1.0 PROJECT DEVELOPMENT PLANS

1.1 General

.1 The general requirements for Project Development Plans (PDPs) are noted in Section 1.3 of the Technical Requirements and are not repeated here. Those general requirements and other requirements included in the Technical Requirements shall be incorporated into each PDP.


.3 The PDPs shall meet the requirements of the Agreement and shall conform with the Outline Project Development Plans contained in Exhibit B-3 to the Agreement.

1.2 Concessionaire Management Plan

.1 The Concessionaire Management Plan is an umbrella document that describes the Concessionaire’s managerial approach, strategy, and quality procedures to design, construct, operate and maintain the Project and achieve all requirements of the Agreement. The Concessionaire Management Plan will be a dynamic document that will be utilized by the Concessionaire and the Departments in the daily administration of the Work and Operating Periods.

.2 The Concessionaire Management Plan shall clearly identify responsibilities and procedures for each project management activity and demonstrate a thorough understanding of the Agreement and Project requirements. The Concessionaire Management Plan shall be consistent with the requirements of FHWA Major Projects Guidance, March 2007 for Project Management Plans.

.3 The Concessionaire Management Plan shall provide a cross reference to all other Project Development Plans and identify inter-relationships between Project Development Plans in the context of the Concessionaire’s management approach.

.4 The Concessionaire Management Plan shall include an organization chart showing the structure of the Concessionaire’s Project organization including:

a. Well-defined roles for the design, construction, operations and maintenance; sub-organizations (such as consulting, subcontractors,
suppliers) and a description of the roles, responsibilities and professional qualifications of each member of the Concessionaire’s management team;

b. Relationship with the Department, the Independent Engineer (IE), third parties, and Governmental Authorities;

c. Work to be accomplished by each member of the management team and each sub-organization, including identified subcontractors and suppliers.

d. Elements of the Concessionaire’s organization responsible for quality control and quality assurance and their relationships to the management team.

.5 The Concessionaire Management Plan shall describe:

a. the management procedures to ensure independence of quality processes and line management from design, construction, operation and maintenance production processes;

b. the approach to preparation, control and update of the Project Schedule to include the approach for integrating subcontract activities into the schedule and the reporting system;

c. the cost control measures taking into account a work breakdown structure that includes cost control and schedule management systems and coordination between schedule and payment obligations;

d. the approach to scope control and how requested changes and recommended corrective actions are addressed through an integrated change control process; to include the control of change orders, early identification of scope changes and coordination and communication among team members to address change control; and

e. the approach to identify, assess, manage and mitigate all Project risks (regardless of their allocation under the Agreement); including description of significant risk categories with descriptions of potential consequences; and the procedures and tools for risk sensitivity analysis.

.6 The Concessionaire Management Plan shall describe how all PDPs fit within the overall quality management system, responsibilities for developing and maintaining the PDPs and the schedule for implementation. The Concessionaire Management Plan shall be linked to the Quality Management System Plan.

1.3 Document Management Plan

.1 The Document Management Plan shall define the document management approach for all Work Product. Document Management requirements are set forth in Sections 1.2.9 of the Technical Requirements. The Document Management Plan shall address methods by which the Technical Requirements shall be met including:
e. the electronic document management system (EDMS);
f. document management procedures;
g. requirements for records retention;
h. electronic and hardcopy data transmission, storage and sharing; and
i. a logical, auditable and project-compatible tracking system of all Project correspondence and documents for all phases of the Project.

.2 The Document Management Plan shall clearly define the document management system applicable to all aspects of the project management structure, including: methods for controlling document updates, methods for identification of the originator/recipient for all documents, document approvals tracking, methods for enabling a searchable database, methods to establish links amongst various documents, and protocols for hard-copy and electronic filing.

.3 The Document Management Plan shall be appropriately structured to record and track review comments and participation by the Department, the Independent Engineer, the Concessionaire’s internal review processes, and by third parties participating and having input regarding the Project.

.4 The Plan shall also provide for electronic data management and storage, and electronic access to project documents remotely, with the required safety procedures, including:

   a. methods by which all documents issued and received by the Concessionaire will be uniquely coded and retrievable in a user-friendly format;
   b. the routing, filing, control, and retrieval methods for all documents; and
   c. methods to facilitate sharing of data including procedures for accessing all documents.

.5 The Document Management Plan shall include appropriate cross references to specific paragraphs of the Quality Management System Plans, identifying where quality control, quality assurance and audit processes for document management procedures are defined by the Concessionaire to assure that performance of the document management system meets or exceeds the Technical Requirements.

