

EXHIBIT 2

MAINTENANCE SPECIFICATION

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Attachments:

- Attachment 1 Performance and Measurement Table
- Attachment 2 Not Used
- Attachment 3 Maintenance Limits
- Attachment 4 Maintenance Management Plan Contents
- Attachment 5 Not Used
- Attachment 6 Restrictions On Traffic Management
- Attachment 7 Maintenance Planning Activities & Associated Function Codes

# 1 GENERAL

## 1.1 Maintenance Obligations

Throughout the Maintenance Period, DB Contractor shall be responsible for and shall carry out Maintenance Services for the Maintenance Elements within the Maintenance Limits. DB Contractor shall establish and maintain an organization that effectively manages all Maintenance Services in a manner set forth in the approved Maintenance Management Plan (MMP) and the requirements of the COMA Documents. DB Contractor shall take all necessary actions to achieve the following:

- Coordinate Maintenance Services with other entities with interests or activities within the Maintenance Limits, including 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 required standard of maintenance.
- Minimize delay and inconvenience to Users and, to the extent under DB Contractor's 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 Maintenance Services including inspections, Incident response, traffic control, routine or periodic maintenance, and Renewal Work in accordance with the provisions of DB Contractor's MMP and the COMA Documents.
- Promptly investigate reports or complaints received from all sources.
- Maintain traffic signals, lighting, and ITS equipment, but DB Contractor is not responsible for metered utility costs for these Maintenance Elements.

The Maintenance Manager shall be responsible to oversee and perform the Maintenance Services in accordance with the COMA Documents including ensuring proper training of its maintenance personnel and resources available for conducting Maintenance Services.

## 1.2 Maintenance Management Plan

Within 60 days after issuance of Maintenance NTP1, the MMP shall be submitted to TxDOT and be consistent with the general maintenance obligations described in Section 1.1 of this Exhibit 2. Attachment 4 lists the main contents of the MMP.

The MMP shall include:

- Processes and procedures that will be employed by DB Contractor to meet the Performance Requirements, including response times to mitigate hazards, permanently remedy, and permanently repair Defects, and the necessary inspection procedures and frequencies.
- Procedures and proposed cycle times for safety patrols, sweeping, litter pickup, and debris pickup within the Maintenance Limits.
- The most recent approved version of the applicable Performance and Measurement Table. As part of an update of the MMP to be undertaken at least annually, DB Contractor shall propose, for TxDOT's approval, updates to the Performance and Measurement Table in compliance with the requirements of Section 1.3.2 of this Exhibit 2.
- DB Contractor shall update this plan as required, or at least annually and shall submit to TxDOT by each anniversary of the Initial 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:

- Training - This includes developing and implementing a training program to prepare responsible individuals for Defect identification. DB Contractor shall maintain evidence of attendance and the frequency with which training updates are attended by relevant staff.
- Notification - This includes Defect identification, notification triggers (periodic or inspection based), responsible individuals, and entities or individuals to be notified.
- Categorization - This includes how Defects are categorized as a Category 1 Defect or Category 2 Defect.
- Action - By Defect category 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 this Exhibit 2.
- Remedy - This includes how the Defect is remedied, stating necessary notification and the individuals to be notified for such Defect remedy.
- Documentation - This includes how Defects are entered, updated and closed in the Maintenance Management System.

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.

### **1.3 Performance Requirements**

#### **1.3.1 Defect Categorization**

For each Defect identified, DB Contractor shall make a determination as to whether:

- it represents an immediate or imminent health or safety hazard to Users or road workers,
- there is a risk of immediate or imminent structural failure or deterioration,

- there is an immediate or imminent risk of damage to a third party’s property, or
- there is an immediate or imminent risk of damage to the environment.

Should a Defect meet any of the above criteria, DB Contractor shall record it as a Category 1 Defect (Hazard Mitigation) and take all necessary action to mitigate the Defect. Any other Defect not meeting the foregoing criteria shall be assigned as a Category 2 Defect. DB Contractor shall take necessary action to avoid any Category 2 Defect from becoming a Category 1 Defect (Hazard Mitigation). DB Contractor shall monitor Category 2 Defects to verify the condition of the affected Maintenance Element prior to repair and shall inform TxDOT immediately should any such Defect deteriorate to a Category 1 Defect (Hazard Mitigation). TxDOT can notify the DB Contractor of any Defect that should be categorized as a Category 1 Defect. DB Contractor shall provide training to all relevant personnel on the categorization of Defects. DB Contractor shall maintain a record of the circumstances of the Defect and how it was categorized.

