. The Maintenance Contractor shall report in writing to TxDOT, no later than the 15th of each calendar month on a format approved by the TxDOT, information from the previous month on any accident or Incident related to Maintenance Services being performed by Maintenance Contractor or within a work zone, including:

- accidents involving Maintenance Contractor or any Subcontractor personnel, equipment, barricades or tools;
- traffic accidents within the limits or in the vicinity of any Maintenance Services being performed by Maintenance Contractor or any Subcontractors;
- Releases of Hazardous Materials;
- any accident involving Maintenance Contractor or the traveling public that causes damage to any Project appurtenance, structure, improvement or fixture.
- with respect to any accident/Incident, the information provided shall include as a minimum:
  - The date and time of the accident/Incident;
  - The location of the problem;
  - The nature of the problem;
  - All parties involved in the Incident, including names, addresses, telephone numbers and their involvement (including witnesses);
  - Responsible party and insurance information;
  - Action taken to address the Incident; and
  - Documentation of traffic control in place at location.

When a Maintenance Element is constructed, installed, maintained, inspected, modified, replaced or removed, Maintenance Contractor shall update the MMS within three days of completion of such work. Defects shall be recorded on the MMS within 3 days of coming to the attention of Maintenance Contractor. All other recording requirements shall be recorded on the MMS within 15 days of completion or occurrence of the relevant activity.

The MMS shall be fully populated and operational prior to the commencement of Maintenance Services and kept updated and operational for the duration of the Maintenance Term. Maintenance Contractor shall provide equipment, facilities and training necessary to permit remote, real-time, dedicated high-speed access to the MMS, via one terminal each, for TxDOT. Maintenance Contractor shall handover the MMS and everything required for its operation to TxDOT, or other entity as directed by TxDOT, upon expiration or earlier termination of the Comprehensive Maintenance Agreement.



## 1.9 Maintenance Services Quality Management Plan

Within 60 days after issuance of Maintenance NTP, Maintenance Contractor shall prepare and submit a Maintenance Services Quality Management Plan (“MSQMP”).

Maintenance Contractor shall incorporate quality processes as part of its Quality Management Plan including planned and systematic activities undertaken by a party independent of the construction or maintenance process.

TxDOT shall review the MSQMP and meet with Maintenance Contractor within 30 Days after its submittal to discuss revisions and clarifications or to attempt to resolve any disagreements. Within 15 days after such meeting, Maintenance Contractor shall resubmit the final MSQMP to TxDOT. TxDOT will either approve or disapprove the MSQMP within 15 days, with objections or corrections noted in writing. If TxDOT disapproves the MSQMP, Maintenance Contractor shall resubmit the MSQMP within ten days to the satisfaction of TxDOT in order to resolve TxDOT’s issues and concerns. The foregoing process shall continue until TxDOT has approved the MSQMP.

The MSQMP shall capture all Maintenance Services performed by Maintenance Contractor and its Subcontractors and shall contain detailed procedures for the Maintenance Contractor’s quality control activities, including a complete description of the quality policies and objectives that Maintenance Contractor shall implement throughout its organization. The policies shall demonstrate Maintenance Contractor senior management’s commitment to implement and continually improve the maintenance quality system.

The MSQMP shall contain detailed descriptions of the inspection and test plans, including the timing and frequency of testing, as well as detailed systems and procedures for the following:

- Control of quality records
- Management reviews
- Resource allocation
- Measurement of customer satisfaction
- Control of nonconforming products and services
- Internal audits

Maintenance Contractor shall update the MSQMP as needed to ensure current versions of the following information are contained in said plan:

- The organizational chart that identifies all quality management personnel, their roles, authorities and line reporting relationships;
- Descriptions of the roles and responsibilities of all quality management personnel and those who have the authority to stop activities;
- Identification of testing agencies, including information on each agency’s capability to provide the specific services required for the activities, certifications held, equipment, and location of laboratories; and
- Resumes for all quality management personnel.

Maintenance Contractor shall revise its MSQMP when its own quality management organization detects a repeating or fundamental non-conformance in the work performed or in the manner the Maintenance Services are inspected or tested, or when TxDOT advises the Maintenance Contractor of such a problem.

The MSQMP shall be consistent with current versions of ISO standards relating to quality and audit as updated by the International Standards Organization. Maintenance Contractor may elect to obtain formal ISO quality certification, but will not be required to do so.