1.4 Quality Management System Plan

The Concessionaire’s Quality Management System Plan (“QMS Plan”) shall:

.1 Meet the standards and specifications set forth in these Technical Requirements including the VDOT Minimum Quality Assurance and Quality Control Requirements for Design-Build and PPTA Projects August 2007 (Revised July 2008), and, where

.2 Describe the system, policies, and procedures to deliver the Project throughout the Term and provide documented evidence that the work was performed in accordance with the Agreement.

.3 Include a requirement for the Design-Build Contractor and the O&M Contractor to develop, implement and maintain quality management systems for the Work.

.4 Include a quality assurance/quality control plan for design and for construction in accordance with *VDOT’s Minimum Quality Assurance and Quality Control Requirements for Design-Build and PPTA Projects.*

.5 Include a quality assurance/quality control plan for operations and maintenance in accordance with Section 5.6 which incorporates quality measures to address the Performance Requirements.

.6 Include a regular audit of the quality systems of the Concessionaire and its contractors and subcontractors and their compliance with all PDPs.

.7 The Concessionaire and its contractors and subcontractors shall keep their quality records up to date and freely and readily available to the Department.

.8 The Quality Management System Plan shall define the quality management systems during the design, construction and operations and maintenance phases of the Project. The Concessionaire shall be responsible for all quality assurance and quality control activities required to manage its own processes as well as those of its contractors, subcontractors and suppliers of any tier. The Quality Management System Plans shall:

a. explicitly state that the Concessionaire is responsible for the quality of all Work on the Project and that the Concessionaire may not assign such ultimate responsibility to the Design-Builder or other party;

b. define a uniform process approach to quality consistent with ISO 9001:2000 Quality System Standards and clearly demonstrate how the process promotes continuing improvement throughout the Project;

c. describe the reporting and documentation processes of the quality management system,

d. define the quality management system roles and auditing responsibilities and procedures (internal and external);

e. establish quality objectives that are specific, quantifiable and time dependent;

f. provide an organizational chart with roles, responsibilities and professional qualifications applicable to each phase of the Project,
including design, construction, operations and maintenance and establish appropriate responsibilities of the organization’s staff;

g. identify the essential processes necessary for the implementation of a quality management system that satisfies the requirements of the Agreement and all other Project Agreements, including its application throughout the Concessionaire’s organizational structure, including any and all contractors, subcontractors, consultants, vendors or suppliers under contract with the Concessionaire for design, construction, maintenance or operation services or activities related to the Project;

h. emphasize certification, training and experience, to assure utilization of competent personnel with a thorough understanding of all aspects of the quality control, assurance and management process;

i. define the processes and responsibility for the coding, filing, receiving and distribution of standards, quality records, reports and audits, changes, notices, and other correspondence for each phase of design, construction and operations and maintenance, which at a minimum shall include:

1. searchable data with a tracking system

2. summary of inspections, tests and quality assurance and quality control activities

3. internal and external quality audits performed

4. non-conformances and their statuses

5. identification of any non-conformity accepted by the Department during such reporting period, including a narrative including the merits of such acceptance, if applicable

6. provide comprehensive reports on quality issues on a monthly and quarterly basis, and

7. any updates or modifications to the Quality Management System;

j. provide a dispute resolution process in coordinating with that defined in the Concessionaire Management Plan that includes a mechanism for “escalating” quality concerns of the Department, the Concessionaire or Independent Engineer;

k. identify the processes required for the implementation of and the quality management system and its application and coordination of the various plans within each of the PDPs; and

l. reviews, measures and assesses the system to provide sufficient assurance that both the control and operation of the procedures are effective in meeting the quality requirements of the Quality Management System.
.2 The Concessionaire shall submit a Design Quality Management Plan (DQMP). The DQMP shall be a subordinate part of the overall quality management system. The DQMP shall describe the design quality requirements for the Project; explain how the applicable project procedures, practices, and/or plans are to be followed to meet these requirements; and shall identify the organizational structure of the staff responsible for performing quality activities and verifying compliance.

The DQMP shall contain the Concessionaire's approach to:

a. Internal and external process of design reviews;

b. Design quality assurance and quality control functions including communicating with multiple design firms and offices in maintaining coordination of design quality;

c. Reporting organizational relationships and responsibilities;

d. Understanding of and compliance with Department and federal oversight procedures;

e. Plan for documentation of quality management;

f. Proposed process to address and obtain approval of design deficiencies or exceptions;

g. Conducting audits of design QA/QC activities at scheduled intervals to verify conformance to the procedures;

h. Certifying through written approval that all design documentation have been audited and approved for construction;

i. Ensuring oversight and constructability reviews by technical and management staff to provide coordination and uniformity among section designs; and to facilitate the timely planning of construction activities.