For Category 1 Defects, DB Contractor shall take necessary action such that any hazard to Users is mitigated within the period specified in the column with the heading “Category 1 Hazard Mitigation” in the Performance and Measurement Table and shall permanently remedy the Defect within the period identified in the column with the heading “Category 1 Permanent Remedy” in the Performance and Measurement Table. For Category 2 Defects, DB Contractor shall undertake the permanent repair within the period specified in the column with the heading “Category 2 Permanent Repair” in the Performance and Measurement Table unless an earlier repair is required to prevent deterioration to a Category 1 Defect (Hazard Mitigation).

The remedy or repair of any Maintenance Element shall meet or exceed the standard identified in the column entitled “Target” in the Performance and Measurement Table. Where action is taken to remedy or repair any Defect in any Maintenance Element of the Project, DB Contractor shall create a Maintenance Record that identifies the nature of the remedy or repair. DB 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 Performance and Measurement Table.

The Defect Remedy Period set forth in the Performance and Measurement Table shall commence upon the earlier of: (i) the date and time DB Contractor became aware of the Defect; and (ii) the date and time DB Contractor should have known of the Defect.

### **1.3.2 Performance and Measurement Table Update**

DB Contractor may propose changes to the Performance and Measurement Table for TxDOT approval. In its annual update of the MMP, DB 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 Exhibit 2. TxDOT may, at any time, require DB Contractor to adopt amendments to the columns with the headings “Measurement Record” and “Inspection and Measurement Method” in the Performance and Measurement Table where such updates are required to comply with then current Good Industry Practice.

TxDOT shall require the adoption of a new Target only when this is required because the “Inspection and Measurement Method” or “Measurement Record” no longer complies with Good Industry Practice. In this case, the new Target shall be determined using the principle that it shall achieve no less than the standard of Maintenance Services that would have been achieved through DB Contractor’s compliance with the original “Inspection and Measurement Method”, “Measurement Record”, and Target.

DB Contractor shall provide updates to the Performance and Measurement Table to take into consideration specific attributes of the Final Design (for example, where the Final Design

incorporates a feature that is not included as a Maintenance Element in the Performance and Measurement Table).

#### 1.4 Inspections

DB Contractor shall establish inspection procedures and a plan to implement a program of inspections of the Project to be included within the Maintenance Services Deliverable 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 the Performance and Measurement Table;
- ensures that all Category 1 Defects are identified and permanently remedied within the period given in the column entitled "Category 1 Permanent Remedy" in the Performance and Measurement Table;
- identifies Category 2 Defects to be included for repair either within DB 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 the Performance and Measurement Table;
- 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 Services.

DB 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").

In performing inspections to identify Category 1 Defects and Category 2 Defects, DB 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 the Performance and Measurement Table.

Maintenance Records shall be kept for the Maintenance Period and shall be provided to TxDOT at the time the Project is delivered to TxDOT, at either the expiration of the Maintenance Period or earlier termination of the Comprehensive Maintenance Agreement. All records obtained during the Warranty Periods shall be kept and provided to TxDOT at the end of the last Warranty Period.

### 1.4.1 General Inspection

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

DB 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.

DB 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.

### 1.4.2 Specialist Inspections

DB 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**

<b>Maintenance Element</b>	<b>Specialist Inspection</b>
All Maintenance Elements in the Maintenance Element Category 'Pavement' in the Performance and Measurement Table	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 the Performance and Measurement Table.
All Maintenance Elements in the Maintenance Element Category 'Structures' in the Performance and Measurement Table	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.
Pavement Markings Maintenance Element for all lane lines, edge lines, centerline/no passing barrier-line	Annual Mobile Retro-reflectivity Data Collection (MRDC) in accordance with Special Specification 8094 Mobile Retro-reflectivity Data Collection for Pavement Markings.

## 1.5 Audits

### 1.5.1 Performance Sections

As part of the MMP, DB Contractor shall prepare drawings identifying the Performance Sections and shall submit and update these plans with the applicable part of the MMP. The drawings shall identify the boundaries of each Performance Section and shall cross reference to an inventory describing each Maintenance Element of the Project contained within each Performance Section.

