NOTES TO PERFORMANCE AND MEASUREMENT TABLE

Note 1. DB Contractor shall record a separate Defect upon failure to achieve any of the requirements set forth in a Measurement Record. DB Contractor shall repair each Defect within the specified Defect Repair Period.

Note 2. DB Contractor shall conduct hazard mitigation with respect to a Category 1 Defect to mitigate the hazard to Users or imminent risk of damage or deterioration to property or the environment such that the Category 1 Defect no longer exists. DB Contractor shall monitor hazard mitigation and shall take action to avoid a recurrence of the hazard prior to the permanent repair.

Note 3. DB Contractor shall conduct permanent repair of all Defects to restore the condition of a Maintained Element: (a) to the standard required for new construction; or (b) to a condition such that the Measurement Record is achieved.

Note 4. Unless stated otherwise only in this table, measurements shall be conducted using procedures, techniques, and measuring equipment consistent with TxDOT's Pavement Management Information System Rater's Manual, TxDOT Designation TEX-1001-S "Test Procedure for Operating Inertial Profilers and Evaluating Pavement Profiles" and TxDOT Specification No. TxDOT 968-62-65 "Pavement Condition Data Collection Services".

Note 5. Unless stated otherwise, pavement performance measurement records relate to 0.1-mile Performance Sections.

Note 6. Pavement distress data includes distresses identified directly by automated methods and distresses revealed by post-processing of visual images obtained during data collection by TxDOT certified visual distress raters for flexible and rigid pavements.

MAINTAINED ELEMENT CATEGORY	REF.	MAINTAINED ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD	INSPECTION AND MEASUREMENT METHOD	REF.	MEASUREMENT RECORD
HAZARD MITIGATION AND PERMANENT REPAIR OF CATEGORY 1 DEFECTS							
1) PAVEMENT	0.1	All Maintained Elements	Provide Hazard Mitigation and Permanent Repair to any Category 1 Defect in a pavement Maintained Element.	24 hours Hazard Mitigation (Note 2)	The inspection and measurement method for the identification of Category 1 Defects may include any of the methods in this Table.	0.1.1	No Category 1 Defects, including but not limited to: any failure as defined in TxDOT PMIS System Rater's Manual.
2) DRAINAGE	0.2		Provide Hazard Mitigation and Permanent Repair to any Category 1 Defect in a drainage system Maintained Element.	3 months Permanent Repair (Note 3)		0.2.1	No Category 1 Defects, including but not limited to: any failure of a drainage system that permits water to accumulate on the travel way to the extent that such water would represent a hazard because of its position or depth.
3) STRUCTURES	0.3		Provide Hazard Mitigation and Permanent Repair to any Category 1 Defect in a structures Maintained Element.			0.3.1	No Category 1 Defects, including but not limited to: any structural condition, loading event, deflection, crack or settlement that exceeds the design expectation for the Element.
4) EARTHWORK	0.4		Provide Hazard Mitigation and Permanent Repair to any Category 1 Defect in an earthwork Maintained Element.			0.4.1	No Category 1 Defects, including but not limited to: any settlement, earthwork instability or erosion event threatening user safety.
5) GENERAL	0.5		Provide Hazard Mitigation and Permanent Repair to any other Category 1 Defect in any Maintained Element.			0.5.1	No other Category 1 Defects, including any other Defect that meets the definition of a Category 1 Defect as defined in Section 9.4.3. [*The following criteria for a Category 1 Defect are included in Section 9.4.3:* *• 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.*]

MAINTAINED ELEMENT CATEGORY	REF.	MAINTAINED ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD	INSPECTION AND MEASUREMENT METHOD	REF.	MEASUREMENT RECORD
PERMANENT REPAIR OF ALL OTHER DEFECTS NOT CLASSIFIED AS CATEGORY 1 DEFECTS							
1) PAVEMENT GENERAL							
	1.1	Travel Lane Pavement Condition	Maintain all travel lanes at or above specified PMIS Pavement Condition Score.	6 months	a. TxDOT's Pavement Management Information System Rater's Manual b. TxDOT Designation TEX-1001-S "Test Procedure for Operating Inertial Profilers and Evaluating Pavement Profiles" c. TxDOT Specification No. TxDOT 968-62-65 "Pavement Condition Data Collection Services"	1.1.1	PCS shall be calculated and reported within 0.5-mile segments consisting of five contiguous 0.1-mile Performance Sections. PCS shall be reported separately and requirement shall be achieved in every travel lane in each direction of travel. For each 0.5-mile segment, excluding bridge deck and/or bridge approach slab, PCS calculated in every travel lane shall meet the following criteria: **Asphalt Pavement** • Mainlanes, collector-distributor, direct connectors - PCS ≥ 90 • Frontage roads, cross-streets, U-Turns - PCS ≥ 90 • Ramps > 0.5mile length - PCS ≥ 90 **Concrete Pavement (CRCP and JCP)** • Mainlanes, collector-distributor, direct connectors - PCS ≥ 95 • Frontage roads, cross-streets, U-Turns - PCS ≥ 95 • Ramps > 0.5mile length - PCS ≥ 95
	1.2	Travel Lane Ride Quality	All roadways have a smooth surface course.	6 months	TxDOT Designation TEX-1001-S "Test Procedure for Operating Inertial Profilers and Evaluating Pavement Profiles"	1.2.1	For each Performance Section, excluding Performance Sections with bridge deck and/or bridge approach slab, average IRI shall meet the following criteria: • Mainlanes, collector-distributor, direct connectors - IRI ≤ 95" per mile • Frontage roads, cross-streets, U-Turns - IRI ≤105" per mile • Ramps > 0.5mile length - IRI ≤ 105" per mile
		Travel Lane Localized Roughness	No localized areas of roughness within travel lanes. This shall include local bumps, settlements, heaves, and discontinuities at covers and frames that do not show up on the IRI profile reported in item 1.2.1.	6 months	Section 7 of TxDOT Designation TEX-1001-S "Test Procedure for Operating Inertial Profilers and Evaluating Pavement Profiles"	1.2.2	For each Performance Section, no localized roughness deviations calculated in accordance with the method set forth in Section 7 of TEX-1001-S exceeding 1/4" or less than -1/4" (positive deviations are bumps and negative deviations are dips). *[This inspection and measurement is not included in the annual Specialist Inspection program but may be used at TxDOT's sole discretion and compliance is required at all times.]*

