

Maintenance Management Plan

NAME OF PROJECT
Contract #XXXXX

Day Month Year

Prepared By: DB Contractor's Name
Street Address
Suite XXX
City Name, Texas XXXX

Note: this MMP Template applies to Maintenance Work performed under the DBC prior to Final Acceptance.

MAINTENANCE MANAGEMENT PLAN

For The

NAME OF PROJECT

Approved By:

FirstName LastName
Maintenance Manager (MM)

Date

FirstName LastName
Maintenance Quality Manager (MQCM)

Date

FirstName LastName
TxDOT's Authorized Representative

Date

Record of Revisions

Rev.	Date Issued	Pages Affected	Comments
0	XX/XX/XXXX	All	Initial Issue
1	XX/XX/XXXX	XX-XX	Add brief comment regarding revision

Instructions to DB Contractor:

(These instructions to be removed from completed MMP)

1. This Maintenance Management Plan (MMP) template defines the structure and required contents of the MMP. Use this template for each version and revision of the MMP submitted to TxDOT for approval.
2. Include the DB Contractor's processes to achieve compliance with the obligations in the Contract Documents including the Performance Requirements. Describe who is responsible for each activity.
3. Processes should be clear, auditable, measurable, and achievable. Include control points at which the DB Contractor causes its own personnel or independent parties to verify that the work is in compliance with the DBC. Identify points in the processes at which TxDOT is given the opportunity to witness or approve the Work.
4. Identify the procedures (i.e. detailed steps) that will be utilized (see Appendix 6 for a listing of procedures that are needed at a minimum).
5. The MMP shall apply to Maintenance Work before Final Acceptance and an updated version of this plan shall apply to the Capital Maintenance Contract (CMC).
6. Describe the MMP updating process so that TxDOT knows who will be performing what actions when.
7. The MMP is part of the Project Management Plan (PMP). Section 4.2 of the General Conditions sets forth TxDOT's approval rights and the conditions attached to its approval of the PMP.
8. Do not duplicate Item 27 of the Design-Build Specifications or the CMA General Conditions within the MMP. Where necessary, cross reference relevant parts of Item 27 of the Design-Build Specifications or the CMA General Conditions.
9. Include within the MMP all Proposal Commitments related to the Maintenance Work and how TxDOT will be able to verify the Proposal Commitments have been fulfilled.
10. Instructions to the DB Contractor are shown in this template in parentheses and italics and shall be removed prior to submittal of the MMP to TxDOT.