Quality terminology, unless defined or modified elsewhere in the COMA Documents, shall have the meaning defined in ISO 9001. Terms used in ISO 9001 shall have the meanings defined below:

- Organization - the Maintenance Contractor's organization, including any Affiliates and Subcontractors
- Customers - the Users of the roadways, TxDOT, Customer Groups, and key stakeholders that have an adjacent property interest or connecting roadway
- Suppliers - Contractors
- Product - Maintenance Services
- Quality control - the part of quality management focused on fulfilling quality requirements
- Quality Management Plan - the MSQMP

Maintenance Contractor shall make all quality records available to TxDOT for review upon TxDOT's request and shall submit to TxDOT the results of all internal audits within seven Days of their completion.

Maintenance Quality Manager shall be responsible to see that the methods and procedures contained in approved MSQMP are implemented and followed by Maintenance Contractor and Subcontractors in the performance of the Maintenance Services. Maintenance Quality Manager shall be a Registered Professional Engineer.

### **1.10 Maintenance Safety Plan**

As part of the MMP, Maintenance Contractor shall prepare and submit a comprehensive safety plan ("Maintenance Safety Plan") that is consistent with and expands upon the preliminary Safety and Health Plan submitted with the Proposal. The Maintenance Safety Plan shall fully describe the Maintenance Contractor's policies, plans, training programs, and work site controls to ensure the health and safety of personnel involved in the Project and the general public affected by the Project during the Maintenance Term.

Maintenance Contractor's Maintenance Safety Plan shall address procedures for immediately notifying TxDOT of all Incidents arising out of or in connection with the performance of the Maintenance Services, whether on or adjacent to the Project.

A Maintenance Safety Manager shall be assigned to the Project. The Maintenance Safety Manager shall be responsible for carrying out the Maintenance Safety Plan and all safety-related activities, including training and enforcement of safety operations. The Maintenance Safety Manager shall have the authority to stop all work on the Project. Upon TxDOT's approval, this position can be fulfilled by another employee of the Maintenance Contractor if the employee can meet all qualification requirements and can be available on site to the extent needed to perform the level of oversight deemed necessary for the work being performed. Requirements include:

- Roadway construction and safety enforcement experience;
- Ten (10) years of progressive safety management experience, five years of which must be safety management experience on similar operations and maintenance projects;

- Designation, at or before the Effective Date, as a Construction Health and Safety Technician® (CHST) by the Board of Certified Safety Professionals (BCSP), or designation as a Certified Safety & Health Official (CSHO), either of which may be substituted for two years of safety management experience;
- Completion of the OSHA #500 course – Trainer Course in OSHA Standards for Construction;
- Training and current certification for CPR and first aid; and
- Completion of the following training sponsored by an accredited agency:
  - Work zone traffic control; and
  - Flaggers in work zones.

### **1.11 Management of Communications between Maintenance Contractor and TxDOT**

As part of the MMP, Maintenance Contractor shall prepare and submit a comprehensive communications plan (“Maintenance Communications Plan”) that is consistent with and expands upon the preliminary communications plan submitted with the Proposal.

The Maintenance Communications Plan shall describe the processes and procedures for communication of Project information between the Maintenance Contractor’s organization and TxDOT and shall describe how the Maintenance Contractor’s organization will respond to unexpected requests for information, communicate changes or revisions to necessary Maintenance Contractor personnel, and notify TxDOT before and after changes are made to the COMA Documents.

Maintenance Contractor shall maintain and update the Maintenance Communications Plan as the Maintenance Term progresses.

### **1.12 Maintenance Transition Plan**

At 60 days prior to the end of this COMA, or upon earlier termination, Maintenance Contractor shall submit a comprehensive transition plan (“Maintenance Transition Plan”) to TxDOT which includes the following items:

- Maintenance Transition punch list
- List and status of equipment Warranties
- Vendors’ test reports
- Maintenance Contractor’s test reports
- As-built drawings for Renewal Work
- Maintenance Records (including NBIS records)
- Copies of Warranty and service contracts
- List of spare parts purchased as part of the Maintenance Services

Maintenance Contractor shall coordinate the identification of Maintenance Transition punch list items required to be completed by Maintenance Contractor prior to maintenance transfer. Maintenance Transition punch list shall include (a) estimated completion dates, (b) responsible Party(s), and (c) items that must be completed prior to maintenance transfer. Maintenance Contractor shall be responsible to prepare (in conjunction with TxDOT), administer and

complete all items on the Maintenance Transition punch list to the satisfaction of TxDOT prior to the transfer of maintenance responsibilities to TxDOT.

The Maintenance Contractor shall coordinate with TxDOT to achieve a smooth transition of Maintenance Services to TxDOT.