.3 The Concessionaire shall submit its approach to Construction Quality Management Plan to include its:

a. Approach to acceptance testing and inspection and compliance with 23 CFR 637;

b. Approach to scheduling and coordination of inspection and testing, including early establishment of planned tests, frequencies and quantities to support Department independent assurance and verification responsibilities;

c. Proposed process for identification and correction of construction deficiencies and non-compliances, including provision of a quality auditing and nonconformance recovery plan for resolution of nonconformance issues;
d. Approach to documenting, including the use of checklist certifications forms, the level and degree of conformity of the construction with the approved design plans and verifying that workmanship conforms to the construction documents, specifications and industry standards;

e. Understanding of and compliance with the Department and federal design standards and oversight procedures;

f. Description of the quality assurance and quality control functions and how these functions will be managed independent of one another;

g. Integration of construction quality management with design quality management; and

h. Preparation of and maintenance as-built drawings and record documents.

.4 The Concessionaire shall submit an Operations and Maintenance Quality Management Plan containing the following:

a. Internal processes for managing and controlling information identified through incident reports, noncompliance reports, and traffic reports to address quality improvement;

b. Methods for documenting and correcting noncompliance issues;

c. Proposed approach to auditing and demonstrating continuous improvement in meeting the operations and maintenance Performance Requirements;

d. Description of operations and maintenance quality assurance and quality control functions; and

e. Integration of quality process into Ordinary Maintenance, Major Maintenance and inspections.

The Concessionaire shall have ultimate responsibility for the quality activities throughout the duration of design, construction, operations and maintenance phases of the Project.

1.5 Design Management Plan

.1 The Design Management Plan shall provide the organization, relationship and procedures that define clear lines of responsibility and well defined approach for meeting Project requirements and innovation in design approach.

.2 The Design Management Plan shall include appropriate cross references to specific paragraphs of the Quality Management System Plans and the Design Quality Management Plan identifying where quality control, quality assurance and audit processes for design management procedures are defined by the Concessionaire to assure that performance of the design management system meets or exceeds the Technical Requirements.
.3 The Design Management Plan shall include appropriate cross references to specific paragraphs of the Communications Plan identifying the manner in which the Concessionaire will work with the Department in connection with the public hearing process.

.4 The Design Management Plan shall include appropriate cross references to specific paragraphs in the Construction Management Plan to identify the process for integrating design and construction.

.5 The Design Management Plan shall define the design approach, flow charts and activities for the design of the Project and shall address:

a. how design work will be integrated by different firms and/or office;
b. how the design personnel will interface with construction personnel;
c. a drawing tier indicating organization and hierarchy of the Concessionaire’s drawings;
d. the design basis (e.g. design criteria, design standards and specifications);
e. design validation, ensuring that the intended design meets its intended use;
f. stages where design reviews are conducted and design work is certified by appropriate design professionals, Professional Engineers registered in the Commonwealth of Virginia;
g. work zone and worker safety review during design;
h. the breakdown of the Project design into design packages;
i. how each design package will be integrated into the construction plans;
j. the process the engineering consultant and subconsultants will use to design and seal each design package;
k. the system engineering process for the design of the systems components;
l. the proposed strategy for integrating the facilities and systems component into the design process;
m. the proposed strategy to develop the bicycle and pedestrian plan requirements (Section 3.9.1 of the Technical Requirements);
n. roadway design plan, to include process for ensuring community connectivity and coordination with localities;
o. drainage design plan to include an Erosion and Sediment Control Plan and a Stormwater Management Plan, to include the Concessionaire’s plans to comply with the applicable Laws;
p. design deliverables;
q. design control- design input reviews, output reviews and verifications 
    (design checks and professional review and seals) to ensure the Technical 
    Requirements have been met by the Concessionaire;

r. design changes;

s. the process by which the Concessionaire’s team, VDOT, the IE, and other 
    stakeholders will be involved in the design review process;

t. linkage to other PDPs, where appropriate.

1.6 Construction Management Plan

.1 The Construction Management Plan shall provide the organization, relationship 
and procedures that define clear lines of responsibility and well defined approach for 
meeting Project requirements and innovation in construction approach.

.2 The Construction Management Plan shall include appropriate cross references to 
specific paragraphs of the Quality Management System Plans and the Construction 
Quality Management Plan identifying where quality control, quality assurance and audit 
processes for construction management procedures are defined by the Concessionaire to 
assure that performance of the Work meets or exceeds the Technical Requirements.

.3 The Construction Management Plan will define the construction approach and 
activities for the construction of the Project and will address:

    a. the proposed approach for coordinating between subcontractors and 
       vendors; and management of suppliers; 
    b. project controls used to manage the schedule and budget during 
       construction; 
    c. project permitting and coordination with the Department, Governmental 
       Authorities and third parties; 
    d. safety during construction with cross reference to specific paragraphs in 
       the Health, Safety and Security Plan; 
    e. site security and access; 
    f. environmental management with appropriate cross references to the 
       Environmental Management Plan; 
    g. material testing; 
    h. the breakdown of the Project construction into construction 
       areas/segments; 
    i. the general construction sequence; 
    j. identification of temporary access roads, haul routes; 
    k. site temporary facilities and storage areas;
1. erosion and sediment control measures;

m. field equipment and materials management;

n. as-built documents;

o. proposed strategy for implementation and coordination with the O&M Plan; and

p. cross references to other PDPs as appropriate.