TABLE OF CONTENTS

1. GENERAL MANAGEMENT AND ADMINISTRATION 1

1.1 Organization and Personnel 1

 1.1.1 DB Contractor Maintenance Organization Chart 1

 1.1.2 Qualifications, Experience necessary and training requirements for DB Contractor staff positions 1

 1.1.3 Personnel Training and Certification 1

1.2 Communication Protocols 2

 1.2.1 Communications with TxDOT, Governmental Entities and Third Parties 2

 1.2.2 Coordination during ITS integration and ITS operations 2

 1.2.3 Oversize / Overweight Permits 3

 1.2.4 Coordination with Utilities, Stakeholders and other 3rd Parties 3

1.3 Project Meetings 3

1.4 Document Control and Information Management 4

1.5 Procurement and Subcontractors 4

1.6 Offices and Equipment 5

2. EMERGENCY RESPONSE 5

2.1 Incident Management Plan 5

2.2 Snow and Ice Control Plan 7

2.3 Severe Weather Evacuation Plan 7

3. ENVIRONMENTAL COMPLIANCE 8

3.1 Hazardous Material Management Plan 8

3.2 SW3P Implementation 8

3.3 Truck Routes, Hazardous Material Routes and related Approvals 8

3.4 Environmental Compliance and Mitigation Plan 8

4. MAINTENANCE LIMITS AND PERFORMANCE REQUIREMENTS AND MAINTENANCE SERVICES PROCEDURES 9

4.1 Maintenance Limits, Layout and Limits of Performance Sections 9

4.2 Performance and Measurement Tables 9

4.3 Maintenance Management System (MMS) 9

4.4 Defects and Inspections 9

4.5 Tracking and Reporting Noncompliance Events 10

5. MAINTENANCE SAFETY PLAN 10
APPENDIX 1: STAFF NAMES CONTACT DETAILS AND QUALIFICATIONS..... 11
APPENDIX 2: CONTACT DETAILS FOR TXDOT AND THIRD PARTIES..... 11
APPENDIX 3: MAINTENANCE LIMITS AND LIMITS OF PERFORMANCE SECTIONS 11
APPENDIX 4: PERFORMANCE AND MEASUREMENT TABLES 11
APPENDIX 5: MAINTENANCE FACILITY LOCATION AND EQUIPMENT..... 11
APPENDIX 6: MMP PROCEDURES 12
APPENDIX 7: TEMPLATE FOR TYPICAL PROCEDURE 13
APPENDIX 8: QUALITY POLICIES 14

1. GENERAL MANAGEMENT AND ADMINISTRATION

[Provide an overview of the approach to delivering Maintenance Work for the Project prior to Final Acceptance, identify the Project's maintenance objectives and reference applicable quality policies in Appendix 8. Identify Proposal Commitments applicable to the Maintenance Work. Show timeline for MMP versions and updates and MMP submittal milestones.]

1.1 Organization and Personnel

1.1.1 DB Contractor Maintenance Organization Chart

Figure 1.1 below shows the organization chart for Maintenance Work before Final Acceptance.

[Describe the organizational structure and how it will enable the DB Contractor's obligations for Maintenance Work to be met. Describe the reporting lines to TxDOT and internally. Describe the roles and responsibilities assigned to each position. Identify Major Subcontractors and describe the Maintenance Work to be performed by them.]

Figure 1.1: Organization Chart for Maintenance Work before Final Acceptance

[Insert organization chart showing reporting lines to include at a minimum:

- *TxDOT Project Manager*
- *DB Contractor corporate management team*
- *DB Contractor Project Manager**
- *Maintenance Manager**
- *Maintenance Quality Manager**
- *Maintenance Safety Manager**
- *Individual responsible for customer service**
- *Individual responsible for training program**
- *Individual responsible for ensuring maintenance and life cycle issues are captured in the design with link to design and construction teams**

For each individual () identify the employing organization. Show positions and activities to be undertaken by Major Subcontractors.]*

1.1.2 Qualifications, Experience necessary and training requirements for DB Contractor staff positions

Appendix 1 shows the individual(s) assigned to staff positions with their positions, contact information (email and mobile phone number), education/qualifications, role, and summary of previous experience.

[Include at a minimum the individuals required to be identified on the organization chart and marked with () above, including individuals employed by subcontractors]*

1.1.3 Personnel Training and Certification

Table 1.1 defines responsibility for development and implementation of training programs, who will be conducting the training and certification process for each staff position, including maintenance personnel, subcontractors and maintenance crew members on the topics below.

Table 1.1: Training Program Matrix

Training Program	Person responsible to develop and deliver	Staff positions requiring training	Frequency of training	Link to training program
Maintenance Management Plan training				
Inspections, Defect identification and categorization of Defects				
Maintenance Safety Plan, equipment use, all safety-related activities and enforcement of safety operations				
CPR and first aid				
Work zone traffic control and flaggers in work zones				
<i>[Other training programs as appropriate (details to be added by DB Contractor)]</i>				

[Include at a minimum training requirements for the individuals required to be identified on the organization chart, including individuals employed by subcontractors]

1.2 Communication Protocols

[Insert the required information below and refer to appropriate chapter and section from the PMP for all sub-sections of 1.2 (1.2.1 – 1.2.4).

1.2.1 Communications with TxDOT, Governmental Entities and Third Parties

Refer to the following procedures in Appendix 6:

- MMP-001 –Submittals and Coordination with TxDOT, Governmental Entities and Third Parties

For processes on meetings, reporting, written updates and immediate notifications on priority issues refer to *[Chapter X, Section X]* of the PMP.