### **1.13 Maintenance Document Management Plan**

As part of the MMP, Maintenance Contractor shall establish and maintain an electronic document control system (“Maintenance Document Management Plan”) to store, catalog, and retrieve all Project-related documents in a format compatible with Texas Reference Marker System used by TxDOT. Unless otherwise directed by TxDOT, record retention shall comply with the requirements of the Texas State Records Retention Schedule.

### **1.14 Maintenance Services Deliverables Schedule**

Maintenance Contractor recognizes the importance of the schedules for defining the time-frame for the maintenance of the Project and the achievement of the milestones, monitoring the progress of Maintenance Services and denoting changes that occur. As part of the MMP and periodically thereafter as required under the COMA Documents, Maintenance Contractor shall prepare a schedule for such tasks (“Maintenance Services Deliverables Schedule”) and shall submit it to TxDOT for review and approval.

The Maintenance Services Deliverables Schedule shall include all Maintenance Services and major activities required under the COMA Documents, in sufficient detail to monitor and evaluate progress during the Maintenance Term including maintenance and interfaces with other projects, third parties and Governmental Entities.

For each activity, Maintenance Contractor shall indicate the duration (in Days) required to perform the activity and the anticipated beginning and completion date of each activity. In addition, the Maintenance Services Deliverables Schedule shall indicate the sequence of performing each activity and the logical dependencies and inter-relationships among the activities.

Maintenance Contractor shall assign the WBS structure consistently and uniformly among all similar activity types in the Maintenance Services Deliverables Schedule and shall develop the WBS with clearly identifiable linkage to the Schedule Activities.

The Maintenance Services Deliverables Schedule shall include a listing of all submittals as called out in the COMA Documents. Submittal activity durations shall include specific durations for TxDOT review and/or approval of the Maintenance Contractor’s submittals as called out elsewhere in the COMA Documents.

With the exception of activities relating to Environmental Approvals by Governmental Entities, each activity depicting the Maintenance Contractor’s maintenance operations shall have duration of not more than 20 Days, and not less than one Day, except as otherwise approved by TxDOT.

Maintenance Contractor shall update the approved Maintenance Services Deliverables Schedule to reflect the current status of the Project, including approved Change Orders or provide a notification of no change to the current schedule, on at least a monthly basis. Each Maintenance Services Deliverables Schedule update shall accurately reflect all activities as of the Effective Date of the updated schedule and shall include a schedule narrative report which describes the status of the Maintenance Services in detail.

Maintenance Contractor shall submit a hardcopy of the Maintenance Services Deliverables Schedule on full-size (11" x 17") color plot sheets, as well as an electronic version of the schedule in its native format for each submittal of the schedule along with a narrative.

### **1.15 Inspections**

Maintenance Contractor shall establish inspection procedures and a plan to implement a program of inspections of the Project to be included within the Maintenance Services Work Deliverables Schedule that:

- verifies the continuing safety of the Project for Users;
- prioritizes Category 1 Defects;
- ensures that all Category 1 Defects are identified and repaired such that the hazard to Users is mitigated within the period given in the column entitled "Category 1 Hazard Mitigation" in Attachment 1 to this Maintenance Specification;
- ensures that all Category 1 Defects are identified and permanently remedied within the period given in the column entitled "Category 1 Permanent Remedy" in Attachment 1 to this Maintenance Specification;
- identifies Category 2 Defects to be included for repair either within Maintenance Contractor's annually recurring highway maintenance and repair program or as Renewal Work;
- ensures that all Category 2 Defects are identified and permanently repaired within the period given in the column entitled "Category 2 Permanent Repair" in Attachment 1 to this Maintenance Specification;
- is responsive to reports or complaints received from Customer Groups;
- takes account of Incidents and Emergencies affecting the Project;
- monitors the effects of extreme weather conditions; and
- collates data to monitor performance of the Project and to establish priorities for future maintenance operations and Renewal Work.

Maintenance Contractor shall ensure that personnel performing inspections of road pavements and structures are certified as inspectors and/or raters in accordance with TxDOT's PMIS program or applicable certifying agency for the type of inspection being performed. Inspections, reviews, and testing performed in respect of Maintenance Services shall only be performed by personnel with appropriate training and qualifications, using appropriate equipment that is accurately calibrated and maintained in good operating condition at an AMRL (AASHTO R18, "Establishing and Implementing a Quality System for Construction Materials Testing Laboratories") accredited facility, or at a facility with comparable certification (e.g. ISO 17025, "General requirements for the competence of testing and Calibration laboratories".)