MAINTAINED ELEMENT CATEGORY	REF.	MAINTAINED ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD	INSPECTION AND MEASUREMENT METHOD	REF.	MEASUREMENT RECORD
1) PAVEMENT GENERAL							
	1.3	Discontinuities at bridge approaches	All bridge deck approaches to have a smooth surface with no discontinuities exceeding stated measurement in any travel lane or shoulder.	6 months	10-ft straightedge used to measure discontinuities for localized areas.	1.3.1	For each Performance Sections that include a bridge deck and/or bridge approach slab, maximum 1/4" variation of the pavement surface from the testing edge of the straightedge between any two straightedge contact points with the pavement surface, measured at any location within the 100 feet length of pavement on either side of the bridge deck. For clarification, in addition to measurements in which both ends of the straightedge have contact points on pavement approach to structure, this measurement shall allow one contact point of the straightedge on the traveled surface supported by the structure and the other contact point on the pavement approach to the structure. *[This inspection and measurement is not included in the annual Specialist Inspection program but may be used at TxDOT's sole discretion and compliance is required at all times.]*
		Discontinuities in localized areas and crossovers	All localized areas such as crossovers to have a smooth surface course with no discontinuities exceeding specified requirement in Measurement Record.			1.3.2	For each Performance Section measured in localized areas, excluding bridge decks and the 100 feet length of pavement on either side of the bridge decks, maximum 1/4" variation of the pavement surface from the testing edge of the straightedge between any two straightedge contact points with the pavement surface. *[This inspection and measurement is not included in the annual Specialist Inspection program but may be used at TxDOT's sole discretion and compliance is required at all times.]*
	1.4	Edge drop-offs and other edge defects	No edge drop-offs or edge breaks exceeding stated measurements.	3 months	Visual inspection	1.4.1	For each Performance Section: • No instances of lane-to-lane or lane- to-shoulder separation or drop-off greater than 1/2" for more than 10 feet in length. • No instances of shoulder to adjacent non-vehicular area drop off greater than 2" for more than 10 feet in length. • No instances of build-up of material in non-vehicular area adjacent to shoulder with height greater than 3" for more than 10 feet in length. • No more than 50 cumulative feet of edge breaking greater than 4” wide.

MAINTAINED ELEMENT CATEGORY	REF.	MAINTAINED ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD	INSPECTION AND MEASUREMENT METHOD	REF.	MEASUREMENT RECORD
1a) PAVEMENT (ASPHALT)							
	1a.1	Ruts	All roadways (including ramps) are free from surface depressions in wheel path exceeding measurement record thresholds.	6 months	a. Depth as measured using an automated device in compliance with TxDOT Specification 968-62-65 Section 10.4.2. b. 10-ft straight edge used to measure rut depth for localized areas.	1a.1.1	No depth of rut at any location greater than 1/2" for more than 10 feet in length.
	1a.2	Cracking	All roadways (including shoulders and ramps) are free from cracking of any type exceeding measurement record thresholds. (Cracking types include longitudinal, transverse, alligator and block cracking).	3 months	a. Pavement surface distresses measured using the methods identified in TxDOT Specification 968-62-65 Section 10.4.5. b. Visual inspection	1a.2.1	All cracks exceeding 1/4" wide with a length exceeding 5 feet shall be sealed within 3 months of first identification.
	1a.3	Raveling	All roadways (including shoulders and ramps) are free from raveling exceeding measurement record thresholds.	6 months		1a.3.1	Total area of raveling shall not exceed 10% of pavement surface area in any Performance Section (rating code 1 or less). (where there are multiple areas of raveling within a Performance Section, these areas shall be added to determine whether the 10% criterion is exceeded).
	1a.4	Flushing / bleeding	All roadways (including shoulders and ramps) are free from flushing / bleeding exceeding measurement record thresholds.	6 months		1a.4.1	Total area of flushing / bleeding shall not exceed 10% of wheel path surface area in any Performance Section (rating code 1 or less). (where there are multiple areas of flushing / bleeding within a Performance Section, these areas shall be added to determine whether the 10% criterion is exceeded).
1b) PAVEMENT (CRCP)							
	1b.1	Spalled Cracks	All roadways (including shoulders and ramps) are free from spalled cracks exceeding measurement thresholds.	6 months	a. Pavement surface distresses measured using the methods identified in TxDOT Specification 968-62-65 Section 10.4.5. b. Visual inspection	1b.1.1	• No spalled cracks exceeding 10% of total crack length within a Performance Section. • No individual spalling of any crack greater than 12" length.
	1b.2	Popouts and Punchouts	All roadways (including shoulders and ramps) are free from popouts and punchouts exceeding measurement thresholds.	6 months		1b.2.1	• No popouts greater than 4" wide or long exceeding a depth of 1". • No punchouts with a maximum dimension of 24" or more exceeding 1/4" vertical fault dimension compared to adjacent intact slab.
	1b.3	Longitudinal Cracking	All roadways (including shoulders and ramps) are free from longitudinal cracks exceeding measurement record thresholds.	6 months		1b.3.1	• No unstitched longitudinal cracks with width less than or equal to 1/8". • No longitudinal cracks with width exceeding 1/8".

MAINTAINED ELEMENT CATEGORY	REF.	MAINTAINED ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD	INSPECTION AND MEASUREMENT METHOD	REF.	MEASUREMENT RECORD
1c) PAVEMENT (JCP)							
	1c.1	Damaged Joints and Cracks	All roadways (including shoulders and ramps) are free from damaged joints and cracks.	6 months	a. Pavement surface distresses measured using the methods identified in TxDOT Specification 968-62-65 Section 10.4.5. b. Visual inspection	1c.1.1	• No missing or damaged joint seal exceeding 10% of joint length. • No spalling of joints or cracks exceeding 10% of joint or crack length for any slab. • No individual spalling of joints or cracks more than 3" in width and greater than 12" length.
	1c.2	Slabs with cracks in multiple directions	All roadways (including shoulders and ramps) are free from potential shattered slabs.	6 months		1c.2.1	No slabs separated into three or more pieces by a combination of transverse cracks and longitudinal cracks of any width extending from edge to edge of the slab.
	1c.3	Slabs with Longitudinal Cracks	All roadways (including shoulders and ramps) are free from slabs with longitudinal cracks.	6 months		1c.3.1	No longitudinal cracks in any slab with width exceeding 1/8".
2) DRAINAGE							
	2.1	Non-bridge class culverts, Pipes, ditches, channels, catch basins, inlets, manholes and outfalls	Each element of the drainage system functions properly from the point at which water drains from the travel way to the outfall or drainage way and is free of: • defects in sealant at movement joints • scour damage • corrosion of rebar	6 months	Visual inspection supplemented by CCTV where there is evidence of a Defect and further investigation is needed to inspect buried pipe work.	2.1.1	Pipes, ditches and channels are clear of obstructions to flow, including debris and other accumulations, such that throughout their length, no more than 10% of the design cross sectional area is impeded.
						2.1.2	Performance Objective met.
	2.2	Drainage treatment devices	Drainage treatment and balancing systems, flow and spillage control devices function correctly and their location and means of operation is recorded adequately to permit their correct operation in Emergency.	6 months	Visual inspection	2.2.1	Performance objective met.
	2.3	Discharge systems	Surface water discharge systems perform their proper function and discharge to groundwater and waterways complies with the relevant legislation and permits.	6 months	Visual inspection	2.3.1	Performance objective met.
	2.4	Erosion	No deviation from design grade (high or low) greater than 6" exists along ditches, swales, ponds, and channels.	6 months	Visual inspection	2.4.1	Performance objective met.
	2.5	Channels and ditches; permanent erosion control measures	Where permanent erosion control measures such as rock or concrete riprap are utilized: no undermined or damaged erosion control measures.	6 months	Visual inspection	2.5.1	Performance objective met.