DB Contractor shall implement the Texas Reference Marker (TRM) System used by TxDOT to establish Performance Sections for records in accordance with the MMP. DB Contractor shall use the existing TRM System established on existing sections of the Project. DB Contractor shall coordinate with TxDOT prior to submittal of MMP to establish the TRM System on newly constructed sections of roadway.

### 1.5.2 Audit Inspections

DB Contractor shall undertake Audit Inspections of TxDOT’s randomly selected Performance Sections for audit purposes at least once quarterly. The Audit Inspections shall be conducted on a minimum of 5% of the available Performance Sections such that over a period of five (5) years the Audit Inspections provide coverage of 100% of the Project. DB 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 the Performance and Measurement Table.

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

### 1.5.3 Asset Condition Score

Within ten days following each quarterly Audit Inspection, DB Contractor shall assess its achievement of the Performance Requirements by self-scoring against the Targets set forth in the Performance and Measurement Table.

DB Contractor shall report quarterly to TxDOT a Maintenance Element Asset Condition Score for each Maintenance Element and a Mean Asset Condition Score for each Maintenance Element Category, to include all of the Performance Sections inspected in the most recent Audit Inspection. DB Contractor shall calculate the Maintenance Element Asset Condition Scores according to the measurement criteria set forth in Table 2.

**Table 2 – Maintenance Element Asset Condition Score Criteria**

<b>Score</b>	<b>Criteria</b>
<b>5</b>	<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 Performance Section), and</li> <li>• Is fully functional and in nearly new condition, meeting or exceeding Performance Requirement.</li> </ul>
<b>4</b>	<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 Performance Section), and</li> <li>• Is functional and in good condition, meeting Performance Requirement.</li> </ul>
<b>3</b>	<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 Performance 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>
<b>2</b>	<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 Performance</li> </ul>



	<p>Section), or</p> <ul style="list-style-type: none"> <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 Performance 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 Maintenance Element Asset Condition Score for a Maintenance Element is demonstrated by the following example:

Assume there are 520 Performance 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 a Maintenance Element Asset Condition Score of five assigned for that Maintenance Element.

- A Maintenance Element Asset Condition Score of less than 3 for any Maintenance Element is deemed a Noncompliance Event.
- A Mean Asset Condition Score for each Maintenance Element Category shall be calculated to 1 decimal point. A Mean Asset Condition Score across Maintenance Elements of less than 3.5 (for any Maintenance Element Category) is deemed a Noncompliance Event.
- “Mean” in this context shall be the arithmetic mean of each of the Maintenance Element Asset Conditions Scores within the Maintenance Element Category.
- Where a measurement record relates to a service measured over time or a Maintenance Element that is not represented in more than 25% of Performance Sections then the Maintenance Element 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 Performance Sections.
- DB Contractor acknowledges that the Maintenance Element 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 Period, alter the Maintenance Element Asset Condition Score criteria to reflect Good Industry Practice.
- Where Defects are recorded for a Maintenance Element within a Performance Section, these Defects shall be deemed to meet Performance Requirements for the purpose of the Maintenance Element Asset Condition Score and will be removed from the sample and not scored, if both of the following conditions are met:
  - DB Contractor can document that the Defect was observed and recorded prior to the DB Contractor’s Audit Inspection, and

- b. all “Category 1 Hazard Mitigation” has been performed and all “Category 1 Permanent Remedy” and all “Category 2 Permanent Repair” activities are ongoing and within the allowable Defect Remedy Period in the Performance and Measurement Table.

Where specific measurement criteria are not provided in the Performance and Measurement Table, DB Contractor shall use Good Industry Practice to assess the Maintenance Element Asset Condition Score against the general criteria stated in Table 2.

## **1.6 Maintenance Management System**

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

The MMS shall include relevant Maintenance Element information including but not limited to, horizontal and vertical locational accuracy that complies with or exceeds Good Industry Practice, 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, and 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 TxDOT Maintenance Management Manual, to categorize the Maintenance Services performed by DB Contractor.

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

- accidents involving DB Contractor or any Subcontractor personnel, equipment, barricades or tools;
- traffic accidents within the Maintenance Limits or in the vicinity of any Maintenance Services being performed by DB Contractor or any Subcontractors;
- Releases of Hazardous Materials;
- any accident involving DB 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 Incident;
- The nature of the Incident;
- 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, DB 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 DB Contractor. All other recording requirements shall be recorded on the MMS within 15 days of completion or occurrence of the relevant activity.

