

## EXHIBIT D

### MASTER DEVELOPMENT PLAN REQUIREMENTS

The Master Development Plan shall:

- A. Identify key parameters and assumptions utilized by Developer in preparing the Master Development Plan, including:
  - i. Demographics – growth in population, employment (basic, retail, and service), housing, per-capita income, age and ethnic distribution;
  - ii. Trends in the growth and strength of federal and State fiscal status and budget, especially as they affect transportation funding and expenditures;
  - iii. Social and urbanization trends affecting the level and affordability of user charges;
  - iv. Economic development related to i) localized impacts to Facility implementation and ii) the existing urbanized areas; and
  - v. The alignment of Project plans with State and federal policy on global climate change and air quality, and in particular the emission of greenhouse gases arising from transportation in the region.
- B. Address the anticipated effects, impact and implications of the parameters and assumptions identified in Item A (i through v) above in carrying out the Master Development Plan.
- C. Identify the level and scope of the Developer's participation with TxDOT in coordination with MPOs, FEMA, US DOT and all public and private entities.
- D. Identify a list of Facilities and describe the characteristics of each identified Facility (i.e., capacity, interconnections, preliminary alignment, number and/or width of lanes) during the term of the Agreement.
- E. For all roadway Facilities, for all CDA Segments, provide traffic and revenue forecasts. These traffic and revenue forecasts shall be of sufficient detail to support the overall long term sequencing of Facilities and revenue generation streams. These traffic and revenue forecasts shall be based on industry-accepted travel demand models:
  - i. Coordinate all travel demand modeling, forecasts and assumptions with ongoing TxDOT forecasting and modeling efforts, including but not limited to the use of the Texas Statewide Analysis Model (SAM) and/or other TxDOT and regional traffic forecasting models;

- ii. Provide daily and annualized passenger auto and truck roadway traffic forecasts, including methodology and assumptions for user charges and diversion rates and produce revenue generation stream analyses for the Project; and
  - iii. Provide a plan for tolling roadway Facilities, showing assumptions with respect to rates, tolling technologies, toll collection locations, and other factors influencing traffic and revenue forecasts.
- F. For each Facility, identify connectivity/interconnections among the Facilities and with existing and planned transportation infrastructure in the Project area over the term of the Agreement.
- G. Include preliminary design (diagrammatics) for each Facility. Minimum detail shall include:
- i. Identification of innovative techniques or technologies, including assumptions;
  - ii. Preliminary drawings necessary to estimate cost (scale shall be 1" = 200');
  - iii. Preliminary horizontal and vertical geometrics;
  - iv. Preliminary right-of-way requirements;
  - v. Access management plans;
  - vi. Typical section drawings (including section thickness) (11" x 17" format);
  - vii. Preliminary hydrologic/hydraulic studies necessary to support diagrammatic development;
  - viii. Location of major structures including bridges and interchanges; and
  - ix. Location of existing utilities. Perform Quality Level D subsurface utility engineering investigation as defined by *Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data* (CI/ASCE 38-02). Utility locations shall be referenced to established survey control provided by TxDOT and the following minimum requirements shall be met.
    - 1. Compile "As Built" information from plans, plats and other location data as provided by the utility owners.
    - 2. Coordinate with utility owner when utility owner's policy is to designate their own facilities at no cost for preliminary survey purposes. Developer shall examine utility owner's work to ensure accuracy and completeness.

3. Designate, record, and mark the horizontal location of the existing utility facilities and their service laterals to existing buildings using non-destructive surface geophysical techniques. No storm sewer facilities are to be designated unless authorized by TxDOT. A non-water base paint, utilizing the American Public Works Association "APWA" color code scheme, must be used on all surface markings of underground utilities.
  4. Correlate utility owner records with designating data and resolve discrepancies using professional judgment. A color-coded composite utility facility plan with utility owner names, quality levels, line sizes and subsurface utility locate (test hole) locations, if applicable will be prepared and delivered to TxDOT. It is understood by both the Developer and TxDOT that the line sizes of designated utility facilities detailed on the deliverable are from the best available records and that an actual line size is normally determined from a test hole vacuum excavation. A note must be placed on the designate deliverable that states "lines sizes are from best available records". All above ground appurtenance locations must be included in the deliverable to TxDOT. The information must be provided in a format compatible with the current CADD system used by TxDOT. The electronic file will be delivered on CD or as required by TxDOT. A hard copy is required and must be sealed and dated by a Professional Engineer registered in Texas. When requested by TxDOT, the designated utility information must be overlaid on the design plans using the datum and format specified by TxDOT.
  5. Determine and inform TxDOT of the approximate utility depths at critical locations as determined by TxDOT. This depth indication is understood by both the Developer and TxDOT to be approximate only and is not intended to be used in preparing the right of way and construction plans.
  6. Close-out permits as required.
  7. Clearly identify all utilities that were discovered from quality levels greater than Level D investigation, if such investigation was performed. These utilities must have a unique line style and symbology in the designate (Quality Level D) deliverable.
- H. For each Facility provide preliminary estimates of probable Facility costs, including anticipated Developer and TxDOT costs, and, consistent with applicable provisions of the Agreement, the sources of payment or financing for the related costs from the planning stages to completion of each of the following items:

