The consultant is to provide engineering and related services for this project for the following items (check all that apply):

[ ] Pre-design scoping study
[ ] Preliminary Roadway Design
[ ] Final Roadway Design

**Scoping Studies**

The type and extent of studies necessary for any given project will be defined at the Pre-design conference. The Department reserves the right to solicit other firms to complete the actual design of the project after studies are completed. The project may be split into design sections or may require the selection of another consultant to perform activities specifically identified during the study phase.

**Design Related Services**

The following design related services shall be performed as checked below:

<table>
<thead>
<tr>
<th>Service</th>
<th>Not Required</th>
<th>Department</th>
<th>Consultant</th>
<th>Statewide</th>
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<tr>
<td>Photogrammetry</td>
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<td>Surveying</td>
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<td>Environmental</td>
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<td>Geotechnical</td>
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<td>Right of Way &amp; Utility Estimates</td>
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<td>Traffic Engineering Analysis:</td>
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<tr>
<td>(Basic; Highway Capacity Manual)</td>
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<td>Traffic Engineering Analysis:</td>
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<td>(Advanced; Micro-simulation)</td>
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<td>Traffic Forecasting</td>
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<td>Pavement Design</td>
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<td>Signing Plans</td>
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<td>Signal Plans</td>
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<td>Lighting Plans</td>
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<td>Landscaping Plans</td>
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<td>Utility Design</td>
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<td>Utility Coordination</td>
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<td>Right of Way Coordination</td>
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Unless otherwise specified in the Pre-design Conference Minutes, the Department shall provide:

1. All existing and projected traffic counts, including intersection turning movements.

2. The project’s photogrammetry will be provided in DGN format, in English units. Additionally, the mass point and breakline files will be provided to aid the consultant in creating a digital terrain model. Ortho-rectified aerial photographs will also be provided.

3. Copies of any available record plans of existing roads and construction plans of any proposed road projects as details are finalized and become available.

4. Copies of any previous pertinent studies, reports or project documentation.

**Scope of Work**

The consultant’s responsibility for scope of work shall include:

*A description of the scope of the project and alternatives to be considered or developed, typical sections, public involvement, etc.*

**Surveying**

The consultant's responsibility for surveys shall include:

*Explanations of work in most cases are identified within the Production-Hours Documentation, which is to be included with these Pre-design minutes.*

*Specific notes pertaining to surveying not specified in the Production-Hour Documentation.*

**Preliminary Design**

The consultant shall be responsible for all alternatives and construction cost estimates necessary to make a determination of a recommended alignment. These alternatives should generally include the following items:

*Explanations of work in most cases are identified within the Production-Hours Documentation, which is to be included with these Pre-design minutes.*

*Specific notes pertaining to preliminary design not specified in the Production-Hour Documentation.*

Preliminary hydraulic studies, including stream sections, stream profile, and necessary channel changes. Consideration of avoidance and minimization of effects on blue-line streams must be included in accordance with Section 404 and 401 of the Clean Water Act. The consultant shall be responsible for obtaining all floodway studies and other pertinent drainage information to be utilized in their design.
**Environmental**

If the consultant is responsible for the required environmental documentation, the Environmental Coordinator will review the project scope with the Director of the Division of Environmental Analysis to determine the level of environmental documentation that will be required (Overview, CE or EA/FONSI). The consultant will prepare the Production-Hour estimate (for environmental work only) based upon this determination and submit the estimate to the Director of the Division of Environmental Analysis for review and approval.

The environmental consultant shall provide a general environmental footprint to the Project Development Team as soon as possible so alternative alignments can be developed.

The District Environmental Coordinator shall be notified upon the discovery of any environmental issue or condition which may influence alignment design or preferred alignment recommendation.

The Division of Environmental Analysis and the District Environmental Coordinator shall be notified should it become necessary to change an environmental services milestone date.

A preliminary “Purpose and Need Statement” of the project is to be defined early in the initial design and environmental review stages of the project and developed more extensively during the public involvement process. If a Purpose and Need Statement has been developed during the planning phase of the project it will serve as the preliminary Purpose and Need Statement. The Purpose and Need Statement shall be continuously evaluated during the development process and modified as needed based on information gained through the public involvement process. The development of the projects “Purpose and Need Statement” will be the responsibility of the project team.

The consultant or their sub-consultant shall notify the District Environmental Coordinator prior to initiating any fieldwork for the environmental baseline studies.

**Public Involvement**

If necessary, public meetings or hearings will be held as discussed at the pre-design conference. The consultant will be responsible for providing all necessary exhibits and attending any public meetings or hearings that may be held.

*The extent of Public Involvement is to be identified in these Pre-design Minutes.*

**Final Design**

In the case of a federally funded Preliminary Roadway Design contract, the consultant may not advance into the final design stages until such time that all public hearing requirements are met and a final environmental document has been approved.
The consultant shall be responsible for the development of all final details necessary for the complete design of Grade, Drain, and Surfacing Plans suitable for the letting to contract of the project. Plan scales for this project are as follows:

1) Plan and Profile - 1” =
2) Cross Sections - 1” =
3) Cross Section Spacing -
4) Pipe Sections - 1” =
5) Right of Way Strip Maps - 1” =
6) Soil Profile Sheets - 1” =
7) Coordinate Control Sheets - 1” =
8) Erosion Control Sheets - 1” =

Detail sheets shall be provided as required or as otherwise specified in the Pre-design Conference Minutes.

The consultant is responsible for providing an acceptable plan for the maintenance of traffic. This plan shall include, as necessary:

1) A written description of all required phases and notes to adequately explain the activities required of the contractor during construction to address maintenance of traffic.
2) Plan and profile views of diversions?, part-width construction or other necessary maintenance of traffic items.
3) Cross-sections to depict the location of traffic in various phases.