The periods stated in Attachment 1 to this Maintenance Specification under the headings of Category 1 Defects and Category 2 Defects shall be deemed to start upon the earlier of: (i) the date and time Maintenance Contractor first obtained knowledge of the Defect; and (ii) the date and time Maintenance Contractor first reasonably should have known of the Defect. For this purpose Maintenance Contractor shall be deemed to first obtain knowledge of the Defect not later than the date and time of delivery of the initial notice to Maintenance Contractor. Maintenance Contractor shall investigate reports and complaints on the condition of the Project received from all sources. Maintenance Contractor shall record such reports and complaints as

Maintenance Records together with details of all relevant inspections and actions taken in respect of Defects, including temporary protective measures and repairs.

In performing inspections to identify Category 1 and Category 2 Defects, Maintenance Contractor shall, for any Maintenance Element, conform at a minimum to the inspection standards set forth for that Maintenance Element in the column entitled “Inspection and Measurement Method” on Attachment 1 to this Maintenance Specification.

Maintenance Contractor shall perform General Inspections in accordance with the MMP so that the repairs of all Defects are included in planned programs of work.

Maintenance Contractor shall record details of the manner of inspection (e.g. center Lane Closure or shoulder), the weather conditions and any other unusual features of the inspection, on Maintenance Records in respect of General Inspections.

Maintenance Contractor shall undertake Specialist Inspections for Maintenance Elements listed in Table 1 and shall include the inspection results as Maintenance Records.

Table 1 – Specialist Inspections

Maintenance Element	Specialist Inspection
All Maintenance Elements in Element Category ‘Roadway’ in <u>Attachment 1</u> to this Maintenance Specification	Annual survey of pavement condition for the entire Project, including main lanes, ramps, and frontage roads, undertaken using automated condition survey equipment to measure all necessary criteria including: ruts, skid resistance and ride quality according to the inspection and measurement methods set forth in <u>Attachment 1</u> to this Maintenance Specification
All Maintenance Elements in Element Category ‘Structures’ in <u>Attachment 1</u> to this Maintenance Specification	Inspections and load rating calculations at the frequency specified in the COMA Documents. In addition, NBIS inspections as per FHWA regulations and at the frequency specified in FHWA regulations.

Maintenance Contractor shall submit to TxDOT non-conformance reports within seven Days of issuance and shall notify TxDOT of Nonconforming Work within two Days of discovering the Nonconforming Work. TxDOT will issue a non-conformance report if TxDOT discovers any Nonconforming Work.

**1.16 Maintenance Contractor Audit Inspections**

Maintenance Contractor shall undertake Audit Inspections of TxDOT’s randomly selected Auditable Sections for audit purposes at least once quarterly. The Audit Inspections shall be designed such that over a period of one year the sample sections are statistically valid for 100% of the assets. Maintenance Contractor shall assess the condition of each Maintenance Element using the inspection and measurement method set forth in the column entitled “Inspection and Measurement Method” in Attachment 1 to this Maintenance Specification.

Maintenance Contractor shall create a new Maintenance Record for each Maintenance Element physically inspected in accordance with the column entitled “Measurement Record” on Attachment 1 to this Maintenance Specification. Audit Inspections shall be undertaken to a schedule agreed with TxDOT on Auditable Sections randomly selected by TxDOT. TxDOT shall be given the opportunity by seven days’ notice, to accompany Maintenance Contractor when it undertakes the physical inspections associated with the Audit Inspections.

### 1.17 Asset Condition Score by Maintenance Contractor

Within ten days of the quarterly Audit Inspections, Maintenance Contractor shall assess its achievement of the Performance Requirements by self-scoring against the Targets set forth in Attachment 1 to this Maintenance Specification.

Maintenance Contractor shall report quarterly to TxDOT a mean Asset Condition Score for each Element Category, to include all of the Auditable Sections inspected in the most recent Audit Inspection. Maintenance Contractor shall also report quarterly to TxDOT an Asset Condition Score for each element in all of the Auditable Sections inspected in the most recent Audit Inspection. Maintenance Contractor shall assess mean Asset Condition Scores and Asset Condition Scores according to the measurement criteria set forth in Table 2.

