

## Draft Maintenance Responsibility for DBFM

September 12, 2017

### 1.1 General

MDOT is undertaking a DBFM contract for north of 13 Mile Road to north of M-102 on I-75 in the cities of Madison Heights, Royal Oak and Hazel Park within Oakland County. MDOT currently subcontracts with the Road Commission for Oakland County (RCOC) for some routine operations and maintenance of I-75. MDOT desires to continue some of these activities with RCOC or other subcontractors throughout the Contract Term. (The length of the Contract Term will be in the range of 25 to 30 years and will be defined in the RFP). In addition, the routine operations and maintenance of the pumping station associated with the new drainage tunnel which is part of the project will likely be maintained by Oakland County water Resources Commission (OCWRC). In an effort to identify and clarify the maintenance requirements of the DBFM contract, an important first step is to identify the universe of the operations and maintenance activities for the Project and identify the party responsible for performing these activities. Concurrently it is important to establish the Maintenance Limits for the DBFM contract to identify those assets for which the Developer (lead private sector entity for DBFM contract) is responsible for in terms of maintenance.

### 1.2 Maintenance Responsibility Matrix

The initial responsibility matrix shown below is intended as a discussion point. This matrix will be refined and updated during the preparation of the Draft RFP as the DBFM Scope of Work is refined.

ACTIVITY	MDOT/MDOT Subcontractors	DBFM
<b>Routine Roadway Maintenance/Operations</b>		
Guardrail repair	MDOT	
ROW fence repair	MDOT	
Litter pickup/junk removal	MDOT	
Winter operations	MDOT	
Sign routine maintenance	MDOT	
Delineator repair and maintenance	MDOT	
Traffic signal maintenance	MDOT	
Impact Attenuator maintenance	MDOT	
Emergency Response	MDOT	
Mowing/landscaping maintenance	MDOT	
Sweeping (shoulders and curbs)	MDOT	
Retaining walls		DBFM
Noise Walls		DBFM

Graffiti Removal	MDOT	
ITS equipment including CCTV, VMS, ATMS, etc.	MDOT	
Sidewalks	MDOT	
Pedestrian overpasses and approaches		DBFM
Storm water swales, culverts and catch basins cleaning	MDOT	
<b>Tunnel/Drainage System Routine Maintenance</b>		
Pump Station	MDOT	
Surface Drainage System associated with tunnel	MDOT	
Pump Station housing painting and minor repair	MDOT	
Pump routine maintenance	MDOT	
<b>Roadway Long Term Maintenance and Renewal</b>		
Pavement Signing and striping	MDOT	
Pavement repair/replacement		DBFM
Sidewalks	MDOT	
Pedestrian overpasses/approaches		DBFM
Guardrail/fencing renewal		DBFM
Noise walls repair		DBFM
Light pole replacement/renewal	P3 Lighting	
Bridge, structure and retaining wall repairs/renewal		DBFM
Bridge approaches/renewal		DBFM
Bridge, structures and retaining wall Inspections		DBFM
ITS system repairs/renewal	MDOT	
Sign replacements	MDOT	

Sign structures repairs/replacements		DBFM
Drainage swales/slope rehabilitation/renewal		DBFM
Drainage culverts and storm sewers		DBFM
Landscaping rehabilitation/renewal		DBFM
<b>Tunnel/Drainage System Long Term Maintenance and Renewal</b>		
Tunnel Inspections		DBFM
Tunnel Repairs		DBFM
Pump rehabilitation/renewal		DBFM

### 1.3 Developer's Responsibilities for Maintenance

The DBFM contract will define maintenance responsibilities for all built assets within the Maintenance Limits, excluding routine maintenance and operations which will be performed by RCOC, OCWRC and MDOT, its subcontractors or other Third Parties. The DBFM maintenance responsibilities will include:

- Ensuring that the assets are safe, functional and reliable throughout the Contract Term;
- Ensuring that all defects and assets not meeting Performance Requirements are repaired in accordance with the Contract Documents;
- Developing a Maintenance Management Plan that outlines functions, processes, procedures and schedules for:
  - Maintenance during construction
  - Routine maintenance
  - Assessing useful life of assets
  - Inspection cycles
  - Major Repairs
  - Renewal Work
- Implementing a proactive and preventative Maintenance Management System that prevents degradation of assets;
- Planning, scheduling and implementing the Renewal Work Program;
- Developing the interfaces and coordination protocols with MDOT maintenance departments, MDOT's subcontractors and other Third Parties;
- Implementing a quality plan for maintenance activities;
- Complying with reporting requirements in the Contract Document; and
- Repairing major defects and damages resulting from incidents.

### 1.4 Performance Requirements, Non-compliance and Corrective Actions

The Contract Documents will include Performance Requirements for Project assets. The Developer will be responsible for maintaining the assets to achieve the Performance Requirements in the contract and

correcting any non-compliances and deficiencies. Examples of Performance Requirements include:

- Roadway Condition: Roadway smoothness, potholes, ruts, ride quality
- Storm Water Drainage Systems: effectiveness of drainage system to eliminate standing water, erosion, slumping
- Structures: load ratings, condition of concrete
- Pavement Markings: visibility of markings, lack of tracking and splatters
- Landscaping: grass length, vegetation condition

The Contract Documents will also include timeframes for initiating corrective actions and procedures for implementing these corrective actions. The Developer will be responsible for coordinating all corrective actions with MDOT in accordance with Maintenance Management Plan.

### **1.5 Renewal Work Program**

The DBFM contract will include the requirement for a Renewal Work Program that addresses planned heavy maintenance activities and renewal work (either replacement or rehabilitation of assets that have exceeded their useful life) throughout the Contract Term. The Renewal Work Program Plan includes:

- Performance requirements, measurement procedures, and threshold values, at which rehabilitation and renewal is required for each Project asset;
- Schedule of rehabilitation and renewal actions;
- Procedures for coordination with MDOT and its subcontractors and notification requirements;
- Implementation of Maintenance of Traffic plans when required for rehabilitation and renewal

The Developer is responsible for renewal and rehabilitation of all assets within the Maintenance Limits.

### **1.6 Inspection Requirements**

Throughout the Contract Term, the Developer will be responsible for inspecting Project assets within the Maintenance Limits, correcting any deficiencies that may arise as a result of the inspections, and maintaining a record of all inspections. The Maintenance Management Plan will define the Developer's inspection program including:

- Inspection procedures and frequencies, and subsequent maintenance and rehabilitation to address noted deficiencies of the assets;
- Qualifications of all personnel performing inspections by asset type;
- Response times to mitigate hazards, permanent remedy, and permanent repair of defects. Response times may vary depending on defect category. Defects with immediate or imminent damage or deterioration will require prompt attention while defects that have no impact on any parties other than Developer may be allowed more time for correction.
- Procedures for inspections following incidents and emergencies affecting Project assets;
- Maintenance of data for inspections;
- Establishment of priorities for future maintenance and Rehabilitation Work.

The Developer will be responsible to correct any deficiencies identified during inspections in accordance with the Maintenance Management Plan.