Contact details for TxDOT, Governmental Entities, third parties, other stakeholders and their consultant offices with whom the DB Contractor will communicate are listed in Appendix 2.

[Within MMP-001 identify all adjacent highway agencies and address all interfaces with adjacent and connecting roadways.]

1.2.2 Coordination during ITS integration and ITS operations

For ITS integration before Final Acceptance refer to *[Chapter X, Section X]* of the PMP.

The following are maintenance interfaces with ITS:

[List the points of interfaces and include reference to diagrams or drawings showing interface lines and demarcations of responsibility for each item of ITS equipment. Include updates consistent with progress of design].

The contact details for other entities responsible for ITS are as follows:

[List the contact details here]

1.2.3 Oversize / Overweight Permits

The process for requests for permitting, issuance of permits and enforcement of permits through TxDOT is included in the following procedure in Appendix 6:

- MMP-002 –Agency Coordination for Oversize Loads

[State how TxDMV will be notified of closures associated with permits and how updates for roadway clearances during construction will be provided.]

1.2.4 Coordination with Utilities, Stakeholders and other 3rd Parties

Refer to the following procedures in Appendix 6:

- MMP-001 –Submittals and Coordination with TxDOT, Other Agencies and Third Parties

Table 1.2 below shows:

- Utilities, stakeholders and other third parties;
- In-house staff and specialized resources from the maintenance team responsible for coordination (including development and compliance with processes and the production of documentation) for each utility, stakeholder and other third party; and
- Reference to procedures contained in Appendix 6 specific to each named entity.

Table 1.2: Coordination with Governmental Entities, Stakeholders, Utilities, and Third Parties

Entity, Utility, stakeholder or third party	DB Contractor Personnel responsible for coordination	Reference to Procedure (specific to the named entity)

[Insert Governmental Entity, utility and stakeholder or third party coordination responsibilities and processes for Maintenance Work before Final Acceptance. Include reference to individual procedures applicable to each entity, covering the following:

- *Notification to entity of upcoming Maintenance Services that may affect the entity's operations, e.g. Maintenance Services affecting adjacent business of utility interest*
- *Application by entity for access to inspect, repair, renew or replace its equipment within the Maintenance Limits.]*

1.3 Project Meetings

[Refer to appropriate chapter and section from the PMP for meetings in connection with Maintenance Work.]

The meeting types, topics, required participants and frequencies of meetings in connection with Maintenance Work shall be in accordance with Table 1.3.

Table 1.3 Meetings in Connection with Maintenance Work

Meeting Type	Frequency	Attendees
Maintenance Work review meeting	Quarterly or more frequently depending upon the Maintenance Work being performed	TxDOT, Maintenance Manager, other senior personnel

[Insert details of all other meetings in connection with the Maintenance Work including mandatory meetings required by TxDOT.]

1.4 Document Control and Information Management

[Refer to appropriate chapter and section from the PMP for document control and information management in connection with Maintenance Work.]

Document Control and information management for Maintenance Work shall be as identified in Table 1.4.

Table 1.4: Document Control and Information Management

Person responsible for compliance with TxDOT Maintenance and Inspection of Records requirements	<i>[Insert name of individual or staff position]</i>
Procedures applicable	<i>[Insert references to applicable procedures]</i>
Document management EDMS software system	<i>[Insert details of software and reference to manuals]</i>
Person responsible for the storage and retention of Maintenance Records	<i>[Insert name of individual or staff position]</i>
<i>[Insert other requirements applicable to document control and information management]</i>	

1.5 Procurement and Subcontractors

Maintenance Work activities that will be subcontracted are shown in Table 1.5 below.

Table 1.5: Details of Subcontractors Performing Maintenance Work

Name of Subcontractor and start date	Key contact details	Work responsibility

[Add details of each subcontractor in accordance with the requirements of the DBC.]

1.6 Offices and Equipment

Refer to the following procedure in Appendix 6:

- MMP-003 – Maintenance of Facilities, Vehicles and Equipment Plan

[Provide location and map in Appendix 5 (if different than the Roadway Maintenance office) of the maintenance facility for equipment maintenance and storage and for the de-icing material storage, if applicable.]