### 1.7 Environmental Management Plan

.1 The Concessionaire shall develop and implement a thorough approach to environmental management. The Concessionaire shall maintain and update an Environmental Management Plan and shall be responsible for addressing all environmental requirements, risks and issues associated with the project.

.2 The Environmental Management Plan shall include:

a. procedures and a contingency plan (emergency response plan) for reporting and immediate actions; to be taken in the event of a dump, discharge, or spill of hazardous substances or other environmentally deleterious substances, including, as required by regulation, the development and implementation of a Spill Prevention, Control and Countermeasures (SPCC) plan(s);

b. Investigation, handling, monitoring, discharge, release, storage, removal, remediation transportation, tracking, reporting, and other disposition of any Hazardous Substance encountered or used on the Project;

c. Coordination with the Department and other emergency response-related agencies and organizations; and

d. Submission of “incident” reports for releases of Hazardous Substances or other environmentally deleterious substances.

.3 The Environmental Management Plan shall include the procedures for obtaining the required Governmental Approvals, coordinating with the appropriate Governmental Authorities, and identifying and controlling the permit conditions to assure environmental compliance.

.4 The Environmental Management Plan shall define the environmental activities required during design and construction of the Project and will address:

a. compliance (monitoring, control, follow-up and audits) with the environmental requirements and regulations;

b. stormwater management plans;

c. stormwater pollution prevention;
d. environmental mitigation measures;
e. identify monitoring and recording requirements;
f. on-going monitoring and compliance records tracking system;
h. linkage to other PDPs, including the Quality Management System Plan.

1.8 ROW Acquisition and Relocation Plan

1. The ROW Acquisition and Relocation Plan shall address the requirements set for in Section 1.6 of the Technical Requirements.

2 The ROW Acquisition Plan will define the approach to acquisition of the Project Right of Way and will address:

a. the ROW acquisition and relocation process and procedures, to include Concessionaire/Department review and approval procedures and coordination of submittal packages;
b. the process for determining full or partial takes and associated cost/benefit analysis and assessing damages;
c. appropriate cross-references to the Design Management Plan to address property access in coordination with the acquisition process;
d. the ROW acquisition services;
e. coordination with the Department and property owners;
f. ROW acquisition costs management;
g. the use of RUMS and generation of the appropriate reports with cross-references to the Document Management System;
h. environmental concerns;
i. linkage with other PDPs, including the Quality Management System Plan.

1.9 Utilities Plan

1 The Utilities Plan shall address the requirements set for in Section 1.7 of the Technical Requirements.

2 The Utilities Plan will define the utility coordination activities during the design and construction of the Project and will address:
a. utility agency coordination plans;
b. the utility relocation process;
c. the application of prior rights;
d. utility agreements including VDOT Master Utility Agreement (MUA) and/or development of Project specific utility relocation agreements;
e. wet utility relocations;
f. dry utility relocations;
g. the coordination with VDOT, utilities, other third parties
h. the resolution of utility conflicts;
i. appropriate cross-references to the Design Management Plan and the Construction Management Plan to integrate utility relocation with design and construction of the Project;
j. the development and maintenance of a utility tracking report;
k. on-going monitoring and compliance records tracking system;
l. the utility relocation schedule;
m. regularly updated impact on project schedule; and
n. linkage to other PDPs, including the Quality Management System Plan.

The Utilities Plan will define third party coordination activities with the railroads impacted by the project. This plan shall address:

a. coordination with the railroads;
b. the process for obtaining the appropriate permits
c. the process by which the Concessionaire’s team, the Department, the Independent Engineer, and other third parties will be involved in the design review process;
d. appropriate cross-references to the Design Management Plan and the Construction Management Plan to integrate utility relocation with design and construction of the Project;
e. regularly updated impact on project schedule and
f. appropriate cross-references to other PDPs, including the Quality Management System Plan to assure that the Technical Requirements have been met or exceeded.

1.10 Transportation Management Plan (TMP)
.1 The Concessionaire, with input from VDOT will develop a Transportation Management Plan (TMP) for the Project as defined in the Technical Requirements and the Agreement.