90 days prior to the Initial Maintenance Term Commencement Date, the MMS shall be fully populated and operational and DB Contractor shall demonstrate to TxDOT the functionality and use of the MMS and that it is fully compliant with the requirements of the COMA Documents. The MMS shall be kept updated and operational for the duration of the Maintenance Period.

As part of the demonstration, DB 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 up to three TxDOT employees. DB Contractor shall repeat the training and demonstration annually and whenever system changes are implemented. DB Contractor shall transfer inventory and condition data to TxDOT at the date when DB Contractor's MMS is fully operational prior to the commencement of Maintenance Services and transfer the updates of the inventory and condition data quarterly afterwards throughout the Maintenance Period. At a minimum, the following data shall be transferred to TxDOT:

- An inventory of all elements, components, and equipment to be maintained;
- A description of each item with location, tag number, serial number, and equipment nameplate (size, model, and serial number);
- Inspection history and reports; and
- Condition data for each element.

DB 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.

## **2 RENEWAL WORK REQUIREMENTS**

### **2.1 Obligation to perform Renewal Work**

DB Contractor shall promptly perform Renewal Work to renew, repair, or replace any Maintenance Element when any of the following conditions occur:

- The Maintenance Element is scheduled for replacement, rehabilitation or renewal in accordance with the Renewal Work Schedule.
- The condition of any Maintenance Element is such that early replacement, rehabilitation or renewal is needed to enable Performance Requirements to be reliably achieved.

- Defects have occurred or may be expected to occur on a frequent basis and there is a risk that DB Contractor will be unable to comply with its obligation to remedy and repair such Defects within the applicable Defect Remedy Period.
- Within any Performance Section, the minimum required Maintenance Element Asset Condition Score or Mean Asset Element Condition Score is not achieved.
- The reliability is less than 99.7 percent for any safety-critical Maintenance Element.
- The reliability is less than 90 percent for any Maintenance Element other than a safety-critical Maintenance Element.
- The Maintenance Element ceases to function or dies (as in the case of plantings).
- The frequency of repair is higher than that recommended in the manufacturer's preventive maintenance schedule.

The term "safety-critical" means that should a Maintenance Element fail, the safe operation of the Project would be in jeopardy or an immediate or imminent safety hazard would result.

The term "reliability" as used above shall be calculated as the in-service time measured over a moving 365-day period. For example, if a Maintenance Element is out of service for 20 days of 365 days, its "reliability" is 94.5 percent (i.e.,  $(365 - 20)/365 \times 100$ ).

Prior to the expiration or earlier termination of any part of the Maintenance Services, DB Contractor shall submit to TxDOT a complete set of Record Drawings and supporting calculations and details that accurately show all Renewal Work and any other changes to the Project during the performance of the Maintenance Services. All Renewal Work shall follow the applicable design and construction requirements within the Technical Provisions as applicable to the original design, installation or construction unless such Technical Provisions have been superseded by Good Industry Practice. When a Maintenance Element is renewed or replaced, and upon the first installation of the renewed or replaced Maintained Element into the Project, DB Contractor shall not have the benefit of any Defect Remedy Period. DB Contractor shall cause all Renewal Work to achieve the Target applicable to the Maintenance Element as shown on the Performance and Measurement Table from the date that the renewed or replaced Maintenance Element is incorporated into the Project.

## **2.2 Renewal Work Submittal**

As part of the MMP, DB Contractor shall submit to TxDOT the first Renewal Work Submittal. The Renewal Work Submittal shall include the timing, scope, and nature of work that DB Contractor proposes during each year for which DB Contractor is responsible for Renewal Work. DB 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 planned for current year and for the next five-year period.

DB 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.

Not later than 120 days before each anniversary of the Initial Maintenance Term Commencement Date, DB Contractor shall prepare and submit, for TxDOT's review and approval, either: (a) a revised Renewal Work Submittal for the upcoming year and for the next five-year period or (b) the then-existing Renewal Work Submittal, accompanied by a written statement that DB 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").