[Provide spare parts, special tools and equipment list including an auditable parts and spares inventory adequate to address the maintenance obligations and compatible with the Maintenance Management System and a list of vendors for equipment and maintenance services. This information shall be included in Appendix 5]

[Provide current versions and procedures, functionality, software maintenance requirements and access protocols for all specialist software employed by DB Contractor in connection with the Maintenance Services.]

The physical address is *[insert address]*

The 24-hour contact number is *[insert number]*.

2. EMERGENCY RESPONSE

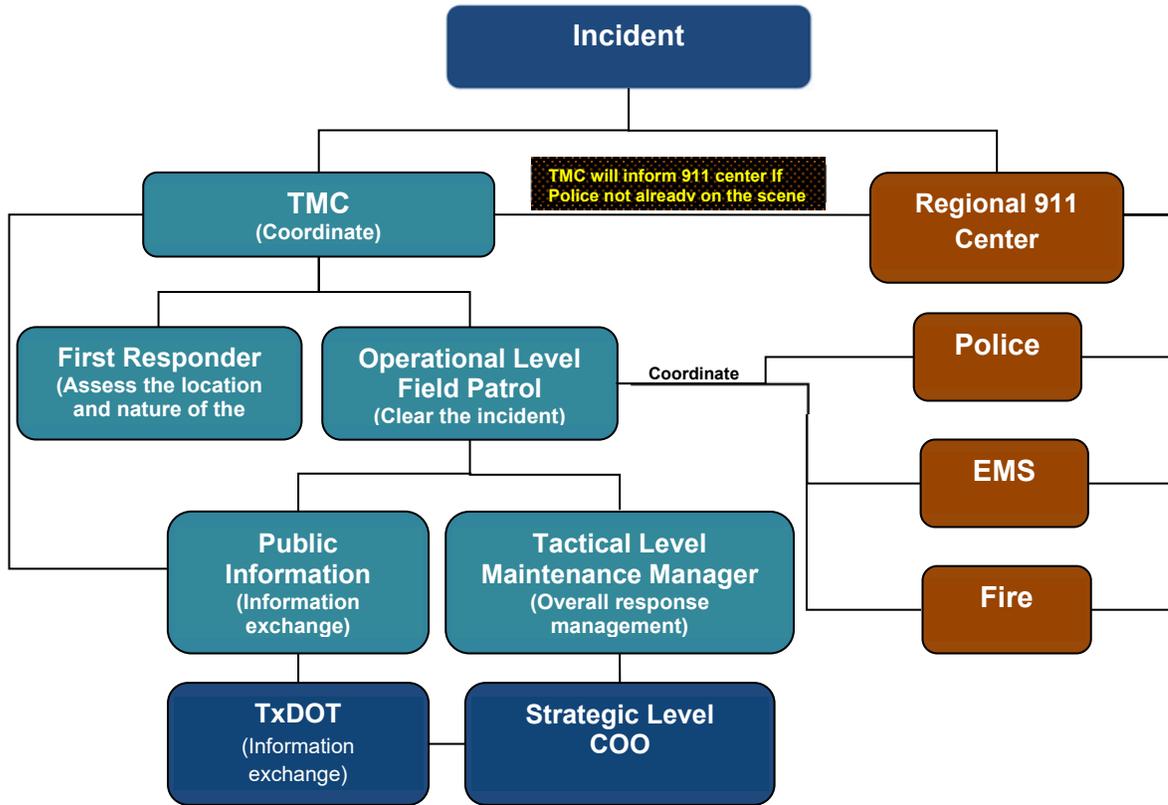
2.1 Incident Management Plan

The Incident Management Plan (IMP) contains the approach to Incident management consistent with *Section 27.6.1 of the Design-Build Specifications*, training requirements and staffing requirements for response to Incidents and Emergencies, and includes protocols, processes, and guidelines to mitigate the impacts, respond to and recover from all such events. The IMP has been prepared in coordination with and including input from the following organizations:

[Insert Project-specific list of consultees, dates of consultation and evidence of actively seeking input and feedback, to include TxDOT, Emergency Services, owners of Related Transportation Facilities and applicable Governmental Entities.]