.2 The Concessionaire will develop a Transportation Management Plan (TMP) in accordance with the applicable Standards and Specifications (Attachment 1.5a) to include project-specific Temporary Traffic Control (TTC) and Transportation Operation (TO) Plans for construction activities. The TMP plans will be updated regularly and consider the impact of the Project on the corridor and access/egress road traffic. The Temporary Traffic Control (TTC) and Transportation Operation (TO) Plans within TMP plans will address as a minimum:

   a. identify procedures for incorporating transportation management in the Project design with specific references to the Design Management Plan;
   b. include construction phasing plans with diagrams and narratives and include appropriate cross-references to the Construction Management Plan;
   c. detours and timeline schedules;
   d. describe an emergency access plan for emergency vehicles and public/semi-public facilities such as hospitals, fire stations and police stations;
   e. incident management liaison with the Department;
   f. conform to the Virginia Work Area Protection Manual;
   g. describe the approach to developing detailed Temporary Traffic Control Plans (TTCPs) and Transportation Operation Plans (TOPs);
   h. Plans may include the use of MOT stone for secondary roadways with current traffic volumes of less than 500 vehicles per day;
   i. demonstrate good understanding of local conditions and demonstrate a commitment to minimizing inconvenience to road users;
   j. qualitative/quantitative analysis of potential work zone traffic and crash impacts to identify work zone management strategies;
   k. be a comprehensive (strategic) plan that considers the entire Project corridor and other work in the area, as well as traffic impact on local and connecting roads that may be outside the Project Right of Way;
   l. consider and be proactive in addressing impact of the Project on all road users;
   m. coordinate with the Project Communication Plan for development of Public Information Plans (as required by the Standards and Specifications) which clearly demonstrates transportation-related project communication, which also describes the public information approach and activities; and
a. appropriate cross references to relevant paragraphs of other PDPs, including the Quality Management System Plan, identifying where quality control, quality assurance and audit processes for transportation management procedures are defined by the Concessionaire, to assure that performance of transportation management meets or exceeds the Technical Requirements.

1.11 Public Information and Communication Plan

1. The Public Information and Communication Plan shall include the following components:

a. description of how the Concessionaire proposes to provide an effective framework for communication between the Concessionaire and stakeholders;

b. description of how the Concessionaire will effectively engage the community in the design, construction and operation of the Project to minimize negative impacts, and maximize positive outcomes;

c. description of how the Concessionaire will build a strong and enduring relationship with stakeholders and the community within the Project and its surrounding corridor over the Term;

d. approach to public information and communications risks, describing or detailing how the Concessionaire will identify and manage risks and including appropriate cross references to the Concessionaire’s risk management procedures;

e. description of how the Concessionaire will develop a strong and enduring brand relationship between the community, road users and the O&M Contractor;

f. description of how the Concessionaire will maximize public awareness of features and benefits of the Project;

g. a description of communication tools and strategies to be employed during each phase of the Project development, delivery and operation, including:

1. Project branding;

2. market research and analysis;

3. media outreach;

4. stakeholder outreach and information;

5. interface and liaison with the Department;

6. Project communication team;

7. public information and involvement before Service Commencement; and
8. public education and awareness after Service Commencement;

h. a crisis communications plan and procedures, addressing coordination with the Department and responsiveness to the media. The plan shall identify key spokespeople and include protocols, key messages, and procedures to manage communications during a crisis. This plan shall also be shared and coordinated with other local and state emergency service providers;

i. description of the Concessionaire’s reporting and documentation mechanism for public information and communications matters including appropriate cross references to the Document Management Plan;

j. appropriate cross references to relevant paragraphs of other PDPs, including the Quality Management System Plan, identifying where quality control, quality assurance and audit processes for public information and communication procedures are defined by the Concessionaire, to assure that performance of public information and communication meets or exceeds the Technical Requirements.

k. methods of monitoring performance of the plan such as formal research surveys and media coverage

l. identification of certain milestones requiring individualized communications activities to be incorporated into the Communications Plan, for which targeted communications activities shall be proposed.

.2 The Public Information and Communication Plan for the Work Period shall include the following components:

a. description of how the Concessionaire will identify stakeholders and the outreach tactics that will be used to engage them;

b. description of how the Concessionaire will train relevant Project personnel in crisis communications, media relations and community outreach techniques;

c. a community engagement program, describing the approach to consulting with the community about design and construction matters, including:

   1. mechanism to engage the community;
   2. measures to communicate with and mitigate the impacts of construction on directly impacted properties (dust, noise, access constraints, utility impacts etc);
   3. hosting community information meetings to provide updated Project information as required; and
   4. education and awareness related to public safety surrounding the work zone;
d. the Concessionaire’s approach to coordinate with the Department on communication with the public about construction activities, including:
   1. notification of forthcoming construction activity to surrounding homes and businesses;
   2. commitment of key Project staff to participate in community outreach activities, in coordination with the Department, such as public meetings and media interviews;
   3. establishment and maintenance of a Project hotline to manage public inquiries and concerns;
   4. facilitation and maintenance of Project signage, including information to pedestrians and cyclists, and Project branding and information; and
   5. communication of Project activities impacting the public, such as changes to traffic patterns with appropriate cross-references to the Transportation Management Plan.