A Final Plans-In-Hand Inspection will be held when the right of way taking, plan construction notes and drainage items are shown on the plans. A detailed maintenance of traffic scheme shall also be available. An updated cost estimate based on all established bid items will be required. Details of Avoidance, Minimization and Mitigation Alternatives for blue-line streams shall be presented. A Drainage Inspection will also be held, frequently concurrent with the Final Plans-in-Hand Inspection. Finalization of plans shall not occur until the approvals of the Final and Drainage Inspection Reports are given by the Department.

A separate Right of Way Inspection may be held, at the discretion of the Department, in order to expedite the Right of Way phase. The Project Manager will make the determination if adequate details have been developed and included within the plans to hold an inspection. Upon approval of the inspection report and incorporation of inspection recommendations into the plans, the Right of Way Plans will be submitted.

It shall be the consultant's responsibility to see that all comments addressed in all inspection reports have been resolved before submission of Final Plans. Any item that may affect right of way should be resolved prior to the submission of Final Right of Way Plans.

Approximately 6 months prior to the letting date, a complete set of full-size final plans in PDF format will be submitted to the Project Manager, to be forwarded to the Plan Processing Section in the Central Office. The Plan Processing Section shall review the plans and return the plans with comments, corrections and revisions necessary to be made to the original plans. The consultant, prior to submittal of the original PDF file of the final construction plans, will perform the required changes to the final plans. The submittal of the final plans, all electronic plans, terrain models, geometric files, etc. shall be submitted to the Project Manager.
General

(1) The consultant shall be represented at all inspections and meetings. Any plans or exhibits required shall be the responsibility of the consultant.

(2) Any subconsultants utilized must have approval of the Department prior to their performance of any work.

(3) The consultant is responsible for having obtained and being knowledgeable of all Department Manuals including, but not limited to, Design, Drainage, Standard Drawings and Bridges. All work shall be performed in accordance with those manuals or other memos issued subsequent to the publication of those manuals unless otherwise explicitly stated.

(4) The consultant shall submit the Production-Hour Worksheet, listing only the involved units of work, including supporting documentation of units obtained to the Project Manager to be reviewed. Upon agreement of the Production-Hour units, the consultant shall submit the fee proposal with detailed production-hours on the Department's Standard Production-Hour Worksheet to the Director of Professional Services. The Department’s Project Manager shall also submit the Department’s Production-Hour estimate.

(5) Change orders to this project will not be permitted except in such cases that:

- the project limits have been substantially revised from those initially indicated in the Pre-design Minutes.
- a change of scope has occurred.
- the consultant is requested to revise the plans as a result of a direction change by the Department.

(6) The consultant is responsible, at all times, for correction of any errors or omissions that they may have made in the preparation of the plans. The consultant shall immediately notify the Project Manager of any item that they feel requires extra work. The consultant shall not proceed with that item of work until such time that the matter of extra work has been resolved.

(7) All original submissions, including pay estimates and consultant monthly reports, shall be sent to the Project Manager. The pay estimate and monthly report may be electronically submitted to the Project Manager. The consultant monthly report shall be submitted even if a pay estimate is not being submitted. All correspondences pertinent to this project shall have the County, Item No. and Project Description noted.

(8) Hardcopy sets of plans shall be provided for inspections and meetings, as requested by the Project Manager.

(9) The consultant will be responsible for preparation of all minutes of meetings, including this Pre-design Conference.

(10) Periodic progress meetings will be held with the District as discussed during the Pre-design Conference.

(11) All design work and development of plans, preliminary and final, shall be prepared in MicroStation DGN format in accordance with current KYTC CADD Standards.
(12) The Department’s Project Manager assigned to this project is insert name.

(13) The current schedule for this project, as described in the enacted Six Year Plan is as follows:

<table>
<thead>
<tr>
<th>Phase</th>
<th>FY</th>
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<tbody>
<tr>
<td>Final Design</td>
<td>20xx</td>
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<tr>
<td>Right of Way</td>
<td>20xx</td>
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<tr>
<td>Utilities</td>
<td>20xx</td>
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<tr>
<td>Construction</td>
<td>20xx</td>
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**Milestones**

The consultant shall provide milestone dates for the following activities:

1) Preliminary Roadway Design
   a) Alternate Alignments ready for a Project Team Meeting -
   b) Hold Public Hearing -
   c) Hold PL&G Inspection -
   d) Submit DES -
   e) Submit Preliminary Right of Way Plans -
   f) Submit Electronic Plans -

2) Environmental Services
   a) Submittal of Environmental Base Studies -
   b) Approval of Environmental Base Studies -
   c) Submittal of Draft EA to KYTC -
   d) Approval of EA by FHWA -
   e) Receipt of FONSI by KYTC -
   f) FHWA Approval of FONSI or EIS -

3) Final Roadway Design
   a) Submission of Critical Cross Sections to Geotechnical Branch for obtaining back slopes -
   b) Submit Preliminary Drainage Folder -
   c) Drainage Inspection -
   d) Final Plans-in-Hand Inspection -
   e) Advanced Situation Folders -
   f) Right of Way Plans Submittal -
   g) Submittal of Review Plans/Check Prints -
   h) Final Roadway Plans & Final Drainage Folder Submittal -
   i) Final Structure Plans Submittal -

*Other milestones may be added to this list as deemed necessary by the Department or consultant.*

Milestone dates are based on receiving Notice to Proceed by insert date and aerial photogrammetry and digitization by insert date.