The command structure for Incident Management is shown in Figure 2.1.

Figure 2.1: Command Structure for Incident Management



[Replace example Command Structure by Project-specific chart of equivalent detail that includes Project-specific details of Emergency Services and TxDOT contacts]

The following procedures in Appendix 6 are part of the IMP:

- MMP-004 –Emergency and Incident Management.
- MMP-005 – Incident Damage Reports, Third Party Claims and Repairs
- MMP-006 – Complaint Review and Response
- MMP-007 – Customer Satisfaction Data Collection System

[Include within the IMP, processes and responsibilities for:

- (i) Identification of Incidents of differing categories (minor, major, critical) and notification of Emergency Services providers*
- (ii) Rapid and reliable establishment of traffic control for Incident management*
- (iii) Removal by towing and recovery of stalled, broken down, wrecked or otherwise incapacitated vehicles from the travel lane, including coordination with Emergency Services/law enforcement*
- (iv) Clearance of Incident and return affected lanes to normal use within the specified period of arriving at the Incident site*

- (v) *Cleanup of debris, oil, broken glass and other such objects foreign to the roadway surface*
- (v) *Notification of the public of traffic issues related to Incidents*
- (vi) *Seeking feedback from TxDOT, emergency services and law enforcement and improving processes to improve response times.*
- (vii) *contact methods, personnel available, and response times for any Emergency condition requiring attention during off-hours*
- (viii) *identification and containment of all Hazardous Material spills and appropriate disposal of such materials.]*

2.2 Snow and Ice Control Plan

The Snow and Ice Control Plan (SICP) contains operational processes for performing snow and ice control work. The SICP complies with all applicable Law, codes, and regulations governing the operation of equipment on public highways. The SICP will be updated at least annually to incorporate any changes in strategy and equipment levels designed to rectify any noncompliances in snow and ice removal operations during the preceding winter season.

The following procedure contained in Appendix 6 is part of the Snow and Ice Control Plan (SICP).

- MMP-008 – Snow and Ice Control / Clean-up Plan.

[Include within the SICP processes and responsibilities for:

- (i) *Receiving weather forecasts and making decisions for snow and ice control and pretreatment based upon analysis of data received*
- (ii) *Advance preparation and call-out*
- (iii) *Training in connection with snow and ice control*
- (iv) *Record keeping/ reporting including maintaining records of compliance with the Performance Requirements*
- (v) *Environmental management and processes for using preventative measures, involving use of anti-icing and de-icing chemicals such as salt and alternative substances, including storage and application*
- (vi) *A list of the equipment and materials available for snow and ice control including its current location and methods to guarantee its availability for use.]*

2.3 Severe Weather Evacuation Plan

The Severe Weather Evacuation Plan (SWEP) contains operational processes for evacuation. The SWEP complies with all applicable Law, codes, and regulations governing the operation of equipment on public highways. The SWEP will be updated at least annually to incorporate any changes in strategy and evacuation routes during the previous year.

The following procedure in Appendix 6 is part of the SWEP:

- MMP-009 – Severe Weather Evacuation Plan.

[Include within the SWEPP a process and the individual responsible for each of the following:

- (i) Receiving weather forecasts and making decisions for evacuation based upon analysis of data received*
- (ii) Advance preparation and call-out*
- (iii) Training in connection with evacuation processes*
- (iv) Record keeping / reporting including maintaining records of compliance with the Performance Requirements*
- (v) Develop evacuations zones and evacuation guides with routes.]*

3. ENVIRONMENTAL COMPLIANCE

3.1 Hazardous Material Management Plan

The Hazardous Materials Management Plan (HMMP) governs 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, spill prevention and countermeasures and pollution prevention measures.

The HMPP is at *[Chapter X, Section X]* of the PMP.