DB Contractor shall make revisions as reasonably required by experience and then-existing conditions respecting the Project, changes in technology, changes in DB 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, DB Contractor shall include an explanation for the lack of revisions.

### **3 MAINTENANCE SERVICES DELIVERABLE SCHEDULE**

As part of the MMP, DB Contractor shall prepare a Maintenance Services Deliverable Schedule.

The Maintenance Services Deliverable Schedule shall include a listing of all Submittals or deliverables as called out in the COMA Documents. Submittal activity durations shall include specific durations for TxDOT review and/or approval of the DB 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 for the Submittals depicting the DB 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.

DB Contractor shall update the approved Maintenance Services Deliverable 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 a quarterly basis. Each Maintenance Services Deliverable 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.

DB Contractor shall submit a hardcopy of the Maintenance Services Deliverable 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.

## **4 MAINTENANCE PROCEDURES**

### **4.1 Maintenance Services Quality Management Plan**

As part of the MMP, DB Contractor shall prepare and submit a Maintenance Services Quality Management Plan (MSQMP). The MSQMP is intended to: (a) place the responsibility for the quality of all design, construction, maintenance and repair associated with the Maintenance Services on DB Contractor; and (b) allow TxDOT to oversee the Maintenance Services. DB Contractor shall undertake all quality control in accordance with the MSQMP and the requirements set forth in the COMA Documents.

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

The MSQMP shall capture all Maintenance Services performed by DB Contractor and its Subcontractors and shall contain detailed procedures for the DB Contractor's quality control activities, including a complete description of the quality policies and objectives that the DB Contractor shall implement throughout its organization. The policies shall demonstrate the DB 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

DB 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.

DB 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 DB Contractor of such a problem.

DB Contractor shall ensure that the MSQMP meets all requirements set out in ISO standards relating to quality systems, plans and audits in effect as of the Effective Date.

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 - DB 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

DB 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.

At all times during the Maintenance Period, DB Contractor shall have a Maintenance Quality Manager who is responsible for independently overseeing and performing all quality responsibilities for the Maintenance Services in accordance with the MSQMP and who shall have the authority to stop Maintenance Services for quality-related issues. The MSQMP shall demonstrate the Maintenance Quality Manager's functional independence from the DB Contractor work forces and the Maintenance Manager, and shall report directly to the DB Contractor's principals. The Maintenance Quality Manager shall be responsible to see that the methods and procedures contained in approved MSQMP are implemented and followed by DB Contractor and Subcontractors in the performance of the Maintenance Services. Maintenance Quality Manager shall be a Registered Professional Engineer.

#### **4.2 Maintenance Safety Plan**

As part of the MMP, DB Contractor shall prepare and submit a comprehensive safety plan ("Maintenance Safety Plan"). The Maintenance Safety Plan shall fully describe the DB 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 Period.

DB 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 throughout the Maintenance Period. 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 DB Contractor in communication with TxDOT and in coordination activities with other entities during Emergency events. 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 DB 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 for the Maintenance Safety Manager 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.

### **4.3 Incident and Emergency Management Plan**

As part of the MMP, DB 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, DB 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, DB 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, DB 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, DB 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.

### **4.4 Snow and Ice Control Plan**

As part of the MMP, DB 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 Period. 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
- Record keeping/reporting
- Environmental management
- Anti-icing and de-icing chemical storage
- Anti-icing and de-icing materials, including salt and alternative substances
- Equipment.

As part of the MMP updates, DB Contractor shall incorporate any changes in strategy and equipment levels designed to rectify faults identified by DB Contractor, and TxDOT in DB Contractor's snow and ice removal operations during the preceding winter season.

#### **4.5 Hazardous Materials Management Plan**

As part of the MMP, DB 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 DB Contractor, encountered or brought onto the Project by a third party, or otherwise, during the Maintenance Period. The HMMP shall include:

- a) the identification and contact information for designated responsible individuals in the management of Hazardous Materials, including 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 Period;
- 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 Period 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 throughout the Maintenance Period;
- 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 DB Contractor's workers' exposure to Hazardous Materials and providing all necessary personal protection equipment to protect workers from exposure. The HMMP shall require DB Contractor to provide any non-DB Contractor personnel who visit the Project with the appropriate personal protection equipment.

The HMMP shall require that all personnel of DB 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 DB Contractor personnel handling Hazardous Materials are current and valid throughout the Maintenance Period.