MAINTAINED ELEMENT CATEGORY	REF.	MAINTAINED ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD	INSPECTION AND MEASUREMENT METHOD	REF.	MEASUREMENT RECORD
3) STRUCTURES							
	3.1	Structure components (Structures having an opening measured along the center of the roadway of more than 20 feet between faces of abutments or spring lines of arches or extreme ends of the openings for multiple box culverts or multiple pipes that are 60 inches or more in diameter and that have a clear distance between openings of less than half of the smallest pipe diameter)	(i) Substructures and superstructures are free of: • defects in joint sealants • defects in pedestrian protection measure • scour damage • corrosion of rebar • failure of any paint system that includes flaking, peeling, bubbling, or having the appearance of rust (ii) Expansion joints free of: • defects in drainage system • loose nuts and bolts • defects in gaskets and/or seals (iii) The deck drainage system operates as intended. (iv) Parapets free of: • loose nuts and bolts • concrete spalling	6 months	a. The National Bridge Inspection Standards (NBIS) of the Code of Federal Regulations, 23 Highways – Part 650 b. The TxDOT Bridge Inspection Manual c. The Federal Highway Administration's Bridge Inspector's Reference Manual d. Visual Inspection	3.1.1	Performance objective is met and records maintained as required in the TxDOT Bridge Inspection Manual. Condition rating equal to or greater than seven (7) for any deck, superstructure or substructure.
			v) Bearings and bearing seats are: • properly aligned horizontally and vertically (vi) Sliding and roller surfaces are clean and greased to ensure satisfactory performance. Additional advice contained in bearing manufacturers' instructions in the structure maintenance manual is followed. (vii) Special finishes are clean and perform to the appropriate standards. (viii) All non-structural items such as hoists and electrical fixings, operate correctly, are clean and lubricated as appropriate, in accordance with the manufacturer's recommendations and certification of lifting devices is maintained.			3.1.2	Performance objective is met and records maintained as required in the TxDOT Bridge Inspection Manual. Condition rating equal to or greater than seven (7) for any deck, superstructure or substructure.
	3.2	Load ratings	All structures maintain the design load capacity and no load restrictions for Texas legal loads (including legally permitted vehicles)	6 months	a. Load rating calculations in accordance with the AASHTO Manual for Bridge Evaluation and the TxDOT Bridge Inspection Manual. b. Load restriction requirements as per the TxDOT Bridge Inspection Manual.	3.2.1	Performance objective met.
	3.3	Gantries and high-masts	Sign gantries, signal gantries and high masts are structurally sound and free of: • loose nuts and bolts • defects in surface protection systems.	6 months	Visual inspection	3.3.1	Performance objective met.
	3.4	Access points	All hatches and points of access have fully operational and lockable entryways.	6 months	Visual inspection	3.4.1	Performance objective met.

MAINTAINED ELEMENT CATEGORY	REF.	MAINTAINED ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD	INSPECTION AND MEASUREMENT METHOD	REF.	MEASUREMENT RECORD
3) STRUCTURES							
	3.5	Retaining walls	Retaining walls are free of: • defects in sealed joints • defects in pedestrian protection • scour damage • corrosion of rebar • failure of any paint system that includes flaking, peeling, bubbling, or having the appearance of rust • concrete spalling	6 months	Visual inspection	3.5.1	Performance objective met.
			Parapets are free of: • loose nuts and bolts+D57 • concrete spalling			3.5.2	Performance objective met.
	3.6	MSE Walls	Panel condition • No more than 5% showing cracking, delaminations, spalls, or scaling per panel for each MSE wall. • No instances of cracks >1/4", on more than one panel per wall. • No concrete surfaces with spalls greater than 1" deep or to reinforcement depth. • Joint condition - No instances of joints with exposed fabric, MSE backfill material below joint or vegetation growing between joints. • Panel offset at joints shall not exceed 3/4". Joint opening shall not exceed 1/4" greater or 1/2" less than the design width along adjoining panels. • Measured erosion - No instances of erosion >1 feet deep along wall coping, erosion exposing the top of the leveling pad (where pad is not on rock), or exposed straps or mesh. • Measurement of bowed wall: variance from constructed alignment. Change from as built records measured using 10-ft. straight edge. No instances of variance from constructed alignment greater than 3/4" horizontal movement within 10-ft. vertical. • Visual Inspection - free from vegetation and overgrowth of trees affecting or having the potential to affect structural integrity.		Visual inspection or other specialist inspections to determine variances from constructed alignment.	3.6.1	Performance objective met.
4) PAVEMENT MARKINGS, OBJECT MARKERS, BARRIER MARKERS AND DELINEATORS (NOT USED)							
5) CURBS, GUARDRAILS, SAFETY BARRIERS AND IMPACT ATTENUATORS (NOT USED)							
6) TRAFFIC SIGNS (NOT USED)							
7) TRAFFIC SIGNALS (NOT USED)							
8) LIGHTING (NOT USED)							
9) FENCES, WALLS AND SOUND ABATEMENT (NOT USED)							
10) ROADSIDE MANAGEMENT (NOT USED)							
11) REST AREAS AND PICNIC AREAS (NOT USED)							

MAINTAINED ELEMENT CATEGORY	REF.	MAINTAINED ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD	INSPECTION AND MEASUREMENT METHOD	REF.	MEASUREMENT RECORD
12) EARTHWORKS, EMBANKMENTS AND CUTTINGS							
	12.1	Slope failure	No structural or natural failures of the embankment and cut slopes of the Project.	6 months	Visual inspection	12.1.1	Performance objective met.
	12.2	Slopes General	Slopes are in conformance to the original, as-designed, graded cross-sections (or any modifications to such cross sections needed to address erosion or instability).	6 months		12.2.1	Performance objective met with no deviation from original designed, graded section greater than six inches in absolute elevation at any location.
	12.3	Slopes Erosion	Slopes function properly with no erosion of a nature that may result in further deterioration. All necessary erosion prevention measures are in place, including landscaping materials, seeding, turf or other vegetation. The roadway, shoulders and ditches are free from all eroded materials.	6 months		12.3.2	Performance objective met with no erosion greater than six inches deep.
	12.4	Slopes - Permanent Erosion Control Measures	Where permanent erosion control measures such as rock or concrete riprap are utilized, erosion control measures are not damaged or undermined, function properly and concrete slope protection joints are sealed and free from vegetation affecting or having the potential to affect structural integrity.	6 months		12.4.3	Performance objective met.
13) ITS EQUIPMENT (NOT USED)							
14) TOLLING FACILITIES AND BUILDINGS (NOT USED)							
15) AMENITY (NOT USED)							
16) SNOW AND ICE CONTROL (NOT USED)							
17) INCIDENT RESPONSE (NOT USED)							
18) CUSTOMER RESPONSE (NOT USED)							
19) SWEEPING AND CLEANING (NOT USED)							

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 Services performed under the CMC after Final Acceptance

MAINTENANCE MANAGEMENT PLAN

For The

NAME OF PROJECT

Approved By:

_____ _____

FirstName LastName
Maintenance Manager (MM) **Date**

_____ _____

FirstName LastName
Maintenance Quality Manager (MQM) **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

(482) 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 CMC 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 Maintenance Services are in compliance with the CMC Documents. Identify points in the processes at which TxDOT is given the opportunity to witness or approve the Maintenance Services.

4. Identify the procedures (i.e. detailed steps) that will be utilized (see Appendix 5 for a listing of procedures that are needed at a minimum).

5. Describe the MMP updating process so that TxDOT knows who will be performing what actions when.

6. Section 4.2 of the CMA General Conditions sets forth TxDOT's approval rights and the conditions attached to its approval of the MMP.