Table 2 – Asset Condition Score Criteria for Maintenance Element Categories  
(Reported quarterly for all inspected Auditable Sections)

Score	Criteria
5	<ul style="list-style-type: none"> <li>Targets for individual Maintenance Elements are almost entirely met (90% to 100% compliance with the relevant Targets for each Maintenance Element within each Auditable Section), and</li> <li>Is fully functional and in nearly new condition, meeting or exceeding Performance Requirement.</li> </ul>
4	<ul style="list-style-type: none"> <li>Targets for individual Maintenance Elements are substantially met (less than 90% compliance and 80% or greater compliance with the relevant Targets for each Maintenance Element within each Auditable Section), and</li> <li>Is functional and in good condition, meeting Performance Requirement.</li> </ul>
3	<ul style="list-style-type: none"> <li>Targets for individual Maintenance Elements are mostly met (less than 80% compliance and 70% or greater compliance with the relevant Targets for each Maintenance Element within each Auditable Section), and</li> <li>Is in fair condition, but suggesting need for early replacement, renewal or repair of individual Maintenance Element and/or maintenance or operation improvement action to meet Performance Requirement.</li> </ul>
2	<ul style="list-style-type: none"> <li>Targets for individual Maintenance Elements are barely met (less than 70% compliance and 60% or greater compliance with the relevant Targets for each Maintenance Element within each Auditable Section), or</li> <li>In poor condition demonstrating need for immediate replacement, renewal or repair of individual Maintenance Element and/or immediate change to MMP.</li> </ul>
1	<ul style="list-style-type: none"> <li>Targets for individual Maintenance Elements are not met (less than 60% compliance with the relevant Targets for each Maintenance Element within each Auditable Section), or</li> <li>In very poor condition demonstrating need for immediate replacement, renewal or repair of individual Maintenance Element and/or immediate change to MMP.</li> </ul>

Notes to Table 2:

- The calculation of Asset Condition Score for a Maintenance Element within a Maintenance Element Category is demonstrated by the following example:

Assume there are 520 Auditable Sections, of these 5%, or 26 are audited each quarter. There are five Targets to be assessed for Maintenance Element "pavement markings." There are therefore,  $5 \times 26 = 130$  measurement records for pavement markings. If 125 of these measurement records meet the Target, there would be 96% compliance and an Asset Condition Score of five assigned for that Maintenance Element.

2. An Asset Condition Score of less than 3 for any Maintenance Element is deemed a Noncompliance Event.
3. A mean Asset Condition Score across Maintenance Elements in any Maintenance Element Category shall be calculated to 1 decimal point and also recorded. A mean Asset Condition Score across Maintenance Elements of less than 3.5 (for any Maintenance Element Category) is deemed a Noncompliance Event.
4. "Mean" in this context shall be the arithmetic mean.
5. Where a measurement record relates to a service measured over time or a Maintenance Element that is not represented in more than 25% of Auditable Sections then the Asset Condition Score will be based on the total service and not a 5% random sample. This applies to the performance measurement of Maintenance Element Categories: Structures, Traffic Signals, Snow and Ice Control, Incident Response, Customer Response or other Maintenance Element Categories meeting the above criteria identified following establishment of the Auditable Sections.
6. Maintenance Contractor acknowledges that Asset Condition Score is a mechanism to benchmark the performance of the Project against the performance of other similar facilities and that TxDOT may, during the Maintenance Term, alter the Asset Condition Score criteria to reflect Good Industry Practice.
7. Where Defects are recorded for a Maintenance Element within an Auditable Section, these Defects shall be deemed to meet Performance Requirements for the purpose of the Asset Condition Score and will be removed from the sample and not scored, if both of the following conditions are met:
  - a. Maintenance Contractor can document that the Defect was observed and recorded prior to the Maintenance Contractor's Audit Inspection, and
  - b. all hazard mitigation has been performed and all permanent remedy and permanent repair activities are ongoing and within the allowable cure times for the specified Response to Defects in Attachment 1.

Where specific measurement criteria are not provided in Attachment 1 to this Maintenance Specification, Maintenance Contractor shall use Good Industry Practice to assess the Asset Condition Score against the general criteria stated in Table 2.

### **1.18 Hazardous Materials Management Plan**

As part of the MMP, Maintenance Contractor shall prepare and submit a Hazardous Materials Management Plan (HMMP) for the safe handling, storage, treatment and/or disposal of Hazardous Materials, whether encountered at or brought onto the Project by the Maintenance Contractor, encountered or brought onto the Project by a third party, or otherwise, during the Maintenance Term. The HMMP shall include:

- a) the identification and contact information for designated responsible individuals in the management of Hazardous Materials, include procedures compliant with all applicable Environmental Laws and include, at a minimum:



- b) procedures for updating Material Safety Data Sheets (MSDS), per OSHA requirements, for all chemicals used on the Project for the Maintenance Term;
- c) designated individuals responsible for implementation of the HMMP;
- d) procedures for identifying and documenting potential contaminated sites which might impact Project development;
- e) procedures for mitigation of contamination during the operation and maintenance of the Project;
- f) procedures for developing a detailed Spill Response Plan for the Maintenance Term including the prevention, control, and mitigation of fugitive noxious or toxic vapors or particulate matter (dust), contaminated soil, and contaminated groundwater during disturbance of noxious or hazardous materials and media;
- g) processes for training personnel for responding to and mitigating Incidents involving contamination or waste;
- h) provisions for appropriate storage and disposal of all waste encountered or disposed of on the Project for the Maintenance Term;
- i) provisions for a Hazardous Materials training module; and
- j) procedures for preparing an Investigative Work Plan (IWP) and Site Investigative Report (SIR) in the event that Hazardous Materials are discovered during operations or maintenance activities.