- i. Pre-development and Facility feasibility (all anticipated costs to be incurred prior to executing a Facility Agreement), such as:
  1. Planning;
  2. Environmental mitigation;
  3. Technical and financial feasibility studies;
  4. Transaction advisory services (legal, investment banking, financial advice, risk analysis, preparation of procurement documents);
- ii. Administration and overhead;
- iii. Contract administration, including oversight consultants and the independent engineer;
- iv. Design and engineering;
- v. Right-of-way (survey, appraisal, acquisition services and acquisition costs);
- vi. Construction, including (a) civil infrastructure and fixed facilities such as roadways, structures, drainage, earthwork, utilities, signage, toll plazas, and other major auxiliary facilities identified for the Facility, and (b) operating systems, technology and software;
- vii. Operations;
  1. Administration and overhead, including the independent engineer;
  2. Revenue and user fee collection systems and technologies;
  3. Enforcement;
  4. Safety;
  5. Security;
  6. Public relations and customer service;
  7. Appropriate operating reserves;
- viii. Maintenance detail for:
  1. Routine maintenance of structures, roadway, etc;
  2. Periodic maintenance such as pavement overlays, equipment replacement and other preventive work;

3. Reconstruction as necessary during the term of the Agreement;
  4. Appropriate maintenance and capital replacement reserves;
  - ix. Expansion of capacity and other new capital improvements;
  - x. Major systems and equipment supply;
  - xi. Financing and related costs;
- I. For each Facility:
- i. Identify planned TxDOT and other public and private entity projects that will potentially impact (positively and negatively) the Facility;
  - ii. Describe how these other projects will be accommodated and incorporated with the Facility during their respective development phases and after their completion;
- J. Identify project right-of-way needs for the Project:
- i. Describe approach to right-of-way acquisition, including appraisal, offer, negotiation, eminent domain, relocation assistance, etc., and coordination with TxDOT and all other relevant entities;
  - ii. Identify corridor preservation techniques;
  - iii. Identify any innovative financing arrangements, including commercial development, concessions, and purchase and lease-back agreements; and
  - iv. Identify major easements such as drainage, utility, and access.
- K. Provide phasing, sequencing, and prioritization of all Facilities.
- L. Provide a schedule of development for each Facility. For each Facility, provide phasing and sequencing for interim build out and ultimate build out including number and width of lanes. If build out is to be phased, describe the phasing parameters. Minimum schedule detail shall include:
- i. Submission of Facility Implementation Plan request (notice that a Facility is Ready for Development);
  - ii. Agreement that Facility is Ready for Development;
  - iii. Approval of Facility Implementation Plan;
  - iv. Execution of Facility Agreements;

- v. Close of Finance, plan of finance, and completion of funding;
  - vi. NTP for design and construction;
  - vii. Substantial Completion; and
  - viii. Commencement of operations and maintenance phases.
- M. For each Facility, identify the plan for obtaining any outstanding Governmental Approvals;
- N. For each Facility, identify a plan for complying with the mitigation and environmental requirements of Governmental Approvals;
- O. For each Facility, identify revenue generation, collection technology, and plans, including but not limited to:
- i. Revenue collection strategy and structures;
  - ii. Administration, management, and processing procedures; and
  - iii. Interoperability with existing and future Facilities and other existing and planned transportation infrastructure in the State.
- P. For each Facility, include a conceptual operation and maintenance management plan that, at a minimum, addresses:
- i. Life-cycle maintenance costs;
  - ii. Major maintenance requirements;
  - iii. Hand-back standards and procedures;
  - iv. Operations and maintenance reserve requirements; and
  - v. Operational and maintenance-related environmental requirements set forth in Governmental Approvals.
- Q. For each Facility, identify and suggest strategies for allocating, managing, and mitigating Facility-specific risks (including potential risks to the overall Project). Include a detailed risk matrix for each Facility, which shall, at a minimum:
- i. Identify Facility-specific risks (other than those listed in the Risk Events Matrix) such as capacity, planning, design, construction, completion, operation, maintenance, demand, inflation financing, legislative, policy, technology, and residual value;
  - ii. Quantify the financial consequences of key risks;