3.2 SW3P Implementation

Maintenance Work will be undertaken in compliance with the TCEQ Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit in accordance with the TxDOT Storm Water Management and Guidelines for Construction Activities Manual.

The SW3P is at *[Chapter X, Section X]* of the PMP.

3.3 Truck Routes, Hazardous Material Routes and related Approvals

Truck Routes, Haz-Mat Routes and associated approvals are at *[Chapter X, Section X]* of the PMP.

3.4 Environmental Compliance and Mitigation Plan

The Environmental Compliance and Mitigation Plan (ECMP) includes compliance strategies and processes to be employed in accordance with the requirements of applicable Environmental Laws and Environmental Approvals. Maintenance Work will be undertaken in compliance with the ECMP and the Environmental Commitments.

Refer to Section 1.1.3 for education and training requirements for all project personnel. The ECMP is at *[Chapter X, Section X]* of the PMP.

4. MAINTENANCE LIMITS AND PERFORMANCE REQUIREMENTS AND MAINTENANCE SERVICES PROCEDURES

4.1 Maintenance Limits, Layout and Limits of Performance Sections

Schematic Drawings showing the Maintenance Limits and the extents of the Performance Sections are included in Appendix 3, consistent with the requirements of *Section 27.1.3 of the Design-Build Specifications*.

[Include processes and responsibilities for:

- (i) Periodically validating that the Maintenance Limits are correctly and clearly identified in the field*
- (ii) Liaison with TxDOT and Governmental Entities at least annually to review the Maintenance Limits, identify any jurisdictional gaps or inefficiencies and recommend solutions]*

4.2 Performance and Measurement Tables

Appendix 4 to the MMP contains the most recent approved versions of the Performance and Measurement Tables.

4.3 Maintenance Management System (MMS)

Refer to the following procedure in Appendix 6:

- MMP-010 – Establishing Maintenance Management System

4.4 Defects and Inspections

Refer to the following procedures in Appendix 6:

- MMP-011 – Defect Categorization and Repair
- MMP-012 – Maintenance Inspection Plan
- MMP-013 – Maintenance Repair Submittal Plan

[Include within the above processes and responsibilities for:

- (i) Training of responsible personnel to identify and to categorize Defects discovered during inspection. This shall include training specific to the identification and recording of Category 1 Defects.*
- (ii) Tracking and reporting of Defects including fault detection logs, software output*
- (iii) Generation of corrective action work orders through the MMS including how backlog of corrective maintenance and repair activities will be populated and monitored in the MMS*
- (iv) Action by Defect category type, to include a description of how the actions are carried out stating the responsible individuals and the processes for specific Defect types with examples*
- (v) How Defects will be remedied, with examples provided for all common Defects, stating necessary notification and the individuals to be notified for such Defect repair.*
- (vi) Documentation including how Defects will be entered, updated and closed in the Maintenance Management System.*

- (vii) *Verification of the satisfactory completion of Maintenance Services and restoration of asset condition*
- (viii) *Discovery of maintenance trends to determine the need for adjustments in the weekly, monthly and annual maintenance plan to address changing project conditions*
- (ix) *Inspection and testing of Project items and the identification and classification of Defects and inspection failures.*
- (x) *Monitoring instrumentation according to applicable specification*
- (xi) *Field inspections of completed Maintenance Services and for preparing daily reports to document all inspections performed*
- (xii) *Identification of inspection agencies and organizations, including information on each agency's capability to provide the specific services required, certifications held, and equipment*
- (xiii) *Preparation and submittal of the Baseline Element Condition Report (BECR)*
- (xiv) *Hazard mitigation for any Category 1 Defect in a Maintained Element of which the DB Contractor is aware through its own inspections, from a third party or through notification by TxDOT*
- (xv) *Proposal to TxDOT of a repair method for any Defect]*

4.5 Tracking and Reporting Noncompliance Events

[Include the following where Noncompliance Events are included in the Contract]

Refer to the following procedure in Appendix 6 for Noncompliance Events:

- MMP-014 – Tracking and Reporting Noncompliance Events

[Include within the above processes and responsibilities for:

- (i) Meeting self-reporting obligations*
- (ii) Identification of the start date of each Noncompliance Event*
- (iii) Accurate assessment and reporting of the date of cure*
- (iv) Proper use of the Noncompliance Events database and integration with the MMS*
- (v) Validation of the data, times, dates and other information entered into the Noncompliance Event database including frequency of checks / audits]*

5. MAINTENANCE SAFETY PLAN

The Maintenance Safety Plan describes 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.