7. Where a Traffic Control Plan, Hazardous Materials Management Plan, Environmental Compliance and Mitigation Plan and similar plans or activities associated with Maintenance Services are needed during the Maintenance Period, transfer relevant plans and sections from the PMP and update as needed throughout the Maintenance Period.

8. Do not duplicate the CMA General Conditions or CMA Standard Specification Item 9 within the MMP. Where necessary, cross reference relevant parts of the CMA General Conditions or CMA Standard Specification Item 9.

9. Include within the MMP all Proposal Commitments related to the Maintenance Services 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. (483) GENERAL MANAGEMENT AND ADMINISTRATION

[Provide an overview of the approach to delivering the Maintenance Services after Final Acceptance, identify the Project's maintenance objectives and reference applicable quality policies in Appendix 7. Identify Proposal Commitments applicable to the Maintenance Services.]

Table 1.1 identifies key dates in connection with the MMP.

Table 1.1: Key Dates

Task	Date/Deadline
MMP version 2 rev.0: 120 days before Substantial Completion	
Substantial Completion	
Final Acceptance (Initial Maintenance Term Commencement Date)	
TxDOT Last Date to issue NTP for Second Maintenance Term (180 days before end of Initial Maintenance Term)	

[Example only: include at a minimum CMC milestones, Maintenance Terms and MMP Submittals and keep updated with upcoming milestones and MMP updates]

1.1. Organization and Personnel

1.1.1. DB Contractor Maintenance Organization Chart

Figure 1.1 below shows the organization chart for Maintenance Services after Final Acceptance.

[Describe the organizational structure and how it will enable the DB Contractor's obligations for Maintenance Services 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 Services to be performed by them. Describe continuity of organization and personnel between Maintenance Work before Final Acceptance and Maintenance Services after Final Acceptance.]

Figure 1.1: Organization Chart for Maintenance Services after Final Acceptance

[Insert organization chart (Figure 1.1) showing reporting lines to include at a minimum:

- *TxDOT Project Manager*
- *DB Contractor corporate management team*
- *Maintenance Manager**
- *Maintenance Quality Manager**
- *Maintenance Safety Manager**
- *Individual responsible for training program**
- *Individual responsible for assessing the condition of specified assets and scheduling Renewal Work**

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 1.2 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 1.2: 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				
Work zone traffic control and flaggers in work zones				
[Other training programs as appropriate (details to be added by DB Contractor)]				

[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

[Transfer communications processes applicable to the Maintenance Services, with suitable amendments, from the PMP to the MMP.]

1.2.1. Communications with TxDOT,Governmental Entities and Third Parties

For communication with TxDOT, Governmental Entities, utilities, stakeholders and other third parties refer to the following procedure in Appendix 5:

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

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. 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 5:

- 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 maintenance and Renewal Work will be provided.]

1.3. Project Meetings

[Complete the following information for meetings]

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

Table 1.3 Meetings In Connection with Maintenance Services

Meeting Type	Frequency	Attendees
Maintenance Work review meeting	Quarterly or more frequently as required by Section 9.8.1 of the Maintenance Specification	TxDOT, Maintenance Manager, other senior personnel

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

1.4. Document Control and Information Management

[Complete the following information for document control and information management.]

Document Control and information management for *Maintenance Services* 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	*[Insert name of individual or staff position]*
Procedures applicable	*[Insert references to applicable procedures]*
Document management EDMS software system	*[Insert details of software and reference to manuals]*
Person responsible for the storage and retention of Maintenance Records	*[Insert name of individual or staff position]*
[Insert other requirements applicable to document control and information management]	

1.5. Procurement and Subcontractors

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

Table 1.5: Details of Subcontractors Performing Maintenance Services

Name of Subcontractor and start date	Key contact details	Work responsibility

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

1.6. Monitoring and Control of Subcontractors

The following procedure contained in Appendix 5 is designed to ensure all subcontractors' work is adequately monitored and action taken in the event of noncompliance:

- MMP-003 – Quality Control of Subcontractors Activities and Products.

[Include within MMP-003 processes and responsibility for:

(i) Issuing instructions to subcontractors, including consultants and subconsultants

(ii) Ensuring steps taken to ensure subcontractors and suppliers meet the obligations imposed by their respective subcontracts

(iii) Monitoring the work of subcontractors, issuing noncompliance or nonconformance notices and providing feedback

(iv) Ensuring training for employees of Subcontractors.]

2. (484) ENVIRONMENTAL COMPLIANCE

2.1. Hazardous Material Management Plan

The Hazardous Materials Management Plan (HMMP) governs the safe handling, storage, treatment and/or disposal, spill prevention, countermeasures and pollution prevention measures of Hazardous Materials.

[Whenever Maintenance Services require the handling, storage and/or disposal of Hazardous Materials, provide an HMMP consistent with the scope and nature of the Maintenance Services and the HMMP requirements **set forth in** *the DBC.]*

2.2. SW3P Implementation

Maintenance Services 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.

[*Transfer SW3P requirements applicable to Renewal Work, with suitable amendments from the PMP to the MMP and provide processes and responsibilities for Project-specific decision criteria regarding the types of Maintenance Services for which the SW3P requirements shall be followed (e.g. for any activity disturbing soil.)*]

2.3. 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 Services will be undertaken in compliance with the ECMP and the Environmental Commitments.

[Whenever Maintenance Services may affect environmental resources, provide an ECMP consistent with the scope and nature of the Maintenance Services and the ECMP requirements set forth in the DBC.]

3. (485) MAINTENANCE LIMITS, PERFORMANCE REQUIREMENTS AND MAINTENANCE SERVICES PROCEDURES

3.1. 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 CMA Exhibit 16.

[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]

3.2. Renewal Work Procedure

The approach to Renewal Work consistent with Section 9.7.6.4 of the CMA Specification Item 9 is described in the following procedure in Appendix 5.

- MMP-004 – Renewal Work

[Include processes and responsibilities for determining when any element requires Renewal Work]

3.3. Performance and Measurement Tables

Appendix 4 to the MMP contains the most recent approved versions of the Performance and Measurement Tables updated in accordance with *Section 9.3.3 of CMA Specification Item 9*.

3.4. Maintenance Management System (MMS)

Refer to the following procedure in Appendix 5:

- MMP-005 – Establishing Maintenance Management System

3.5. Defects and Inspections

The approach to Maintenance Services consistent with the CMA Specification Item 9 is described the following procedures in Appendix 5:

- MMP-006 – Defect Categorization and Repair
- MMP-007 – Maintenance Inspection Plan
- MMP-008 – 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 repaired, 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) Analysis of Specialist Inspections performed by TxDOT and how these inspections will be used to identify Defects

(xi) Monitoring instrumentation according to applicable specification

(xii) Field inspections of completed Maintenance Services and for preparing daily reports to document all inspections performed

(xiii) Identification of inspection agencies and organizations, including information on each agency's capability to provide the specific services required, certifications held, and equipment

(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]

3.6. Tracking and Reporting Noncompliance Events

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

Refer to the following procedure in Appendix 5 for Noncompliance Events:

- MMP-009 – 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]

4. (486) 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 during the Maintenance Period. The Maintenance Safety Plan is designed to preserve the safety of Users, adjacent communities, transportation workers and Emergency Services.