The HMMP shall include provisions for making all on-Site workers aware of and able to recognize the potential Hazardous Materials to which they may be exposed, limiting Maintenance Contractor's workers' exposure to Hazardous Materials and providing all necessary personal protection equipment to protect workers from exposure. The HMMP shall require Maintenance Contractor to provide any non-Maintenance Contractor personnel who visit the Project with the appropriate personal protection equipment.

The HMMP shall require that all personnel of Maintenance Contractor-Related Entities handling Hazardous Materials be trained and certified at least to the minimum requirements established under the current guidelines of OSHA 1910.120 (HAZWOPER Training).

The HMMP shall include procedures for ensuring that all applicable certifications, licenses, authorizations and Governmental Approvals for Maintenance Contractor personnel handling Hazardous Materials are current and valid through the duration of the Maintenance Term.

### **1.19 Environmental Compliance and Mitigation Plan**

As part of the MMP, Maintenance Contractor shall prepare and submit an Environmental Compliance and Mitigation Plan (ECMP) to document and fully detail compliance strategies and procedures to be employed in accordance with the requirements of applicable Environmental Laws and Environmental Approvals. The ECMP shall provide, at a minimum:

- a) Procedures for maintaining the environmental commitments required to verify that any discharge from the Project into a sanitary sewer system complies with appropriate codes and standards of the sanitary sewer owner;
- b) Procedures for identifying and mitigating any potential traffic noise caused by conducting Maintenance Services;
- c) Procedures for providing all other environmental monitoring within the Project area and submitting all necessary environmental documentation and monitoring reports to the

appropriate Governmental Entities and, when applicable, to TxDOT, to the extent necessary to maintain compliance with applicable Environmental Approvals; and

- d) Procedures for training personnel to avoid or take appropriate action to minimize environmental impacts caused by conducting Maintenance Services.

Maintenance Contractor shall meet the environmental requirements of Section 4 of the Technical Provisions during the performance of Renewal Work activities.

## **2 TRAFFIC MANAGEMENT**

### **2.1 General Requirements**

Throughout the Maintenance Term, Maintenance Contractor shall conform with the requirements set forth herein, and shall provide for the safe and efficient movement of people, goods, and services, through and around the Project, while minimizing negative impacts to Users, residents, and businesses.

While planning and carrying out Maintenance Services, Maintenance Contractor shall take into account the restrictions (if any) set forth in Attachment 6 to this Maintenance Specification and shall coordinate its Traffic Management Plan (TMP) with the traffic management to be performed by others to minimize disruption to Users of the Project.

### **2.2 Traffic Management and Control Plans**

As part of the MMP, Maintenance Contractor shall prepare and submit a TMP that is consistent with and expands upon the preliminary Traffic Management Plan submitted with the Proposal. The TMP shall be implemented, maintained and used throughout the Maintenance Term. At a minimum, the TMP shall include the following:

- Descriptions of the qualifications and duties of the traffic engineering manager, traffic control coordinator, and other personnel with traffic control responsibilities
- Procedures to identify and incorporate the needs of transit operators, Utility Owners, Governmental Entities, local governmental agencies, Emergency Service providers, school districts, business owners, and other related Users, Customer Groups or entities in the Project corridor and surrounding affected areas
- Procedures for obtaining acceptance of detours, road and Lane Closures and other traffic pattern modifications from applicable Governmental Entities, stakeholders, and adjacent sections of roads and adjacent landowners, and implementing, maintaining and removing those modifications
- Procedures for obtaining approval of Lane Closure and traffic control plan from TxDOT
- Procedures for installation, maintenance and removal of interim signing and the corresponding handling of permanent signing during maintenance operations
- Procedures for installation, maintenance, replacement and removal of traffic control devices, including pavement markings and traffic barriers, if used
- Procedures and process for the safe ingress and egress of construction vehicles in the work zone
- Provisions to provide continuous access to established truck routes and Hazardous Material (HazMat) routes, and to provide suitable detour routes, including obtaining any approvals required by the appropriate Governmental Entities for these uses
- Procedures to modify plans as needed to adapt to changing Project circumstances

- Procedures to communicate TMP information to Maintenance Contractor's public information personnel and notify the public of maintenance of traffic issues
- Descriptions of contact methods, personnel available, and response times for any Emergency conditions requiring TxDOT attention during off-hours.