The *Maintenance Safety Plan* is part of the Maintenance Management Plan at *[Chapter X, Section X]* of the PMP.

APPENDIX 1: STAFF NAMES CONTACT DETAILS AND QUALIFICATIONS

[Insert contact details, qualifications and training record for Maintenance Work]

Key Personnel or other personnel position	Staff name and start date	Contact details	Education, qualifications and experience	Link to training record in connection with Project
			<i>[Insert details or link to resume]</i>	

APPENDIX 2: CONTACT DETAILS FOR TXDOT AND THIRD PARTIES

[Insert contact details for Maintenance Work]

Organization	Contact name, e-mail and address	Business Phone
TxDOT <i>[List all TxDOT contacts in connection with Project]</i>		
Governmental Entities <i>[list all Governmental Entities]</i>		
Traffic Management Centers (TMC)		
Utilities <i>[list all utilities]</i>		
<i>[Other third parties]</i>		

APPENDIX 3: MAINTENANCE LIMITS AND LIMITS OF PERFORMANCE SECTIONS

[Include Schematic drawings that show the Maintenance Limits and the limits of the Performance Sections before Final Acceptance]

APPENDIX 4: PERFORMANCE AND MEASUREMENT TABLES

[Insert the latest version of the Performance and Measurement Tables]

APPENDIX 5: MAINTENANCE FACILITY LOCATION AND EQUIPMENT

[Insert a map showing the location of the Maintenance Facility and a list of equipment and tools]

APPENDIX 6: MMP PROCEDURES

MMP procedures are shown below. *[Add additional procedures as necessary and provide cross references to the applicable section of the MMP]*

MMP Procedure Number	MMP Procedure Name
MMP-001	Submittals and Coordination with TxDOT, Governmental Entities and Third Parties
MMP-002	Agency Coordination for Oversize Loads
MMP-003	Maintenance of Facilities, Vehicles, and Equipment Plan
MMP-004	Emergency and Incident Management
MMP-005	Incident Damage Reports, Third Party Claims and Repairs
MMP-006	Complaint Review and Response
MMP-007	Customer Satisfaction Data Collection System
MMP-008	Snow and Ice Control Plan
MMP-009	Severe Weather Evacuation Plan
MMP-010	Establishing Maintenance Management System
MMP-011	Defect Categorization and Repair
MMP-012	Maintenance Inspection Plan
MMP-013	Maintenance Repair Submittal Plan
MMP-014	Tracking and Reporting Noncompliance Events
MMP-015	Procedure for Updating MMP

APPENDIX 7: TEMPLATE FOR TYPICAL PROCEDURE

1. PURPOSE AND NEED

[List the reason for the procedure's implementation.]

1.1 Methodologies

[List the methodologies to be defined as part of the procedure.]

2. SCOPE

[Define the limits of the procedure. Define individuals or workgroups to whom the procedure applies.]

3. DEFINED TERMS

- *[List the terms defined as part of the procedure]*

4. STEPS IN PROCEDURE

[Describe the procedure, in detail. List all steps. Assign individual responsibility for implementing the procedure]

[Include tables, flowcharts and figures as applicable.]

5. DOCUMENT CONTROL

[List the methods by which the procedure will be documented and archived. Define the location at which the procedure's records will be filed.]

REFERENCES

[Reference applicable documents within the contract with specific section and page locations.]

Approved By:

FirstName LastName
Maintenance Manager (MM)

Date

FirstName LastName
Procedure Owner

Date

APPENDIX 8: QUALITY POLICIES

[Insert here links to or copies of the corporate quality policies and commitments of the DB Contractor and its Affiliates applicable to the Maintenance Work]