The Maintenance Safety Manager complying with the requirements of *Section 9.2.3.3 of CMA Specification Item 9* is *[Insert name and contact details].*

[Develop the plan based on the requirements of Section 5.1.3 of the CMA General Conditions and tailored specifically to meet the Project's Maintenance Services requirements. Include within the Maintenance Safety Plan processes and responsibilities for:

(i) Transition from safety of Maintenance Work before Final Acceptance to safety of Maintenance Services after Final Acceptance in order to provide continuity and apply lessons learned

(iii) The individual assigned during each shift during the Maintenance Services assigned to ensure compliance with the Maintenance Safety Plan

(iv) Project-specific amendments for any Renewal Work not covered by the existing plan

(v) Notification and recording of safety incidents associated with Maintenance Services including the location, number of vehicles involved, severity of incident, number of lanes affected, and duration of any associated Lane Closure.]

5. (487) TRAFFIC MANAGEMENT PLAN AND COMMUNICATIONS PLAN

5.1. Processes for Lane Closures and Traffic Control Plans

[Whenever Maintenance Services require Lane Closures, provide a Traffic Management Plan (TMP) and Traffic Control Plan (TCP) consistent with the scope and nature of the Maintenance Services and consistent with the traffic control requirements set forth in Item 26 of the Design-Build Specifications.]

5.2. Public Information and Communications Plan

[Include within the MMP applicable procedures from the Public Information and Communications Plan (PICP) included in the PMP necessary for performance of Maintenance Services. This section may cross reference to the Traffic Management Plan if this contains the necessary processes.]

6. (488) MAINTENANCE QUALITY MANAGEMENT PLAN

6.1. Quality Management Organization

The Maintenance Quality Management Plan (MQMP) complies with *Section 9.2.2 of the CMA Specification Item 9*.

Table 6.1 below shows the maintenance quality management organization and staffing plan showing the period of time that each quality management staff member will be present on the site and the resumes of the Key Personnel.

Table 6.1 Maintenance Quality Management Organization

Name of Person within Maintenance Quality Organization	Start date and period required	Percentage of time allocated to Project	Required experience and qualifications

An organizational chart identifying all quality management personnel, their roles, authorities and line reporting relationships and resumes for all quality management personnel is included in Appendix 7.

A description of the roles and responsibilities of all quality management personnel and those who have the authority to stop activities is included in Appendix 7.

A list 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 is included in Appendix 7.

6.2. Quality Policies

The quality policies and objectives that DB Contractor shall implement throughout its organization are included in Appendix 7. The policies shall demonstrate the DB Contractor senior management's commitment to implement and continually improve the maintenance quality system.

6.3. MQMP Processes

Processes in the MQMP are developed in accordance with the following:

- Objectives, targets and responsibilities are: consistent with TxDOT's Quality Policy and QAP requirements; assigned for each organizational level within DB Contractor organization; clear, specific, measurable and achievable; and a *[Insert name of individual]* is responsible for the measurement and analysis of their achievement.
- Sources of information used to identify opportunities for continuous improvement include: records available on systems such as MMS; customer complaints database; Noncompliance Events database; level of satisfaction of Users; and evidence of lack of effectiveness of existing processes.

Refer to the following procedures in Appendix 5 for the MQMP:

- MQMP-001 – Performance Requirements Compliance
- MQMP-002 – Verification of Records
- MQMP-003 – Records for TxDOT Review

[Include within the MQMP processes and responsibilities for:

(i) How the DB Contractor will meet the Performance Requirements, including the necessary inspection procedures and frequencies to ensure compliance with Defect Repair Period to mitigate hazards, and permanently repair Defects.

(ii) Inspection and test plans, including the timing and frequency of testing

(iii) Control of quality records

(iv) Validation of the accuracy of Maintenance Records

(v) Management reviews

(vi) Measurement of customer satisfaction

(vii) Control of nonconforming products and services

(viii) Validation of the data, times, dates and other information entered into the MMS for Noncompliance Events

(ix) Verification of DB Contractor's compliance with the Performance Requirements including frequency of checks / audits

(x) Accuracy of all Maintenance Records including frequency of checks / audits

(xi) Making all quality records immediately available to TxDOT for review]

The person responsible for updating the MMP is *[Insert the name of the position]*. The TxDOT individuals that will need to be consulted regarding revisions to the MMP are *[Insert names of individuals]*.

Refer to the following procedure in Appendix 5:

- MMP-011 – Procedure for updating the MMP

7. (489) TRANSITION PLAN

The Maintenance Transition Plan complies with Section 9.7.11 of the CMA Specification Item 9 and is designed to coordinate the identification of Maintenance Transition punch list items required to be completed prior to maintenance transfer at the end of the Maintenance Term.

Refer to the following procedure in Appendix 5:

- MMP-010 – Implementation of Transition Plan

(490) APPENDIX 1: STAFF NAMES CONTACT DETAILS AND QUALIFICATIONS

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

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
			[Insert details or link to resume]	

APPENDIX 2: CONTACT DETAILS FOR TXDOT AND THIRD PARTIES

[Insert contact details for Maintenance Services]

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

APPENDIX 3: MAINTENANCE LIMITS AND LIMITS OF PERFORMANCE SECTIONS

[Include Schematic drawings that show the Maintenance Limits and the limits of the Performance Sections in accordance with CMA Exhibit 16]

APPENDIX 4: PERFORMANCE AND MEASUREMENT TABLES

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

APPENDIX 5: MMP PROCEDURES

MMP Mandatory 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	Quality Control of Subcontractors Activities and Products
MMP-004	Renewal Work
MMP-005	Establishing Maintenance Management System
MMP-006	Defect Categorization and Repair
MMP-007	Maintenance Inspection Plan
MMP-008	Maintenance Repair Submittal Plan
MMP-009	Tracking and Reporting Noncompliance Events
MMP-010	Implementation of Transition Plan
MMP-011	Procedure for updating MMP
MQMP-001	Performance Requirements Compliance
MQMP-002	Verification of Records
MQMP-003	Records for TxDOT Review

APPENDIX 6: 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 Last Name
Maintenance Manager (MM) **Date**