Maintenance Contractor shall prepare and submit, for TxDOT's review and approval, traffic control plans as described herein. Each traffic control plan shall be submitted to TxDOT for review a minimum of 10 Days prior to implementation.

Maintenance Contractor shall use the procedures set forth in the approved TMP and the standards of the TMUTCD to develop detailed traffic control plans that provide for all Maintenance Services, as well as all required switching procedures. The traffic control plans shall include details for all detours, traffic control devices, striping, and signage applicable to each maintenance activity. Information included in the traffic control plans shall be of sufficient detail to allow verification of design criteria and safety requirements, including typical sections, alignment, striping layout, drop off conditions, and temporary drainage. The traffic control plans shall clearly designate all temporary reductions in speed limits. Changes to posted speed limits will not be allowed unless specific prior approval is granted by TxDOT.

### **2.3 Traffic Operation Restrictions**

Maintenance Contractor shall keep the number of Lane Closures to an absolute minimum and shall keep each Lane Closure to the shortest time necessary for safe and efficient operations and in accordance with Attachment 6.

Maintenance Contractor shall ensure that opposing traffic on a normally divided roadway shall be separated with appropriate traffic control devices, shall maintain signing continuity within the Project and intersecting streets at all times, and shall ensure all streets and intersections remain open to traffic to the greatest extent possible.

Maintenance Contractor shall maintain access to all adjacent streets and shall provide for ingress and egress to public and private properties at all times.

### **2.4 Construction Requirements**

Construction shall be in accordance with Maintenance Contractor's TMP, the manufacturer's directions or recommendations where applicable, and the applicable provisions of the TMUTCD. If at any time TxDOT determines Maintenance Contractor's traffic control operations do not meet the intent of the TMP or any specific traffic control plan, Maintenance Contractor shall immediately revise such operations to correct the deficient conditions or discontinue such operations.

Maintenance Contractor shall provide TxDOT the names of the traffic control coordinator and support personnel, and the phone number(s) where they can be reached 24 hours per day, seven days per week.

Maintenance Contractor shall maintain existing bicycle and pedestrian access and mobility with the frontage roads and across all cross streets. Maintenance Contractor shall maintain access to existing transit stop locations during construction or reasonable alternative locations shall be provided.

Maintenance Contractor shall maintain all detours in a safe and traversable condition. Maintenance Contractor shall provide a pavement transition at all detour interfaces, suitable for the posted speed of the section.

## **2.5 Public Information and Communications**

It is vital to the success of the Project that TxDOT and the Maintenance Contractor gain and maintain public support. The public will better support TxDOT and the Maintenance Contractor if they are kept abreast of Project information in a timely manner, are notified in advance of potential impacts, have an opportunity to identify issues and recommend solutions, receive timely and appropriate feedback from the Maintenance Contractor, and perceive a high quality, well executed communications plan for keeping them informed, engaged, and educated.

Maintenance Contractor shall provide information within 24 hours of a request by TxDOT, such that TxDOT may communicate such information to interested parties.

Maintenance Contractor shall comply with the public information and communications requirements set forth in Section 3 of the Technical Provisions during the performance of Renewal Work activities.

## **3 ADDITIONAL REQUIREMENTS**

### **3.1 Rail**

Should the Project cross a railroad right of way owned by an operating railroad, Maintenance Contractor shall coordinate the Maintenance Services with the operating railroad and shall be responsible for obtaining the required approvals, permits, and agreements as required for the Maintenance Services, including any railroad related Maintenance Services.

Whenever an agreement for construction, maintenance and use of railroad right-of-way between the operating railroad and TxDOT is required, Maintenance Contractor shall prepare all the documentation required to obtain the agreement, including preparation of the agreement application on behalf of TxDOT, the drawings and specifications, making necessary modifications as required, and preparation of the agreement. Maintenance Contractor shall submit the draft agreement to TxDOT for transmittal to the operating railroad. After all comments have been incorporated or satisfactorily resolved by Maintenance Contractor, railroad or TxDOT, Maintenance Contractor shall submit a complete and final agreement to TxDOT for execution. Maintenance Contractor shall comply with all construction requirements and specifications set forth in the agreement.

Maintenance Contractor shall arrange with the operating railroad for railroad flagging as required. Maintenance Contractor shall comply with the operating railroad's requirements for contractor safety training prior to performing Maintenance Services or other activities on the operating railroad's property.