#### **4.6 Environmental Compliance and Mitigation Plan**

As part of the MMP, DB 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.

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

#### **4.7 Maintenance Document Management Plan**

As part of the MMP, DB 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 TRM System used by TxDOT. Unless otherwise directed by TxDOT, record retention shall comply with the requirements of the Texas State Records Retention Schedule.

#### **4.8 Maintenance Communications Plan**

As part of the MMP, DB Contractor shall prepare and submit a comprehensive communications plan ("Maintenance Communications Plan").

The Maintenance Communications Plan shall describe the processes and procedures for communication of Project information between the DB Contractor's organization and TxDOT and shall describe how the DB Contractor's organization will respond to unexpected requests

for information, communicate changes or revisions to necessary DB Contractor personnel, and notify TxDOT before and after changes are made to the COMA Documents.

#### **4.9 Maintenance Transition Plan**

At sixty (60) days prior to the end of this Comprehensive Maintenance Agreement, or upon earlier termination, DB 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
- DB Contractor's test reports
- Record 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

At sixty (60) days prior to the end of this Comprehensive Maintenance Agreement, the DB 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 DB Contractor constructed. DB Contractor shall ensure that the Record Drawings reflect the actual condition of the Maintenance Services construction.

DB Contractor shall coordinate the identification of Maintenance Transition punch list items required to be completed by DB 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.

DB 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.

## **5 TRAFFIC MANAGEMENT REQUIREMENTS**

### **5.1 General Requirements**

Throughout the Maintenance Period, DB Contractor shall conform with the requirements set forth in this Section 5 of this Exhibit 2, 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, DB Contractor shall take into account the restrictions set forth in Attachment 6 to this Exhibit 2 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.

DB Contractor shall analyze overweight load permit applications from the Texas Department of Motor Vehicles (TxDMV). Refer to: <http://www.txdmv.gov/motor-carriers/oversizeoverweight-permits> for a description of permit types. Notification of an overweight load permit application

will come from and response shall be returned to the TxDMV. DB Contractor shall respond to each overweight load permit request within seven days.

## 5.2 Traffic Management Plan

As part of the MMP, DB Contractor shall prepare and implement a TMP to be used throughout the Maintenance Period that includes the following items:

- 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, and implementing, maintaining and removing those modifications;
- Procedures for obtaining approval of traffic control plans for Lane Closure 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 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 DB Contractor's public information personnel and notify the public of maintenance of traffic issues; and
- Descriptions of contact methods, personnel available, and response times for any Emergency conditions requiring TxDOT attention during off-hours.

DB Contractor shall use the procedures set forth in the approved TMP and the standards of the TMUTCD to develop traffic control plans for Lane Closures per [Attachment 6](#) to this Exhibit 2 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. If at any time the traffic queue resulting from the Maintenance Services cannot be dispersed within 10 minutes, DB Contractor shall immediately undertake modifications to alleviate the traffic congestion. A contingency plan of how traffic congestion can be alleviated should be included with the traffic control plan.

### **5.3 Traffic Operation Restrictions**

DB 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.

DB 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.

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

### **5.4 Construction Requirements**

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

DB 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.

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

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

### **5.5 Public Information and Communications**

It is vital to the success of the Project that TxDOT and the DB Contractor gain and maintain public support. The public will better support TxDOT and the DB 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 DB Contractor, and perceive a high quality, well executed communications plan for keeping them informed, engaged, and educated.

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

Subject to the Lane Closure restrictions set forth in Attachment 6 to this Exhibit 2, DB Contractor shall provide TxDOT and appropriate Customer Groups a minimum of two weeks advance notice for Lane Closures and/or traffic switches planned to be in effect longer than 24 hours, and a minimum of 48 hours advance notice for Lane Closures that are planned to be in effect less than 24 hours. In addition, DB Contractor shall be responsible for the rental and placement of portable messaging signs (dynamic and static) as required by the approved traffic control plan to alert the public to traffic impacts/road closures. DB Contractor shall ensure that messaging on the signs is current and accurate at all times. DB Contractor shall input all Lane Closures (or an event that results in Lane Closures) in accordance with the Houston District Highway Conditions Report (HCR) manual for the respective fiscal year. Additional emphasis and efforts will be expected related to scheduled closures anticipated to have major traffic

impacts and/or emergency situations that result in Lane Closures. For planned Lane Closures and Emergency Closures, as appropriate, the DB Contractor shall coordinate Lane Closures that may affect crossing TxDOT facilities with appropriate TxDOT District and area offices, as needed, to ensure that no conflicts occur.