e. other public information methods/products that the Concessionaire shall consider in preparing the public involvement portion of the Public Information and Communication Plan are: citizen information meetings, which should be planned and carried out similarly to public hearings; an interactive website with forms and/or e-mail addresses for submitting public comments; media campaigns; media background briefing; presentations to community groups; and electronic and/or printed newsletters, brochures and notices;

f. description of how the Concessionaire will provide information to motorists and stakeholders to facilitate the Maintenance of Traffic (MOT) during construction in coordination with the Department. This will include:
   1. packaging of all MOT information, such as anticipated delays and lane closures, for provision to the Department on a regular basis, to facilitate communication to the media, stakeholders and the broader community;
   2. communication with directly affected property owners;
   3. communication with elected officials and other key stakeholders;
   4. coordination with relevant Government Authorities;
   5. notification program to inform road users and the broader community about expected traffic changes/delays (such as on-road signage, SMS and email alerts); and
   6. information to stakeholders about events in the area that may be affected by construction activities;
g. description of how the Concessionaire will coordinate with the Department in the development of construction-related information for inclusion on all Project communication material (including web, bulletins);

h. management of construction site tours, including stakeholder events;

i. recording of Project progress through photography; and

j. packaging and timely delivery to the Department of information on expected, major traffic changes for inclusion in the Department’s public advertising programs. (Note that the Department will manage and execute all advertising related to construction activities, such as significant lane closures and anticipated delays).

1.12 DBE/SWAM Plan

.1 The DBE/SWAM Plan will define the approach to meet the DBE/SWAM participation goal for the Work Period and Operating Period and will address:

a. the proposed methods to achieve the DBE/SWAM participation goal or demonstrate a good faith effort to meet the goal;

b. the proposed methods to comply with EEO, DBE/SWAM, and labor Laws;

c. appropriate cross references to specific paragraphs of the Design Management Plan, Construction Management Plan, and O&M Plan identifying the approach to maximize participation throughout the Term;

d. the identification of key personnel and their roles and responsibilities;

e. the proposed approach for contracting with and managing subcontractors;

f. the proposed approach to develop and implement on-the-job training and apprentice programs;

g. a proactive DBE/SWAM outreach program for DBE/SWAM participation;

h. an effective framework for identifying and training DBE/SWAM firms;

i. the reporting requirements to the Department regarding DBE/SWAM participation;

j. regular updates on the progress in meeting DBE/SWAM requirements;

k. on-going tracking of efforts and corrective actions required and how they have been met; and

l. appropriate cross references to relevant PDPs, including the Quality Management System Plan, identifying where quality control, quality assurance and audit processes for DBE/SWAM participation are defined.
by the Concessionaire, to assure that the DBE/SWAM participate meets or exceeds the Project goals.

1.13 Health, Safety and Security Plan

The Health, Safety and Security Plan will define the health, safety and security activities required during the design and construction of the Project and will address:

a. construction occupational health and safety;
b. procedures for worker protection to address such hazards as excavations, concrete, mobile equipment, confined space, welding/cutting, respiratory protection;
c. procedures for hazard communication;
d. identification of accident prevention programs;
e. the Project health and safety rules and regulations;
f. work-phase hazards and identification of prevention and mitigation controls;
g. site security;
h. documented procedures on meeting the health and safety requirements for the Concessionaire and its subcontractors and suppliers;
i. appropriate cross references to specific paragraphs in the Construction Management Plan, O&M Plan, and other PDPs, including the Quality Management System Plan demonstrating the Concessionaire’s commitment to safety.

1.14 Operations and Maintenance Plan

.1 The Operations and Maintenance Plan shall identify the methods, systems and procedures whereby the Concessionaire will perform the O&M Work and comply with the operation and maintenance requirements of the Agreement.

.2 The Operations and Maintenance Plan shall address all aspects of Ordinary Maintenance, inspections, operations, maintenance planning and associated activities and shall be cross referenced to the Life Cycle Maintenance Plan described in Section 1.15 of this Attachment which deals with Major Maintenance.

.3 The Operations and Maintenance Plan shall be a self contained PDP that includes all necessary components applicable to the Operating Period. The Operations and Maintenance Plan shall follow all of the applicable requirements for PDPs to be developed during the Work Period, as described in previous sections of this Attachment. These shall be updated and amended as necessary to apply to the O&M Work. The
Operations and Maintenance Plan shall contain the following separate but inter-related components:

a. Concessionaire Management Plan
b. Document Management Plan
c. Quality Management System Plan
d. Communication Plan
e. Environmental Management Plan
f. Transportation Management Plan
g. DBE/SWAM Plan
h. Health, Safety and Security Plan containing a Security Plan consistent with Section 5.5.7 of the Technical Requirements and a Disaster Recovery Plan consistent with Section 5.5.10 of the Technical Requirements
i. Tolling Operations and Maintenance Plan.