_____ _____

FirstName Last Name
Procedure Owner **Date**

APPENDIX 7: QUALITY POLICIES AND ORGANIZATION

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

ATTACHMENT 9-3: FUNCTION CODES, DESCRIPTIONS AND ALLOCATION OF RESPONSIBILITY

			RESPONSIBILITY		
CODE	TITLE	MAINTENANCE ACTIVITY	DB CONTRACTOR	TxDOT/THIRD PARTY	ALLOCATION OF RESPONSIBILITY NOTES
BASE AND SUBGRADE (TRAVEL LANE AND SHOULDERS)					
110+	Base Removal and Replacement (UM = CY)	The removal of base and/or subgrade materials from distressed or failed areas and replacement with suitable material. (Includes resurfacing.)	X		
120+	In Place Repair (UM = CY)	In place repair of existing base and/or subgrade material (Includes resurfacing, may or may not include additional stabilizing material).	X		
135+	Install and/or Maintain Under-drains (UM=EA)	Installation, repair and maintenance of all types of under-drains.	X		
145+	Unpaved Road Maintenance (UM = SY)	Repair of gravel or dirt roads, including blading, addition of base, etc.	X		
ASPHALTIC SURFACES (Travel Lane and Shoulders)					
211+	Leveling or Overlay with Laydown Machine (UM = SY)	The application of asphaltic tack coat and placing asphaltic concrete material to improve the ride qualities or level up low spots.	X		
212+	Leveling or Overlay with Maintainer (UM = SY)	The application of asphaltic tack coat and placing layers of asphaltic concrete material	X		
213+	Leveling by Hand (UM = SY)	The application of asphaltic tack coat and placing layers of asphaltic concrete material. This includes repair of pavement areas greater than one square yard.	X		
214+	Leveling or Overlay with Dragbox (UM=SY)	The application of asphaltic tack coat and placing layers of asphaltic concrete material.	X		
225+	Sealing Cracks (UM = LM)	Cleaning, filling and sealing cracks in the pavement using asphaltic rubber or other sealants.	X		
231+	Seal Coat (UM = SY)	Application of a single layer of asphaltic material followed by the application of a single layer of aggregate over the full width of the travel lane or shoulder (greater than 6' in width) for a minimum of 1000 continuous feet.	X		
232+	Strip or Spot Seal Coat (UM = SY)	Application of a single layer of asphaltic material followed by the application of a single layer of aggregate over areas that are not full width of the travel lane or shoulder (6' or less in width), or the full width of the lane or shoulder but less than 1000 feet in length.	X		
233+	Fog Seal (UM = SY)	Retain aggregate, enliven surface and/or seal hairline cracks by the application of a thin layer of asphaltic material.	X		
235+	Microsurfacing (UM = SY)	The application of a polymer modified high performance emulsion coupled with fine graded aggregate, mineral fillers and special additives in a slurry, to fill ruts or to provide a new wearing surface. (Caution: Should not be used to seal cracked pavements.)	X		
241+	Pothole Repair (UM = EA)	The repair of holes with a area less than or equal to one square yard. Charge to Function 213 if greater than one square yard.	X		
245+	Adding or Widening Pavement (UM = SY)	Widening travel lanes up to two (2) feet or adding shoulders up to four (4) feet to correct a maintenance problem (includes subgrade, base and surfacing, or adding turn lanes to improve safety).		X	This activity is a DB Contractor responsibility only where widening is needed to correct a maintenance problem.
252+	Milling or Planing (UM = SY)	The removal of the pavement surface by planing or milling.	X		
253+	Spot Milling (UM=SY)	The removal of pavement surface by milling using a small milling machine (drum width is 4 feet or less).	X		
265+	Treat Bleeding Pavement (UM = SY)		X		
270+	Edge Repair (UM = LF)		X		

ATTACHMENT 9-3: FUNCTION CODES, DESCRIPTIONS AND ALLOCATION OF RESPONSIBILITY

			RESPONSIBILITY		
CODE	TITLE	MAINTENANCE ACTIVITY	DB CONTRACTOR	TxDOT/THIRD PARTY	ALLOCATION OF RESPONSIBILITY NOTES
CONCRETE PAVEMENT (Travel Lanes and Shoulders)					
315	Slab Stabilization/Jacking (UM=SY)	Leveling concrete pavement through the use of hydraulically placed material.	X		
325+	Cleaning and Sealing Joints and Cracks (UM = LF)	Cleaning, filling and sealing of joints in concrete pavement.	X		
330	Blowouts and Stress Relief (UM=SY)	Repair of blowouts and cutting pavement for stress relief.	X		
345+	Repair Spalling (UM = SY)	Clean and fill spalled areas (not full depth of concrete slab).	X		
360+	Full Depth Removal and Replacement (UM = SY)	The removal and replacement of failed areas for the full depth of the concrete slab.	X		
APPROACHES AND MISCELLANEOUS SHOULDER MAINTENANCE					
455+	Reshaping unpaved shoulders. (UM = LF)	Restore sod or flexible base shoulders to original sections. Includes reshaping frontslope to eliminate low pavement edges along a paved shoulder.	X		
480+	Side Road Approaches, Crossover and Turnouts (UM = SY)	The installation or maintenance of side road approaches, crossovers, historical markers, mailbox and litter barrel turnouts, etc.	X		
488+	Concrete Appurtenance Installation and Maintenance (UM=SY)	The maintenance, installation, or removal of concrete appurtenances which include curbs and/or gutters, raised medians, sidewalks and sound barriers.		X	
495+	Parking Area Maintenance (UM = SY)	Repair of subgrade, base or surface of areas including parking lots, park and ride lots and camping pads.	N/A		
ROADSIDE AND OTHER					
511+	Mowing (UM = AC)	Mowing of the right-of-way		X	
513+	Spot Mowing (UM = HR)	Spot mowing of the right-of-way.		X	
520+	Illegal Dumpsite Removal and Disposal (UM=CY)	Removal and disposal of debris discarded or deposited in an unauthorized area in the right of way, such as under a bridge, overpass, culvert, etc.		X	
521+	Litter (UM = AC)	Removal and disposal of litter from the entire right-of-way, excluding paved areas, picnic and rest areas.		X	
522+	Street Sweeping (UM = MI)	Routine street sweeping. Units are the actual miles swept regardless of the centerline miles.		X	
523+	Debris (UM=MI)	Routine patrolling to remove and dispose of debris, including dead animals.		X	
524+	Spot Litter (UM = AC)	Spot removal and disposal of litter, including dead animals, from the right-of-way.		X	
525	Adopt-A-Highway (UM = HR)	Installation of posts and signs, materials furnished to groups, personnel and equipment used to assist in removal and disposal of collected litter.		X	
527	Hand Sweeping (UM=SY)	Hand sweeping of riprap, islands, medians, curb & gutter, bullpens, driveways, etc.		X	
530+	Removal of Graffiti (UM= SF)	Removal of graffiti from fixtures, wingwalls, bridge structures, etc. Not to be used in lieu of Function 733, Maintain Vandalized Signs, Function 731 or 732, Sign Maintenance		X	
531+	Picnic Area Maintenance (Without Restrooms) (UM = HR)	Work performed in maintaining picnic areas, including mowing, litter pickup, emptying litter barrels, paved areas, maintenance of plantings, graffiti removal, etc.		X	
532+	Rest Area Facility Maintenance (UM = HR)	Work performed in janitorial and grounds maintenance, including mowing, litter pickup, emptying litter barrels, maintenance of plantings, cleaning restrooms, cleaning arbors, graffiti removal, minor painting, etc. This item shall also include special maintenance required to repair buildings, repair/replace arbors, picnic tables, fixtures, litter barrels, paved areas, etc. (including maintenance of treatment plants and dump stations).		X	
533+	Rest Area Facility Maintenance through Regional Contracts (UM = HR)	(Maintenance Division Use Only)		X	