For all Emergency events, DB Contractor shall take timely and appropriate action to inform TxDOT and appropriate Customer Groups of all pertinent details. DB Contractor shall provide these details through the use of appropriate tools to ensure effective communication. These tools include, but are not limited to: dynamic message signs (DMS), TxDOT's HCRs, and TxDOT Beaumont and Houston District Office Highway Advisory Reports. DB Contractor shall continue to provide updated information, as available and on a timely basis, until the Emergency no longer exists. In the event of an unforeseen Emergency, timely notification shall mean as soon as practicable, but in no event longer than within one hour of the occurrence. If advanced warning is available for an Emergency event such as ice/snow, timely notification shall mean as soon as practicable, but in no event longer than within one hour of the time the information is available. In both situations, DB Contractor shall continue to provide updated information, as available and on a timely basis, until the Emergency no longer exists.

## **6 REPORTING REQUIREMENTS**

### **6.1 Quarterly Maintenance Services Report**

The Quarterly Maintenance Services Report shall identify all of the Maintenance Services for the period, the actual Maintenance Services performed for the period, and confirmation that all Maintenance Services performed were in compliance with the MMP. The Quarterly Maintenance Services Report shall identify the Defects, Incidents, accidents, Incident response times, operations logs, service requests, severe weather Incidents, and security Incidents that occur over the preceding quarter. The Quarterly Maintenance Services Report shall include a system for referencing each activity/event, the time and date of commencement, and the date of resolution.

The Quarterly Maintenance Services Report shall be submitted quarterly and shall be broken down for each month of the quarter. The Quarterly Maintenance Services Report shall include the following data and information:

- Summary of the status of all parts of the Project for which DB Contractor is responsible for Maintenance Services for the month identifying all Lane Closures.
- For each Defect, the report shall identify the location, the nature and cause of the Defect and the steps that will be, or have been, taken to address the Defect.
- Summary of the Maintenance Services including Renewal Work performed and completed for each month of the quarter.
- Detailed results of all Renewal Work and other maintenance work that was performed during each month of the quarter.
- Summary of Lane Closures for the coming quarter. This report shall include details describing the location, duration, and reason of each.
- Detailed results of all inspections, assessments, and testing activities, including the procedures and forms.
- Equipment Out-of-Service Report. This report shall list all traffic control and traffic surveillance, mechanical, and electrical equipment that was not functional at some time during every month of the quarter and include data such as durations, reasons, and

cross-references to any events or Incidents that may be related to the out-of-service equipment.

- Quality assurance review of the DB Contractor actions and lessons learned where appropriate.
- Summary of staff and hours worked for each month during the quarter.
- A listing of all assets in the maintenance program, including individual equipment and assets, with a summary of all of the maintenance activities performed during each month of the quarter for assets in the maintenance program including individual equipment and assets and a reference to the complete history of maintenance for the asset available through the MMS.
- DB Contractor event log data, including all actions and event details for traffic and systems events, Incidents, security Incidents, weather Incidents, and the details of DB Contractor's Incident response, including response time data, and response records.

## **6.2 Annual Report**

DB Contractor shall submit an annual report to TxDOT by each anniversary of the Initial 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 MMP, 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 Comprehensive Maintenance Agreement and the traffic control plans developed in accordance with Section 5.2 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 tests performed as part of the MMP and as required by the Performance and Measurement Table, the results of such inspections and tests, and occurrences and the measures taken to correct Nonconforming Work.
- A 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.

## **6.3 Quarterly Noncompliance Events Report**

The Quarterly Noncompliance Events Report shall be submitted in accordance with Section 19.2.1.3 of the Comprehensive Maintenance Agreement. The Quarterly Noncompliance Events Report shall contain the information required in Section 19.2.4.1 of the Comprehensive Maintenance Agreement.

## **7 ADDITIONAL REQUIREMENTS**

### **7.1 Rail**

Should the Project cross a railroad right of way owned by an operating railroad, DB 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 activities.