Maintenance Contractor shall cooperate and coordinate with all operating railroads for access by the operating railroad and/or their agents to the rail right-of-way as necessary for rail maintenance and operations activities.

Maintenance Contractor shall procure and maintain, prior to working adjacent to and entry upon operating railroad property, insurance policies naming TxDOT, TxDOT's consultants, and railroad as named insured. Maintenance Contractor shall obtain insurance per Exhibit 10 of the COMA Documents. All insurance policies shall be in a form acceptable to the operating railroad. Copies of all insurance policies shall be submitted to TxDOT prior to any entry by the Maintenance Contractor upon operating railroad property. Maintenance Contractor shall be responsible for scheduling the work to be completed by operating railroad as well as the work to be completed by its own forces. Maintenance Contractor shall be responsible for all costs associated with the railroad/transit force account work.

## 4 HANDBACK REQUIREMENTS

Maintenance Contractor shall prepare a handback plan that contains the methodologies and activities to be undertaken or employed to meet the Handback Requirements at the end of the Maintenance Term of the Comprehensive Maintenance Agreement. Maintenance Contractor shall submit the handback plan, including a Residual Life Methodology Plan, to TxDOT for review and approval at least 60 months before the anticipated termination of the Comprehensive Maintenance Agreement. Attachment 5 defines the Residual Life at handback for the specified Maintenance Elements.

Maintenance Contractor shall perform Residual Life inspections within the Project as noted below. Within thirty (30) Days following performance of each Residual Life inspection, Maintenance Contractor shall submit to TxDOT the findings of the inspection, Residual Life test results and Residual Life calculations.

The Residual Life Methodology Plan shall contain the evaluation and calculation criteria to be adopted for the calculation of the Residual Life at handback for the specified Maintenance Elements in Attachment 5. The scope of any Residual Life testing shall be included, together with a list of all independent Residual Life testing organizations, proposed by Maintenance Contractor. These organizations shall be on TxDOT's approved list at the time the testing is performed, as well as during the preparation of the handback plan, have third party quality certification, and be financially independent of the Maintenance Contractor and not be an Affiliate of the Maintenance Contractor.

TxDOT's approval of the Residual Life Methodology Plan, including the scope and schedule of inspections, shall be required before commencement of Residual Life inspections.

Maintenance Contractor shall perform all Maintenance Services necessary to meet or exceed the Residual Life requirements contained in Attachment 5 by the time of handback of the Project to TxDOT.

At the point of handback, Maintenance Contractor shall certify in writing to TxDOT that all of the specified Maintenance Elements in Attachment 5 meet or exceed their respective Residual Life requirements defined in the Comprehensive Maintenance Agreement.

### 4.1 Residual Life Inspections

Maintenance Contractor shall perform Residual Life inspections and testing with appropriate coverage such that the results are representative of the whole Project. TxDOT shall be given the opportunity to witness any of the inspections and/or tests. Maintenance Contractor shall deliver to TxDOT, within ten days after it is created, the output data arising from any testing and any interpretation thereof made by the testers.

Between sixty-three (63) and sixty (60) months prior to the end of the Maintenance Term, Maintenance Contractor shall perform the first Residual Life inspection (the initial inspection) for the Maintenance Elements set forth in Attachment 5.

Between twenty-one (21) and eighteen (18) months before the end of the Maintenance Term, Maintenance Contractor shall perform an intermediate Residual Life inspection (the intermediate inspection) for the Maintenance Elements set forth in Attachment 5, regardless of whether Maintenance Contractor has undertaken Renewal Work for a particular Maintenance Element in the period since the initial inspection.

Between ninety (90) and thirty (30) days before the end of the Maintenance Term, Maintenance Contractor shall perform a final Residual Life inspection (the final inspection) for the Maintenance Elements set forth in Attachment 5, regardless of whether Maintenance Contractor

has undertaken Renewal Work for a particular Maintenance Element in the period since the initial inspection.

For Specialist Inspections, Maintenance Contractor shall provide, at the submittal of the handback plan, all individuals who will be performing the inspections for handback, and shall demonstrate to TxDOT that these individuals have the skill, experience and certifications to perform the necessary inspections related to handback.

Maintenance Contractor shall cause all Residual Life inspections to be undertaken by independent engineers, testing facilities and specialists and shall, where applicable, select independent engineers, testing facilities and specialists from TxDOT's list of engineering firms qualified for such work. Maintenance Contractor shall cause inspections to follow the latest inspection guidelines (at the time of inspection) issued by TxDOT.