ATTACHMENT 9-3: FUNCTION CODES, DESCRIPTIONS AND ALLOCATION OF RESPONSIBILITY

			RESPONSIBILITY		
CODE	TITLE	MAINTENANCE ACTIVITY	DB CONTRACTOR	TxDOT/THIRD PARTY	ALLOCATION OF RESPONSIBILITY NOTES
535	Maintenance of Specialty Facilities (UM = HR)	All maintenance costs to speciality facilities including border safety inspection facilities (BSIFs), toll booths, service plazas, fences and associated appurtenances. The highway class code will determine the type of facility.		X	
536	Toll Road System Operations	All operating costs for all system toll roads. Maintenance costs should be charged to the appropriate segment 78 function.		X	
538	Pest Control (UM=AC)	Activities related to the use of predatory animal and insect control whether in turf and ornamental sites or on the ROW.		X	
540	Hand Vegetation Control (UM = HR)	Hand cleaning vegetation out of islands, medians, riprap, drainage channels, etc. by chemical, manual or mechanical means.	~~X~~ See Note	X	DB Contractor responsible for vegetation control related to all drainage elements only where such vegetation affects Performance Requirements or structural integrity of the drainage system.
541+	Chemical Vegetation Control, Edges (UM = AC)	Complete control of vegetation encroaching in pavement edges, shoulders, medians, islands and curbs with herbicides.		X	
542+	Chemical Vegetation Control, Overspray (UM = AC)	Control of undesirable vegetation growth by overspraying the right-of-way including fixtures (i.e. signs, delineator, guardrails, culverts, etc) with herbicides.		X	
544+	Chemical Vegetation Control, Ropewick (UM = AC)	Control of tall vegetation (i.e. Johnson grass) in the right of way with wick applicator.		X	
545	Chemical Vegetation Control, Basal Application (UM = HR)	Control of undesirable brush species in the right of way with a low volume basal bark application.		X	
548+	Seeding, Sodding, Hydromulching and Blanketing (UM = SY)	Seeding, sodding, hydromulching and/or placing soil retention blankets.		X	DB Contractor responsible only if reason for activity is failure of Maintained Element (e.g. slope failure)
551	Landscaping (UM=AC)	The installation or maintenance of landscape plantings and their facilities including planter walls, border, sprinkler systems, etc. (excluding picnic and rest areas).		X	
552	Tree and Brush Control (UM=CL)	The trimming, pruning and disposal of shrubs, vines, and trees (excluding picnic and rest areas).		X	
558	Storm Water Pollution Protection (UM=LF)	Maintenance or Installation of storm water pollution protection plan (SW3P) in accordance with EPA regulation on projects designated by Area Engineers	X		
560+	Riprap Installation and Maintenance (UM=SY)	Installation and maintenance of ditch liners, retards, down drains, riprap, flumes, concrete mowing strips, gabions, retaining walls and other erosion protection.	X		
561+	Ditch Maintenance (UM = CY)	Removal and hauling of silt, drift and/or filling eroded areas. Not to be used for work at culverts or bridges. (See Functions 570 and 620.)	X		Refer to CMA General Conditions Section 4.5.11.3 for DB Contractor eligibility for a Change Order for removal of silt and debris from third party source.
562+	Reshaping Ditches (UM = LF)	Reshaping ditches using maintainer and/or gradall, etc. Not to be used for work at culverts and bridges. (See Functions 570 and 620.)	X		
563+	Slope Repair/Stabilization (UM = SY)	Slope repair and/or stabilization. Not to be used for work at culverts and bridges. (See Functions 570 or 620)	X		
570	Culvert and Storm Drain Maintenance (UM=EA)	The repair and maintenance of culverts up to bridge classification (twenty feet measured along centerline of roadway). This work includes silt and debris removal from inlet, storm drains, retention ponds and culverts (except those costs associated with Function 571).	X		Refer to CMA General Conditions Section 4.5.11.3 for DB Contractor eligibility for a Change Order for removal of silt and debris from third party source.
571	Storm Water Pump Station Maintenance (UM=EA)	Repair and maintenance of motors, pumps, generators, wet wells, dry wells, debris screening baskets, buildings, etc., including costs of utility services.	X		Refer to CMA General Conditions Section 4.5.11.3 for DB Contractor eligibility for a Change Order for removal of silt and debris from third party source.
580+	Removal of Illegal Signs on ROW (Temporary, no special handling required.) (UM =EA)	Removal of illegal signs on right-of-way, including disposal and written notices to owners.		X	
581+	Removal of Illegal Signs on ROW (Permanent, special handling required.) (UM = EA)	Removal of illegal signs on right-of-way, including disposal and written notices to owners.		X	
582	Removal of Encroachments, Other than Signs (UM = HR)	Removal of illegal encroachments (other than signs) on the ROW, including disposal and written notice to owners.		X	
585+	Driveway Installation / Removal and Maintenance (UM = SY)	See access management policy		X	

ATTACHMENT 9-3: FUNCTION CODES, DESCRIPTIONS AND ALLOCATION OF RESPONSIBILITY

			RESPONSIBILITY		
CODE	TITLE	MAINTENANCE ACTIVITY	DB CONTRACTOR	TxDOT/THIRD PARTY	ALLOCATION OF RESPONSIBILITY NOTES
591	Utilities and Driveway Inspection (UM = HR)			X	
593+	Cable Median Barrier (UM=LF)	Installation and maintenance of high tension cable median barrier systems, including the cable, posts and other end treatments.		X	DB Contractor responsible only for work associated with Asphaltic and Concrete Pavement renewal maintenance activities.
594+	Concrete Barrier (UM = LF)	Installation, removal and maintenance of concrete barrier, including attached headlight barrier fence.		X	DB Contractor responsible only for work associated with Asphaltic and Concrete Pavement renewal maintenance activities.
595+	Guard Fence (UM = LF)	Installation and maintenance of guard fence, M.B.G.F. turn down ends, median barrier and attached headlight barrier fence, including posts, metal beams, etc. (End treatment other than turn down ends see Function 596)		X	DB Contractor responsible only for work associated with Asphaltic and Concrete Pavement renewal maintenance activities.
596+	Guardrail End Treatment Systems (UM=EA)	Installation and maintenance of guardrail end treatments systems. (For attenuators other than GETS, see function 725)	**See Note**	X	DB Contractor responsible only for work associated with Asphaltic and Concrete Pavement renewal maintenance activities.
597+	Mailboxes, Installation and Maintenance (UM = EA)			X	
598	Boat Ramp Maintenance (UM = HR)	Work performed in maintaining boat ramps including mowing, litter pick, emptying litter barrels, maintenance of paved and unpaved areas, etc.		X	
BRIDGES AND BRIDGE CHANNELS					
610+	Bridges, Movable Span (UM = HR)	Operation, routine maintenance and inspection of movable span bridges, (Swing barge, lift or turn). Restricted use: Beaumont, Houston, Pharr, and Yoakum District only.	X		
611+	Bridges, Portable (UM=HR)	Installation, removal, maintenance and inspection of portable bridges.	X		
620+	Bridge Channel Maintenance (UM=CY)	Removing of silt and drift, filling eroded areas, maintenance and repair of fenders, jetties, dikes, riprap and channel maintenance (including easements) except under bridges.	X		DB Contractor responsible for the entire bridge channel maintenance. Refer to CMA General Conditions Section 4.5.11.3 for DB Contractor eligibility for a Change Order for removal of silt and debris from third party source.
628+	Bridges, Rail (UM = LF)	Maintenance of bridge rail, posts and post connections to deck, including painting.	X		
645+	Bridges, Joint Maintenance (UM =LF)	Repair of bridge joints including cleaning and sealing.	X		
646+	Bridges, Joint Replacement (UM =LF)	Replacement of bridge joints.	X		
650+	Bridges, Deck (UM = SF)	Repair to bridge decks.	X		
660+	Bridges, Superstructure, Concrete (UM=SF)	Routine maintenance of concrete components of the bridge superstructure.	X		
665+	Bridges, Superstructure, Steel (UM=SF)	Routine maintenance of the steel components of the bridge superstructure, including bearings, concrete diapraghm and beams	X		
670+	Bridges, Substructure, Concrete (UM=SF)	Routine maintenance of the concrete components of the bridge substructure including caps, columns, abutments, wingwalls, piling, etc.	X		
675+	Bridges, Substructure, Steel and Timber (UM=SF)	Routine maintenance of the steel or timber components of the bridge substructure including caps, abutments, pile extensions, etc.	X		
680+	Bridges, Painting (UM=SF)	Cleaning and painting of steel superstructure or steel substructure.	X		
690+	Bridges, Mechanical and Electrical (UM = HR)	Maintenance and repair of the electrical and mechanical components of a bridge	X		
695+	Fender Systems (UM=HR)	Installation and maintenance of fender systems.	X		
TRAFFIC OPERATIONS					
711+	Paint and Bead Striping (UM=LF)	Striping or re-striping lane lines, center lines and edge lines using paint and beads.		X	DB Contractor responsible only for work associated with Asphaltic and Concrete Pavement renewal maintenance activities.
712+	High Performance Striping (UM=LF)	Striping or re-striping lanes lines, centerlines and edge lines using thermoplastic or other high performance materials.		X	DB Contractor responsible only for work associated with Asphaltic and Concrete Pavement renewal maintenance activities.
713	Specialty Markings (UM=EA)	Medians, islands and other pavement markings not covered under functions 711 or 712. (Including make-ready operations for all stripe alignment, such as spotting, tabs, temporary tape, etc.)		X	DB Contractor responsible only for work associated with Asphaltic and Concrete Pavement renewal maintenance activities.