Whenever an agreement for construction, maintenance and use of railroad right of way between the operating railroad and TxDOT is required, DB 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. DB Contractor shall submit the draft agreement to TxDOT for transmittal to the operating railroad. After all comments have been incorporated or satisfactorily resolved by the DB Contractor, railroad or TxDOT, DB Contractor shall submit a complete and final agreement to TxDOT for execution. DB Contractor shall comply with all construction requirements and specifications set forth in the agreement.

DB Contractor shall arrange with the operating railroad for railroad flagging as required. DB 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.

DB 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.

DB 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. DB 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 DB Contractor upon operating railroad property. DB 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. DB Contractor shall be responsible for all costs associated with the railroad/transit force account work.

### **7.2 Toll Interface**

#### **7.2.1 Incident Response**

DB Contractor shall notify the TxDOT Statewide System Integrator (SI) with a copy to TxDOT no later than 2 hours following the DB Contractor's first awareness of any circumstance that is adversely affecting or has the potential to adversely affect power, communications, or structures supporting Electronic Toll Collection System (ETCS) equipment.

#### **7.2.2 Maintenance Services**

Following an ETCS event, DB Contractor shall coordinate with the SI to install infrastructure for purposes of re-establishing damaged ETCS equipment with the objective of minimizing impact to revenue collection.

Whenever DB Contractor plans to undertake Maintenance Services that may adversely affect the performance of the ETCS equipment, DB Contractor shall inform TxDOT, in writing, 28 days in advance of performing any such Maintenance Services. DB Contractor shall avoid any adverse impact on ETCS equipment wherever possible and shall comply with any restrictions



and requirements applicable to the Maintenance Services that may be imposed by TxDOT in its sole discretion.

Where adverse impact on ETCS equipment as a result of Maintenance Services is unavoidable, DB Contractor shall prepare and submit an ETCS equipment impact mitigation plan, no later than 28 days in advance of the planned Maintenance Services, for TxDOT's approval in its sole discretion that shall identify the nature and duration of the potential impacts associated with the Maintenance Services and the mitigation measures DB Contractor proposes. Upon approval by TxDOT of the mitigation plan and completion of the Maintenance Services, DB Contractor shall provide safe access to TxDOT and the SI for the purpose of re-installation and / or re-calibration of affected ETCS equipment. DB Contractor shall be solely responsible for the provision of safe access to TxDOT and the SI including all necessary traffic control to facilitate and enable the SI to re-install and/or re-calibrate ETCS equipment (as needed).

### **7.2.3 Replacement of System Integrator**

Upon TxDOT's 90 days' notice to the SI of its replacement, TxDOT may perform a hands-on inspection conducted jointly with TxDOT, DB Contractor and the outgoing SI to inspect the ETCS and adjacent Maintenance Elements including structures and conduits supporting the ETCS to determine any Defects that may affect the SI transition. The DB Contractor shall provide a permanent repair of any Defect that may affect the SI transition prior to the date the replacement SI is scheduled to commence. The DB Contractor shall provide safe access and traffic control for the purpose of the inspections and shall accompany TxDOT in the performance of inspections.

## **8 CLOSE-OUT REQUIREMENTS**

No later than 180 days prior to the end of the Maintenance Period, DB Contractor shall complete a Close-Out Inspection for 100% of the Project, and shall prepare a Close-Out Punch List. The Close-Out Punch List shall include (a) a description of each Defect identified in the Close-Out Inspection, (b) details of the Maintenance Services that will be undertaken, and (c) schedule for completing required Maintenance Services.

The Close-Out Punch List submitted to TxDOT shall be signed and sealed by a Registered Professional Engineer.

DB Contractor shall undertake the necessary hazard mitigation, permanent remedy, and permanent repair for each Close-Out Punch List item so that the affected Maintenance Element meets or exceeds the Target contained in the Performance and Measurement Table no later than 60 days prior to the end of the Maintenance Period.

DB Contractor shall cause the Close-Out Inspection to follow the latest inspection guidelines (at the time of the Close-Out Inspection) issued by TxDOT. DB Contractor shall provide to TxDOT a minimum of 14 Days' notice to witness any of the inspections and/or tests. DB 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.

The Close-Out Inspection for Maintenance Elements requiring a Specialist Inspection in accordance with Section 1.4.2 of this Exhibit 2 shall be performed by independent engineers, testing facilities and specialists from TxDOT's list of engineering firms qualified for such work.