.4 The Operations and Maintenance plan shall include incident management and emergency response procedures consistent with the requirements of Section 5.4.3 of the Technical Requirements. Additionally, incident management and emergency response procedures shall include:

a. outline of procedures to address public/agency notifications and incident management procedures
b. identification of available emergency response resources;
c. public/agency notifications;
d. assurance of public safety;
e. Hazardous Substances spill management;
f. coordination with the Department and other emergency response-related agencies and organizations with respect to emergency incidents and occurrences including vehicle accidents, Hazardous Substances spills or releases, and adverse weather conditions including rain, snow ice, flooding and fog;
g. procedures for cost recovery from third parties for spills and cleanup costs
h. submission of “incident“ reports,
i. the establishment and maintenance of detour routes when needed for road closures, emergency repairs, removal of debris and evacuation response.
The Operations and Maintenance Plan shall address the following items specific to the Operating Period:

a. transition to O&M Work after Substantial Completion including interfaces with the Design-Build Contractor;

b. approach to appointment and monitoring of key suppliers and subcontractors;

c. liaison with adjacent Governmental Authorities and others with operations and maintenance responsibilities on adjacent roadways, including approach to sharing operations and maintenance plans with these entities;

d. approach to training programs to be implemented to include specific staff training commitments;

e. inspection methods and inspection schedule including approach to safety inspections and analysis of the needs for a safety service patrol (SSP) as described in Section 5.4.3 of the Technical Requirements;

f. identification and tracking of Project Assets and their condition including details of the Maintenance Management System (MMS) and how access to this system will be made available to the Department;

g. approach to identification and scheduling of Ordinary Maintenance, including the number and qualifications of staff assigned to this;

h. identification and recording of Defects and their repair including the approach to categorization of Type 1 and Type 2 Defects;

i. methods for the identification and recording of Defects that require Major Maintenance and interface with the Life Cycle Maintenance Plan;

j. approach to environmental compliance including detailed protocols for interfaces with resource agencies;

k. approach to continuous improvement of site safety and road user safety including details for implementation of the corridor management function described in Section 5.4.2 of the Technical Requirements;

l. detailed Project-specific hurricane and emergency evacuation procedures including interfaces with the hurricane evacuation plan consistent with Section 5.4.6 of the Technical Requirements;

m. tolling operations and maintenance plan including all aspects of approach to customer service;

n. stakeholder communication program including specific procedures to be employed to collect and track road user satisfaction;

o. toll violation enforcement methods and coordination with the Department;
p. methods for monitoring, reporting, performing and meeting all Performance Requirements, including the approach to updates described in Section 5.6 of the Technical Requirements to ensure continued compliance with Good Industry Practice;

q. service delivery and operating procedures including procedures for ensuring best practice from other similar facilities is applied to the O&M Work for the Project;

r. an internal audit program and recording of findings, conformances, non-conformances, corrective actions and preventative actions;

s. mechanisms by which all documents and O&M Records will be made available to the Department for external audits; and

t. appropriate cross references to other PDPs, including the Quality Management System Plan.

**1.15 Life Cycle Maintenance Plan (Operating Period)**

1. The Life Cycle Maintenance Plan shall identify the Concessionaire’s approach to the identification of needs for Major Maintenance, the identification and reporting of the status of Assets under the control of the Concessionaire and the Concessionaire’s approach to implementing Major Maintenance.

2. The Life Cycle Maintenance Plan shall include the components set forth in Section 5.7 of the Technical Requirements. The following additional information shall be provided:

   a. in addition to Major Maintenance to meet the Handback Requirements, the Concessionaire’s overall approach and expected expenditure throughout the remainder of the Term;

   b. the Concessionaire’s approach to maximizing the service life of each Asset, describing any trade-offs between initial cost and replacement cycles;

   c. demonstration that the Concessionaire’s approach to Major Maintenance is aligned with Good Industry Practice, available reports and research. The Concessionaire is required to keep up to date with the latest techniques and research in life cycle maintenance of Project Assets and to demonstrate that Concessionaire is taking all such innovation and research into account in its annual updates of the Life Cycle Maintenance Plan. Examples of applicable research and best practice documents include: NCHRP Report 558: Manual on Service Life of Corrosion-damaged Reinforced Concrete Bridge Superstructure Elements, NCHRP Report 483, Bridge Life Cycle Cost Analysis, NCHRP Report 525: Optimal timing of Pavement Preventive Maintenance Treatment Applications;
d. the Concessionaire’s approach to the selection of suppliers and subcontractors needed to perform Major Maintenance, including supply chain management procedures and procedures in place to ensure that quality of work for any Major Maintenance is assured;

e. staffing, organization and specific responsibilities for implementing the requirements for Residual Life Methodology and testing during the last five years of the Term; and

f. the methods and procedures to be used by the Concessionaire to estimate the expected cost of Major Maintenance for each component, demonstrating that the estimates are reasonable and appropriate.