- iii. Estimate the probability/likelihood of risks;
  - iv. Include a risk sensitivity analysis;
  - v. Include a proposed or desired allocation of risk as among TxDOT, Developer and third parties; and
  - vi. Suggest risk-mitigation strategies to eliminate, mitigate, or reduce specific risks.
- R. For each Facility, identify the major anticipated third party agreements and arrangements (including the relevant parties and types of arrangements and agreements) and provide a schedule and sequencing of such agreements and arrangements, addressing at a minimum:
- i. Railroads;
  - ii. Utility providers;
  - iii. Municipal and regional authorities, and State entities and agencies; and
  - iv. Land owners and developers.
- S. Provide a detailed work plan for updating the Master Development Plan, including, at a minimum reevaluations, material changes in the Master Financial Plan, material changes in highway and rail usage demand or other requirements, procurement (or failure to procure) major environmental, planning or permitting approvals, material MPO information and STIP submissions, material changes or characteristics of a Facility, material changes to the UTP, material changes in local government requirements and needs, and material changes in the regional or national economy, demographic patterns and trends, and political concerns; and provide the anticipated compensation methodology and process for how the Developer will be compensated for performing Update Work.
- T. To the extent not already set forth on Exhibit I, identify the anticipated terms, conditions and scope, compensation, and the methodology and process for how the Developer will be compensated, for performing Technical Support Services.
- U. Identify how the Project and Facilities can be developed and operated in ways that positively affect air quality and minimize greenhouse gases.
- V. Develop and execute geotechnical investigation plan to evaluate soil conditions along the Project. At a minimum, Developer shall:
- i. Develop a geotechnical structures boring plan that includes two borings (one at each side of the roadway crossed) for overpass/underpass bridges and four borings (one at each quadrant) for direct connector interchanges. Each boring shall be terminated at refusal.

- ii. Develop a geotechnical pavement boring plan that includes one boring every 2500 feet of proposed pavement. Each boring shall be to a depth of 20 feet or to refusal is encountered.
- iii. Texas cone penetration tests (Tex-132-E) shall be conducted at five-foot intervals over the full depth of the borings.
- iv. Take relatively undisturbed push-tube samples (approximately 2.8" diameter), in as much as possible, in a continuous manner over the top 20 feet of each boring and then intermittently as needed to competently log the materials. Coring using NX-size or larger core barrels may be used as needed to obtain samples for identification of the various layers. All samples shall be properly labeled as to boring number and depth interval, and shall be wrapped in plastic sheeting or aluminum foil in a manner to prevent drying. All samples shall be placed in core boxes in a systematic order, and each core box labeled accordingly. The drill crew shall have a geologist or geotechnical engineer who is familiar with TxDOT logging procedures contained in the TxDOT Geotechnical Manual. The logger shall maintain a field log with all Texas cone penetration test results, material descriptions, ground water observations, and other observations pertinent to the boring. The final boring logs shall be completed using the TxDOT WinCore log system.
- v. Observe each boring during the drilling activities for any evidence of ground water. The boring logs shall clearly note the results of ground water observations. If water is used as a drilling aid, the depth at which it is introduced should be noted as part of the observations.
- vi. Backfill each boring in a manner to prevent injury to the public. Determine also if there are local ground water districts or other regulations that require grouting with bentonite.
- vii. Conduct Atterberg Limits and Gradation Tests (#4, #40, and #200 sieves) on samples recovered from the borings. A minimum of three sets of tests per boring shall be performed but additional sets of tests shall be performed to fully classify the soils based on Good Industry Practice. Most of these tests shall be taken from the upper 20 feet but some also from soils in the deeper layers. The Unified Soil Classification System shall be used for all soil classifications and descriptions on the final logs. All samples not used for laboratory testing shall be retained by the Developer for a period of 10 years or until otherwise directed by TxDOT.
- viii. Prepare a report containing the results of the field exploration and laboratory testing. This report shall contain the following:
  - 1. A general site vicinity map showing the Project location, and more detailed drawings showing the specific boring locations.



2. A tabulation of the borings that includes the boring location, boring designation, horizontal location (coordinates), and elevation.
  3. Boring logs using the TxDOT WinCore log system and including the horizontal coordinates, ground surface elevation, Texas cone penetration tests, laboratory tests, material descriptions, and ground water observations.
  4. A summary of all laboratory test results by boring location and including sample depth interval, liquid limit, plastic limit, plasticity index, percent passing #4, #40, and #200 sieves, and Unified Soil Classification and description.
- ix. Survey final boring locations to a level accuracy equal or greater than  $\pm 1.0$  feet horizontally and  $\pm 0.5$  feet vertically.

W. Provide all other elements described in the Agreement.