ATTACHMENT 9-3: FUNCTION CODES, DESCRIPTIONS AND ALLOCATION OF RESPONSIBILITY

			RESPONSIBILITY		
CODE	TITLE	MAINTENANCE ACTIVITY	DB CONTRACTOR	TxDOT/THIRD PARTY	ALLOCATION OF RESPONSIBILITY NOTES
715	Removing Pavement Striping (UM=LF)	Function 715 should be used for all activities associated with the removal or obliteration of pavement stripes when the stripe is not going to be replaced. Work items could include grinding, burning, scraping or covering existing pavement stripes by applying an asphaltic material.		X	DB Contractor responsible only for work associated with Asphaltic and Concrete Pavement renewal maintenance activities.
716	Performance-Based Contract Distribution (UM=LM)	These contracts are set up to pay the contractor a fixed price on a periodic basis regardless of the type of work performed and/or the amount of work performed.		N/A	
721+	Delineators (UM = EA)	Installation, maintenance and/or replacement of damaged or missing delineators and/or posts. This function shall include straightening of posts. Measured by each post and each reflector replaced.		X	DB Contractor responsible only for work associated with Asphaltic and Concrete Pavement renewal maintenance activities.
724	Roadway Access Control (UM=LF)	Installation and maintenance of barriers other than those covered by Functions 594 and 595, designed to control access on highways, including post and cable fences, ROW fences and cattle guards.		X	
725	Vehicle Attenuators (UM=EA)	Installation and maintenance of vehicle attenuator, crash cushions, etc. (Includes end treatment devices on guard fence).		X	
731+	Install or Reinstall Small Signs (UM=EA)	The installation of signs (less than 4' x 4'). Includes the installation of an old sign on a new post or the installation of a new sign on an existing post. Not to be used in lieu of Function 733, Maintain Vandalized Signs, Installation of Large Signs Function 732, or Adopt-A-Highway Function 525.		X	
732+	Install or Reinstall Large Signs (UM=EA)	The installation of signs (equal to or greater than 4' x 4'). Includes the installation of an old sign on a new post or the installation of a new sign on an existing post. Not to be used in lieu of Function 733, Maintain Vandalized Signs, Installation of Small Signs Function 731, or Adopt-A-Highway Function 525.	X	X	DB Contractor responsible only for Maintenance Services associated with sign gantries in accordance with Performance and Measurement Table Item 3.4
733+	Vandalized Signs (UM = EA)	Replacement or repair of signs damaged by vandalism.		X	
738	Installation and Maintenance of Flashing Beacons (UM=EA)	Installation and maintenance of overhead flashing beacons, pedestal or sign mounted flashing beacons, etc.		X	
742	Illumination (UM=EA)	Installation, maintenance and operation of illumination systems including continuous lighting, safety lighting, and sign illumination		X	DB Contractor responsible only for Maintenance Services associated with high masts in accordance with Attachment 9-1 Performance and Measurement Table Item 3.43
743	Installation and Maintenance of Isolated Traffic Signals (UM=EA)	Maintenance and operation of isolated traffic signals, diamond interchange signals, etc.		X	DB Contractor responsible only for Maintenance Services associated with signal gantries in accordance with Attachment 9-1 Performance and Measurement Table Item 3.43
745	Traffic Management System (UM=CM)	Maintenance and operation of traffic management systems on freeways or non-freeways, entrance/exit ramps, motorist information (e.g. changeable message signs, highway advisory radio, etc.), surveillance and related communications equipment. (ITS Control Center personnel should charge to Segment 70, Detail 0570).		X	
750+	Installation & Removal of Pavement Markers (UM=EA)	Installation and/or removal of traffic buttons or reflective pavement markers.		X	DB Contractor responsible only for work associated with Asphaltic and Concrete Pavement renewal maintenance activities.
790	Miscellaneous Traffic Services (UM = HR)	All traffic surveys (including all motor vehicle and pedestrian counts at intersections) and directly related locations and other traffic services not covered elsewhere.		X	
799	Traffic Control Plan (UM = HR)	The placement, maintenance and removal of barricades, signs, cones, lights and other such devices needed to handle traffic during the maintenance operation.	X		TxDOT or applicable Governmental Entity responsible for traffic control only for Non-maintained Elements.

ATTACHMENT 9-3: FUNCTION CODES, DESCRIPTIONS AND ALLOCATION OF RESPONSIBILITY

			RESPONSIBILITY		
CODE	TITLE	MAINTENANCE ACTIVITY	DB CONTRACTOR	TxDOT/THIRD PARTY	ALLOCATION OF RESPONSIBILITY NOTES
EXTRAORDINARY MAINTENANCE					
811	Assistance to Traffic (Snow and Ice) (UM = HR)	Provide assistance to traffic caused by snow and ice conditions on all highways. (includes sanding, deicing, clearing, removal, etc.)		X	Refer to CMA Specification Item 9, Section 9.7.3 for DB Contractor responsibility for clean up after snow and ice events.
830	Hazardous Material Cleanup, Spill or Leaking Storage Tanks (UM = HR)	Investigation, testing, cleanup, removal, disposal, and restoration work associated with a spill or leaking storage tank.		X	Refer to General Conditions Section 4.6 for DB Contractor responsibility.
831	Hazardous Material Cleanup (Abandoned Materials) (UM = HR)	Investigation, testing, cleanup, removal, disposal, and restoration work associated with abandoned hazardous materials of unknown ownership.		X	Refer to General Conditions Section 4.6 for DB Contractor responsibility.