3. The Concessionaire shall submit a pavement deterioration model with its annual updates to the Life Cycle Maintenance Plan to include the components described in Section 5.7 of the Technical Requirements.

2.0 SUBMISSION TIMETABLE

Project Development Plans are to be developed to implementation status and updated in accordance with the following table, or earlier if required by the project requirements.
## Project Development Plan

<table>
<thead>
<tr>
<th>Plan Type</th>
<th>Outline Details</th>
<th>PDP submission date for review by VDOT</th>
<th>Updates</th>
<th>VDOT Review Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concessionaire Management Plan</td>
<td>Outline</td>
<td>Agreement Date +21 Days</td>
<td>Quarterly</td>
<td>Review and Approve</td>
</tr>
<tr>
<td>Document Management Plan</td>
<td>Outline including interim measures</td>
<td>Agreement Date +21 Days</td>
<td>Quarterly</td>
<td>Review and Approve</td>
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<tr>
<td>Quality Management System Plan</td>
<td>Implementation Plan</td>
<td>Monthly Reports &amp; Quarterly Updates</td>
<td>Review and Approve</td>
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</tr>
<tr>
<td>Design Management Plan</td>
<td>Outline including implementation of Design Quality Management Plan</td>
<td>Agreement Date +21 Days</td>
<td>Quarterly</td>
<td>Review and Approve</td>
</tr>
<tr>
<td>Construction Management Plan</td>
<td>Outline including implementation of Construction Quality Management Plan</td>
<td>60 Days prior to Commencement of Construction Work</td>
<td>Quarterly</td>
<td>Review and Approve</td>
</tr>
<tr>
<td>Environmental Management Plan</td>
<td>Outline</td>
<td>60 days prior to Commencement of Construction Work</td>
<td>Annual – updated as required</td>
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</tr>
<tr>
<td>ROW Acquisition and Relocation</td>
<td>Outline</td>
<td>60 Days prior to Design Public Hearing</td>
<td>Quarterly</td>
<td>Review and Approve</td>
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<tr>
<td>Utilities Plan</td>
<td>Outline</td>
<td>60 Days prior to Utility Field Inspection</td>
<td>Quarterly</td>
<td>Review and Approve</td>
</tr>
</tbody>
</table>

1. The PDP submission date is the last date allowable for submittal. Early submittal is acceptable.
2. Records and logs shall be available for review on an ongoing basis. Major changes as required by project may require more frequent submissions.
<table>
<thead>
<tr>
<th>Project Development Plan</th>
<th>Status of Plan at Agreement Date (Outline or Implementation)</th>
<th>PDP submission date for review by VDOT&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Updates&lt;sup&gt;2&lt;/sup&gt;</th>
<th>VDOT Review Input</th>
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<tbody>
<tr>
<td>Transportation Management Plan</td>
<td>Outline</td>
<td>60 Days prior to Commencement of Construction Work</td>
<td>Quarterly- updated as required</td>
<td>Review and Approve</td>
</tr>
<tr>
<td>Public Information and Communication Plan</td>
<td>Implementation Plan</td>
<td>Agreement Date +21 Days</td>
<td>Annual- updated as required</td>
<td>Review and Approve</td>
</tr>
<tr>
<td>DBE/SWAM Plan</td>
<td>Outline</td>
<td>60 days prior to Commencement of Construction Work</td>
<td>Quarterly</td>
<td>Review and Approve</td>
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<tr>
<td>Health, Safety and Security Plan</td>
<td>Outline</td>
<td>60 days prior to Commencement of Construction Work</td>
<td>Quarterly</td>
<td>Review and Approve</td>
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<tr>
<td>Operations and Maintenance Plan</td>
<td>Outline Including Outline of O&amp;M Quality Management Plan</td>
<td>90 Days prior to Service Commencement</td>
<td>Quarterly O&amp;M Updates Annual (comprehensive O&amp;M Records and Plans)</td>
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</tr>
<tr>
<td>Life Cycle Maintenance Plan (Operating Period)</td>
<td>Outline</td>
<td>90 Days prior to Service Commencement</td>
<td>Annual</td>
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<tr>
<td>Quality Management System Plan (Operating Period)</td>
<td>Outline</td>
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<td>Quarterly</td>
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